



STAGING TECHNIQUE IN ACTION RESEARCH WRITING, ANALYSIS, REPORTING, AND SOLUTIONS (STARWARS) AMONG MASTER TEACHERS

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Ria M. Vertulfo, EdD

Canduman Elementary School, Mandaue City, Cebu, Philippines

ORCID iD: 000-002-0189-8305 | ria.vertulfo@deped.gov.ph

Abstract

Action research is expected of master teachers, but many experience difficulty completing a study because the entire research manuscript is often viewed as one large and highly technical requirement. This study examined the Staging Technique in Action Research Writing, Analysis, Reporting, and Solutions (STARWARS), a section-by-section approach developed to ease the difficulties encountered by master teachers in preparing action research. Methods: The study used a convergent mixed-methods, descriptive-evaluative, one-group pretest-posttest design. All nine master teachers participated through complete enumeration. STARWARS divided the manuscript into manageable sections that were discussed, crafted, reviewed, and revised in sequence during Learning Action Cell sessions. Quantitative data were obtained from submission records and a 28-item research-writing competency instrument. Qualitative data came from participant reflections and implementation records. Results: On-time proposal submission increased from 6 of 9 participants (66.67%) before implementation to 9 of 9 (100%) after implementation. Completed action research increased from 7 of 9 (77.78%) to 9 of 9 (100%). The general weighted mean for research-writing competency increased from 2.68 to 3.32, with a mean difference of 0.64. The greatest improvement was in crafting research questions (0.72). Six qualitative themes were identified: time management and early initiation; access to resources and reliable information; guidance and professional development; crafting research questions and methodological challenges; reflection and practical application; and innovation and strategy implementation. Discussion: The findings indicate that completing the manuscript section by section made the research process more manageable and enabled the master teachers to sustain progress until completion. Continued implementation should include early scheduling, protected writing time, reliable research resources, regular technical assistance, and systematic monitoring of each research section.

Keywords: action research; Learning Action Cell; master teachers; research competence; mixed methods

Introduction

Action research positions teachers as systematic investigators of authentic problems in practice. Through iterative planning, action, observation, and reflection, educators can generate context-sensitive evidence and use it to refine instruction and school processes (Johnson, 2019; Mertler, 2020). Yet teacher inquiry is demanding: it requires methodological knowledge, scholarly writing, data literacy, ethical judgment, sustained motivation, and protected time. Professional learning is therefore most useful when it is coherent, sustained, collaborative, and closely connected to educators' daily work (Darling-Hammond et al., 2017; Kennedy, 2016).

In the Philippine basic education system, DepEd Order No. 16, s. 2017 establishes research management mechanisms intended to strengthen evidence-informed policy and practice. DepEd Order No. 35, s. 2016 institutionalizes Learning Action Cells (LACs) as school-based professional learning communities where teachers address shared practice-based challenges. These policies create an enabling environment, but policy expectations alone do not remove the practical barriers teachers encounter when framing questions, selecting appropriate methods, locating credible literature, analyzing data, and completing manuscripts.

As school principal, the researcher observed that the master teachers possessed substantial instructional experience and implemented classroom innovations, yet several found it difficult to prepare a complete action research manuscript. The requirement appeared overwhelming when the title, introduction, research questions, intervention, methodology, analysis, findings, conclusions, and proposed solutions had to be completed as one



major output. To address this dilemma, the principal-researcher developed STARWARS as a section-by-section staging technique. Each part of the manuscript was introduced, crafted, reviewed, revised, and completed before the participant proceeded to the succeeding section. Through this arrangement, every master teacher developed an original action research study based on an authentic grade-level or school concern.

The present evaluation asks: To what extent was STARWARS associated with changes in master teachers' research-writing competence, participation, timely submission, and experiences of the staged research-writing process at Canduman Elementary School? Specifically, it aimed to (a) compare proposal submission and completion before and after implementation; (b) describe changes in competency ratings; (c) examine participants' experiences and perspectives regarding action research; (d) integrate quantitative and qualitative findings; and (e) identify priorities for sustained technical assistance.

Literature Review

Teacher Action Research and Professional Learning

Teacher action research links inquiry directly to professional decisions and can support agency, reflection, and systematic improvement. Johnson (2019) characterizes action research as a form of teacher professional development because practitioners learn while investigating problems that matter in their own settings. Mertler (2020) likewise emphasizes a cyclical, applied process in which evidence informs action and subsequent reflection. However, engagement is shaped by teachers' access to methodological expertise, collegial support, time, and organizational conditions. Reviews of professional development consistently caution that short, disconnected activities are less likely to support durable changes than sustained, job-embedded learning (Darling-Hammond et al., 2017; Kennedy, 2016).

Learning Action Cells and Collaborative Inquiry

DepEd conceptualizes the LAC as a school-based community of practice in which teachers collaboratively solve shared challenges (Department of Education, 2016). This policy logic is consistent with evidence that teacher communities can support professional learning when participation is purposeful, leadership is enabling, and collaboration remains focused on practice (Vangrieken et al., 2017). Collaborative inquiry gives writers access to peer explanations, critique, and accountability; it also makes tacit problem-solving strategies visible. Nevertheless, collaboration should not be treated as automatically effective. Its quality depends on facilitation, trust, expertise, and the time available for disciplined work.

Scaffolding, Coaching, and Research-Writing Development

STARWARS combines explicit instruction, guided practice, collaborative revision, and increasing independence. This sequence reflects scaffolded learning and aligns with the broader finding that professional learning improves when participants study content, enact it, receive feedback, and revisit their practice (Darling-Hammond et al., 2017). Coaching further narrows the gap between general methodological advice and the decisions required by a specific study. Knight (2018) argues that goal-focused coaching supports improvement through cycles of identifying goals, learning relevant strategies, and monitoring progress. In research writing, coaching can clarify conceptual alignment among the problem, questions, intervention, evidence, and claims.

Theoretical and Conceptual Framework

The study was anchored on situated professional learning, communities of practice, and the gradual release of responsibility. Situated professional learning supports the use of actual school and classroom concerns as the starting point of teacher development. Communities-of-practice theory explains how teachers learn through shared work, discussion, and feedback within the LAC (Wenger-Trayner & Wenger-Trayner, 2015). The gradual release of responsibility supports the movement from direct instruction and guided writing to peer review and independent completion of the research manuscript. These perspectives guided the design of STARWARS, particularly its use of focused discussions, writing templates, coaching, staged outputs, and regular feedback.



Mixed-Methods Evaluation

Quantitative indicators can show whether ratings and outputs changed, but they do not by themselves describe how an intervention was enacted. Qualitative evidence can illuminate implementation processes and contextual conditions. In mixed-methods evaluation, integration must be explicit rather than limited to placing two forms of evidence in the same report (Creswell & Plano Clark, 2018). Joint displays provide a transparent means of comparing quantitative patterns with qualitative evidence and identifying convergence, complementarity, or dissonance (Fetters & Tajima, 2022; Haynes-Brown & Fetters, 2021).

Materials and Methods

Design

The study employed a convergent mixed-methods, descriptive-evaluative, one-group pretest-posttest design. The quantitative component measured changes in research participation, completion, and competency ratings before and after the intervention. The qualitative component described the experiences and concerns of the master teachers during the research-writing process. The two sets of findings were analyzed separately and then compared through a joint display to provide a fuller explanation of the results.

Research Locale, Participants, and Researcher Role

The study was conducted at Canduman Elementary School in Mandaue City, Cebu, Philippines. All nine master teachers assigned across grade levels were included through complete enumeration because they constituted the entire group eligible for the school-based research capacity-building intervention. The school principal served as principal-researcher, intervention designer, LAC facilitator, and research coach. This role provided direct knowledge of school research requirements and professional-development needs while requiring clear safeguards for voluntariness, confidentiality, and the separation of research participation from personnel evaluation.

STARWARS Intervention and Implementation Procedure

STARWARS was implemented through scheduled Learning Action Cell sessions using a section-by-section sequence. Each session consisted of a 30-minute technical discussion on one research section followed by a 90-minute supervised crafting workshop. The master teachers applied the discussion directly to their individual studies and produced the required section during the session. A section was reviewed and revised before the next section was introduced. Rather than completing a common research topic, each participant investigated a concern grounded in his or her grade level, learner needs, instructional practice, or school responsibility.

Implementation followed four operational phases. The diagnostic phase reviewed research participation, submission records, and competency needs. The proposal-development phase covered problem identification, title formulation, contextualized introduction, review of related literature, research questions, and intervention design. The methods-and-analysis phase addressed research design, participants or data sources, instruments, ethical procedures, data organization, and appropriate quantitative or qualitative analysis. The reporting-and-utilization phase focused on presentation of findings, interpretation, conclusions, proposed solutions, reflection, dissemination, and application to school improvement. At every phase, participants submitted a defined manuscript component for technical review before proceeding to the next stage.

The principal-researcher facilitated the discussion of each manuscript section, provided writing guides and examples, monitored progress, and conducted individual coaching. Peer review was used to check the alignment of the research problem, questions, intervention, methodology, evidence, and conclusions. Feedback was given immediately, and the participants revised each section before moving forward. In this manner, STARWARS transformed one demanding research requirement into a series of manageable and verifiable outputs that gradually formed a complete manuscript.

Quantitative Strand

The quantitative strand used proposal-submission records, completed action-research records, and a 28-item research-writing competency instrument. The instrument assessed seven domains: understanding the research



process, knowledge of the introduction, crafting research questions, proposing interventions, discussion and data analysis, reflection and action research, and practical application. Each item was rated on a four-point scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly Agree). Weighted means were interpreted using the following ranges: 1.00-1.75 (Strongly Disagree), 1.76-2.50 (Disagree), 2.51-3.25 (Agree), and 3.26-4.00 (Strongly Agree). Frequencies and percentages were used to summarize proposal submission and research completion, while weighted means and mean differences were used to describe changes in competency ratings before and after STARWARS implementation. Percentage-point changes were also computed to show the magnitude of improvement in submission and completion outcomes. These descriptive procedures were aligned with the study objectives and the complete enumeration of the nine master teachers.

Qualitative Strand

The qualitative strand drew on reflections from all nine master teachers and relevant implementation records. The principal-researcher conducted a directed thematic analysis guided by the research question and the section-by-section design of STARWARS. Responses were read repeatedly, assigned initial codes, compared across participants, and organized into recurring categories. Related categories were refined into six themes: time management and early initiation; access to resources and reliable information; guidance and professional development; crafting research questions and methodological challenges; reflection and practical application; and innovation and strategy implementation. Participant identities were protected through the codes MT1-MT9. Minor grammatical corrections were applied to quoted statements for readability without altering their intended meanings.

Integration

After separate analysis, quantitative outcome patterns and qualitative themes were compared in a joint display. Convergence was identified when participant perspectives and implementation evidence supported an observed quantitative pattern; complementarity was identified when the qualitative findings explained contextual conditions surrounding the numerical results. Integration remained interpretive and did not convert association into causation.

Ethical Considerations

Participants were adult teacher-researchers. Participation was voluntary, and involvement in the study was treated separately from performance evaluation, promotion, and administrative appraisal. The principal-researcher explained the purpose of the evaluation and protected the confidentiality of individual responses. Quantitative findings were reported in aggregate, while qualitative statements were anonymized using the codes MT1-MT9. Research records were handled in accordance with applicable confidentiality and data-privacy requirements.

Results

Quantitative Results

Table 1. Proposal submission and action-research completion

Outcome	Before, n (%)	After, n (%)	Percentage-point change
On-time proposal submission	6 (66.67)	9 (100.00)	+33.33
Completed action research	7 (77.78)	9 (100.00)	+22.22

All nine master teachers submitted proposals on time and completed action-research outputs within the post-intervention evaluation period. Relative to baseline, this represented increases of 33.33 percentage points for on-time proposal submission and 22.22 percentage points for completed research.

Table 2. Research-writing competency ratings

Competency domain	Pre	Post	Mean difference
Understanding the research process	2.63	3.31	0.68



Competency domain	Pre	Post	Mean difference
Knowledge of the introduction	2.72	3.28	0.56
Crafting research questions	2.71	3.43	0.72
Proposing interventions	2.67	3.29	0.62
Discussion and data analysis	2.70	3.29	0.59
Reflection and action research	2.65	3.33	0.68
Practical application	2.65	3.30	0.65
General weighted mean	2.68	3.32	0.64

The general weighted mean increased from 2.68 (Agree) to 3.32 (Strongly Agree), a descriptive difference of 0.64. All domains increased. Crafting research questions showed the largest difference (0.72), followed by understanding the research process and reflection and action research (both 0.68). Knowledge of the introduction showed the smallest difference (0.56), followed by discussion and data analysis (0.59). These are aggregate descriptive differences and should not be interpreted as statistically tested gains.

Qualitative Results

Thematic analysis of the reflections and implementation feedback generated six interrelated themes. Collectively, the themes describe the conditions that made action research difficult for the master teachers and the forms of section-by-section assistance needed during STARWARS.

Theme 1. Time Management and Early Initiation

Time was the most persistent concern. The participants described overlapping teaching, reporting, curricular, and co-curricular responsibilities, while several emphasized that learner needs had to remain their immediate priority. Their recommendations to “start the study earlier” and provide “ample time to focus the study” show that the difficulty was not simply unwillingness to conduct research. Rather, research tasks competed with essential school responsibilities. Beginning STARWARS early in the school year and assigning protected crafting periods allowed each manuscript section to be completed within a more realistic schedule.

Theme 2. Access to Resources and Reliable Information

Participants also identified access to credible and usable references as a practical concern. Requests for “trusted websites,” assistance with the “review of related studies,” additional workshops, and research resources indicated uncertainty about where to locate evidence and how to use it in developing the introduction. The theme helps explain why introduction writing showed the smallest mean difference. A curated collection of credible sources, guided literature-search activities, and examples of properly synthesized studies are therefore necessary components of the staged process.

Theme 3. Guidance and Professional Development

The master teachers expressed a need for continuing guidance rather than a single orientation. They requested “guidance in doing research for related studies,” a “refresher of the research process,” and “guide questions that lead us to the correct process.” These responses support the central design of STARWARS: a focused discussion is followed immediately by guided writing, review, revision, and coaching. The participants required different levels of assistance because their prior exposure to research varied considerably. Differentiated coaching made the process more responsive while maintaining common technical standards.

Theme 4. Crafting Research Questions and Methodological Challenges

Formulating the title and research questions emerged as a particularly demanding stage. Participants described title formulation as among the most challenging parts of the process and specifically identified “crafting research questions” as difficult. This concern is consistent with the quantitative result showing the largest mean difference in



research-question formulation. The finding suggests that the staged exercises were responsive to an identified need, although continued support remains necessary to ensure alignment among the problem, questions, intervention, evidence, and analysis.

Theme 5. Reflection and Practical Application

The participants valued research when it was connected to actual classroom concerns, learner achievement, and the documentation of workable solutions. Their emphasis on “reflection and practical application” shows that research became more meaningful when it supported, rather than displaced, their responsibility to learners. STARWARS therefore required participants to relate findings to teaching practice, determine what the evidence meant for their learners, and identify feasible actions arising from the study.

Theme 6. Innovation and Strategy Implementation

A final theme concerned selecting and implementing an appropriate intervention. Participants needed clearer direction regarding “the innovation and strategies to be used,” including how a proposed solution should respond to the identified problem and how its implementation should be documented. The staged preparation of the intervention section helped teachers examine feasibility, specify procedures, and connect the innovation with measurable outcomes. This theme also reflects the participants’ recognition that action research can provide credible documentation of school-based innovations for improvement and professional learning.

Table 3. Illustrative quotations from all nine master teachers

Participant	Representative statement	Related theme
MT1	“Many tasks overlap, so we do not have time. My priority as a Grade 1 teacher is helping learners read and write.”	Time management; practical application
MT2	“Caring for my Grade 2 learners and many curricular and co-curricular activities take time. The research process is highly technical.”	Time management; methodology
MT3	“I feel too old for this. There are many important requirements, and research feels boring and highly technical.”	Guidance; methodology
MT4	“My concern is teaching and helping children attain curriculum competencies. Research is time-consuming alongside co-curricular work.”	Time management; practical application
MT5	“I am nearing retirement, and my concern is my learners. Research helps solve problems, but it adds work and is technical.”	Time management; practical application
MT6	“I like research and writing because I have some background, but there are too many other things to do.”	Time management; professional development
MT7	“Research can document an innovation and support professional growth, but there is too much other work.”	Innovation; practical application
MT8	“I am nearing retirement and need to focus on my learners. I lack research background and feel forced because it is required.”	Guidance; methodology



Participant	Representative statement	Related theme
MT9	"Research is significant for documenting innovation. As master teachers, we are required to submit research each school year."	Innovation; practical application

Integrated Findings

Table 4. Joint display of quantitative and qualitative evidence

Quantitative pattern	Qualitative evidence	Integrated interpretation
Proposal submission: 66.67% to 100%	Teachers requested early initiation and ample focused time amid overlapping duties.	Early scheduling and staged deadlines may have made proposal preparation more manageable.
Completion: 77.78% to 100%	Participants valued practical research but needed guidance, resources, and implementation support.	Structured coaching and purposeful application complemented completion of the staged outputs.
Research questions: +0.72	Title and question formulation were identified as technically challenging.	The largest domain change aligned with focused guidance in a recognized area of need.
Introduction: +0.56; analysis: +0.59	Participants requested credible sources, literature guidance, refreshers, and methodological assistance.	Smaller changes identify areas requiring sustained resource access and differentiated coaching.

The quantitative and qualitative findings supported each other. Proposal submission and research completion reached 100% after the intervention even though the participants reported limited time and many competing responsibilities. The greatest improvement was recorded in crafting research questions, which was one of the areas given focused discussion and guided practice during the sessions. The participants' comments about technical difficulty also helped explain why introduction writing and data analysis obtained smaller mean differences. The combined findings show that regular coaching and staged submission can help teachers continue their research work despite the demands of teaching and other school assignments.

Discussion

STARWARS was implemented during a period in which proposal submission, research completion, and aggregate competency ratings all improved. The change from partial to complete submission and completion is practically important within this nine-person school population. The 0.64 increase in the general weighted mean also shifted the aggregate interpretation from Agree to Strongly Agree. However, the evidence supports an association, not a causal effectiveness claim.

The improvement in the participants' outputs may be explained by the structure of STARWARS. The research process was divided into specific parts, and every discussion was followed by actual writing. Participants did not wait until the end of the school year to prepare a complete manuscript. Instead, they submitted one section at a time, received feedback, revised the section, and proceeded to the next part. Peer review and coaching also helped maintain the alignment of the research problem, questions, intervention, methodology, findings, and conclusions. This approach is consistent with professional development that is sustained, collaborative, and connected to actual work (Darling-Hammond et al., 2017; Kennedy, 2016). It also supports the purpose of the LAC as a venue where teachers work together in addressing school-based concerns (Department of Education, 2016).

The strongest descriptive change in crafting research questions is theoretically coherent because question formulation was a focused, guided stage. Well-aligned questions constrain later decisions about participants,



evidence, analysis, and warranted conclusions; early coaching may therefore have downstream value. Conversely, introduction writing and data analysis remained comparatively weaker. These tasks require access to credible literature, synthesis skills, statistical or qualitative analytic judgment, and repeated practice. A single staged cycle may support progress without producing mastery.

The six qualitative themes clarify that research participation depended on both individual capability and school-level conditions. Early initiation and protected time were necessary because research competed with teaching and other assignments. Credible sources and guidance in reviewing literature were needed to strengthen the introduction. Refresher sessions, guide questions, and differentiated coaching addressed uneven prior preparation. Focused assistance in crafting titles, questions, and methods reduced the technical burden, while reflection, practical application, and innovation planning connected the manuscript to authentic learner and school needs. Thus, the participants did not reject the value of research; they required a feasible pathway for carrying it out responsibly within their professional workload.

The findings should be interpreted within the scope of a descriptive school-based evaluation. The study involved nine participants from one school and did not include a comparison group. Administrator support, institutional expectations, scheduled deadlines, and other concurrent influences may also have contributed to the observed outcomes. Accordingly, the results demonstrate patterns of change associated with STARWARS implementation but do not establish exclusive causal effects.

As a school leadership strategy, STARWARS may be institutionalized as a supportive LAC-based research development pathway. The principal should begin the cycle early, schedule protected crafting periods, maintain a curated bank of credible references, conduct research-process refreshers, and provide guide questions and model sections. Coaching should be differentiated, with targeted technical assistance for question formulation, methodology, data analysis, reflection, and intervention design. A monitoring matrix may track the completion and technical review of the title, introduction, questions, intervention, methodology, analysis plan, findings, conclusions, and utilization plan without converting coaching into punitive compliance. Research governance should preserve consent records, de-identified datasets, codebooks, analytic decisions, reviewed drafts, and versioned instruments. These measures strengthen both teacher ownership of research and the credibility of school-generated evidence.

Conclusion

STARWARS served as a section-by-section staging technique that eased the difficulty experienced by nine master teachers in preparing complete action research manuscripts. Instead of treating research as one large output, the intervention guided the participants through the title, introduction, research questions, intervention, methodology, analysis, findings, conclusions, and proposed solutions in sequence. During the evaluation period, on-time proposal submission and completed action research reached 100%, while the general weighted competency mean increased from 2.68 to 3.32. The largest improvement occurred in crafting research questions, whereas introduction writing and data analysis remained areas for further technical assistance. The qualitative findings further established the importance of early scheduling, reliable resources, continuing guidance, methodological coaching, reflective application, and support for innovation design. Research becomes more manageable when teachers receive these forms of assistance, produce one section at a time, revise promptly, and connect the study to an actual concern in teaching practice.

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