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Challenges Encountered By The Senior High School Teachers In Teaching Practical Research: Basis For Action Plan Request

Dr. Gloaria M. Capanang [1], Dr. Erwin B. Tantay [1]
1 – Pangasinan State University Bayambang Campus

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Abstract

This study examined the challenges encountered by Senior High School teachers in teaching Practical Research in Bayambang I and Bayambang II. Using a descriptive-comparative research design, the study assessed teachers' profiles, the difficulties they experienced in research instruction, and the strategies they used to address these challenges. Findings showed that most respondents had postgraduate units, 4–6 years of teaching and research experience, division-level research training, and were commonly assigned to STEM classes. Results revealed that teachers generally encountered challenges in teaching Practical Research, particularly in guiding learners during research planning, managing learner behavior, ensuring relevance of gathered information, and addressing limitations in reading facilities and resources. Collaborative learning emerged as the most commonly used strategy to address these concerns. The study further found no significant difference in the challenges encountered by teachers in Bayambang I and Bayambang II across selected profiles. Based on the findings, the study recommends continued research training, stronger administrative support, and the implementation of an action plan to improve Practical Research instruction.

Keywords: *Practical Research, Senior High School Teachers, Teaching Challenges, Research Instruction, Collaborative Learning, Action Plan, Research Training, Teacher Strategies, Senior High School*

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Volume 2 Issue 5 (2026)

I. INTRODUCTION

Education is usually broken down into four key areas: instruction, Research, extension, and production. Research is a process comprising data collection, analysis, interpretation, and assessment procedures conducted in a planned manner to find solutions to a problem. According to Basilio & Bueno (2019), teachers conduct Research in schools. Because of the educational process and the need to submit Research for effective teaching, master teachers play an essential role in the research process.

In the DepEd Memorandum No. 097, series of 2018, entitled ""Guidelines on the Conduct of the First National Curriculum Research Conference"", the implementing rules and regulations of Republic Act 10533 or the Enhanced Basic Education Act of 2013, particularly Rule II Section 10.2, instructs that the curriculum be a learner-centered, inclusive and developmentally appropriate; relevant, responsive and research-based; gender- and culture-sensitive; contextualized and global; spiral in approach; and flexible enough to enable and allow schools to localize, indigenize and enhance the same based on their respective educational and social contexts. The DepEd, through the Policy, Research and Development Division of the Planning Services (PRDD-PS), adopted the Basic Education Research Agenda (BERA), through DepEd Order No. 39, s. 2016, consisting of four research themes: Teaching and Learning, Child Protection, Human Resource and Development, and Governance; and three cross-cutting themes, which are Gender and Development, Disaster Risk Reduction Management, and Inclusive Education.

Moreover, Republic Act No. 9155, otherwise known as the Governance of Basic Education Act of 2001, mandates the Department of Education to enact policies and mechanisms based on "educational research and studies." DepEd supports this mandate through DepEd Order No. 66, s. 2007, which embeds Research into the guidelines on selection and promotion of teachers and non-teaching personnel, and DepEd Order No. 42, s. 2007, which strengthens the selection and promotion process of school heads. All of these issuances are aimed towards developing a culture of Research within the DepEd, which shall serve as an enabling environment for evidence-based policy formulation and program management.

As the heart of the Department of Education, the Bureau of Curriculum Development is mandated to continuously enhance the K to 12 Basic Education Curriculum by intensifying the Department's existing initiatives and programs to strengthen the culture of research. This key point area or known for the individual published studies, articles and journals as part of the selection and promotion process of both teachers, master teachers and basic school administrators or managers is already mandated by the DepEd Policy on which those personnel regardless of a specific position in the agency can produce various researches, articles and journals as they wanted to promote themselves in accordance with the given points in a particular criterion.

As clearly discussed by Guevara (2018) during the Inclusive Innovation Conference, the proponent emphasized that comprising the creative work of those scientific researchers should undertake a systematic basis to increase the stock of knowledge, including knowledge of man,

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

culture, and society, and the use of this stock of knowledge to devise new applications. To enable Research, development, and innovation, teacher-researchers and learner-researchers must consider the following requirements: human resource development, facilities, funding, technology transfer, policies, and strategies for conducting diverse Research. One factor that undermines high-quality scientific Research is the production of inaccurate and inconsistent results and discussions, which may set an unethical standard and lead the Research to go unpublished.

In the Seventeenth Congress, Third Regular Session, a Republic Act No. 112931 or otherwise known as ""Philippine Innovation Act"" under section 2 that recognizes science and technology as ""essential for national development and progress"" and gives priority to ""research and development, invention, innovation and their utilization"" do hereby declare that the State shall promote a culture of strategic planning and innovation and ensure that knowledge is created, acquired, disseminated and used more effectively by individuals, organizations, and communities to promote sustainable economic and social development. With this, the Department of Education encourages its teachers and administrators to conduct Research and innovation in their classrooms or schools, respectively, to acquire new knowledge and develop new strategies in the classroom or in school management. The use of several research findings, focusing on teaching and learning processes, governance and leadership, gender and development, disaster risk reduction management, and others, would provide a strong foundation to easily fill gaps and enhance the capacity to provide quick responses to scientific studies. Likewise, promoting innovative concepts and principles of the educational system would ensure its relevance and the interconnections between the gaps (problems) and possible answers.

Educational Research was essential for the professional development of teachers, and their practices have been widely acknowledged in the literature. First, it equips teachers and other education practitioners with the skills to identify problems in schools and address them systematically. Second, it provides educators with an opportunity to self-evaluate their teaching practices. Third, it allows teachers to make changes in their pedagogical practices that have a positive impact on teaching and learning. Fourth, it is a great way to improve teachers' lifelong learning and continuing professional development. However, despite its positive effects on classroom teaching and learning, several studies have identified factors that prevent teachers from conducting Research. Crowded teaching timetables, heavy teaching workloads, letting students do Research easily, maturity level challenge, and availability of reading facilities or resources (Ulla, 2018), insufficient research training (Ellis & Loughland, 2016), lack of research skills (Vásquez et. al, 2017), and limited time to do Research (Norasmah & Chia, 2016) often constitute the primary challenges and concerns faced by teachers and other educators aspiring to undertake Research.

In the DepEd Order No. 16, series of 2017 entitled "Research Management Guidelines", DepEd provides guidance in managing research initiatives at the national, regional, school division, and school levels. The enclosed policy builds on gains in evidence-based decision-making from various education reforms and initiatives, which shall strengthen the Department's research culture. Briones (2018) added this insight: to highlight the known research priorities that funding-sourcing mechanisms should address and to reinforce the link between research and

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

education processes through research dissemination, utilization, and advocacy. To promote an environment of evidence-based decision-making, DepEd has made strides in instituting Research and its utilization in policy and program development. With this, the DepEd promotes and strengthens the culture of Research in basic education. Now, in basic education, teaching and non-teaching personnel are encouraged to engage in educational Research. Educational Research is a systematic, reflective inquiry aimed at improving educational practices or resolving problems within any operating unit (e.g., school, classroom, office).

The essence of action research within the school environment provides a best practice for developing a theory into a generalizable application that could improve management-driven institutions. On the other hand, the essence of action research in the classroom provides a framework that guides teachers' energies toward a better understanding of why, when, and how students become better researchers and how they can still become better teachers/facilitators of learning. The essence of conducting educational Research is to develop working relationships with others and to build a professional identity. According to Dangal (Hamal Giri, 2017), the primary reason for the emphasis on publication is that, unless research work is published, the findings would be confined to the researcher. There would be no proof to validate the work. Further, publications help researchers share their work with the larger scientific community and receive feedback. The real essence of publication is the sharing of discoveries and ideas with the broader network, learning what others have already found in the specific area, and gaining insights into what more needs to be searched for. It is important to note that if research findings were not shared, progress in the scientific world would be slow and negligible. Besides, in recent years, professional growth has made publication one of the primary criteria for hiring, promotion, and funding future Research. This has proved to be one of the measures to promote the research and publication culture. However, the compulsion to publish a research paper to advance a professional career has become a significant hurdle for some professionals, one of the main reasons being a lack of skills to write up their Research clearly and concisely. The majority of professionals want their work published only for the sake of academic designation, and these faculties would neither teach nor encourage the new generation to conduct Research and publish the evidence generated. One of the most essential areas for improvement is the authors' ability to present their work in a precise format. Before embarking on the race to get one's name into the most prestigious journals, one should be proficient in writing. The next step could be to share their work with peers to get feedback. Feedback from the peer group helps most in evaluating one's own work, identifying shortcomings, and refining the writing.

Moreover, the fear of rejection from the article, journal, and research community influences researchers' sense of deservingness. The fact that most established academicians also get rejected should be borne in mind, and researchers should be aware that rejection is not always due to poor research quality. The paper might not have fallen within the journal's priority areas, or it might not be the appropriate read for its readers. Thus, the current trend of publishing only to meet criteria for professional growth needs to change, and the absolute need to research and publish should be embraced by all enthusiastic researchers, which could, in the long run, benefit the scientific community and add to the evidence.

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Ulla (2018) believed that teachers are active participants in the development of education, showing that by recognizing classroom problems and taking action to address them, teachers become catalysts for change and responsible agents for improving their own classroom teaching and elevating learners' prior knowledge. Educational Research identified classroom problems and guides how to address them, thereby improving the teaching and learning process. Since teachers are part of the environment where the problem occurs, educational Research enables teachers and school administrators to identify what went wrong and what could be done to address the issue. Consequently, it has now become one of the major professional development concerns for teachers and school administrators in the Philippine schools. Teachers are encouraged by the Department of Education and the Commission on Higher Education to conduct school-based educational Research (basic and action Research) as part of their performance appraisal. In fact, the idea of "publish or perish" in higher education institutions in the Philippines is directing teachers to do well not just in classroom teaching but also in publishing academic papers.

In the Philippines, the Department of Education (DepEd) has issued an order to all its school heads, supervisors, and teachers to adopt "the enclosed Basic Education Research Agenda," which promotes the "conduct of education research" (DepEd, 2016) in the country. The purpose of which is to identify teachers' and departments' concerns and problems, and to recommend solutions based on the results and findings. With professional growth and development as one of the key result areas for the individual teacher's performance commitment and review, conceptualizing educational research (both basic and action research) has already become part of the annual performance appraisal for all teachers. DepEd has been taking significant steps to update and inform public school teachers about the importance of Research. However, many teachers in both elementary and secondary schools remain uninterested and demotivated. Factors like a tight teaching timetable, a heavy teaching workload, seeking more irrelevant details, and allowing learners to speak with few gestures, yet unlimited. These were just a few reasons why some public school teachers are unmotivated and have no interest in conducting Research.

According to Burns & Westmacott (2018), worldwide, there is increasing pressure on university teachers to become research-active. To rise to the challenge, teachers may opt to earn a master's degree or even a doctorate. To drive up publications, universities may establish requirements and incentives for training (diplomas in research skills, master's, and doctoral) and publications, and also foster a culture favorable to Research presentations, discussion groups, and so forth.

In the K to 12 Curriculum, academic writing is now a vital part of the continuous writing assessments in most academic tracks in the Senior High School. Senior High School prepares teachers to adapt unique writing skills to present write-ups on the scientific inquiry process, draft experiments, and conduct critical analysis and interpretation for their 21st-century Filipino learners. Since this is a requirement for all Filipino Senior High School learners regardless of their chosen track, like in science, technology, engineering and mathematics (STEM), general academic strand (GAS) and all other Senior High School classification, the subjects, Practical Research 1 (Qualitative Research) and Practical Research 2 (Quantitative Research) is part of

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

their curriculum design. At the end of the semester, Filipino Senior High School learners should be able to present write-ups on the scientific inquiry process and an outcome-based presentation in their specialized field, which is called educational (both basic and action) Research. The need for reading and writing skills of the teachers must first enhance through attending graduate school (Master'sMaster's and Doctorate Degree Programs), attending various seminar-workshop, training, Learning Action Cell (LAC) sessions or conferences related to scientific research conduct and various experiences in writings to produce a quality research output which will be helpful to present this acquired lessons to the Senior High School learners as an example for their learning guide so that they could come up with reliable source of information. That is why research specialists, supervisors, and even school heads are encouraging teachers to conduct practical (action) research based on their current classroom teaching or other concerns—educational Research (both basic and action). Research is an orientation to knowledge creation that arises in a context of practice and requires researchers to work with respondents.

There are several DepEd Senior High School STEM III-B (Science) teachers in most mother high schools in the third congressional district who teaches practical research 1 and 2 where they also invest their post-graduate studies (Master's and Doctorate Degree Programs) in these recent years to earned additional key points and adapt new knowledge formation in an academic writing for their professional growth and development. This articulates four primary agendas. These are Agendum 1: Improving research capability of BEIs towards international competitiveness; Agendum 2: Enhance research productivity of BEIs in distinctive areas of competence Agendum; 3: General knowledge/technologies needed for international, national and regional Basic Education development, policy/plan formulation, developing innovative programs and advancing the frontiers of knowledge in the disciplines; Agendum 4: Promote and facilitate dissemination and utilization of research outputs. The four core agendas of the BEIs are to help Senior High School teachers teach practical Research. This Research would help them develop content knowledge of academic writing skills and their application. From there, Senior High School learners may also develop their writing skills, such as formulating unique questions, selecting relevant information related to the issues or concerns via books, journals, articles, magazines, and electronic sources, choosing research methods and the inclination of research tools and statistics appropriately to the research questions, and providing insights intelligently.

As Ouyang & Stanley (2017) note in the education context, cognitive developmental theory concerns developing persons' capabilities in creative thinking, information analysis, and problem-solving through computer-assisted instruction. The core of this theory is discovery learning, also known as learning by doing. Practice is a foundation of learning, and without learning practice, teacher-researchers would get lost. That is why, the Schools Division Offices (SDOs) or even State Universities and Colleges (SUCs) are advised and encouraged to have teacher-researchers gain more knowledge and skills in writing scientific Research and later presented to the experts for validating accuracy and consistency of the research study by means of keen observation, selecting relevant information with a deeper understanding and choosing appropriate methods and statistics.

The teacher-researchers, under the guidance of master teachers, principals, supervisors, or experts, and life choices determine the project being studied, where the initiative to acquire

Online ISSN: 3082-5121
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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

knowledge in the process of Research and application of knowledge, and the learning activities to solve the problem. It is purely research-oriented. The cited theory aims to encourage teacher-researchers to change their original learning style, which passively accepts knowledge. According to Chen & Xu (2017), research-based learning was the conscious learning that enables teacher-researchers solve problems in real life situations through personal experience; identify research topics from learning life and social life under the guidance of master teachers, principals, supervisors or experts; enable teacher-researchers to study in the form of individuals or groups in order to take the initiative to acquire knowledge and apply knowledge to solve problems. Research-based learning is an open, exploratory, and cooperative learning activity. The focus of research-based learning is learning, not Research. Its core is to promote senior high school learners to learn through cognitive and psychological processes similar to Research, gradually forming a tendency to question, explore, and seek knowledge, and to stimulate a positive desire for exploration and innovation in daily study and life.

Senior high school teacher-respondents face challenges in teaching practical Research to 21st-century learners, particularly in the availability of reading facilities and resources, in organizing the teaching environment, and in their learners' learning lifestyle in academic writing. Although senior high school teacher-respondents try to integrate various teaching styles and strategies developed in their everyday activities to set goals and achieve them, such as giving instructions to a particular task in an authentic and specific manner, encouraging them to accept mistakes and productive struggle, focus on content treatment objectively, and set the mind of the learners on positive interdependence.

The purpose of the present study was to determine the challenges encountered by the senior high school teachers in teaching practical Research. The present study determines the underlying structure of the significant differences in the challenges that teachers in Bayambang I and Bayambang II face in teaching practical Research in Senior High Schools, as well as their profiles. This study also proposes a plan of action to address the challenges encountered by senior high school teachers in teaching practical Research and, at the same time, presents the SHS teachers' strategies.

Being a part of this study, the researcher communicated effectively and encouraged senior high school teachers to generate ideas and techniques in teaching practical Research through participating School Learning Active Cells (SLAC), conferences, seminars and workshops and at the same time obtain relevant experiences in writing educational researches across their learning areas interested to them through attending post-graduate studies (Master's and Doctorate Degree Programs) by giving reinforcement or positive teaching styles which they were done a task comfortable yet learned personally and professionally. Also, integrate best practices such as peer mentoring and a cooperative teaching approach, which are widely used in most educational Research.

This research study sought to determine the challenges encountered by senior high school teachers in teaching practical Research in the Bayambang I and Bayambang Districts. Specifically, it sought to answer the profile of the senior high school teachers teaching practical research in terms of: highest educational attainment, research experience/engagement, length of

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

teaching experience, training in research; and strand taught. It also aimed to determine the challenges encountered by the teachers in teaching Practical Research for Senior High School learners. Determine the strategies of the senior high school teachers to address these challenges in teaching Practical Research to the Senior High School learners. This study determines if there is a significant differences in the challenges encountered by the SHS teachers in teaching practical Research in Bayambang I and Bayambang II to Senior High School learners across profiles. Also, the proposed plan of action to address the challenges encountered by senior high school teachers in teaching practical research to the Senior High School learners.

II. METHODOLOGY

This research study used a descriptive-comparative research design. According to Arnold (2019), a descriptive-comparative study assesses the researcher's predictive strength (positive or negative) of one variable over another. This means that covariance between two data points or characteristics is achieved through a descriptive-comparative coefficient. A comparative research design was used to determine whether there was a significant difference in the challenges teachers faced in teaching practical research in Bayambang I and Bayambang II to Senior High School learners across profiles.

III. RESULTS AND DISCUSSIONS

Profile of the Senior High School Teacher teaching Practical Research

This section of the paper presents the profile of the respondents along highest educational attainment, research experience / engagement, length of teaching experience, training in research and strand taught.

Highest Educational Attainment

Table 1.1 shows profile distribution of the respondents along highest educational attainment.

Online ISSN: 3082-5121
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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 1.1
Profile Distribution of the Respondents along Highest Educational Attainment

Highest Educational Attainment	Frequency	Percent
BSE or its Equivalent	10	9.80
BSE with MAEd, MAT, MEd units	54	52.94
MAEd, MAT, MEd	28	27.45
MAEd, MAT, MEd with EdD / PhD units	3	2.94
EdD / PhD	7	6.86
Total	**102**	**100.0**

Table 1.1 presents the profile of senior high school teachers teaching practical research by highest educational attainment. It shows that the group belong to the BSE with MAEd, MAT, MEd units composed of 54 teachers constituting 52.94% take the first rank followed by the group belong to the MAEd, MAT, MEd consisting of 28 teachers constituting 27.45% take the second rank followed by the group belong to BSE or its Equivalent composed of 10 teachers constituting 9.80% take the third rank followed by the group belong to EdD / PhD consisting of 7 teachers constituting 6.86% take the fourth rank. In contrast, the group belonging to the MAEd, MAT, MEd with EdD/PhD units, composed of 3 teachers, constitutes 2.94% and ranks fifth. Thus, the majority of the senior high school teachers teaching practical research belong to BSE with MAEd, MAT, and MEd units.

The findings reveal that senior high school teachers handling practical research are generally well-qualified, with over 80% (first, second, and fifth ranks combined) holding at least some postgraduate-level education, such as MAEd, MAT, or MEd units. This suggests a strong emphasis on advanced training in education, likely enhancing their ability to guide students in research methodologies. However, the majority (52.94%) stopping at BSE with master's units—rather than full completions or doctorates—infers a practical reality: many teachers pursue incremental professional development amid heavy workloads or resource constraints, prioritizing units for certification over full degrees. Only a small fraction (6.86% + 2.94%) have doctoral qualifications, indicating room for further investment in higher academia to elevate research instruction.

Research Experience / Engagement

Table 1.2 shows the profile distribution of the respondents along research experience / engagement.

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 1.2
Profile Distribution of the Respondents along Research Experience / Engagement

Research Experience / Engagement	Frequency	Percent
1 – 3 years	24	23.53
4 – 6 years	78	76.47
Total	**102**	**100.0**

Table 1.2 shows the distribution of respondents' research experience and engagement. It shows that most respondents have about 4–6 years of research experience, comprising 78 senior high school teachers (76.47%), while respondents with about 1–3 years of research experience comprise 24 senior high school teachers (23.53%). Thus, the majority of senior high school teachers tend to engage in research, as they are considered 21st-century teachers.

The findings indicate that senior high school teachers teaching practical research possess a solid mid-level of research engagement, with the vast majority (76.47%) having 4-6 years of experience. This suggests that these educators have transitioned into research-active roles relatively recently, aligning with the K-12 program's rollout in the Philippines around 2016, positioning them as "21st-century teachers" equipped for inquiry-based instruction. The complete absence of teachers with over 6 years of experience and those with under 1 year of experience suggests a maturing, but not yet veteran, research culture among this group. It infers growing institutional emphasis on sustained research involvement to match curriculum demands. However, potential gaps in early-career onboarding (only 23.53% at 1-3 years) could signal challenges like initial training deficits or workload barriers hindering quicker uptake. Overall, this distribution reflects competent, evolving expertise that supports student research skills, but sustained professional development is needed to deepen longevity and address any plateauing at the 4-6 year mark.

Length of Teaching Experience

Table 1.3 shows the profile distribution of the respondents along length of teaching experience.

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 1.3

Profile Distribution of the Respondents along Length of Teaching Experience

Length of Teaching Experience	Frequency	Percent
1 – 3 years	17	16.67
4 – 6 years	85	83.33
Total	**102**	**100.0**

Table 1.3 shows the length of teaching experience distribution of the respondents. It shows that most respondents had about 4 – 6 years of teaching experience, comprising 85 senior high school teachers (83.33%), while respondents with about 1 – 3 years of teaching experience comprised 17 senior high school teachers (16.67%). Thus, the majority of senior high school teachers are well-experienced in teaching research.

The findings show that senior high school teachers teaching practical research have relatively recent but substantial teaching experience, with 83.33% in the 4-6 year range. This mid-level tenure aligns closely with previous data on research engagement (also dominated by 4-6 years), suggesting these educators were likely onboarded during the K-12 program's early implementation in the Philippines around 2016, gaining practical classroom expertise alongside research skills.

The small proportion (16.67%) with 1-3 years indicates a limited influx of novices, suggesting stable staffing but potential vulnerabilities if senior teachers retire soon. It infers growing institutional maturity in assigning experienced instructors to research subjects, enhancing instructional quality through accumulated pedagogical know-how.

Overall, this profile indicates a competent cohort well-suited for research teaching, though targeted mentorship for newer staff could further strengthen program delivery.

Training in Research

Table 1.4 shows the profile distribution of the respondents along training in research.

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 1.4

Profile Distribution of the Respondents along Training in Research

Training in Research	Frequency	Percent
School Level	5	4.90
District Level	14	13.73
Division Level	83	81.37
Total	**102**	**100.0**

Table 1.4 shows the respondents' training levels in the research distribution. It shows that most of the respondents' participating division training in research which composed of 83 senior high school teachers constituting 81.37% take the first rank followed by respondents' participating district training in research which consisting of 14 constituting 13.73 take the second rank while respondents' participating school training in research which composed of 5 senior high school teachers constituting 4.90% take the third rank. Thus, the majority of senior high school teachers who participate in division training gain greater knowledge of research.

The data indicate that division-level research training reaches the broadest audience among senior high school teachers, suggesting it plays a pivotal role in professional development. Most teachers (81.37%) who opt for or access division training likely benefit from its scale, resources, and standardization, which exceed those of district (13.73%) or school-based (4.90%) sessions. This dominance implies that division programs effectively disseminate research skills to a majority. Division trainings often align with DepEd mandates, offering structured content on methodologies, data analysis, and ethics that smaller-scale sessions may lack. Broader participation reflects better promotion, incentives, or mandatory elements, prioritizing collective teacher upskilling over localized efforts.

Strand Taught

Table 1.5 shows the profile distribution of the respondents along strand taught which can be found into the next page.

Table 1.5

Profile Distribution of the Respondents along Strand Taught

Strand Taught	Frequency	Percent
STEM	32	31.37
GAS	9	8.82
HUMSS	21	20.59
ABM	26	25.49
TVL	14	13.73
Total	**102**	**100.0**

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https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 1.5 shows the distribution of the respondents' taught strands. It shows that most of the respondents who taught STEM which composed of 32 senior high school teachers constituting 31.37% take the first rank followed by the respondents who taught ABM which consisting of 26 senior high school teachers constituting 25.49% take the second rank, followed by the respondents who taught HUMSS which composed of 21 senior high school teachers constituting 20.59% take the third rank, followed by the respondents who taught TVL which consisting of 14 senior high school teachers constituting 13.73% take the fourth rank. In comparison, the respondents who taught GAS, composed of 9 senior high school teachers (8.82%), ranked fifth. Thus, the majority of the senior high school teachers teach practical research in STEM classes. STEM teachers form the largest group among respondents, indicating a strong emphasis on research skills within science and technical education strands.

The high representation of STEM (31.37%) and ABM (25.49%) teachers suggests that practical research training closely aligns with the analytical demands of these strands, where data handling and evidence-based methods are central. HUMSS (20.59%) follows, while TVL (13.73%) and GAS (8.82%) lag, possibly due to more hands-on or generalist focuses.

STEM curricula inherently require empirical inquiry, driving higher teacher participation or selection in research studies. ABM's business-oriented research needs to explain its strong showing, whereas TVL prioritizes vocational skills over formal research methodologies. This distribution highlights opportunities to tailor research training for underrepresented groups such as TVL and GAS, ensuring equitable skill-building across SHS tracks and better preparing diverse students for college or careers.

Table 2.a
Challenges by the Teachers in teaching Practical Research for Senior High Schools learners
(Bayambang I)
N=34

Challenges	Mean	Interpretation
1. When I am being excited to teach practical research, I am there that the scenario involves a lot of reading facilities or resources.	3.24	Agree
2. When I teach the subject, I prefer to deliver the competencies which are my field or interest.	2.07	Disagree
3. When I teach the subject, I prefer to begin, even when there is noise disturbance.	2.83	Agree

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

4. When I explain something, I allow my learners to speak with few gestures yet unlimited.	3.15	Agree
5. When I explain something, I allow my learners to speak with many gestures yet limited.	3.10	Agree
6. When I teach, I prefer a highly-organize environment.	3.20	Agree
7. When I handling different behaviors of my learners, I usually challenge in a mature one.	3.47	Strongly Agree
8. When my learners are challenge to give an instruction in doing a task, they prefer instructions with images and icons.	3.23	Agree
9. When my learners are challenge to give an instruction in doing a task, they prefer written instructions.	2.20	Disagree
10. When my learners do task, they prefer to be spontaneous and natural.	2.00	Disagree
11. When my learners do task, they prefer to unorganized things yet out of the goal.	2.96	Agree
12. When my learners read or make an outline in a literature review, they obtain less detail.	2.40	Disagree
13. When my learners read or make an outline in a literature review, they obtain more details but there is no relevance at all.	2.07	Disagree

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

14. When my learners plan for a research project, they make any move to let them do.	2.40	Disagree
15. When my learners plan for a research project, they easy for me to see them letting do.	3.87	Strongly Agree
AWM	**2.81**	**Agree**

Table 2. a shows the challenges encountered by the senior high school teachers (Bayambang I) in teaching practical research. The table shows that the senior high school teachers obtained a score of 2.81, which corresponds to the descriptive equivalent "Agree." This implies that the respondents encounter challenges, suggesting that when learners plan a research project, it is easy for the teacher to see and let them do so. When handling different behaviors of their learners, teachers usually face these challenges maturely. Moreover, they believe they encounter a scenario that involves many reading facilities or resources.

Senior high school teachers in Bayambang I acknowledge difficulties when learners plan research projects, often struggling to monitor execution effectively, and when addressing diverse or immature learner behaviors that disrupt structured research activities. This suggests that classroom dynamics and supervision demands significantly impact instruction.

Limited reading facilities and resources exacerbate these issues, forcing teachers to improvise amid scarce research materials, while handling behavioral variations, especially immaturity, diverts focus from content delivery. These align with typical Philippine SHS constraints, such as inadequate training and research pedagogy tools.

Addressing these through targeted resource provision and behavior management training could streamline research teaching, boosting teacher efficacy and student outputs in practical research across strands.

This aligns with Ulla's (2018) coherent view that the challenges of conducting research include crowded teaching timetables, heavy teaching workloads, making research easy, maturity-level challenges, and the availability of reading facilities or resources. In other words, senior high school teachers aim to challenge themselves to foster learners' independence in research, to accept learners' levels of maturity, and to coordinate with the institution's functional library.

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Table 2.b
Challenges by the Teachers in teaching Practical Research for Senior High Schools learners (Bayambang II)
N=68

Challenges	Mean	Interpretation
1. When I am being excited to teach practical research, I am there that the scenario involves a lot of reading facilities or resources.	3.10	Agree
2. When I teach the subject, I prefer to deliver the competencies which are my field or interest.	2.42	Disagree
3. When I teach the subject, I prefer to begin, even when there is noise disturbance.	2.50	Disagree
4. When I explain something, I allow my learners to speak with few gestures yet unlimited.	3.23	Agree
5. When I explain something, I allow my learners to speak with many gestures yet limited.	3.10	Agree
6. When I teach, I prefer a highly-organize environment.	3.21	Agree
7. When I handling different behaviors of my learners, I usually challenge in a mature one.	3.06	Agree
8. When my learners are challenge to give an instruction in doing a task, they prefer instructions with images and icons.	2.96	Agree
9. When my learners are challenge to give an instruction in doing a task, they prefer written instructions.	2.34	Agree

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

10. When my learners do task, they prefer to be spontaneous and natural.	2.18	Disagree
11. When my learners do task, they prefer to unorganized things yet out of the goal.	2.06	Disagree
12. When my learners read or make an outline in a literature review, they obtain less detail.	2.37	Disagree
13. When my learners read or make an outline in a literature review, they obtain more details but there is no relevance at all.	3.25	Agree
14. When my learners plan for a research project, they make any move to let them do.	2.42	Disagree
15. When my learners plan for a research project, they easy for me to see them letting do.	3.84	Strongly Agree
AWM	**2.80**	**Agree**

Table 2 b shows the challenges encountered by the senior high school teachers (Bayambang II) in teaching practical research. The table shows that the senior high school teachers obtained a score of 2.80, or its descriptive equivalent, "Agree." This implies that the respondents encounter challenges, suggesting that when learners plan a research project, they let learners do the research more easily. When learners obtain more details, there is no relevance at all. Moreover, they believe that when teachers explain something, they allow learners to speak with a few gestures, yet unlimited.

Senior high school teachers in Bayambang II encounter moderate challenges in teaching practical research, reflected in their "Agree" rating of 2.80, highlighting issues in guiding unstructured student efforts and managing classroom interactions.

Teachers find it challenging to intervene effectively when learners plan research projects independently, often resulting in irrelevant details despite access to information, which complicates maintaining focus and rigor in practical research tasks.

Allowing learners unrestricted speaking with minimal gestures during explanations fosters off-topic discussions or superficial engagement, exacerbating difficulties in steering research toward relevant outcomes amid diverse student needs.

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

These hurdles mirror those in Bayambang II, suggesting district-wide needs for structured protocols in research planning, relevance checks, and moderated discussions to enhance teaching efficacy and student research quality.

This aligns with Ulla's (2018) coherent views, which teachers challenge by allowing their learners to conduct research efficiently and obtain more details (literature). Still, there is no relevance at all, and allowing learners to speak with a few gestures does not address the unlimited reasons they are not motivated or interested in doing research.

Summary of Mean of Challenges by the Senior High School Teachers in teaching Practical Research for Senior High Schools learners

Table 2.d shows the summary of mean of challenges by the teachers in teaching practical research for senior high schools learners.

Table 2.d
Summary of Mean of Challenges by the Teachers in teaching Practical Research for Senior High Schools learners
N=102

Challenges	Mean	Interpretation
Bayambang I	2.81	Agree
Bayambang II	2.80	Agree
Overall Mean	**2.80**	**Agree**

Table 2.d presents a summary of the challenges teachers face in teaching practical research to senior high school learners in Bayambang I, Bayambang II. It discloses that the respondents' challenges in teaching practical research, with an overall mean of 2.80, are interpreted as "agree". This implies heterogeneity and diverse teachers.

Senior high school teachers agree that they face challenges in teaching practical research, which implies that they evaluate their own value in any situation, leading to different ways they manage such situations. Moreover, the teachers strive to prove their competence and try to avoid the feeling of incompetence. This motivates them to master their research skills by learning the lesson content.

Thus, the result of the current study affirms that teachers able to enhance their own professional competence in research in view of Nugent, Malik & Hollingsworth (2018) which include the willingness to critically examine one's teaching to strengthen knowledge and practice in educational researches so that teachers are becoming empowered to make informed decisions about what to change and what not to change as well as provide a means of focusing instruction on issues directly related to the classroom or school.

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Good teachers are also good researchers who seek to deepen their knowledge and refine their practice throughout their careers. Educational research develops knowledge by addressing gaps and expanding what researchers know. Educational Research improves practice by helping educators gain new ideas for their teaching, gain new insights into their approaches, and connect with other educators. It positions educators as learners who want to narrow the gap between their practice and their vision of quality education.

Strategies of the Teachers to address their Challenges in teaching Practical Research

Table 3 shows the strategies of the teachers to address their challenges.

	Frequency	Percent
When I able to produce a learning outcome for a session, I prefer to explore my learner work involved into enough reading facilities and resources.	4	3.92
When I start my lesson in a research class, I will provide mind warm-up exercises to master their learning competency which an essential field of interest.	8	7.84
When I start my lesson in a research class, I will provide more on definitions to master their learning competency which an essential field of interest.	5	4.90
When I give an instruction to a certain task, I will express in authentic and specific manner.	8	7.84
When I give an instruction to a certain task, I prefer to work them collaboratively.	9	8.82
When reading or making outlines, I prefer detailed ideas.	3	2.94

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

When I plan for my learners' educational research project, I prefer to find a pattern or use a rule.	5	4.90
When I ask my learners to do their research project, I prefer to check for relevant information.	7	6.86
When I incorporate something to teach the subject, I prefer to use data-based projects.	5	4.90
When I encounter unresponsive learners in doing their research project, I always encourage them to accept mistakes and productive struggle.	4	3.92
When I ask my learners to perform tasks, I keep them alert and attentive.	6	5.88
When I ask my learners to present their research output, I let them focus on content treatment objectively.	8	7.84
When my learners choose their scientific (both basic and action) research, I prefer them to plan for a task.	3	2.94
When my learners monitor their mistakes in doing a research output, I always encourage them to ask the evaluation of task success.	4	3.92
When I adopt the creative thinking of my learners, I allow them to discuss their ideas with each other.	5	4.90
When I see the projecting expected results in their research, I allow them to record and share their own process and conclusions.	3	2.94

Online ISSN: 3082-5121
Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

When my learners do their scientific research writing, I always set into their mind the positive interdependence.	4	3.92
When my learners practice in writing scientific research, I always ask them to develop their interpersonal skill.	4	3.92
When I involved a well-structured data in my lesson, I preferably prompt my learners' reflection by asking questions that seek reasons and evidence.	5	4.90
When I provide authentic task to learn about scientific research, I preferably guide learners' thought processes during explorations.	2	1.96
Total	**102**	**100.0**

Table 3 presents the strategies senior high school teachers use to address their challenges in teaching practical research. This indicates that most of the senior high school teachers teach best when they instruct a specific task where learners work collaboratively; when they provide mind warm-up exercises to master their learning competency, which is an essential field of interest; when they instruct a particular task, expressing in an authentic and specific manner; and when they focus on content treatment objectively. A closer look at the table reveals that the collaborative learning strategy (when teachers give instructions for a task that learners work collaboratively) received a total score of 9, which constitutes 8.82%, and was described by the respondents as a primary coping strategy. The finding indicates that most of the senior high school teachers remember and understanding concepts and information better when they see learners working collaboratively. Teachers demonstrate a better understanding of the lessons, presenting information with the aid of identified learning competencies, expressing specific tasks, and focusing on content treatment objectively, as the research can provide. This finding is supported by the study conducted by Chen & Xu (2017), which noted that teachers took the initiative to acquire and apply knowledge to solve problems and to gradually explore and seek understanding, thereby stimulating a positive desire for exploration and innovation in daily study and life.

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

Significant Difference among the Challenges by the Teachers in Teaching Practical Research in Bayambang I and Bayambang II to the Senior High Schools Learners across Profile

This section presents the test of significant difference among the variables.
Table 4 shows the difference among the Challenges by the Teachers across profile.

Table 4
Difference among the Challenges by the Teachers in Teaching Practical Research in Bayambang I and Bayambang II

Mean	*N*	*Std. Dev*	
2.813	15	0.5828	BAY 1
2.803	15	0.5083	BAY 2
2.783	15	0.4189	BAY 2
2.799	**45**	**0.4962**	**Total**

ANOVA table

Source	*SS*	*Df*	*MS*	*F*	*p-value*
Treatment	0.0070	2	0.00350	0.01	.9865
Error	10.8285	42	0.25782		
Total	10.8355	44			

**. Difference is significant at the 0.01 level (2-tailed); *p-value of .9865*.

Table 4 shows that there is no significant difference in the challenges faced by teachers in Teaching Practical Research in Bayambang I and Bayambang II to Senior High School learners and their profiles. Relationships showed along challenges with the p-value of .9865 (profile). Thus, the challenges of the teachers in teaching practical research in Bayambang I and Bayambang II to Senior High School learners are equal in terms of the means, as indicated by the Analysis of Variance (ANOVA). This implies that the researchers' hypothesis is accepted.

The results of the current study supported by Ulla, Barrera & Acompanado (2017), believe that teachers are active participants towards the development of education shows that by knowing the problem in the classroom; and by taking an action regarding that problem, teachers

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Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields
https://journals.aloysianpublications.com
Volume 2 Issue 5 (2026)

become the catalysts for change and responsible agents for the improvement of their own classroom teaching and for uplifting students learning.

The challenges encountered by senior high school teachers in teaching practical research are clearly defined. The characteristics of 21st-century teachers are developing and enduring perceived competence based on the statements hereunto; feedback on individual target responses is effectively understood; and challenges are integrated with targets' profiles.

The plan of action that can be proposed to address the challenges and coping strategies encountered by senior high school teachers in teaching practical research is also clearly defined.

IV. CONCLUSIONS AND RECOMMENDATIONS

In light of the foregoing findings, the researchers arrived that: 1. The senior high school teachers obtain BSE with MAEd, MAT, or MEd units, gain research experience for about 4 – 6 years, have about 4 – 6 years of teaching experience, participate in division research training, and teach the STEM strand; 2. Senior high school teachers encounter challenging experiences and/or situations in teaching practical research; 3. Collaborative learning is the most commonly used strategy to address the challenges senior high school teachers face in teaching practical research; 4. There is no significant difference in the challenges teachers face in teaching practical research in Bayambang I and Bayambang II to Senior High School learners across profiles. This implies that the researcher's hypothesis is accepted.

In view of the above conclusions, the following recommendations are hereby laid out: 1. The senior high school teachers are encouraged to obtain their full-pledge Master’s degree or higher and to engage in year-round research experience; 2. Additional training/seminar workshops shall be provided to senior high school teachers teaching practical research; 3. School administrators shall continuously support and provide technical assistance to proficient teachers to help learners address the challenges they have faced; 4. The proposed plan of action will be shared upon approval; 5. A further study on how effective the conduct of challenges and coping strategies encountered by senior high school teachers in teaching practical research can enhance motivation to appreciate learning.

REFERENCES

[1] Al-qout, G. A. (2017). Historical Research Skills Development in Light of a Training Program for Secondary Stage History Teachers. Journal of Education and Practice. ISSN 2222-1735 (Paper). Vol.8, No.10, 2017 www.iiste.org

[2] Arnold, S. (2019). A Quantitative Research-Comparative Study: The Relationship between the Emotional Intelligence and Workplace Diversity. A Dissertation, p.80

[3] Atmowardoyo, H. (2018). Research Methods in TEFL Studies: Descriptive Research, Case Study, Error Analysis, and R & D. Universitas Negeri Makassar, Indonesia. ISSN 1798-4769 Journal of Language Teaching and Research, Vol. 9, No. 1, pp. 197-204, January 2018 DOI: http://dx.doi.org/10.17507/jltr.0901.25

[4] Bandaranaike, S & Willison, J 2017, 'Building learner autonomy into work-integrated learning: Challenges for the 21st Century', in Proceedings of the 20th World Conference on Cooperative and Work Integrated Learning, Chiang Mai, 5-8 June, viewed 23 June 2018, <http://www.waceinc.org/worldconf2017/assets/WACE_Refereed_Conference_Proceedings_Thai land_2017.pdf>.

[5] Basilio, M. B. & Bueno, D. C. (2019). Research Skills and Attitudes of Master Teachers in a Division towards Capability Training, Journal of Teacher Education, pp. 160-162 https://doi.org/10.17758/ERPUB3.UH0119421

[6] Briones, J. K. R. (2018). Action Research in the K to 12 Basic Education Program, pp. 1-17. DepEd Complex, Meralco Ave., Pasig, Metro Manila www.deped.gov.ph

[7] Briones, L. M. (2018) DepEd Memorandum 097, s. 2018, "Guidelines on the Conduct of the First National Curriculum Research Conference."pp. 1-2. DepEd Complex, Meralco Ave., Pasig, Metro Manila www.deped.gov.ph

[8] Briones, L. M. (2017) DepEd Memorandum No. 144, s. 2017, "Supplemental Research Guides and Tools."pp. 1-9. DepEd Complex, Meralco Ave., Pasig, Metro Manila www.deped.gov.ph

[9] Burns, A., & Westmacott, A. (2018). Teacher to researcher: Reflections on a new action research program for university efl teachers. Profile: Issues in Teachers' Professional Development, 20(1), 15-23. https://doi.org/10.15446/profile. v20n1.66236.\

[10] Chen, Y. & Xu, Z. (2017). The Theory of Investigative Study and the Development of People. International Education Studies; Vol. 10, No. 9; 2017 ISSN 1913-9020 E-ISSN 1913-9039, Published by Canadian Center of Science and Education, pp. 113-115, doi:10.5539/ies.v10n9p113. https://doi.org/10.5539/ies.v10n9p113

[11] Dangal, G., Hamal, P. K. & Giri, M. (2017). Understanding Research and Scientific Publication. Journal of Nepal Health Research Council, Vol. 15 No. 1 Issue 35, March 2017. doi: 10.3126/jnhrc.v15i1.18005

[12] Ellis, N. J., & Loughland, T. (2016). The challenges of practitioner research: A comparative study of Singapore and NSW. Australian Journal of Teacher Education, 41(2), 122-136.

[13] Guevara, R. C. L. (2018). Research, Development and Innovation Linking Government, Academe and Industry. INCLUSIVE INNOVATION CONFERENCE 2018, pp. 2-3 October 2018; Sofitel Philippines Plaza Manila

[14] Lovat, T. (2016). Integrating Research Skills Development in Teacher Education. Australian Journal of Teacher Education, 20(1) pp. 30-31. http://dx.doi.org/10.14221/ajte.1995v20n1.4

[15] Luistro, A. A. (2016). DepEd Order No. 39, s. 2016. Adoption of the Basic Education Research Agenda, pp. 1-4 DepEd Complex, Meralco Ave., Pasig, Metro Manila www.deped.gov.ph

[16] Muyot, A. T. (2017). DepEd Order No. 016, series of 2017 or the Research Management Guidelines (RMG). https://www.deped.gov.ph/wp-content/uploads/2017/03/DO_s2017_016.pdf

[17] Norasmah, O. & Chia, S. Y. (2016). The challenges of action research implementation in Malaysian schools. Pertanika Journal of Social Science and Humanities, 24(1), 43-52. http://www.pertanika.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2024%20(1)%20Mar.%202016/03%20JSSH-1341-2015%20-%20Short%20Communication.pdf

[18] Nugent, G., Malik, S. & Hollingsworth, S. (2018). A Practical Guide to Action Research for Literacy Educators. Published with support from the International Reading Association, Nokia Corporation, and Pearson Foundation. Copyright ©2018 by the Global Operations Unit, International Reading Association, 444 N. Capitol St., Suite 640, Washington, DC 2001, USA. ISBN: 978-0-9882349-0-1, pp. 1-28

[19] Ouyang, J. R. & Stanley, N. (2014). Theories and Research in Educational Technology and Distance Learning Instruction. Universal Journal of Educational Research 2(2): 161-172, 2014 DOI: 10.13189/ujer.2014.020208. Horizon Research Publishing.

[20] Regadio Jr., C. Q. & Tullao Jr., T. S. (2015). The Role of the Government in Enhancing Research Productivity of SUCs and Private HEIs in the Philippines. DLSU Research Congress 2015 De La Salle University, Manila, Philippines. Vol. 3 (1). doi:10.5755/j01.em.19.1.5755

[21] Ulla, M. B., (2018). Benefits and challenges of doing research: Experiences from Philippine public school teachers. Issues in Educational Research, 28(3), 797-810. http://www.iier.org.au/iier28/ulla.pdf

[22] Vásquez-Martínez, C. R., Flores-Cuevas, F., González-González, F. A., Zuñiga-Medina, L. M., Arjona-Ulloa, M. D. J., & Torres-Mata, J. (2022). Reflections on the Training of Researchers in the Development of Educational Competences. In BCES Conference Books 2022 - Volume 20 (pp. 145-150). Bulgarian Comparative Education Society.

REPUBLIC ACT

Republic Act No. 9155 (The Governance of Basic Education Act 2001)

Republic Act No. 10533 (The Enhanced Basic Education Act of 2013, IRR Section 10.2b)

Republic Act No. 112931 (Philippine Innovation Act, Section 2b)