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— REGION VII - CENTRAL VISAYAS —

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Siete SURI COMPENDIUM **2025**

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Study 1



Project Title: Enhancing Senior High School Teachers' Self-Reflection, Instructional Practices, and Research Engagement Through a Structured Evaluation Tool: A Pathway to a Culture of Excellence

Author: Guilbert R. Aliser | SDO-Carcar City

I. Innovation Overview

Puesto Integrated School recognized a critical opportunity to support Senior High School (SHS) teachers in refining their instructional competencies and research capabilities. While educators demonstrated great dedication, the school identified that traditional performance reviews were often summative and compliance-heavy rather than growth-oriented, frequently falling short of providing formative, actionable feedback. To bridge these gaps and align with the Department of Education's (DepEd) regional *SMILE* and *NICER* initiatives, the school introduced a **Structured Evaluation Tool** designed to promote reflective excellence. This *process innovation* serves as a comprehensive development framework, replacing routine check-ins with a data-driven system that builds a clear pathway for professional mastery. This proactive initiative empowered teachers to take ownership of their professional development, successfully translating abstract standards into a dynamic classroom environment of excellence.

II. Innovation Description

The process innovation is anchored in a targeted reform agenda designed to dismantle pedagogical and administrative hurdles identified in initial needs assessments. To ensure long-term integration into the school's continuous professional development programs, the framework focuses on:

1. **Personnel Capacity:** Upskilling teachers in self-reflection and research-aligned instructional delivery through structured orientation and targeted Learning Action Cell (LAC) sessions.
2. **Technical Support:** Institutionalizing a structured self-evaluation tool to eliminate ambiguity and provide clear, real-time standards for classroom practices.
3. **Resource Optimization:** Establishing a localized repository of best practices and sample teaching methodologies derived from teacher reflections.

4. **Monitoring & Evaluation:** Utilizing ongoing trackings, peer-reflection logs, and classroom observation rubrics to measure progressive instructional growth.
5. **Dissemination:** Cultivating collaborative sharing networks, peer-mentorship structures, and formal reporting mechanisms across SHS departments.

Technical Description: The Structured Evaluation Tool Component Loop

At the heart of the innovation is a "reflective-collaborative cycle" that guides teachers through continuous improvement across core components of the educational process. This is operationalized through five integrated dimensions:

- **Usability and Relevance Matrix:** A teacher-friendly rubrics checklist designed to guide honest self-assessments without adding undue administrative workload.
- **Instructional Impact Tracker:** Formative parameters that focus heavily on lesson clarity, student-centered pedagogy, and the translation of research concepts.
- **Professional Growth Log:** Metrics that monitor self-awareness, confidence shifts, and readiness to participate in targeted learning activities.
- **Peer Collaboration Framework:** Protocols for collegial dialogue, peer observations, and constructive feedback exchanges during scheduled LAC meetings.
- **Feedback Loop & Digital Repository:** A documentation mechanism designed to archive successful classroom strategies and supply real-time, data-driven insights for school leadership.

III. Key Results and Impact Status

The innovation successfully transitioned the school from compliance-driven reporting to an outstanding culture of shared reflection, as demonstrated by the following Action Research evaluation metrics:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Usability and Relevance	Focus on standard compliance ; lacking structured self-assessment tools.	4.78 (Strongly Agree)	Highly Accessible and Clear Standards
Impact on Instructional Practices	Limited monitoring of research-based teaching adjustments.	4.78 (Strongly Agree)	Heightened Clarity and Student Engagement
Professional Development & Growth	Evaluated through summative reviews; low individual confidence tracking.	4.73 (Strongly Agree)	Enhanced Self-Awareness and Teacher Efficacy
Overall Tool Effectiveness	Undefined self-reflection pathways for real-time classroom environments.	4.90 (Strongly Agree)	Near-Unanimous Collective Approval

Evidence of Impact: The empirical data proves that the implementation achieved a remarkable Grand Composite Mean of **4.80** (Strongly Agree), indicating universal acceptance across the faculty cohort. Thematic analysis of the qualitative feedback highlighted that the evaluation tool functioned as a powerful catalyst for professional introspection, prompting teachers to view reflection as a developmental opportunity rather than an administrative chore. Educators reported an enhanced ability to structure lessons strategically and communicate concepts with greater precision, directly resulting in richer student participation in research-related activities. Furthermore, the collaborative structures surrounding the tool

dismantled professional isolation, converting individual teacher reflections into shared, evidence-based instructional advancements across the division.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Structured Evaluation Tool is a highly effective, adaptable, and sustainable mechanism for elevating teacher reflection, instructional quality, and research engagement. The definitive metrics and positive thematic shifts prove that instructional gaps are often the product of missing formative support structures rather than a lack of teacher capability. The framework successfully bridges the gap between DepEd policy standards and actual classroom delivery, satisfying the professional lifecycles defined in the Philippine Professional Standards for Teachers (PPST).

Recommendations

- **Institutionalization:** It is strongly recommended that the Structured Evaluation Tool be formally institutionalized into regular school supervision calendars, INSET programs, and localized professional development portfolios.
- **Subject-Wide Adaptability:** School leaders should expand and adapt the tool's indicators to accommodate diverse subject areas outside of research-intensive disciplines.
- **Digital Integration:** Transition the tool into digital platforms or applications to simplify documentation, streamline self-assessment tracking, and deliver instant analytical data for school heads.
- **Peer-Mentorship:** Leverage the pioneer cohort of reflective educators as instructional coaches and peer mentors to generate an organic, division-wide community of practice.

V. Risk Management and Sustainability Plan

To protect and anchor these professional gains, the implementation actively managed potential operational risks through targeted mitigation strategies:

- **Time Constraints and Workload:** Addressed by balancing the tool's design to prioritize immediate practicality, making it a seamless guide for lesson planning rather than a tedious clerical chore.
- **Subject-Specific Rigidities:** Mitigated by incorporating flexible qualitative comment blocks and adapting criteria to match varied instructional contexts across non-research curricula.
- **Systemic Fidelity:** Secured through direct administrator backing, regular verification checkpoints, and embedding the evaluation cycles permanently into existing LAC sessions.

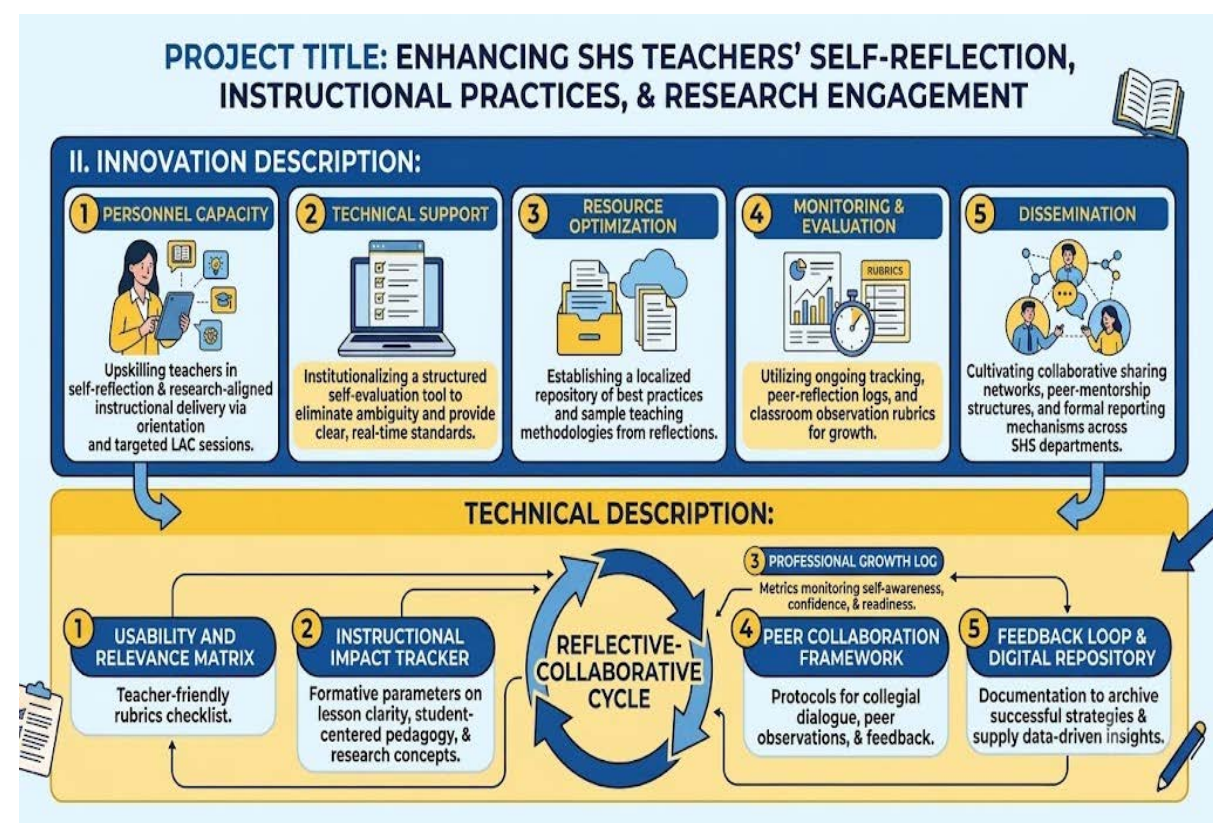
This cohesive structure successfully links regional quality directives with daily classroom performance, cultivating a self-sustaining environment of educational inquiry and instructional excellence.

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Project Title: Enriching Teachers' Competence in Innovative Teaching Schemes Through the Manual of Instructional Supervision (MIS): *Mechanism to Increase Learners' Performance in Multigrade Classes*

Author: Rosario A. Galorport | SDO-Bohol

I. Innovation Overview

Tausion Elementary School recognized a critical opportunity to enhance instructional quality and student achievement within its multigrade setting. While educators demonstrated strong dedication, the school identified that alignment of competencies across distinct grade levels and managing smooth transitions between student groups often posed significant operational hurdles. To eliminate these instructional gaps and replace ad-hoc supervision with data-driven leadership, the school introduced the **ENTECOMINTES (Enrich Teachers' Competence in Innovative Teaching Schemes)** framework powered by the **Manual of Instructional Supervision (MIS)** mechanism. This process innovation serves as a developmental mentorship system, replacing rigid, administrative inspections with a collaborative feedback loop. This proactive initiative empowered multigrade teachers to refine their pedagogical delivery, effectively transforming classroom performance and elevating student learning outcomes across all grade levels.

II. Innovation Description

The process innovation centers on a structured supervisory approach designed to dismantle the pedagogical and planning barriers inherent to multigrade instruction. To ensure seamless integration into daily school management, the framework focuses on a **5-Point Core Strategy**:

1. **Personnel Capacity:** Upskilling multigrade teachers on lesson planning and delivery through localized, collaborative Learning Action Cell (LAC) sessions.
2. **Technical Support:** Institutionalizing standardized instructional supervision

protocols via the MIS to provide targeted, need-based guidance.

3. **Teaching Schemes:** Deploying five specific, systematic multigrade configurations (Schemes A, B, C, D-NC, and E) tailored to diverse student backgrounds and skill levels.
4. **Monitoring & Evaluation:** Leveraging a multi-form feedback loop (Form 2, Form 3, PMCF, and Form 4) to monitor competency growth continuously.
5. **Dissemination & Rollout:** Initiating school-level rollouts and benchmarking for district-wide replication to aid similar multigrade clusters.

Technical Description: *The MIS Mechanism and Teaching Schemes*

At the heart of the innovation is an **Instructional Supervision (IS) Loop** that pairs a school head's supervisory strategy directly with a teacher's self-assessed developmental needs. This is operationalized through an integrated toolkit:

- **eSAT & MIS Form 2 (Teacher's Supervisory Needs Form):** Benchmarks baseline competencies and determines whether a teacher requires a Directive or Collaborative supervision track.
- **MIS Form 3 (Pre-Classroom Observation Checklist):** Aligns and establishes the targeted classroom observable indicators prior to lesson execution.
- **Performance Monitoring and Coaching Form (PMCF):** Captures real-time instructional challenges during post-conferences to deliver immediate, contextualized technical assistance.

- **Multigrade Teaching Schemes (Schemes A to E):** Configures lesson structures based on whether learning objectives are shared, adjacent, tiered by difficulty, completely distinct, or sequential (prerequisite skills).
- **MIS Form 4 (M&E Tool):** Tracks overall shifts in teaching competence alongside student Quarterly Results on Assessments (QRA).

III. Key Results and Impact Status

The innovation successfully transitioned the school from a state of high instructional anxiety to verified proficiency, as demonstrated by the Monitoring and Evaluation (M&E) data:

Performance Indicator	Base-line (Quarter 1, SY 25-26)	Post-Intervention (Quarter 2, SY 25-26)	Impact Status
Teacher Competence Category	100% Directive Level (High Supervisory Need)	100% Proficient Level (All Teachers Rate d 6–7)	Significant Competence Growth
Student Proficiency: Outstanding	6.90% (2 Learners)	17.24% (5 Learners)	Marked Performance Increase
Student Proficiency: Very Satisfactory	51.72% (15 Learners)	68.97% (20 Learners)	Inclusive Academic Growth
Student Proficiency: Did Not Meet Expectations	3.45% (1 Learner)	0.00% (0 Learner)	Eliminated Learning Gaps

Evidence of Impact: The data proves that the ENTECOMINTES framework optimized instructional design across the board. Prior to the intervention, 100% of the multigrade faculty struggled with transition flow and competency mapping. Post-implementation, classroom observations confirmed that lessons ran smoothly with zero idle time. Most notably, student performance shifted upward: the percentage of learners achieving "Outstanding" or "Very Satisfactory" scores surged, while at-risk students who previously "Did Not Meet

Expectations" were completely eliminated (dropped to 0%). Qualitative feedback verified that immediate post-conference technical assistance was the primary driver in converting teacher uncertainty into high pedagogical efficacy.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the ENTECOMINTES framework via the MIS mechanism is a highly effective model for boosting pedagogical competence and student performance in a multigrade setup. The uniform leap to faculty proficiency and the total elimination of underperforming students demonstrate that structural instructional gaps stem from a lack of systematic supervisory frameworks rather than teacher capability constraints. This innovation directly fulfills the mandate of Republic Act 9155 and aligns school operations with the Philippine Professional Standards for School Heads (PPSSH) and Teachers (PPST).

Recommendations

- **Institutionalization:** Formally embed the MIS supervisory plan and innovative teaching schemes into the School Improvement Plan (SIP) and Annual Implementation Plan (AIP) for sustained execution and resource allocation.
- **Advance Planning:** Mandate the advance preparation of contextualized lesson plans, PowerPoint presentations, visual aids, and interactive manipulatives prior to scheduled observations.
- **Professional Learning Communities:** Maximize scheduled LAC sessions specifically for collective competency mapping, peer checking of enhanced lesson plans, and sharing teaching schemes.
- **Inclusive Integration:** Ensure future iterations heavily incorporate inclusive education designs directly within the standard multigrade lesson flows rather than isolating diverse learners.

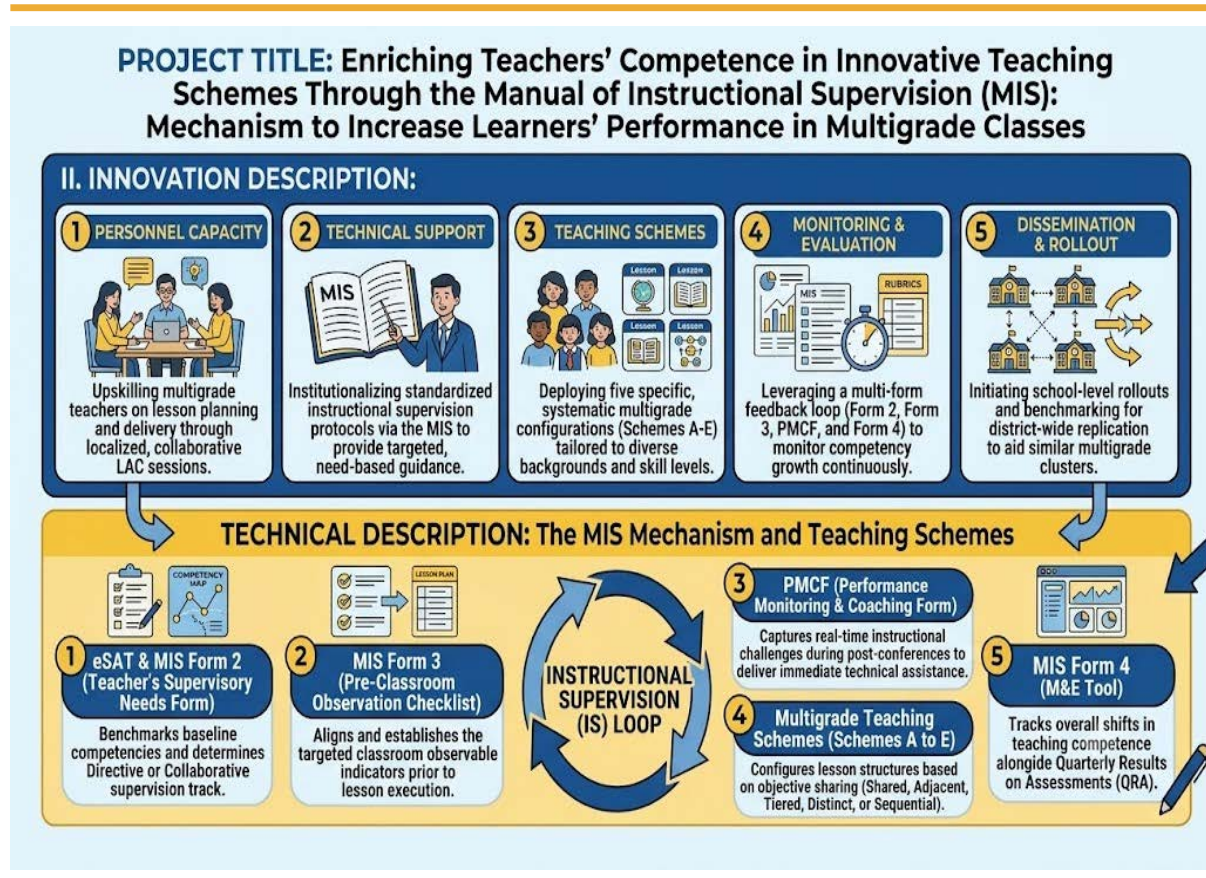
V. Risk Management and Sustainability Plan

To safeguard these instructional gains, potential project risks are systematically managed through targeted mitigations:

- **Time Constraints:** Addressed by holding advanced LAC sessions for lesson blueprinting and utilizing pre-prepared instructional materials to prevent planning backlogs.
- **Administrative Bottlenecks:** Mitigated by coordinating administrative workloads with a structured, clear supervisory calendar, securing ample time for actual classroom observations.
- **Instructional Friction:** Resolved through constructive post-observation conferences, utilizing the PMCF to frame feedback around joint problem-solving and supportive technical assistance rather than punitive grading.

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Study 3



Project Title: Enhancing Administrative Efficiency Through Structured Mentoring and Coaching for Newly Hired Non-Teaching Personnel

Author: **Roanne Shyn B. Tampus** | SDO-Cebu Province

I. Innovation Overview

Amancio Sepulveda Elementary School and the Borbon District recognized a critical opportunity to reinforce school operations by addressing onboarding gaps among newly hired non-teaching personnel. While new Administrative Officer II (ADO II) staff members possessed high potential, they frequently struggled with operational inefficiencies caused by unclear job expectations, minimal training, and unstructured onboarding workflows. To close these administrative gaps, eliminate processing delays, and move away from trial-and-error adjustment periods, the school introduced the **Structured Mentoring and Coaching Program**. This process innovation functions as an operational safety net, anchoring daily tasks to specific Key Result Areas (KRAs). The framework builds professional confidence, reduces procedural errors, and optimizes school support systems to ensure administrative excellence division-wide.

II. Innovation Description

The process innovation is built upon a **5-Point Strategic Core** designed to systematically dismantle operational bottlenecks and permanently integrate technical competency tracking into the school's human resource development plans:

1. **Personnel Capacity:** Upskilling newly hired ADO II staff through weekly, context-specific mentoring sessions over a three-month development window.
2. **Technical Support:** Institutionalizing standardized coaching protocols across core administrative pillars, including personnel administration, records management, compensation, property custodianship, and finance.
3. **Resource Optimization:** Deploying job aids, customized document templates, rolling milestone calendars, and digital tracker systems to streamline workflows.
4. **Monitoring & Evaluation:** Applying a multi-tool assessment loop (Needs Assessment and Post-Program Evaluation) to log weekly progress metrics objectively.
5. **Dissemination & Advocacy:** Implementing local utilization plans, establishing a peer-led Training-of-Trainers (ToT) loop, and driving community partnerships for resource scaling.

Technical Description: The KRA-Aligned Coaching Framework

The framework runs on a continuous **Mentoring-Reflection Loop** that targets performance development across six distinct operational indicators:

- **Needs Assessment Tool:** Evaluates baseline proficiency gaps to map out targeted, individualized 90-day learning pathways.
- **Rolling 90-Day KRA Calendar:** Deploys automated timeline buffers (T-2 weeks, T-1 week, T-2 days) to systematically prevent deadline overlaps.
- **Intake Log & Standardized Filing Systems:** Enhances data integrity, controls confidential data protocols, and monitors incoming teacher records systematically.
- **Pre-Submission Compliance Checklists:** Serves as a quality gate for complex financial requirements, including MOOE liquidation packets and payroll computations.
- **Weekly Activity & Mentoring Logs:** Tracks qualitative observations, troubleshoot bottlenecks, and logs adjustments during coaching hours.
- **Post-Mentoring and Coaching Evaluation Tool:** Gathers feedback from school heads to verify

competence gains and long-term role independence.

III. Key Results and Impact Status

The three-month intervention successfully transformed the district's administrative workflow, shifting new hires from high operational dependency to standalone competency:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention Status	Impact Status
Operational Turnaround & Submissions	Repetitive delays in document processing and deadline bunching	On-time submissions achieved; workflow constraints completely resolved	Significant Workflow Improvement
Record Management Tracking	Significant unorganized backfiles and missing tracking lines	Digital/physical intake logs active; backfiles systematically reduced	Enhanced Data Hygiene
Policy Compliance Habits	Inconsistent tracking of CSC Form 6 and undocumented transactions	Regular institutionalized reminders; 100% transparent issuance of receipts	Sustained Accountability
Financial Accuracy Rates	High rate of errors in payroll reports, step increments, and MOOE packets	Pre-submission checklists led to a drop in error rates below 10%	Exceeded Quality Metrics
Personnel Efficacy & Independence	Constant role confusion and frequent requests for clarification	Confident mastery of complex KRAs (SOB/AIP/APP drafting) via templates	Inclusive Professional Growth

Evidence of Impact: The thematic analysis confirms that integrating structured checklists, rolling calendars, and tailored templates immediately improved operational discipline and eliminated workspace anxiety. The administrative support model transitioned successfully from unstructured crisis management to a sustainable, independent system. Crucially, the introduction of pre-submission compliance filters cut down

document rework and reduced critical processing errors below the 10% threshold. School heads verified that the individualized mentoring tracks effectively accelerated onboarding speeds, allowing new personnel to confidently manage multi-station workloads and execute high-level compliance tasks independently.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the Structured Mentoring and Coaching framework is a powerful, low-cost solution for boosting the administrative efficiency of newly hired non-teaching personnel. The clear pivot from systemic execution bottlenecks to operational precision proves that new-hire inefficiencies stem from missing onboarding frameworks rather than capability deficits. This process innovation bridges policy mandates under DepEd Order No. 32, s. 2020 with daily school realities, ensuring a highly responsive administrative support system.

Recommendations

- **Formal Institutionalization:** Embed the mentoring framework and KRA toolkits directly into the onboarding protocols of the School Improvement Plan (SIP) and Annual Implementation Plan (AIP).
- **Workflow Standardization:** Mandate the use of structured 90-day calendars, standardized folder structures, and mandatory document intake logs across all schools in the district.
- **Training-of-Trainers (ToT) Loop:** Utilize the proficient pioneer ADOF II cohort as peer-mentors for incoming non-teaching employees to build a sustainable network of operational excellence.
- **Targeted Asset Management:** Establish clear cycle-count inventories and coordinate with local governance units (LGUs) or community donors to secure functional storage setups for property custodianship.

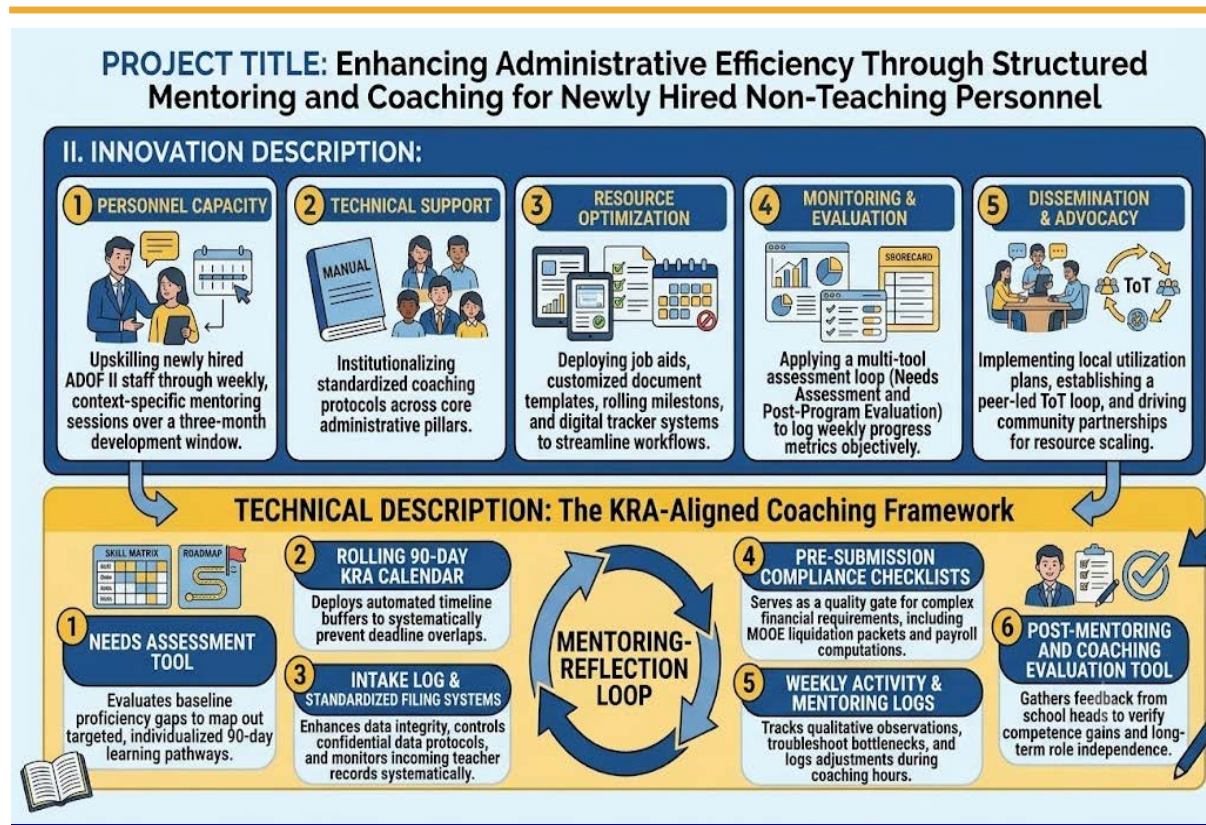
V. Risk Management and Sustainability Plan

Potential implementation challenges are addressed through built-in structural safeguards:

- **Time and Workload Pressures:** Managed by scheduling dedicated weekly "records hours" and setting rolling calendar alarms to protect regular task hours.
- **Multi-Station Logistics:** Resolved by balancing administrative schedules across dual school stations using clear, shared cluster-wide calendars.
- **Property Tracking Limits:** Mitigated by setting up strict, daily logged dual-zone spaces (separating active files from archives) alongside consistent item labeling.

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Project Title: Enhancing Teachers' Classroom-Based Action Research Productivity Through Structured Progress Monitoring and Coaching

Author: **Oyar G. Flores** | *SDO-Mandaue City*

I. Innovation Overview

Mandaue City Central School (MCCS) recognized a valuable opportunity to further strengthen its research landscape and support teachers in bringing their innovative proposals to fruition. While educators showed great initiative in starting studies, the school identified that "Research Anxiety" and demanding professional schedules often made the journey toward completion a significant challenge. To address these gaps and support the Department of Education's (DepEd) thrust to strengthen research and innovation, MCCS introduced the **Structured Progress Monitoring and Coaching** framework. This process innovation serves as a comprehensive "safety net," replacing ad-hoc consultations with a data-driven system that provides a clear path for educators to succeed. This proactive initiative empowered teachers to contribute meaningful evidence-based insights, successfully elevating the school's performance to a perfect 5.00 OPCRF rating.

II. Innovation Description

The process innovation is anchored in **5-Point Reform Agenda** designed to dismantle the technical hurdles identified in the initial gap analysis. To ensure long-term integration into the School Improvement Plan (SIP), the framework focuses on:

1. **Personnel Capacity:** Upskilling teachers through 12 intensive capacity-building coaching sessions.
2. **Technical Support:** Institutionalizing standardized technical assistance protocols to eliminate guesswork.
3. **Resource Optimization:** Enhancing visibility through digital repositories and printed research journals.
4. **Monitoring & Evaluation:** Ensuring the continuous use of the 6-tool system for all future research cycles.
5. **Dissemination:** Maintaining the annual Research Congress as a mandatory year-end milestone for knowledge sharing.

Technical Description: *The Six-Toolkit*

At the heart of the innovation is a "coaching-reflection loop" that guides teachers through every phase of the research cycle. This is operationalized through six integrated instruments:

- **Coaching Sessions Schedule:** Provides systematic timelines for guided writeshops.
- **Progress Monitoring Checklist:** Serves as a visual tracker for critical research milestones.
- **Coaching Feedback Form:** Dynamically captures implementation challenges to provide differentiated support.
- **One-on-One Technical Assistance (TA):** Offers personalized guidance for specific technical difficulties, such as statistical interpretation.
- **Reflection Notes:** Specifically designed to help teachers internalize the professional benefits of research and reduce psychological resistance.
- **Summary of Research Engagement and Productivity:** A dashboard that allows school leadership to track institutional growth in real-time.

III. Key Results and Impact Status

The intervention transitioned the school from a state of research inactivity to outstanding performance, as evidenced by the following Monitoring and Evaluation (M&E) results:

Performance Indicator	Baseline (SY 23-24)	Post-Intervention (SY 24-25)	Impact Status
Completed Research Outputs	0	37	Significant Increase
OPCRF Objective 1.4.4 Rating	3.67 (Developing)	5.00 (Outstanding)	Exceeded Standards
Faculty Participation	11 Master Teachers only	40 Mixed Ranks	Inclusive Growth

Evidence of Impact: The data proves that the innovation successfully shifted the culture from being "Master Teacher centric" to an inclusive model where 29 Teachers I-III also became active, successful proponents. This demographic shift indicates that the "**Six-Tool Kit**" effectively lowered the barrier to entry for early-career educators. Furthermore, the qualitative feedback from the *Reflection Notes* highlighted that one-on-one technical assistance was the most critical factor in converting "Research Anxiety" into "Professional Efficacy." By providing a structured roadmap, teachers were able to align their classroom interventions with the **Basic Education Research Agenda**, resulting in 37 validated studies that directly address local learning gaps.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the **Structured Progress Monitoring and Coaching** framework is a highly effective intervention for enhancing research productivity in a school setting. The transition from zero to 37 completed outputs demonstrates that teacher inactivity is often a result of a lack of support mechanisms rather than a lack of interest. The framework effectively bridges the gap between DepEd policy mandates and actual classroom practice, fulfilling the professional standards required for both school heads (PPSSH) and teachers (PPST).

Recommendations

1. **Institutionalization:** It is strongly recommended that this framework be formally adopted as a permanent component of the **School Improvement Plan (SIP)** and **Annual Implementation Plan (AIP)** to ensure long-term budget and time allocation.
2. **Scalability:** Schools Division Offices (SDOs) should consider replicating this systematic coaching model across other schools to address similar productivity gaps at the district level.
3. **Peer-Mentorship:** Future iterations should leverage the 37 pioneer teacher-researchers as "Peer-Coaches" to create

a sustainable, self-generating research culture.

4. **Incentivization:** The school should continue providing platforms for dissemination, such as the *MCCS Action Research Journal*, and pursue formal recognition for researchers to maintain high morale and engagement.

V. Risk Management and Sustainability Plan

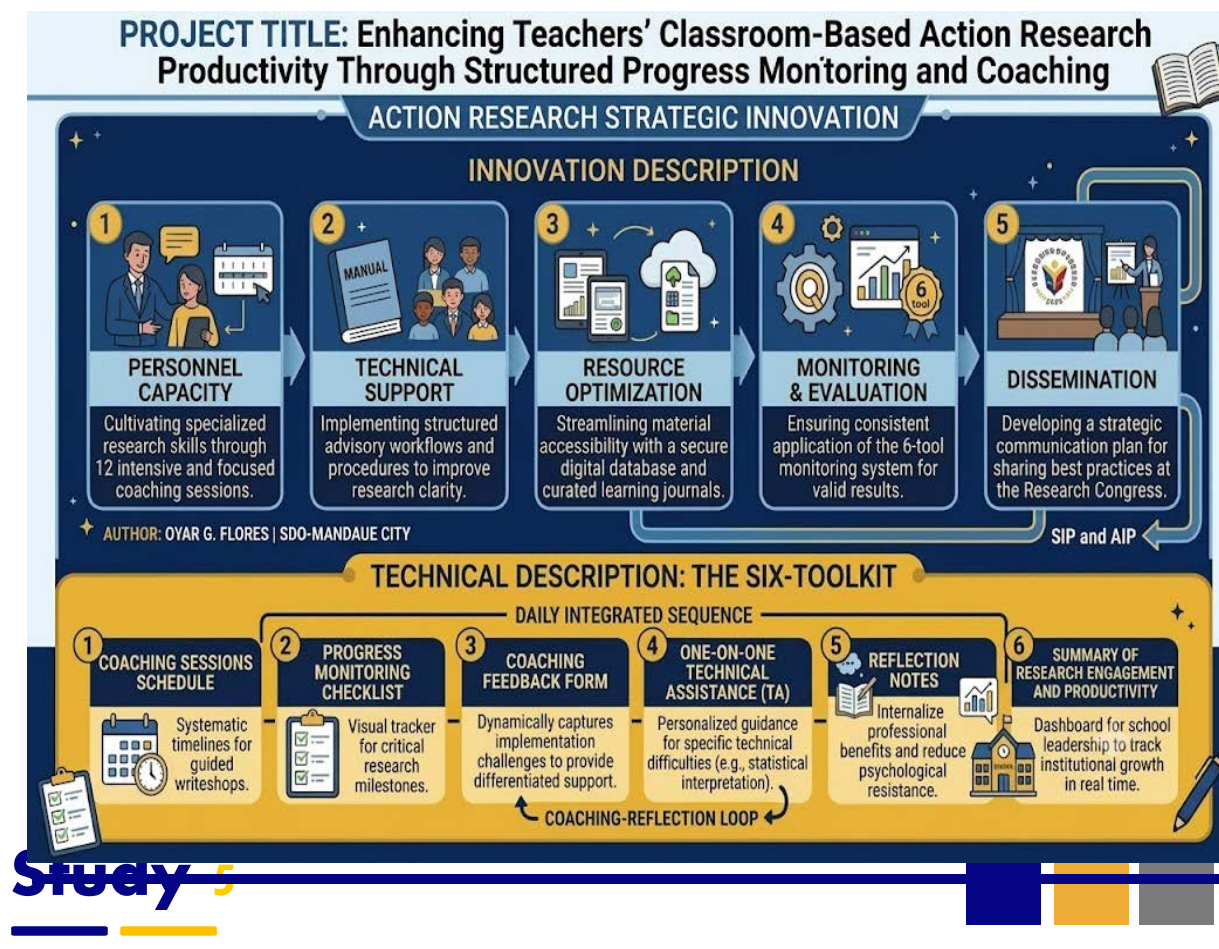
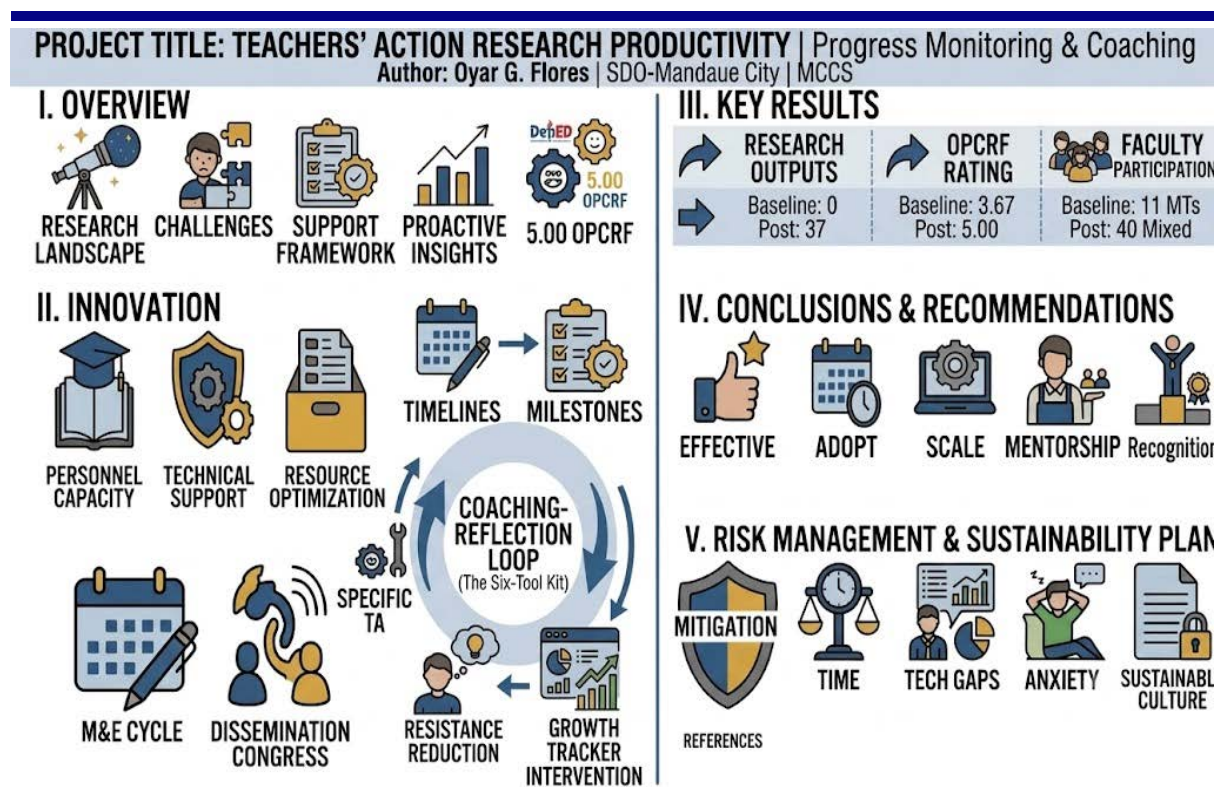
To safeguard these gains, the implementation addressed potential risks through proactive mitigation:

- **Time Constraints:** Managed by integrating coaching directly into the professional development calendar and providing "just-in-time" support.
- **Technical Knowledge Gaps:** Resolved via individualized one-on-one TA sessions for complex sections like data analysis.
- **Resistance and Anxiety:** Addressed through the use of Reflection Notes, which shifted the teacher's focus from "compliance" to "meaningful classroom problem-solving."

This framework now serves as the vital link required to bridge the gap between DepEd policy and classroom practice, ensuring a sustainable culture of inquiry that fulfills both the Philippine Professional Standards for School Heads (PPSSH) and Teachers (PPST).

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Project Title: Enhancing the Capacity of School Heads and L&D Coordinators in Crafting CPD Application Programs Through the Guided Resource Optimization Workshop (GROW) Process in North District 5

Author: **Roy C. Genares** | SDO-Cebu City

I. Innovation Overview

The Curriculum Implementation Division (CID) of SDO-Cebu City recognized a critical opportunity to strengthen professional development systems and support school leaders in bringing learning initiatives to compliance. While educators showed immense dedication during In-Service Training (INSET) periods, multiple schools across North District 5 routinely failed to secure Continuing Professional Development (CPD) credits due to systemic procedural bottlenecks, unclear regulatory criteria, and complex paperwork. To close these gaps and support the Department of Education's (DepEd) thrust to elevate professional standards, the division introduced the **Guided Resource Optimization Workshop (GROW) Process**. This process innovation functions as an administrative safety net, replacing fragmented planning sessions with a step-by-step, data-driven system that builds institutional capacity. This proactive framework empowered school teams to design high-quality training, completely eliminating localized application backlogs.

II. Innovation Description

The process innovation is anchored in a **5-Point Reform Agenda** designed to systematically dismantle the bureaucratic and technical hurdles that previously hindered credit accreditation. To ensure long-term integration into school operations, the framework focuses on:

1. **Personnel Capacity:** Upskilling School Heads and Learning and Development (L&D) Coordinators through targeted, step-by-step capability-building workshops.
2. **Technical Support:** Institutionalizing standardized technical assistance protocols in partnership with the Division Research Evaluation Committee (DREC) to remove guesswork from compliance.
3. **Resource Optimization:** Activating explicit guidance matrices, standardized templates, and a qualified regional speaker pool to streamline logistical assembly.
4. **Monitoring & Evaluation:** Enforcing a rigorous multi-tier evaluation loop (from Teacher Needs Assessments to online portal submissions) across all training lifecycles.
5. **Dissemination & Scaling:** Establishing division-wide action plans, peer mentoring loops, and quarterly reviews to maintain institutional excellence.

Technical Description: The 23-Step Compliance Toolkit

At the heart of the innovation is a structured operational cycle that guides school teams through the dense regulatory landscape enforced by DepEd and the Professional Regulation Commission (PRC). This is operationalized through a comprehensive, twenty-three-step kit clustered into core instructional areas:

- **TNA & Diagnostic Alignment (Steps 1-2):** Utilizes data from the Electronic Self-Assessment Tool (e-SAT) and Learning and Development Needs Assessments (LDNA) to pinpoint classroom realities.
- **SMART Objective Matrix (Steps 3-4 & 7-10):** Translates diagnostic needs into specific Knowledge, Skills, Attitudes, and Values (KSAV) milestones, anchoring enabling objectives directly to PPST indicators.
- **Facilitator Screening Protocols (Steps 5-6 & 22):** Standardizes credential checks for resource speakers, mandating template CVs, unexpired PRC licenses, and 4As-structured (Activity, Analysis, Abstraction, Application) session guides.
- **Instructional Design & Schedule Formats (Steps 11-19 & 21):** Outlines clear formulas for writing program descriptions, plotting daily matrix grids, designing valid certificates, and aligning evaluation tools (pre-/post-tests) to expected outcomes.
- **Financial Oversight & Filing (Steps 20 & 23):** Dictates line-item cost

projections that comply with the Commission on Audit (COA), factoring in zero-fee parameters for public school teachers before final submission through the CPDAS portal.

III. Key Results and Impact Status

The intervention successfully transitioned the district from a state of regulatory non-compliance to a benchmark of absolute efficiency:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention Status	Impact Status
Approved CPD Programs	Only 1 school out of 8 possessed an approved CPD application	100% submission and approval across all targeted schools	Significant Increase
Operational Execution Gaps	High frequency of structural errors, missing documents, and registration delays	Systematized 23-step workflow; absolute removal of administrative bottlenecks	Exceeded Standards
Leadership Composition	Inconsistent capacity; widespread anxiety regarding PRC compliance steps	8 School Heads and 8 L&D Coordinators fully trained and highly confident	Inclusive Growth

Evidence of Impact: The data proves that the innovation successfully decentralized regulatory capabilities, shifting them from isolated, single-school successes to a collaborative, district-wide standard. The execution of the 23-step GROW process proved that prior application failures stemmed from a lack of structured instruction rather than a deficit in leadership interest. Qualitative data from the focus group discussions highlighted that direct technical assistance from the DREC was the single most crucial factor in converting compliance anxiety into administrative efficacy. By establishing clear instructional templates, school leaders successfully aligned training hours with actual teacher demands, culminating in verified, high-value INSET programs that support career growth.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Guided Resource Optimization Workshop (GROW) Process is a highly effective, scalable framework for enhancing administrative and professional development compliance in public schools. Moving from a baseline of structural failure to a 100% application submission rate demonstrates that operational bottlenecks vanish when structured, collaborative technical assistance is introduced. This process innovation successfully bridges the gap between high-level policy mandates and school-level implementation, fulfilling the professional standards required for both school heads and local coordinators.

Recommendations

- **Institutionalization:** Formally integrate the GROW framework and its 23-step compliance toolkit as permanent, funded components within the School Improvement Plan (SIP) and Annual Implementation Plan (AIP).
- **Scalability:** Recommend that the Schools Division Office (SDO) replicate this systematic workshop structure across other districts within SDO-Cebu City to eliminate similar application gaps.
- **Peer-Mentorship:** Utilize the pioneer cohort of 8 School Heads and 8 L&D Coordinators as district "Peer-Coaches" to mentor neighboring schools and foster a sustainable culture of regulatory excellence.
- **Incentivization & Maintenance:** Maintain an active, centralized division pool of PRC-accredited speakers while continuing to track teacher feedback loops quarterly to guarantee training relevance.

V. Risk Management and Sustainability Plan

To safeguard these institutional gains, the program proactively mitigates operational constraints:

- **Time & Logistics Constraints:** Addressed by establishing a mandatory 5-month pre-

implementation timeline for Training Needs Assessments (TNA), separating routine school duties from administrative assembly.

- **Speaker & Qualification Gaps:** Resolved by building a continuous, pre-vetted roster of doctorate- and master's-qualified facilitators with active PRC credentials well ahead of the training calendar.
- **Budgetary Obstacles:** Managed by using pre-structured, itemized expense templates that conform strictly to COA guidelines, utilizing zero-registration cost rules to ensure smooth fiscal clearance.

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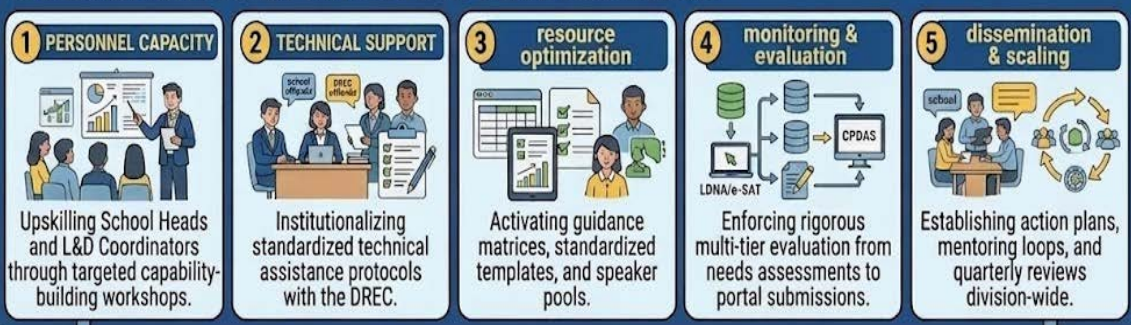
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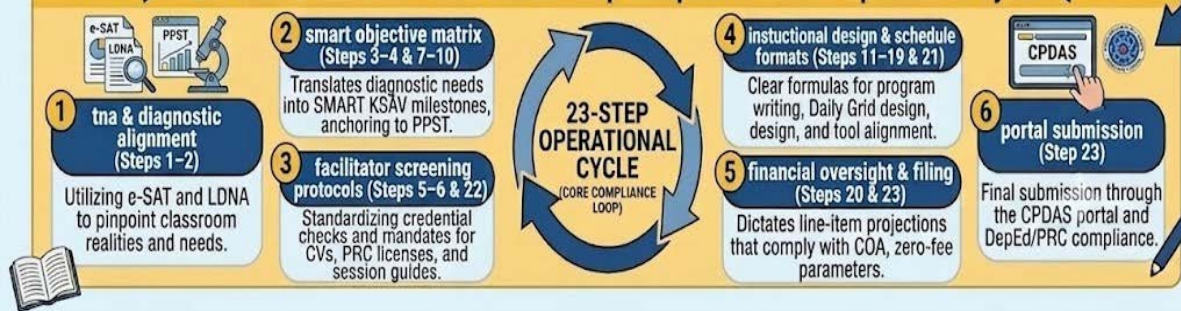
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PROJECT TITLE: Enhancing the Capacity of School Heads and L&D Coordinators in Drafting CPD Application Programs Through the Guided Resource Optimization Workshop (GROW) Process in North District 5

II. INNOVATION DESCRIPTION: 5-POINT STRATEGIC PILLARS



TECHNICAL DESCRIPTION: The 23-Step Compliance Toolkit Operational Cycle



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Study 6

Project Title: **Customized e-Self Directed Learning (e-SDL) Coursebook for Structured Induction Programs of Newly Hired Non-Teaching Personnel (NTP)**

Authors: **Edwin Jo M. Jardin & Jeffrey C. Lacson** | SDO-Toledo City

I. Innovation Overview

The Department of Education (DepEd) Schools Division of Toledo City recognized a crucial gap in organizational onboarding: while structured induction initiatives effectively supported teaching staff and school heads, newly hired Non-Teaching Personnel (NTP) lacked a tailored, systematic onboarding framework. This gap often resulted in initial confusion, disorientation, and lower initial productivity among new non-teaching employees. To eliminate these operational inefficiencies and support DepEd's professional growth mandates, the Division developed and implemented the **Customized e-Self Directed Learning (e-SDL) Coursebook**. This process and product innovation converts traditional, resource-heavy face-to-face onboarding sessions into a flexible, data-driven digital ecosystem. By providing a clear, self-paced roadmap, the tool addresses roles, responsibilities, and corporate compliance, effectively ensuring that new employees transition smoothly, confidently, and efficiently into their respective support positions.

II. Innovation Description

The digital onboarding framework is systematically implemented through a **Strategic Process Flow** integrated with the **Successive Approximation Model (SAM)** framework to ensure long-term sustainability and structural excellence. The implementation targets five central areas of organizational efficiency:

1. **Personnel Competence:** Accelerating the professional integration of newly hired personnel by delivering vital institutional competencies independently.
2. **Standardized Content:** Institutionalizing uniform modules covering organizational policies, citizen mandates, and administrative processes to eliminate onboarding ambiguity.
3. **Resource Optimization:** Shifting from costly printed materials to a centralized digital training portal,

significantly decreasing publication expenses.

4. **Self-Managed Evolution:** Empowering learners to complete tasks, quizzes, and tracking independently at their own pace over a four-month timeframe.
5. **Quality Assurance:** Engaging division technical committees and learning management strategies to safeguard accuracy and relevance.

Technical Description: *The e-SDL Portal and 8-Step System*

The innovation transforms onboarding into an asynchronous learning journey delivered over a dedicated web platform, featuring an **8-Step process loop** (Defining Objectives, Developing Schedules, Introducing the Coursebook, Facilitating e-SDL, Setting up Mentorship, Assessing Progress, Closing Asynchronous Tracks, and Culmination). The user interface is driven by a functional **Multi-Tab Architecture**:

- **Home Tab:** Establishes core instructional criteria, featuring visual media of the DepEd Vision, Mission, Core Values, and Quality Policy Statement.
- **About Tab:** Breaks down comprehensive operations instructions, outlining user pathways and core platform capabilities.
- **Course Modules (1 to 4):** Core instructional suites covering four baseline competencies: *The DepEd Non-Teaching Personnel, DepEd Citizen's Charter 2025, Administrative Policies, and Financial Literacy*.
- **Quizzes Tab:** Integrates automatic evaluation suites hosting 10-to-15 item examinations at the completion of each sequential course tracker.
- **E-Certificate Tab:** A real-time dashboard granting instant completion credentials upon completing validation assessments.
- **Reference Tab:** Hosts official academic citations, legal guidelines (such as

Republic Act 9155 and RA 9485), and division resources.

III. Key Results and Impact Status

The rollout of the e-SDL tool successfully transitioned the division from an uncoordinated onboarding landscape to an outstanding, uniform training structure, evaluated comprehensively across performance indices:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention (SY 24-25)	Impact Status
Onboarding Framework Availability	Lacking specialized digital induction tracks for NTPs	100% Customized e-SDL induction access launched division-wide	Standardized Access Established
Instructional Clarity & Relevance	Relying on ad-hoc, traditional face-to-face methods	4.91 Mean Score (Content Relevance) & 4.91 (Clarity of Instructions)	Strongly Agreed Standards
Overall Learner Satisfaction	Inconsistencies in role mastery and orientation satisfaction	4.94 Mean Score indicating high acceptance and quality validation	Outstanding Morale & Acceptance
Participant Recommending Likelihood	N/A	3.92 Likelihood Mean out of a 4-point rating system	Highly Recommended Tool

Evidence of Impact: Statistical metrics from a pilot implementation involving newly hired NTPs demonstrate clear operational progress. The system scored an exceptional **4.91 weighted mean for content relevance** and **4.92**

for practicality, confirming that the digital curriculum directly fits daily school operations. By providing instant evaluation feedback and individual progress trackers (**4.92 self-assessment mean**), the platform alleviated the confusion typical of traditional entries. Qualitative analysis verified that the platform increased confidence, boosted professional identity, and enhanced immediate output capability. This shift ensures full organizational

compliance without drawing heavily on administrative personnel hours.

IV. Conclusions and Recommendations

Conclusion

The study confirms that the Customized e-Self Directed Learning (e-SDL) Coursebook is a highly effective, practical solution for modernizing human resource development within the division. Moving from traditional onboarding models to an automated, asynchronous setup shows that initial onboarding friction is caused by a lack of structured pathways rather than a lack of employee capability. The system closes the gaps in traditional employee development frameworks, successfully meeting civil service efficiency standards and division goals.

Recommendations

- **Institutionalization:** Formally integrate the e-SDL platform into the division's regular Human Resource Development Systems and Annual Implementation Plans (AIP) for permanent funding.
- **Curriculum Expansion:** Expand modular targets to include advanced specialized courses focused on distinct technical tasks (e.g., procurement, bookkeeping, or records management).
- **Cross-Division Replication:** Share the platform structure with adjacent Schools Division Offices (SDOs) within the region to address regional onboarding gaps.
- **Mentorship Tracking:** Combine the self-directed system with a regular peer-mentorship tracker, connecting incoming hires directly with experienced senior non-teaching staff.

V. Risk Management and Sustainability Plan

To protect these operational improvements against deployment interruptions, the project utilized targeted mitigation strategies:

- **System Navigability Obstacles:** Addressed by adding a dedicated, detailed orientation workshop (4-hour

online/offline setup) before launch to guide users through platform mechanics.

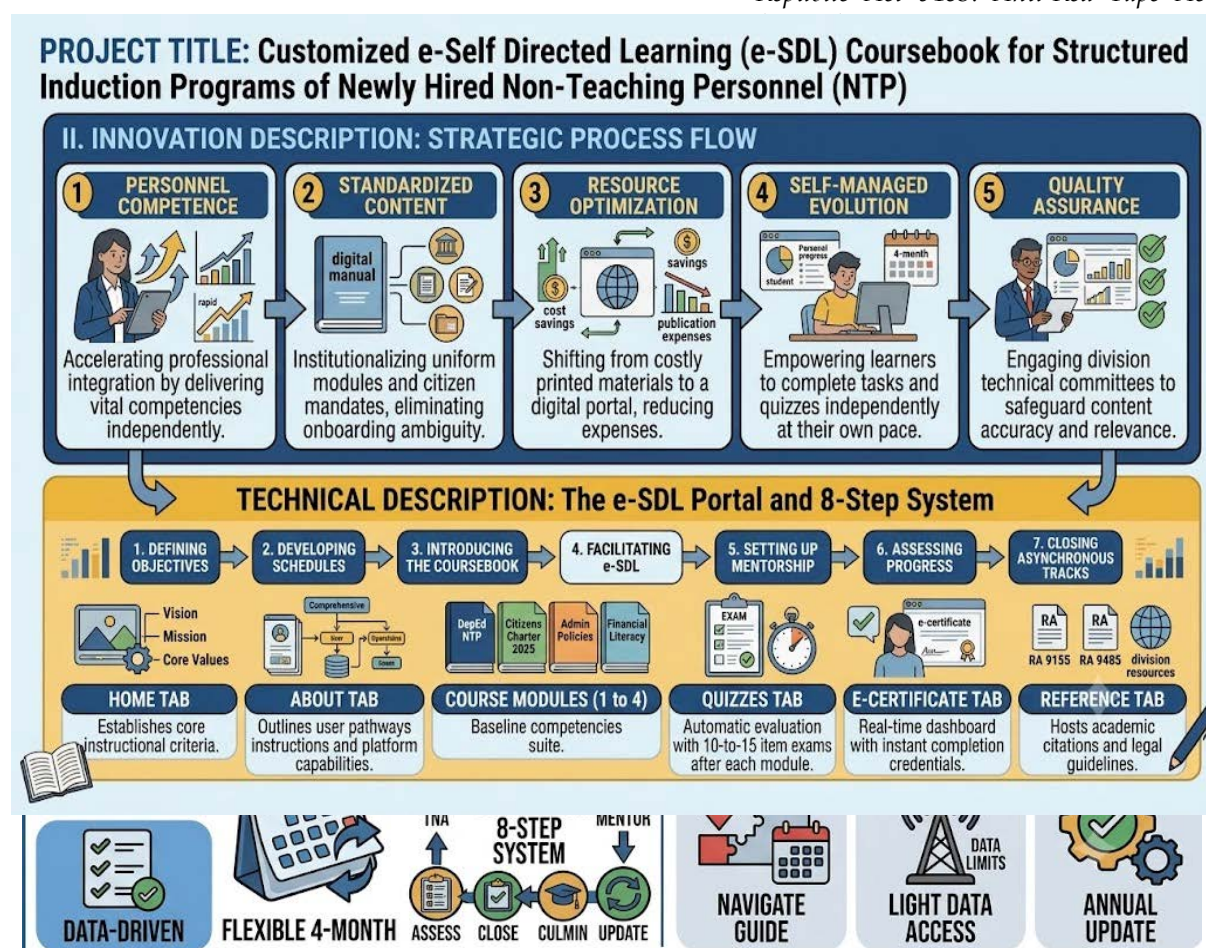
- **Technical Knowledge & Infrastructure Gaps:** Mitigated by configuring lightweight data settings for the web tool, allowing stable access across various mobile devices and office connections.
- **Content Depreciation:** Managed by scheduling regular reviews with the Division Quality Assurance (QA) and Research teams to update legal policies, citizen requirements, and administrative criteria annually.

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Study 7

Project Title: Bytes Over Binders: Enhancing Instructional Supervision Through a Consolidated MS Excel-Based Tool for Improved Efficiency, Accuracy, and Accessibility of Classroom Observation Documentation

Author: Michelle L. Caminos | SDO-Toledo City

I. Innovation Overview

Don Andres Soriano National High School recognized a valuable opportunity to optimize its instructional leadership practices and better support teachers through formative feedback. While Master Teachers actively provided instructional supervision (IS), the school identified that an over-reliance on a paper-dependent, binder-heavy system created a massive administrative burden. Instructional supervision providers routinely juggled multiple isolated templates—such as Detailed Lesson Plans (DLPs), Pre- and Post-Observation forms, Classroom Observation Notes (CON), and Performance Monitoring and Coaching Forms (PMCFs). This heavy clerical workload frequently caused delays in feedback, increased transcription errors, and reduced the valuable time leaders had available for deep, qualitative coaching and reflective professional dialogue.

To address these systemic bottlenecks and align with the Department of Education's (DepEd) mandate for digital transformation and workload reduction, the school introduced the **Bytes Over Binders** framework. This process and tool innovation replaces fragmented physical binders with a consolidated, automated Microsoft Excel workbook securely hosted on cloud-based Microsoft Teams OneDrive. By transitioning to this unified digital ecosystem, the school eliminated repetitive data entry, streamlined submission workflows, and established a transparent, real-time supervision loop. This proactive initiative successfully shifted the focus of school leadership from compliance-driven paperwork back to meaningful, data-informed teacher development.

II. Innovation Description

The process innovation is anchored in a systematic, cloud-hosted configuration designed to dismantle the documentation roadblocks identified in the paper-based setup. To ensure seamless integration into school operations and alignment with national evaluation frameworks, the system focuses on three core performance domains:

1. **Efficiency:** Accelerating the instructional supervision cycle by allowing providers and receivers to pre-fill, update, and submit critical records within a streamlined timeframe.
2. **Accuracy:** Eliminating redundant data transcription and entry errors by linking

separate observation components into a single, automated spreadsheet.

3. **Accessibility:** Ensuring secure, cross-device file retrieval and collaborative data access for both supervisors and teachers, regardless of location.

Technical Description: *The Consolidated Excel Workbook System*

At the heart of the innovation is a fully digitized instructional supervision cycle that tracks the entire observation process—pre-observation, observation proper, and post-observation—within a solitary, interactive file. The framework is operationalized through a single MS Excel workbook containing six core functional components:

- **Detailed Lesson Plan (DLP) Component:** Serves as the initial curriculum anchor where the instructional supervision receiver outlines lesson targets.
- **Pre-Observation Forms (MISF 3.1 & 3.2):** Standardizes expectation-setting and pre-observation conference records under the regional Manual of Instructional Supervision (MIS) framework.
- **Classroom Observation Notes (CON) Tab:** Allows the supervisor to log narrative observations in real time during the lesson, which the teacher can directly review to clarify, refute, or accept insights.
- **Classroom Observation Tool (COT) Rating Sheets:** Automatically generates and tallies numerical ratings based on observed indicators for Teacher I-III and Master Teacher I-IV tracks.
- **Post-Observation Forms (MISF 4.1 & 4.2):** Houses collaborative post-conference summaries, reflective growth notes, and instructional agreement points.
- **Performance Monitoring and Coaching Form (PMCF):** A continuous dashboard sheet used to log Non-Classroom Observable Indicators (NCOIs) across the entire quarterly supervision cycle.

III. Key Results and Impact Status

The deployment of the automated system successfully transformed the school's documentation workflow from an isolated, paper-heavy chore into an agile and transparent digital setup, validated by pre- and post-implementation assessment results:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention (SY 2025-2026)	Impact Status
Document ation Accessibili ty	2.60 Mean Score (Low to High Boundary); frequent retrieval friction and physical retrieval delays	3.85 Mean Score (Very High); instantaneous file recovery and cloud-sharing capabilities	Statistically Significant & Large Practical Effect ($t(4) \approx 3.23, p = .032; d_z \approx 1.44$)
Document ation Accuracy	2.80 Mean Score (High); prone to manual data transcription errors across separate forms	3.65 Mean Score (Very High); automated tab integration prevents work duplication	Moderate Practical Gain ($d_z \approx 0.67$)
Workflow Efficiency	2.85 Mean Score (High); delayed feedback timelines due to heavy compilation overhead	3.60 Mean Score (Very High); swift form finalization and reduced clerical lag	Moderate Practical Gain ($d_z \approx 0.58$)

Evidence of Impact: Statistical and qualitative metrics from the pilot implementation among Master Teachers confirm that the innovation dramatically reduced administrative friction. Accessibility emerged as the most critical triumph, jumping by a mean difference of +1.25. This massive growth is linked to the system's cloud architecture, which solved previous historical issues surrounding missing binders, version confusion, and restricted multi-device viewing. By embedding linked sheets and automated summations, the tool eliminated duplicate entries and transcription errors, driving the accuracy domain to a "Very High" rating of 3.65. Qualitative focus groups and interviews verified that the automated configuration shortened the time leaders spent on clerical busywork. This directly opened up more time during pre- and post-observation conferences for supervisors to deliver rich, reflective, and timely feedback, strengthening teacher development and satisfying division and regional standards.

IV. Conclusions and Recommendations

Conclusions: The study demonstrates that the automated MS Excel-based instructional supervision tool is a highly effective, low-cost solution to counter administrative overstretch in public schools. The transition across all domains to "Very High" ratings proves that delays in teacher coaching are caused by clunky, fragmented reporting processes rather than a lack of leadership capability. By unifying regional MIS and central office PMES requirements into a single digital file, the framework successfully bridges the gap between official policy compliance and efficient school-level execution.

Recommendations:

- **System Institutionalization:** Formally integrate the Excel-based workbook into school-level Standard Operating Procedures (SOPs) and Division Annual Implementation Plans (AIP) to establish it as the standard reporting file.
- **Capacity Building on Cloud Utilities:** Implement hands-on Learning Action Cell (LAC) sessions focusing on Microsoft Teams OneDrive functions, emphasizing user privacy settings, sheet protection mechanics, and version history tracking.
- **Feature Enhancements:** Update the workbook to embed multi-year PMES indicator dashboards and build offline-compatible formats for low-connectivity environments.
- **Division-Wide Scale-Up:** Endorse and replicate the pilot model across other school clusters within SDO-Toledo City to cultivate a standardized, division-wide digital supervision culture.

V. Risk Management and Sustainability Plan

To ensure the long-term usability of this digital innovation and defend against operational issues, the project incorporated proactive risk strategies:

- **Intermittent Internet Connectivity:** Mitigated by taking advantage of Excel's native offline editing features, which cache modifications locally and synchronize data automatically once a

stable OneDrive connection is re-established.

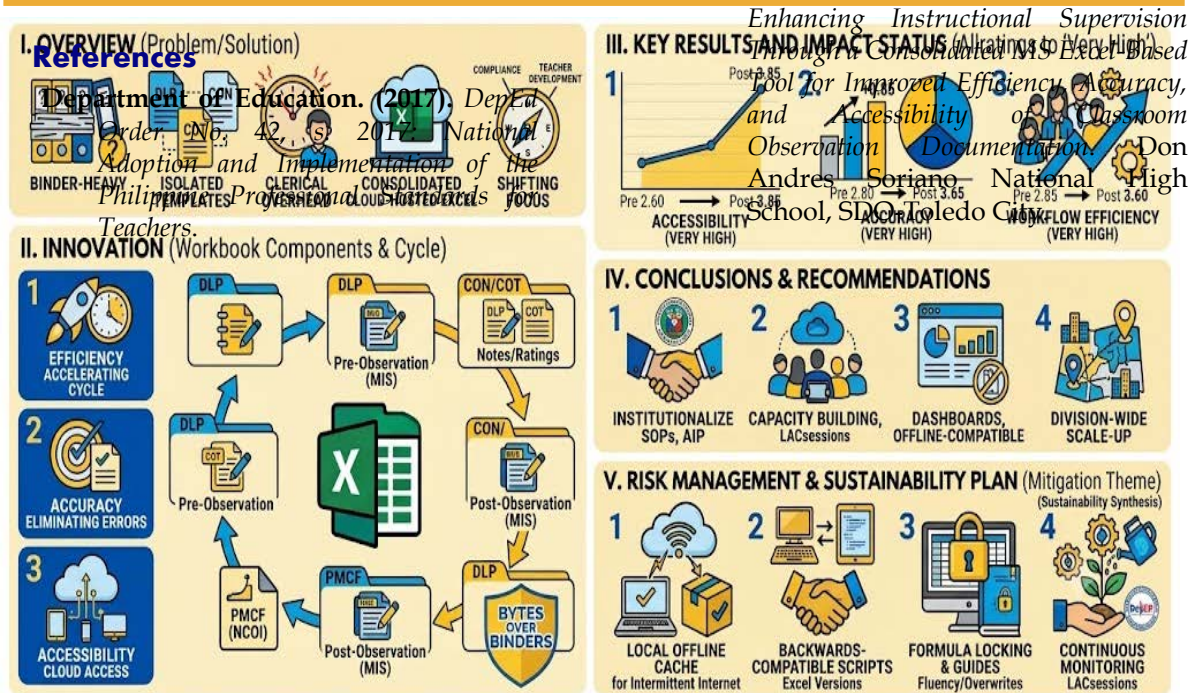
- **Software Version Parity Issues:** Handled by creating clean, backwards-compatible spreadsheet scripts and equations that run reliably on both older desktop installations and modern web-based Excel versions.
- **Digital Fluency & Accidental File Overwrites:** Resolved by locking core formulas and structural elements via sheet protection settings, while publishing simple micro-guides on version history retrieval to safeguard user records.

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Study 8

Project Title: Enhancing Accuracy, Efficiency, and Accessibility in School Reporting Through Project CSDM (Comprehensive School Data Management)

Authors: Jeanah D. Borgonia & Dan G. Rosos | SDO-Toledo City

I. Innovation Overview

South City Central School (SCCS) recognized a valuable opportunity to optimize its administrative workflows and better support its 75 teaching and non-teaching personnel in managing student records. Serving a large population of approximately 1,903 learners, the school identified that compiling critical documents—specifically the Quarterly Assessment Report (QAR) and Form 14—exposed staff to heavy logistical and operational burdens. Relying on traditional manual or semi-digital data collection methods proved to be highly time-consuming, prone to human error, and restrictive for timely data access. These bottlenecks routinely delayed school-level interventions and hindered data-driven decision-making by school leaders.

To address these inefficiencies and support the Department of Education's (DepEd) push toward digital transformation and administrative workload reduction, SCCS introduced **Project CSDM (Comprehensive School Data Management)**. This process innovation serves as an automated digital solution that replaces disjointed, manual reporting with a unified, cloud-integrated ecosystem. This proactive framework has drastically minimized clerical errors and lightened the reporting workload, empowering educators to shift their primary focus from exhausting paperwork back to instructional delivery and direct learner support.

II. Innovation Description

The process innovation is anchored in a systematic, ADDIE-aligned framework (Analysis, Design, Development, Implementation, Evaluation) designed to dismantle the operational hurdles identified in the baseline analysis. To ensure long-term integration into institutional practices and standard operations, the project focuses on five core operational pillars:

1. **Personnel Capacity:** Enhancing ICT proficiency through targeted staff assessments and customized training sessions on MS Excel and OneDrive functionalities.
2. **Process Automation:** Deploying pre-designed Excel templates featuring automated calculations and validation rules to completely eliminate manual calculation errors.
3. **Collaborative Cloud Architecture:** Integrating a centralized OneDrive repository to allow secure, multi-device, and real-time remote data collaboration.

4. **Data Privacy & Security:** Ensuring strict compliance with the Data Privacy Act through encrypted storage, structured folder permissions, and access control.
5. **Continuous System Evaluation:** Utilizing digitized feedback loops via Google Forms to systematically track user satisfaction and guide regular template refinement.

Technical Description: The Automated Spreadsheet and Cloud System

At the heart of the innovation is an interconnected data ecosystem that replaces fragmented student logs with automated, cloud-hosted files. The project is operationalized through specialized, macro-free MS Excel workbooks paired with cloud utilities, consisting of four essential components:

- **Class Grading Sheet for QAR:** The primary interface where teachers input raw test scores, embedded with nested logical formulas (such as `=IF(OR(K37="",...), "")`) to automatically compute final grades and averages without manual math intervention.
- **Automatic Consolidator Template for QAR:** A summary interface that automatically tallies class metrics and separates student performance data by gender and descriptive proficiency brackets (e.g., *Outstanding*, *Did not meet expectations*).
- **Automated Form 14 Template:** A uniform reporting document that draws data directly from classroom grades to generate quarterly student master lists, preventing transcription inconsistencies.
- **Consolidated Form 14 Dashboard:** A school-wide reporting module that auto-aggregates section summaries, calculating Mean, Minimum Passing Score (MPS), and Standard Deviation (SD) for administrative evaluation.

III. Key Results and Impact Status

The deployment of Project CSDM transitioned the school from slow, manual record-keeping to a highly synchronized digital workflow, validated by pre- and post-implementation assessment results:

Performance Indicator	Document	Baseline Mean Score	Post-Intervention Mean Score	Impact Status (t-value / p-value)
Data Accuracy	QAR	3.2	4.7	Significant Improvement (t = 4.49, p = 0.0012);

Performance Indicator	Document	Baseline Mean Score	Post-Intervention Mean Score	Impact Status (t-value / p-value)
Workflow Efficiency				errors eliminated through automation
	Form 14	3.0	4.8	Significant Improvement (t = 5.40, p = 0.0008); data validation rules effective
	QAR	2.9	4.6	Significant Workload Reduction (t = 4.49, p = 0.0012); reporting time cut by 40–50%
	Form 14	2.8	4.7	Significant Workload Reduction (t = 5.59, p = 0.0007); manual computation removed
Data Accessibility	QAR	3.1	4.8	Enhanced Mobility (t = 4.18, p = 0.0018); real-time access via cloud repository
	Form 14	3.0	4.9	Enhanced Mobility (t = 5.50, p = 0.0006); secure, seamless multi-device sharing

Note: Mean scores are based on a 5-point Likert scale (1 = Poor, 5 = Excellent).

Evidence of Impact: Statistical analysis using the T-Test of Dependent Means confirmed that Project CSDM achieved highly significant improvements across all metrics ($p < 0.05$). Foremost among these outcomes was a **40% to 50% reduction in time spent on data preparation**. By automating calculations, teachers immediately reclaimed hours previously lost to repetitive, manual arithmetic and data cross-checking. Qualitative reflections and survey metrics confirmed that data accessibility scored the highest absolute gains (reaching up to a 4.9 mean rating). This change

was driven by the OneDrive integration, which completely eliminated the previous issues of file loss, storage limits, and version conflicts. The platform also minimized human transcription mistakes down toward zero, providing school administrators with highly accurate data summaries. Ultimately, this digital transition fostered strong professional growth and boosted ICT confidence among the participating faculty, successfully proving the benefits of technology in school governance.

IV. Conclusions and Recommendations

Conclusion

The study concludes that Project CSDM is a highly effective, practical, and low-cost solution for managing data limitations in public elementary schools. The significant statistical improvements across accuracy, efficiency, and accessibility prove that delays in school reporting stem from outdated, manual workflows rather than a lack of teacher diligence. By linking simple Excel formulas with cloud storage, the system successfully bridges the gap between DepEd's digital requirements and actual daily classroom administration, optimizing school operations without adding financial strain.

Recommendations

- **Continuous Capacity Building:** Establish periodic refresher training and technical learning sessions for school personnel focusing on advanced features in MS Excel, OneDrive folder management, and troubleshooting.
- **School-Wide Expansion:** Scale the template model beyond the pilot grade groups to establish it as the standardized, school-wide data management framework across all grade levels and departments.
- **Policy Integration:** Formalize Project CSDM into the school's standard operating procedures (SOPs) for quarterly reporting, ensuring long-term institutional continuity and structured compliance with the Data Privacy Act.
- **System Upgrades & Analytics:** Enhance future versions of the workbook by adding interactive visual dashboards, automated charts, and data analytics to support rapid administrative planning.
- **Division-Wide Replication:** Present the framework to the Schools Division Office (SDO-Toledo City) to encourage division-wide deployment across other elementary

schools experiencing similar reporting backlogs.

V. Risk Management and Sustainability Plan

To protect these operational improvements and maintain long-term usability, the project implemented proactive risk management steps:

- **Varying User ICT Skills:** Addressed by locking core formula cells and structural elements to prevent accidental edits, while building a very simple, user-friendly template interface that accommodates staff with different tech competencies.

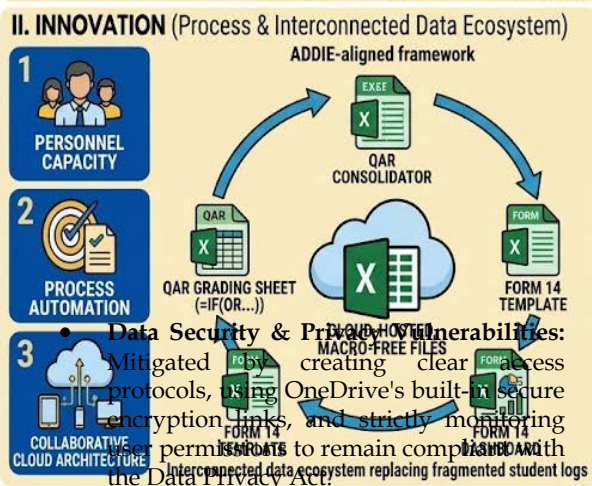
transfers to cloud-synchronized OneDrive directories, which automatically maintain an uncorrupted version history for easy recovery.

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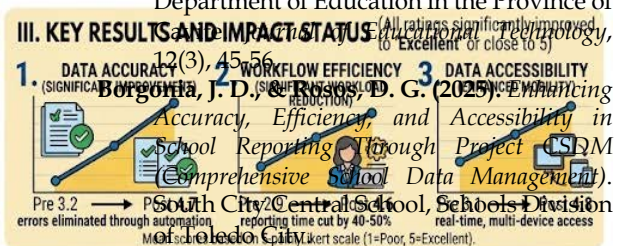
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- **File Corruption & Version Inconsistencies:** Handled by moving completely away from local flash-drive



Study

Project Title: Enhancing School Climate and Teacher Participation in Selected District 1 Schools Through the Distributed Leadership (DL) Approach

Authors: Vonn Clyde C. Nunez, Glenda B. Pogoy, & Analyn D. Malingin | SDO-Lapu-Lapu City

I. Innovation Overview

The Schools Division of Lapu-Lapu City (District 1) recognized a valuable opportunity to optimize its institutional

dynamics and better support its educators across elementary and secondary levels. While teachers demonstrated strong foundational capabilities, baseline data revealed a critical

disconnect between teacher communication and active school climate collaboration. This operational gap consistently resulted in diminished teacher motivation, reduced instructional effectiveness, and compromised student learning outcomes. According to the 2024 Division Monitoring and Evaluation Adjustment (DMEA) report, schools in District 1 struggled with a low percentage of school head-teacher collaboration on academic activities, with urgent improvements needed regarding operational transparency and teacher involvement.

To address these baseline inefficiencies and support the Department of Education's (DepEd) push toward shared governance and participatory administration, the researchers introduced the **Distributed Leadership (DL) Approach**. This process innovation serves as a comprehensive "safety net," replacing top-down, principal-centric management with a structured, data-driven framework that spreads roles and responsibilities across faculty tiers. This proactive framework transformed professional dynamics, elevating teacher engagement from standard classroom duties to active involvement in planning, decision-making, and monitoring school programs.

II. Innovation Description

The process innovation is anchored in a targeted reform framework spanning a complete educational administration cycle designed to dismantle the operational hurdles identified in the initial gap analysis. To ensure long-term integration into the School Improvement Plan (SIP), the framework focuses on five core operational pillars:

1. **Personnel Capacity:** Upskilling teacher-coordinators to assume leadership roles in school programs, projects, and activities (PPAs).
2. **Technical Support:** Institutionalizing standardized collaborative mechanisms to promote transparency and remove workflow guesswork.
3. **Resource Optimization:** Actively engaging teacher leaders in school planning, strategic asset allocation, and policy development.
4. **Monitoring & Evaluation:** Transitioning from subjective management to structured, tool-based observation and assessment loops.
5. **Dissemination:** Reporting local findings and success stories to district and regional conferences to encourage replication.

Technical Description: The Shared Governance Framework

At the heart of the innovation is a structured administrative cycle that replaces centralized governance with shared responsibilities among 15 teacher-coordinators across three pilot schools (Buaya Elementary School, Ibo Elementary School, and Mactan Senior High School). This framework is operationalized through an integrated series of actions and instruments:

- **Pre-Implementation Profiling:** Baseline survey instruments that map existing teacher-coordinators, gauge their current participation, and assess initial school climate perceptions.
- **PPA Flow Alignment:** A collaborative activity schedule where specific school projects, programs, and activities are delegated to teacher leaders, defining explicit roles from planning to execution.
- **Friday Conventions / Shared Reflection Loop:** Weekly collaborative meetings where teacher-coordinators freely express ideas, review active project phases, and solve operational issues together.
- **Documentation and Action Checklist:** An ongoing qualitative tracking system involving field notes and photographic evidence to observe changes in the school environment.
- **The Distributed Leadership Survey Tool:** A validated quantitative scale designed to track shifts in trust, communication quality, and teacher empowerment before and after the intervention cycle.

III. Key Results and Impact Status

The deployment of the Distributed Leadership Approach successfully transitioned the pilot institutions from isolated administrative structures to a highly collaborative ecosystem, validated by pre- and post-implementation assessment metrics:

Performance Indicator	Assessment Domain	Baseline Perception (Pre)	Post-Intervention Perception	Impact Status
School Climate	Overall Atmosphere & Open Communication	2.28 (Disagree)	3.62 (Strongly Agree)	Transformed Culture: Shifted from principal-centric direction

Performance Indicator	Assessment Domain	Baseline Perception (Pre)	Post-Intervention Perception	Impact Status
				n to mutual trust, active teamwork, and open dialogue.
				Inclusive Growth: Elevated marginal or passive involvement into active ownership over school-wide programs.
Teacher Participation	Decision-making & Policy Planning	2.54 (Agree)	3.37 (Strongly Agree)	

Note: Ratings reflect composite means derived from a 4-point Likert Scale (1.00–1.75 = Strongly Disagree, 3.26–4.00 = Strongly Agree).

Evidence of Impact: The empirical findings confirmed that the innovation effectively flattened traditional school hierarchies, yielding massive improvements in professional engagement. Most notably, areas such as shared problem-solving and open communication with school heads jumped from critical baseline lows (Means of 1.75 and 1.92, respectively) to universal agreement levels (Mean of 3.80) post-intervention. Qualitative feedback from interview transcripts and Friday conventions confirmed that distributed leadership successfully cultivated an environment of mutual respect. Teachers reported feeling trusted and empowered, explicitly stating that having their voices welcomed in planning and evaluation increased their confidence and sense of ownership. Rather than passively waiting for top-down instructions, teacher-coordinators took proactive initiative to lead small projects and collaborate across departments. This cultural shift directly resolved the low engagement levels noted in the 2024 DMEA reports, providing a sustainable, evidence-based roadmap for shared governance.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Distributed Leadership Approach is an exceptionally effective strategy for enhancing teacher participation and improving school climate. The stark contrast between the baseline scores and post-intervention evaluations proves that teacher inactivity and low motivation are usually systemic byproducts of rigid, non-inclusive management structures rather than a lack of interest among faculty members. By distributing leadership opportunities across Master Teachers and Grade Leaders, the system successfully aligns everyday administrative management with DepEd's policy mandates for collaborative governance, transforming the school into a unified, supportive professional community.

Recommendations

- **Division-Wide Capacity Building:** Develop structured leadership training forums, mentoring programs, and capacity-building sessions via the Schools Division Office to share best practices in shared governance.
- **Institutionalize into Local Action Plans:** Formalize distributed leadership frameworks within individual School Improvement Plans (SIPs) and training designs to guarantee long-term operational continuity.
- **Expand Leadership Opportunities:** Actively provide more direct project leadership roles to lower-tier teacher ranks to widen the leadership pipeline and sustain inclusive growth.
- **Continuous Monitoring Schemes:** Maintain regular feedback loops and evaluation tools to protect the gains in open communication, track institutional collaboration, and counter potential role ambiguities.

V. Risk Management and Sustainability Plan

To safeguard these institutional gains and maintain high morale across the faculty, the project proactively mitigates administrative risks:

- **Role Ambiguity and Structural Shortcomings:** Mitigated by implementing clear delegation agreements and open activity flows during weekly Friday

planning conventions to resolve competing priorities or power struggles.

- **Varying Leadership Confidence Levels:** Addressed through a safe, collaborative framework during weekly meetings where teachers receive support and peer feedback to gradually build professional efficacy.
- **System Continuity Safeguards:** Supported by integrating an actionable implementation scheme with a clear budget, predefined monitoring tools (MOVs), and shared division-wide practices to sustain the inclusive culture over time.

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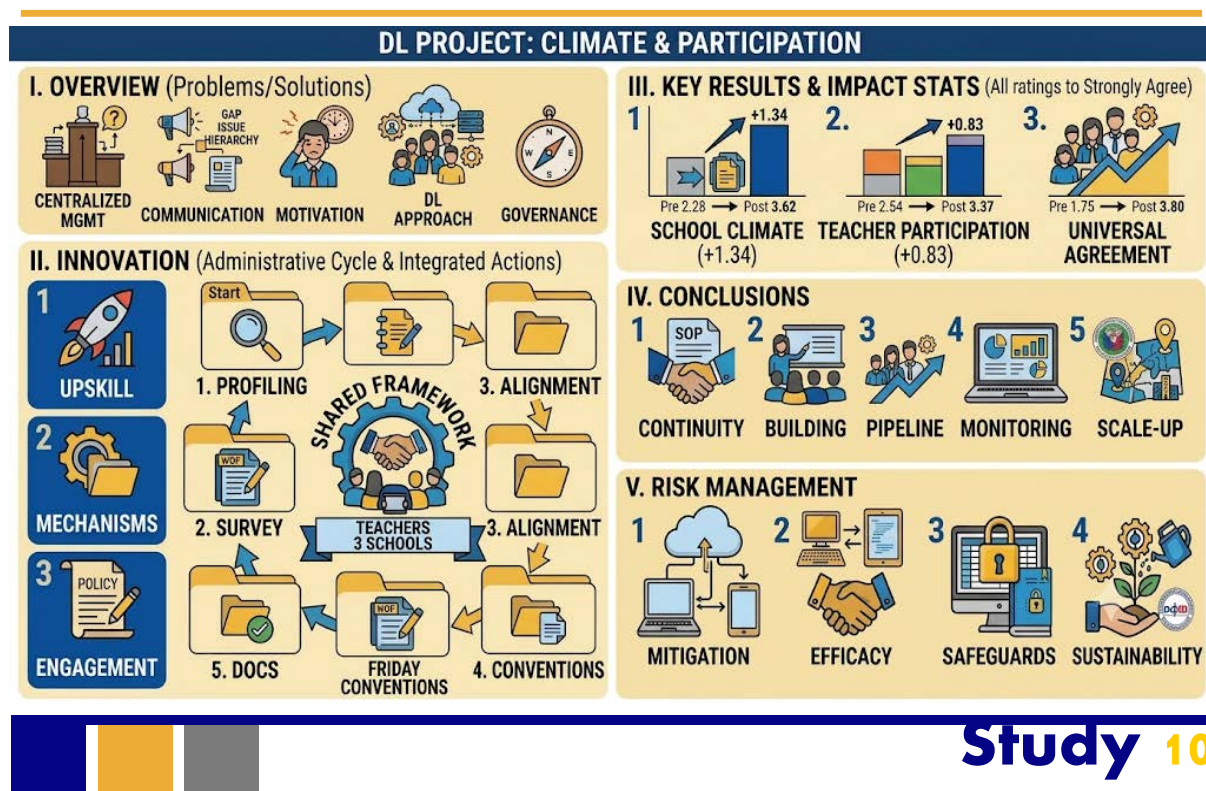
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Multi-Station Logistics: Resolved by balancing administrative schedules across dual school stations using clear, shared cluster-wide calendars.

Property Tracking Limits: Mitigated by setting up strict, daily logged dual-zone spaces (separating active files from archives) alongside consistent item labeling.



Project Title: Enhancing M&E Practices Through the Monitoring and Evaluation Practice Support Program (MEPSP)

Author: Liza E. Maquiling | SDO-Tagbilaran City

I. Innovation Overview

The Schools Division Office of Tagbilaran City recognized a valuable

opportunity to further strengthen its local governance landscape and support school heads and monitors in streamlining data consolidation. While educators and program supervisors showed great initiative in tracking school operations, the division identified that fragmented reporting templates, inconsistent monitoring practices, and limited alignment with the Basic Education Monitoring and Evaluation Framework (BEMEF) often made data utilization a significant challenge.

To address these baseline inefficiencies and support the Department of Education's (DepEd) thrust to strengthen decentralized evidence-based management, SDO-Tagbilaran City introduced the **Monitoring and Evaluation Practice Support Program (MEPSP)**. This process innovation serves as a comprehensive "safety net," replacing ad-hoc and compliance-only assessments with a data-driven system that provides a clear path for systematic school performance tracking. This proactive initiative empowered educational leaders to transition from passive compliance to reflective evaluation, successfully elevating the division's capability to execute transparent, data-backed strategic planning and targeted technical assistance.

II. Innovation Description

The process innovation is anchored in a 5-Point Reform Agenda (Q-BEDP Reform Outcomes & Strategic Levers) designed to dismantle the technical and operational hurdles identified in the initial gap analysis. To ensure long-term integration into the School Improvement Plan (SIP) and the regular SMEA-DMEA cycle, the framework focuses on:

1. **Personnel Capacity:** Upskilling school heads, SMEA coordinators, and M&E focal persons through continuous capacity building on standardized tools.
2. **Technical Support:** Institutionalizing standardized technical assistance protocols and standardized tools to remove reporting guesswork.
3. **Resource Optimization:** Enhancing visibility and workflow speed through refined digital reporting templates and cloud-based platforms.
4. **Monitoring & Evaluation (Learning):** Ensuring continuous feedback loops and structured data verification across all future educational quarters.

5. **Decentralization:** Mandating the localized use of data reflection tools to allow individual schools to pinpoint local operational issues independently.

Technical Description: The Core M&E Instruments

At the heart of the innovation is a structured reflection and reporting workflow that guides stakeholders through every phase of the division's monitoring cycle. This is operationalized through integrated instruments and processes:

- **School Data Reflection Form (SDRF):** A specialized analytical tool that bridges the gap between raw data collection and actual technical assistance needs by identifying Bottlenecks, Lags, Issues, and Concerns (BLICs).
- **Standardized Digital Reporting Templates:** Automated digital spreadsheets featuring customized formatting and formulas to consolidate school metrics rapidly.
- **BEMEF-Aligned Protocol Sheets:** Standardized observation guidelines ensuring that local monitoring outputs explicitly support national basic education frameworks.
- **Structured Feedback Loops:** Regular consultative check-ins deployed during first-quarter DMEA sessions to gather school-level user suggestions.
- **Targeted TA Delivery Matrices:** A tiered assistance dashboard used by the SGOD to map out custom coaching paths based on specific SDRF results.

III. Key Results and Impact Status

The intervention successfully transitioned the division from a state of fragmented data reporting to an outstanding framework of unified, evidence-based management, as verified by ongoing monitoring and evaluation (M&E) indicators:

Performance Indicator	Baseline Status	Post-Intervention Status	Impact Status
Tool Usability Rating	Inconsistent / Non-	High / Favorable Perception	Sustained: Users reported

Performance Indicator	Baseline Status	Post-Intervention Status	Impact Status
	standardized		clear, practical data interpretation and streamlined analysis.
Alignment with BEMEF	Low Framework Integration	100% Standardized Framework	Sustained: All school-level tools fully mapped to national governance goals. Positive Progress: Reduced data contradictions; stronger alignment between data and SIP adjustments.
Accuracy & Consistency	Fragmented / Error-prone Reports	Significant Improvement in SMEA Reporting	

Evidence of Impact: The empirical findings prove that the innovation successfully shifted the organizational culture from "compliance-based monitoring" to "reflective evaluation". The demographic shift in tool adoption indicates that introducing the SDRF effectively lowered the analytical barrier to entry for local school heads, allowing them to systematically evaluate performance indicators like Mean Percentage Scores (MPS) and classroom assessment data.

Furthermore, qualitative feedback from focus group discussions and validation sessions highlighted that the SDRF was the most critical factor in converting "data fatigue" into "professional efficacy". By utilizing these standardized instruments, school implementers were able to move past simple data collection and accurately isolate priority technical assistance requirements. This strategic alignment resulted in verified SMEA reports that directly inform division policy, reducing operational gaps and driving positive progress across pilot schools.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Monitoring and Evaluation Practice Support Program (MEPSP) is a highly practical and effective intervention for improving monitoring and evaluation practices within a public school division. The transition from unaligned, fragmented reporting to standardized, high-utility practices demonstrates that poor data utilization is often a result of inadequate support mechanisms rather than a lack of institutional interest. The framework successfully bridges the gap between DepEd policy mandates (such as BEMEF) and actual school governance, directly fulfilling the professional standards required for evidence-based decision-making and planning.

Recommendations

- **Institutionalization:** It is strongly recommended that this framework be formally adopted as a permanent component of the regular SMEA-DMEA cycle across all schools to secure long-term operational continuity.
- **Scalability:** Schools Division Offices (SDOs) across the region should consider replicating this systematic MEPSP model to resolve similar reporting bottlenecks and data fatigue at the broader district or regional level.
- **Digital Template Refinement:** Direct the ICT Unit and SGOD to refine spreadsheet formulas, fix automation glitches, and establish standardized color-coding systems to optimize digital template efficiency.
- **Continuous Capacity Building:** Implement regular follow-up workshops, e-manual developments, and peer-mentoring groups for newly assigned school heads and M&E coordinators to sustain high implementation standards.

V. Risk Management and Sustainability Plan

To safeguard these institutional gains and maintain high operational efficiency, the project addresses potential risks through proactive mitigation:

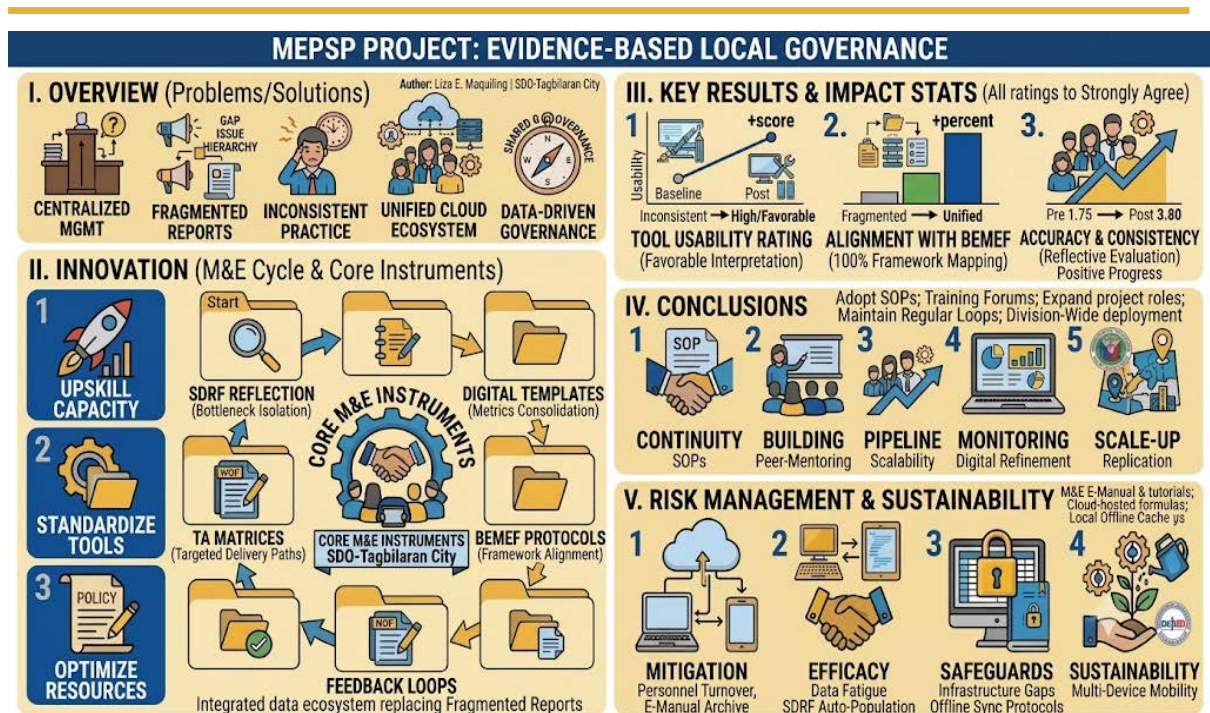
- **Personnel Turnover:** Managed by creating a centralized "M&E E-Manual" and video tutorials archived in the division portal for self-paced onboarding of new coordinators.
- **Data Overload and Fatigue:** Resolved via the planned automation of the SDRF using spreadsheet formulas that auto-populate technical assistance priorities based on entered data.
- **Infrastructure and Internet Gaps:** Addressed by deploying "Offline-to-Online" syncing protocols alongside scheduled "Data Upload Days" at the division office to prevent submission delays.

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Study 11

Project Title: Improving Grade Four Learners' Reading Fluency and Comprehension Through Audiobook Integration

Author: Joshua P. Toñacao | SDO-Cebu Province

I. Innovation Overview

Mulao Elementary School (MES) recognized a critical window of opportunity to

dramatically improve its early-grade literacy landscape and rescue struggling readers from chronic learning gaps. While standard print-based materials were readily available, diagnostic indicators revealed that traditional instructional delivery often induced decoding fatigue and reading frustration among early-career primary learners. To bridge these persistent performance gaps and support the Department of Education's (DepEd) mandate to accelerate fundamental literacy through innovative interventions, the school introduced the **Three-Phase Audiobook Integration Framework**. This process innovation serves as an immersive, multi-sensory learning safety net, replacing rigid print-bound paradigms with a phonological scaffolding system that links text to acoustic models of fluent reading. This proactive instructional shift empowered struggling learners to master structural pronunciation, pacing, and vocabulary, effectively elevating the school's regional assessment standing and converting total reader inactivity into high-performing literacy baseline targets.

II. Innovation Description

The process innovation is anchored in a comprehensive **5-Point Strategic Literacy Agenda** designed to systematically dismantle the mechanical and psychological decoding barriers identified in the diagnostic gap analysis. To ensure seamless, long-term institutional integration into the School Improvement Plan (SIP) and the Annual Implementation Plan (AIP), the framework focuses on:

1. **Targeted Learner Selection:** Implementing rigorous screening protocols using the Oral Reading Verification (ORV) and Philippine Informal Reading Inventory (Phil-IRI) to identify and prioritize bottom-quartile struggling readers.
2. **Curated Material Engineering:** Developing a specialized collection of age-appropriate, culturally relevant, and pedagogically aligned audio-text bundles spanning fiction, non-fiction, and informational media.
3. **Session Structure Synchronization:** Institutionalizing a dedicated 6-week instructional sequence featuring daily 30-minute intervention slots

embedded directly within the active reading curriculum.

4. **Continuous Formative Tracking:** Deploying a systematic weekly testing matrix to map out incremental individual gains in verbal pacing, word recognition, and phonetic accuracy.
5. **Localization & Dissemination (DUA):** Operationalizing a structured Dissemination, Utilization, and Advocacy (DUA) roadmap via School-Based Learning Action Cell (LAC) sessions and home-based reading toolkits.

Technical Description: The Three-Tier Audio-Literacy Instructional Toolkit

At the heart of the innovation is a structured "auditory-reflection loop" that safely guides learners through the core stages of the cognitive reading cycle. This is fully operationalized daily through an integrated three-tier sequence:

- **Pre-Listening Toolkit:** Guided context builders, vocabulary activation maps, and background knowledge primers explicitly designed to reduce cognitive load before reading.
- **Listening & Read-Along Tracker:** A dual-sensory immersion interface where students visually follow printed text while simultaneously listening to a clear, expressively narrated acoustic model playing at an appropriate pace.
- **Post-Listening Performance Engine:** A specialized activity suite incorporating **Echo Reading** (phrase repetition), **Choral Reading** (unison speaking), targeted word-recognition drills, and comprehensive formative check-ins to reinforce immediate comprehension.

III. Key Results and Impact Status

The intervention successfully transitioned the target student cohort from an active state of severe reading frustration to functional independent performance, as documented by the post-intervention Monitoring and Evaluation (M&E) dataset:

Performance Indicator	Base-line (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Average Oral Reading Fluency	40.2 WPM	59.4 WPM	Significant Pace Acceleration
Word Recognition Accuracy Rate	80.6%	92.2%	Exceeded Literacy Standards
Phil-IRI Comprehension Benchmark	30.0% (3/10 average)	70.0% (7/10 average)	Marked Comprehension Growth
Cohort Diagnostic Profile	100% Frustration Level (5/5 Learners)	100% Instructional/Independent Level	Complete Demographic Shift

Evidence of Impact: The empirical data proves that the innovation successfully shifted the target group's collective reading capacity away from the high-risk "Frustration Zone." Individual metrics show that every participant added between 18 to 20 words per minute to their oral pace, while average word decoding accuracy surged past the critical 90% threshold. This demographic turnaround confirms that matching printed text with acoustic tracking effectively lowers the mechanical barrier to entry for early-career readers. Furthermore, qualitative tracking indicators highlighted that the immersive post-listening echo drills were the most vital components in transforming "Decoding Anxiety" into "Professional Reading Efficacy," yielding 5 fully validated reader success cases that met national literacy criteria.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the **Three-Phase Audiobook Integration Framework** is an outstandingly efficient, practical, and highly scalable methodology for reversing structural reading deficits in the primary school ecosystem. The dramatic leap across all core performance indicators establishes that early-

grade reading failure is frequently a symptom of structural print exhaustion rather than a fundamental lack of cognitive ability. The framework effectively bridges the gap between DepEd policy mandates and actual public school classroom practice, satisfying the professional literacy objectives embedded within the Philippine Professional Standards for Teachers (PPST).

Recommendations

- **Institutional Adoption:** It is highly recommended that this audiobook framework be formally adopted as a permanent component of the Remedial Reading Library inside the School Improvement Plan (SIP) to secure dedicated digital infrastructure budgets.
- **Resource Optimization:** School heads should allocate resources toward expanding the localized audio-repository, acquiring durable headphones, and digitizing core Phil-IRI selections to optimize implementation scalability.
- **Professional Capacity Upskilling:** SDOs should look to integrate audiobook-assisted literacy modules into upcoming Master Teacher-led LAC sessions to equip educators with unified listening strategies.
- **Home-Based Reading Advocacy:** Future structural iterations must extend this system out of the classroom by providing parents and guardians with localized mobile audio files to encourage a continuous home-based reading culture.

V. Risk Management and Sustainability Plan

To protect these structural literacy gains, the program systematically addressed operational vulnerabilities through proactive tactical mitigation:

- **Acoustic & Environmental Distractions:** Managed by carving out serene, noise-controlled reading workspaces within the school library to maximize target student focus.
- **Variable Listening Pacing Gaps:** Resolved by leveraging user-controlled digital media players paired

with specialized, differentiated one-on-one teacher coaching for slow-decoding participants.

- **Engagement Fatigue:** Addressed by selecting high-interest, culturally diverse local stories and offering short, milestone-based structural rewards (pens, certificates) to keep student morale exceptionally high. This dynamic framework now serves as the vital link required to bridge the gap between DepEd basic literacy policies and daily classroom practice, ensuring a sustainable, replicable culture of proactive inquiry that fulfills the professional expectations of the 21st-century educational landscape.

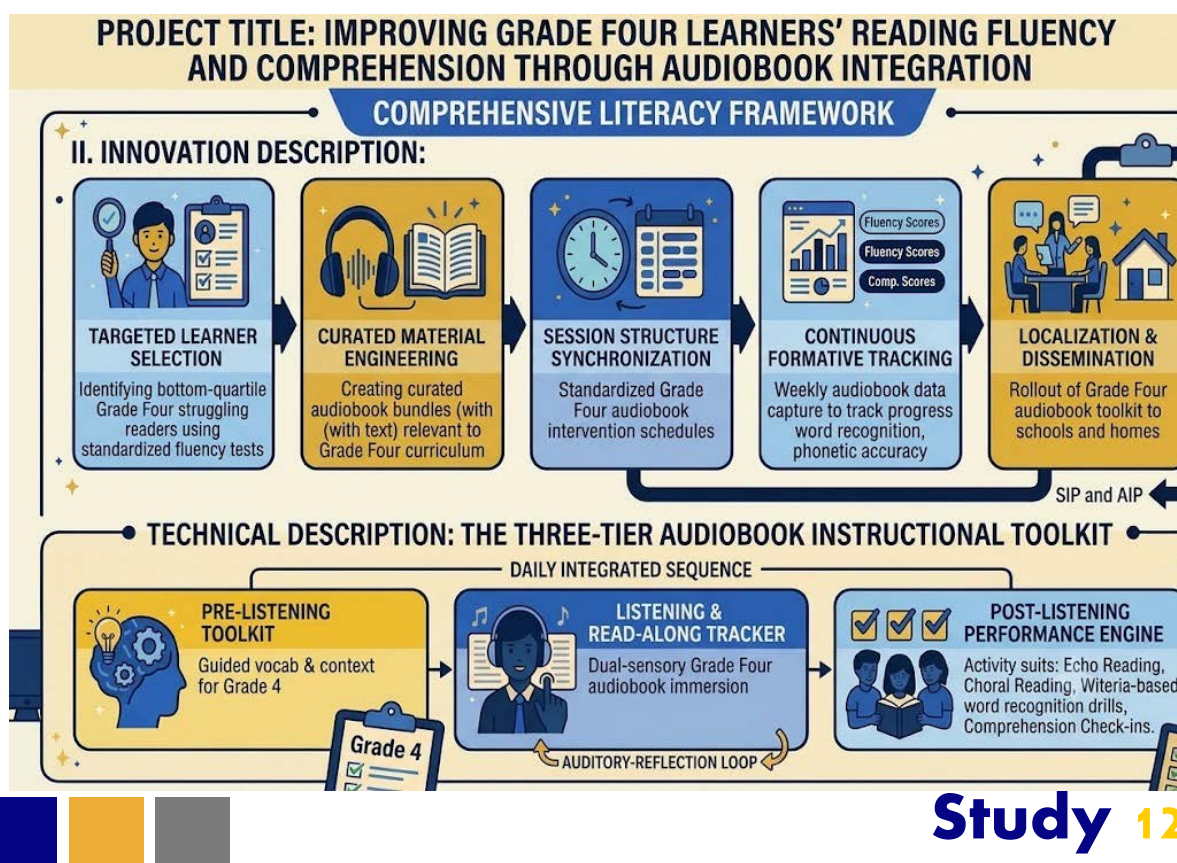
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Project Title: Enhancing Grade Five Learners' Reading Comprehension Skills in English Through the ReaCAP Learning Package for the New Gen

Authors: Lerah Joie L. Dumaguit, April Rose D. Tubaces, and Imme C. Salva | SDO-Bohol

I. Innovation Overview

Limokon Elementary School recognized a critical need to strengthen the

foundational literacy landscape, specifically targeting severe gaps in reading comprehension among intermediate pupils. Initial assessments using the Philippine

Informal Reading Inventory (Phil-IRI) revealed that 89% of Grade 5 learners were classified under the "Frustration Level," exhibiting limited vocabulary, slow reading speed, and extreme difficulty in drawing conclusions or interpreting text.

To address these hurdles and align with the Department of Education's (DepEd) "Every Child a Reader Program" (ECARP), the school developed and deployed the **ReaCAP Learning Package for the New Gen** (*Reading Comprehension for Accelerated Progress*). This instructional process innovation replaces traditional remedial methods with a structured, data-driven framework that bridges the gap between learner inactivity and academic efficacy. The initiative successfully transformed struggling readers into independent, high-performing learners, ensuring that classroom interventions deliver verifiable academic growth.

II. Innovation Description

The innovation is operationalized through a comprehensive, structured implementation agenda integrated into the remedial cycle to ensure systematic literacy development:

1. **Material Customization:** Developing validated worksheets and contextualized learning packets covering oral reading, fluency, and complex comprehension skills.
2. **Stakeholder Orientation:** Engaging parents and guardians early to establish learning pledges and formal co-ownership of the remedial goals at home.
3. **Structured Remediation:** Allocating a dedicated 50–60 minute daily block during afternoon remedial periods for systematic intervention.
4. **Targeted Drill Strategies:** Incorporating intensive 20-item spelling drills and vocabulary logging to actively combat decoding and word-recognition barriers.
5. **Collaborative Knowledge Sharing:** Utilizing School Learning Action Cell (LAC) sessions to share best practices and replicate student data tracking among peer educators.

Technical Description: The Five-Section Learning Loop

At the heart of the ReaCAP package is a structured instructional flow designed to guide learners gradually from guided modeling to independent mastery. This is achieved via five integrated sections within the learning packets:

- **Reading Goals:** Explicitly lays out the target objectives and reading competencies for the session to focus student focus.
- **Mentor Me:** A teacher-led modeling phase utilizing the Accelerated Progress Guide to explain concepts and demonstrate effective decoding strategies.
- **Working Collab:** Group-based active learning where peers collaboratively solve worksheets and present outputs to lower individual learning anxiety.
- **I-Check:** Formative individual assessments consisting of reading passages with tiered comprehension questions to evaluate single-learner progress.
- **Way Back Home:** Home-based extension tasks overseen by parents via signed reading agreements to ensure continuous practice outside the school environment.

III. Key Results and Impact Status

The intervention yielded outstanding progress across the participant group, as demonstrated by the pre- and post-intervention monitoring and evaluation metrics:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Learners at "Outstanding" Level (27–28)	0 Learners	4 Learners	Significant Leap
Learners at "Needs Improvement" Level (<20)	7 Learners	2 Learners	Drastic Reduction

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Peak Individual Score Achieved	24 / 28 (Kent James)	28 / 28 (4 Learners Perfect)	Exceeded Standards
Highest Score Improvement Growth	15 / 28 Baseline (April Joy)	28 / 28 Post-Test	+13 Score Jump (Highest Growth)

Evidence of Impact: The data verified that the ReaCAP framework successfully elevated individual performance across varying levels of reading proficiency. Four out of the eight core frustration learners achieved perfect post-test scores (28/28), moving completely out of the deficit bracket into the "Outstanding" tier. Even the remaining low-performing learners exhibited measurable progress (e.g., Jezelyn climbing from 14 to 16, and Rhea Jane from 13 to 17). Qualitative observations from the implementation period proved that systematically breaking down "Why" and "How" questions via the *Mentor Me* and video-supported phases successfully converted learner frustration into reading confidence.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the ReaCAP Learning Package is a highly effective instructional mechanism for reversing reading frustration in early-career and intermediate students. The marked shift from universal vocabulary deficit to high-percentage post-test scores proves that targeted, multi-sensory materials can rapidly mitigate learning gaps exacerbated by external academic disruptions. By aligning school-level remediation with clear accountability metrics, this framework

successfully bridges macro educational policies with everyday classroom practice.

Recommendations

- **Institutionalization:** Formalize the ReaCAP Learning Package within the School Improvement Plan (SIP) to lock in permanent scheduling for daily remedial slots.
- **Differentiated tracks:** Enhance future iterations of the package by embedding advanced tiers for high-performing students to prevent mastery stagnation.
- **Technological Integration:** Scale the printed packages into digital formats, integrating educational reading apps or interactive simulations to increase engagement.
- **District-Level Replication:** Disseminate the best practices via broad learning circles (LAC) to enable neighboring multi-grade or elementary schools to replicate the strategy.

V. Risk Management and Sustainability Plan

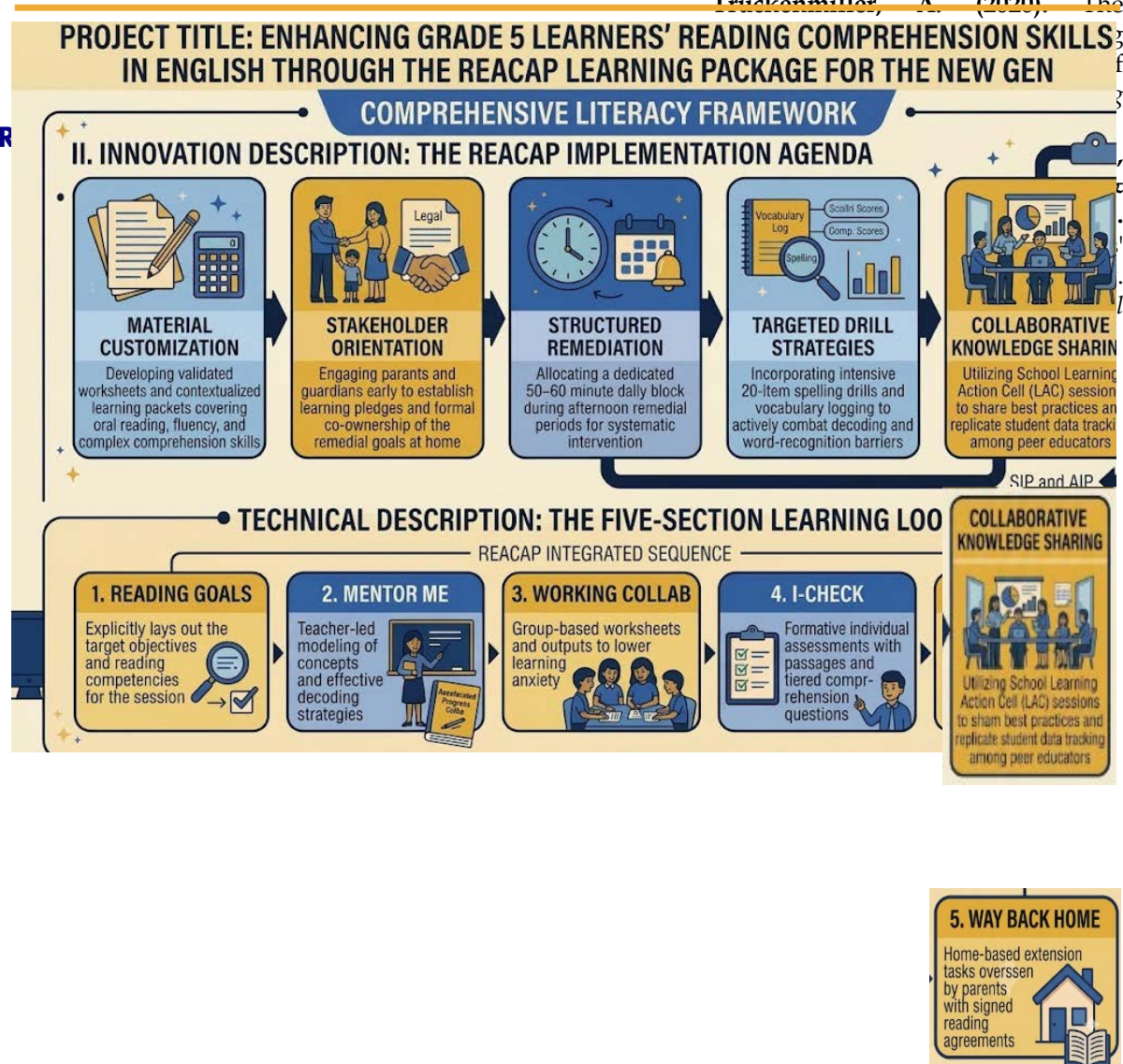
To safeguard the literacy gains achieved, the implementation mitigated potential bottlenecks through proactive design:

- **Time Constraints & Pace Breaches:** Addressed by providing immediate feedback loops and letting advanced students move forward independently, allowing teachers to devote undivided focus to slower-paced learners.
- **Decoder Hurdles & Engagement Loss:** Managed by supplementing written worksheets with engaging audio-visual materials and contextualized vocabulary notebooks.
- **Home Practice Attrition:** Mitigated through mandatory "Way Back Home"

reading pledges signed by parents, ensuring continuous community-level reinforcement of the reading competencies.

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Study 13

Project Title: Enhancing English Listening Comprehension Among Grade Six Pupils of Dumlog Elementary School Through Virtual Storytelling Multimedia (ViStoM)

Authors: Leslie L. Caramihan, Juliet A. Dela Cerna, and Arsenio Jr. R. Caramihan | SDO-Talisay City

I. Innovation Overview

Dumlog Elementary School recognized a critical baseline deficiency in the English listening comprehension skills of its Grade Six

pupils. Initial pre-test metrics indicated that a vast majority - 4.2% of the learners - performed at the "Needs Improvement" level, demonstrating persistent difficulties in

understanding spoken texts, extracting core details, identifying main ideas, and making inferences. These auditory-processing barriers directly compromised the pupils' academic performance and classroom participation, particularly in an English language curriculum that historically favored reading and writing over standard listening development.

To address these vulnerabilities and respond to the Department of Education's (DepEd) mandate to bridge critical learning gaps (National Learning Recovery Program, DepEd Order No. 13, s. 2023), the school developed and deployed **Virtual Storytelling Multimedia (ViStoM)**. This instructional process innovation replaces passive, mechanical listening exercises with a dynamic, data-driven framework that integrates interactive multimedia tools with scaffolded narrative instruction. The initiative successfully transformed passive listeners into highly attentive, proficient comprehenders, converting classroom language difficulties into measurable academic gains.

II. Innovation Description

The process innovation is anchored in a systematic implementation schema integrated into the regular English curriculum to ensure sustainable literacy progress:

1. **Material Curation & Validation:** Designing and verifying contextualized digital story matrices, audio-visual narratives (e.g., *The Carabao and the Shell*), and matching tiered comprehension exercises.
2. **Technical Layout Deployment:** Implementing audio presentations, text-supported animations, and digital media projections during core subject hours to provide visual and auditory support.
3. **Metacognitive Modeling:** Incorporating explicit teacher modeling sessions where educators demonstrate how to process audio feeds and utilize listening strategies.
4. **Peer-Assisted Collaboration:** Integrating small-group activities, film reviews, and song interpretations to encourage cooperative meaning-making and lower text anxiety.
5. **Continuous M&E Integration:** Embedding systematic pre-tests, structured observation checklists, formative progress quizzes, and

standardized post-tests to continuously track performance shifts.

Technical Description: The Five-Stage ViStoM Learning Loop

At the heart of the innovation is a structured "cognitive-meaning loop" that moves learners systematically from scaffolded inputs to individual metacognitive independence. This is operationalized through five interactive learning phases built into the weekly lessons:

- **Orientation and Familiarization:** A brief, multimedia demo phase designed to acclimate pupils to the digital delivery platform and audio-visual layouts.
- **Multimedia Delivery:** A core instructional phase that presents curated stories by merging audio narration, graphic illustrations, and printed textual cues to maximize multi-sensory processing.
- **Scaffolded Comprehension:** A teacher-led phase focusing on listening strategies where pupils learn to dissect literal details, identify main concepts, and track narrative sequences.
- **Interactive Exercises & Verification:** Active learning drills where pupils write out listening texts in their own words, answer tiered check-up packets, and compare their versions against original dialogues to test accuracy.
- **Independent Practice & Evaluation:** Individual performance checkpoints-including literal, inferential, and critical-thinking test sheets-combined with pupil feedback logs to verify standalone mastery.

III. Key Results and Impact Status

The four-week intervention yielded outstanding progress across the student cohort, as verified by quantitative and qualitative evaluation metrics:

Performance Indicator	Base-line (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Pupils Meeting Benchmark ("Passed")	21.0 % (8 Pupils)	79.0% (30 Pupils)	Significant Increase
Pupils at "Needs Improvement" Level	79.0 % (30 Pupils)	21.0% (8 Pupils)	Drastic Reduction
Class Mean Score (Out of 20)	11.84 (SD = 3.37)	15.00 (SD = 2.50)	Statistically Significant Gain (+3.16)
Statistical Relevance (p-value)	Alpha level set at 0.05	t-computed = 11.23; $p < 0.0001$	Confirmed Intervention on Efficacy

Evidence of Impact: The paired *t*-test data provides strong empirical validation that the ViStoM framework successfully elevated auditory-processing capabilities across the cohort, yielding a highly significant mean score jump of 3.16 points ($p < 0.0001$). The distribution shifted dramatically, turning a baseline class failure rate into a 79% mastery rate, while narrowing the standard deviation from 3.37 to 2.50—proving more uniform comprehension across mixed-ability subgroups.

Qualitatively, thematic analyses of observation checklists and pupil survey logs confirmed that the combination of illustrations, audio effects, and narrative themes acted as a crucial cognitive anchor. Learners reported heightened motivation, longer attention spans, and an eagerness to participate in on-screen quizzes, explicitly stating that seeing paired visuals allowed them to store and recall details far more easily than traditional print reading methods.

IV. Conclusions and Recommendations

Conclusion

The study concludes that Virtual Storytelling Multimedia (ViStoM) is a highly potent, statistically verifiable mechanism for mitigating severe listening comprehension gaps in elementary-career learners. The transition of nearly 80% of the class into the passing tier establishes that student disengagement during listening lessons stems

from underutilized instructional formats rather than basic language incapacity. By providing visual and auditory cues simultaneously, the framework bridges national learning recovery initiatives with direct classroom practices, satisfying the professional competencies required under both the PPST and localized curriculum goals.

Recommendations

- **Institutionalization:** Formalize the ViStoM framework into the school's Annual Implementation Plan (AIP) to lock in funding for multimedia hardware upgrades and regular digital library curation.
- **Differentiated Scaffolding:** Develop tiered audio tracks (e.g., adjustable speeds, variable text support, pre-taught vocabulary glossaries) to systematically support the 21% subgroup still needing intensive remediation.
- **Cross-Subject Integration:** Expand the digital multimedia storytelling design beyond the English department into mother-tongue and Filipino classes to drive generalized auditory development.
- **LAC Session Dissemination:** Leverage the validated data files of this action research to run School Learning Action Cell (LAC) writeshops, preparing peer teachers across the district to build their own digital storytelling frameworks.

V. Risk Management and Sustainability Plan

To safeguard the literacy milestones achieved, the project anticipated potential disruptions through explicit structural controls:

- **Technical Infrastructure Bottlenecks:** Addressed by caching digital content, organizing downloadable offline repositories, and utilizing local storage templates to bypass slow internet connections during live sessions.
- **Cognitive Overload Risks:** Mitigated by setting clear chunking protocols for text, ensuring that animations do not outpace the audio track, and balancing

visual graphics so they support rather than distract from the main story.

- **Persistent Skill Deficits:** Controlled by setting up a dedicated remediation track where learners failing to hit the 65% passing threshold receive individualized guided note frames and repeat exposures to the multimedia decks.

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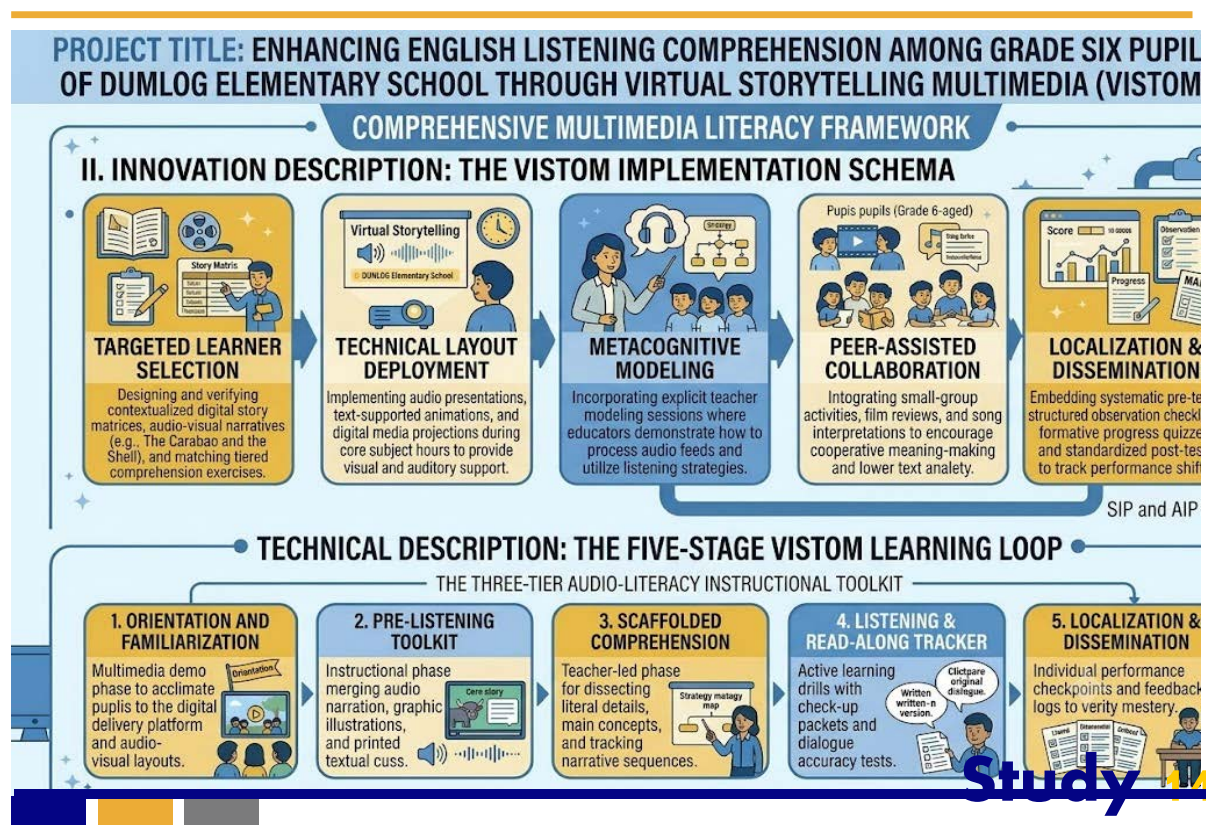
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Project Title: Improving Reading Performance of Grade 6 Learners with Special Educational Needs Through Intensified Differentiated Instruction

Authors: Glaiza T. Jala, Juanita C. Lafuente, Concepcion I. Gallentes | SDO-Tagbilaran City

I. Innovation Overview

Cogon Elementary School recognized a critical opportunity to address the stark

inequities in reading achievement among its most vulnerable student demographics. While general reading interventions were active across the division, school-level tracking

revealed that a majority of identified non-readers were Grade 6 Learners with Special Educational Needs (LSENs) struggling with language processing, cognitive delays, and sensory impairments. To dismantle these barriers and uphold the Department of Education's (DepEd) mandate for inclusive and equitable basic education under Republic Act 10533 and Republic Act 11650, the school introduced **Intensified Differentiated Instruction**. This instructional process innovation systematically transforms the reading environment from a traditional "one-size-fits-all" modality into an adaptive, multi-tiered framework. By shifting away from standard remedial tracks toward highly customized instructional pathways, this proactive framework effectively elevated the school's inclusive education benchmarks and catalyzed measurable progress in student literacy.

II. Innovation Description

The innovation is operationalized through a comprehensive structural agenda integrated into the daily reading program, targeting the specific learning profiles of neurodiverse pupils. To build institutional capacity and ensure deep integration into the school's reading curriculum, the framework structures learning across three primary dimensions: **Content Differentiation** (modifying texts to match interest and baseline skills), **Process Differentiation** (employing small-group, peer-assisted, and individualized modalities), and **Product Differentiation** (allowing oral, written, or creative performance-based demonstrations of comprehension).

Technical Description: The 6-Strategy Framework

At the core of the intervention is a continuous, monitored delivery system driven by six integrated instructional strategies tailored for LSENs:

- **Leveled Texts and Materials:** Developing and organizing reading passages across varying difficulty tiers to ensure each learner works directly within their Zone of Proximal Development.

- **Multisensory Approaches:** Integrating tactile letter tiles, audio-assisted reading, and colorful graphic organizers to fully engage visual, auditory, and kinesthetic learning channels.
- **Individualized Education Plans (IEPs) Alignment:** Tailoring everyday classroom tasks to systematically target the exact literacy objectives outlined in each pupil's official IEP.
- **Tiered Assignments:** Formatting tasks that share identical core comprehension benchmarks but vary dynamically in execution complexity.
- **Scaffolding and Explicit Instruction:** Segmenting complex phonics and decoding skills into small, step-by-step components with upfront teacher modeling.
- **Frequent Feedback and Monitoring:** Embedding real-time, encouraging feedback loops combined with routine informal checks and formal standard assessments.

III. Key Results and Impact Status

The application of this structured instructional framework successfully transitioned the target participants out of severe literacy gaps toward demonstrable

reading competence, as validated by pre- and post-intervention measurements using the standardized Philippine Informal Reading Inventory (PHIL-IRI) tool:

Performance Indicator	Base-line (Pre-Test)	Post-Intervention	Impact Status
Mean Reading Fluency	45.00 WPM (Words Per Minute)	66.33 WPM	Significant Increase
Mean Comprehension Score	44.67%	69.50%	Enhanced Understanding
Overall Reading Level	Frustration Level	Instructional Level	Progressed Literacy Tiers

Evidence of Impact: The empirical data confirms that the framework successfully

altered the school's special education trajectory, shifting the group's collective baseline profile out of the Frustration tier directly into the Instructional level. Individually, 50% of the target LSEN cohort jumped completely into the Independent reading bracket, proving that the intensive multi-sensory techniques efficiently reduced cognitive barriers. Qualitative records from teacher journals and classroom logs showed a dramatic reduction in student reading anxiety, replaced by a notable increase in vocal participation, self-assurance, and peer collaboration during reading periods. By establishing a highly structured roadmap, educators successfully realigned classroom practice with local educational needs, resolving learning gaps among students with physical or cognitive challenges.

IV. Conclusions and Recommendations

Conclusion

The study establishes that *Intensified Differentiated Instruction* is a highly productive intervention for closing the literacy gap among learners with special educational needs in public school settings. The progression from non-reader and frustration baselines to instructional and independent milestones proves that academic stagnant states among

LSENs are generally caused by a lack of tailored instructional mechanisms rather than limitations in student capacity. The framework effectively translates national inclusive education legislative policies into daily, manageable classroom routines.

Recommendations

- **Institutionalization:** Formally integrate this 6-strategy differentiated reading framework into the School Improvement Plan (SIP) and the Every Child a Reader Program (ECARP) to guarantee institutional resource support.
- **Continuous Progress Tracking:** Mandate the continuous tracking of literacy progress using standardized evaluation metrics like PHIL-IRI to adjust instructional tiers dynamically as student proficiency shifts.

- **Capacity Building:** Launch focused technical assistance operations and division-wide professional development workshops to master advanced inclusive education methodologies and multi-sensory material creation.
- **Division-Wide Adoption:** Advocate for the systemic scale-up of this differentiated instructional blueprint to other public institutions within SDO-Tagbilaran City to support broader inclusion initiatives.

V. Risk Management and Sustainability Plan

To safeguard these learning improvements against typical institutional constraints, the program proactively neutralizes systemic risks:

- **Large Class Sizes & Resource Scarcity:** Managed by organizing self-paced, leveled reading sheets and low-cost multi-sensory tools, maximizing learning engagement without requiring expensive technological setups.
- **Varying Student Paces:** Addressed through tiered assignments and structural scaffolding, ensuring faster learners remain challenged while

preventing slower learners from becoming overwhelmed.

- **Student Avoidance and Low Engagement:** Mitigated by integrating audio-assisted storytelling, interactive kinesthetic activities, and targeted positive validation loops, converting learning anxiety into functional self-efficacy.

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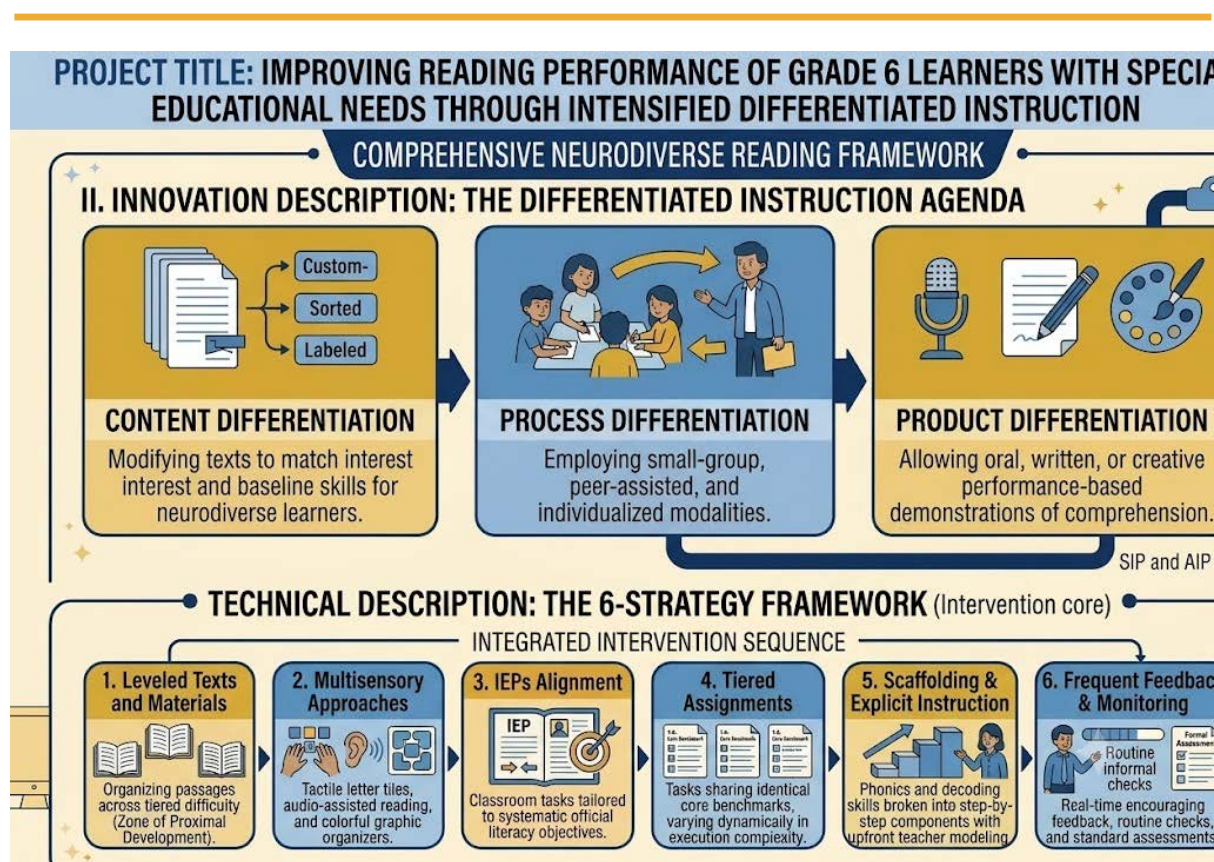
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Study 15

Project Title: One Week, One Story: A Mentorship Guide for Enhancing Reading Fluency and Confidence Among Grade 6 Halting Readers

Authors: Jia Christi S. Laranio, Sarra A. Genayas, Queensly V. Parame | SDO-Carcar City

I. Innovation Overview

Manghupi Elementary School recognized a valuable opportunity to further

strengthen its reading landscape and support Grade 6 halting readers in achieving reading fluency and confidence. While educators

showed great initiative in implementing reading interventions, the school identified that the lack of a structured reading guide—especially for newly hired teachers—often made the journey toward sustainable literacy improvement a significant challenge, leaving 83% of sixth-grade students falling below expected fluency levels. To address these gaps and support the Department of Education's (DepEd) thrust to cultivate lifelong literacy, Manghupi Elementary School introduced the *One Week, One Story Mentorship Guide*. This process innovation serves as a comprehensive step-by-step framework, replacing inconsistent reading exercises with a systematic, peer-assisted system that provides a clear path for struggling readers to succeed. This proactive initiative empowered fluent readers as student mentors and equipped teacher-facilitators, successfully elevating learner performance and fostering a supportive, literacy-rich culture across the school.

II. Innovation Description

The process innovation is anchored in a structured daily routine implemented over a 10-week intervention period designed to dismantle the technical and behavioral hurdles identified in the initial reading assessments. To ensure long-term integration into the school's regular reading program, the framework focuses on:

1. **Personnel Capacity:** Training and organizing teacher-facilitators and student mentors to effectively conduct scaffolded reading instructions.
2. **Technical Support:** Institutionalizing standardized daily literacy tools and structured error-correction mechanisms to eliminate instructional guesswork.
3. **Resource Optimization:** Maximizing student engagement through a localized weekly story manual and parent-monitored home audio recordings.
4. **Monitoring & Evaluation:** Ensuring the continuous tracking of reading speed, accuracy, and prosody using targeted performance charts and metrics.
5. **Dissemination:** Maintaining a collaborative learning framework through Learning Action Cell (LAC) sessions and formal adoption via

school or district memorandums for widespread replication.

Technical Description: *The Weekly Reading Routine*

At the heart of the innovation is a structured, daily step-by-step literacy cycle that guides halting readers across the week using a single story to build absolute mastery. This is operationalized through five integrated daily sessions:

- **Monday (Vocabulary Booster):** A five-minute session introducing five key words focusing on correct pronunciation, spelling, and syllabication.
- **Tuesday (Story Kick-Off & Exploration):** Features a warm-up song, picture walk, vocabulary exploration, and a targeted read-aloud using think-aloud strategies.
- **Wednesday (Group Reading & Error Correction):** A collective reading session followed by a "Spot and Fix" session for guided error correction.
- **Thursday (Peer Reading & Audio Recording):** Peer-led speed drills and expression tracking, concluding with

home-based reading recorded by parents via audio devices.

- **Friday (Independent Fluency & Showcase):** An independent reading evaluation, final fluency tracking, and a performance showcase accompanied by rewards and recognition.

III. Key Results and Impact Status

The intervention transitioned the learners from a state of severe reading difficulty to outstanding improvement, as evidenced by the pre- and post-test Monitoring and Evaluation (M&E) results:

Performance Indicator	Base-line (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Mean Accuracy Score	90.11 %	95.14%	Significant Gain (+5.03%)

Performance Indicator	Base-line (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Mean Reading Speed	67.50 wpm	94.08 wpm	Marked Pacing Improvement (+26.58 wpm)
Mean Expression Score	3.00	3.33	Gradual Prosody Growth (+0.33)
Reading Level Classification	12 Halting Readers	5 Halting, 7 Fluent	Inclusive Growth (58% Transitioned to Fluent)

Evidence of Impact: The data proves that the innovation successfully shifted the reading culture, moving more than half of the target population (7 out of 12 halting readers) into the "Fluent Reader" category. This clear transition indicates that the daily routine lowered the barrier to literacy entry for struggling early-career educators and halting readers alike. Furthermore, qualitative feedback from focus group discussions highlighted that the structured peer-assisted approach and "Spot and Fix" routines were the most critical factors in converting reading anxiety into reading

confidence. By providing a predictable roadmap, teachers aligned classroom interventions with local learning needs, producing verified improvements that directly address academic performance gaps.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the *One Week, One Story Mentorship Guide* framework is a highly effective process innovation for enhancing reading fluency and confidence in an elementary school setting. The rapid progression from zero fluent readers at baseline to 7 fully fluent readers post-intervention demonstrates that learner struggle is often a result of a lack of systematic support

mechanisms rather than a lack of capability. The framework effectively bridges the gap between DepEd literacy mandates and actual classroom operations, satisfying the professional standards required for effective reading management.

Recommendations

- **Institutionalization:** It is strongly recommended that this mentorship guide be formally adopted as a permanent component of the regular school reading program to ensure long-term budget and resource allocation.
- **Differentiated Support:** Provide specialized, flexible pacing and targeted one-on-one sessions for learners experiencing frequent absences or distinct learning difficulties to ensure truly inclusive growth.
- **Capacity-Building:** Conduct continuous training and coaching workshops for teachers and student mentors to maintain high-quality instructional delivery and strengthen leadership capabilities.
- **Resource Digitalization:** Develop and integrate digital or pre-recorded audio-visual resources for modeled reading to support remote, blended, or home-based independent practice.

V. Risk Management and Sustainability Plan

To safeguard these gains, the implementation addressed potential structural and behavioral risks through proactive mitigation:

- **Time & Scheduling Constraints:** Managed by adopting flexible scheduling, expanding implementation weeks, and introducing midday or afternoon one-on-one sessions to cover lost time due to overlapping school events.
- **Student Absences & External Factors:** Resolved via localized, targeted peer coaching where student mentors provided special remedial instructions to catch up late or absent learners.

- **Reading Anxiety & Low Motivation:** Addressed through the systematic use of rewards, positive reinforcement, and public recognition during Friday showcases, shifting the learner's

mindset from fear of errors to active participation.

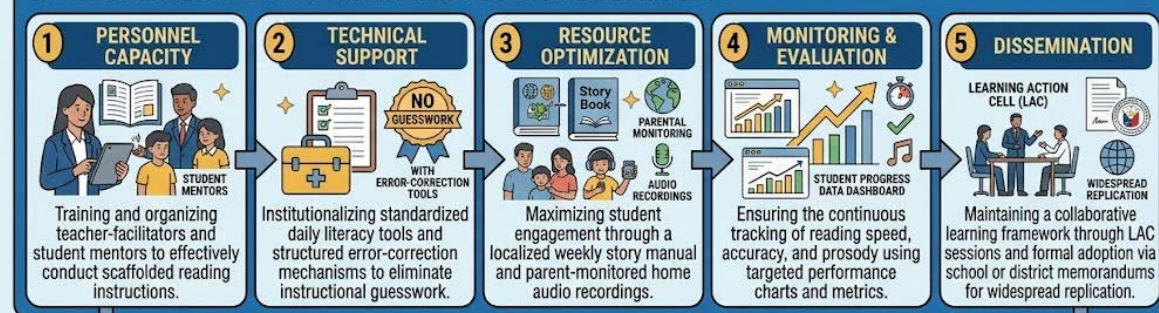
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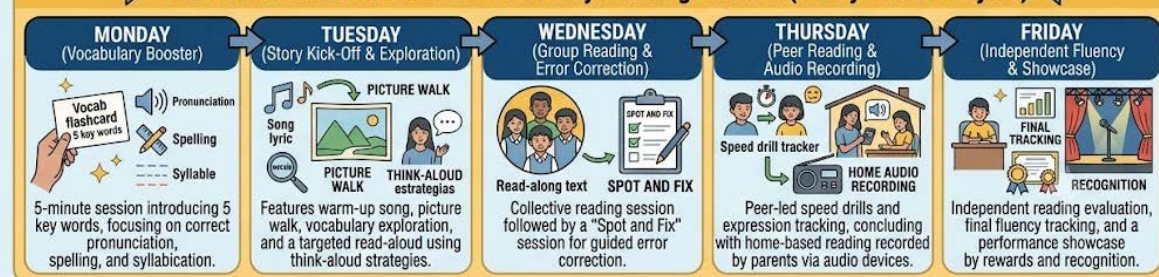
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PROJECT TITLE: One Week, One Story: A Mentorship Guide for Enhancing Reading Fluency and Confidence Among Grade 6 Halting Readers

II. INNOVATION DESCRIPTION: STRATEGIC PROCESS FLOW



TECHNICAL DESCRIPTION: The Weekly Reading Routine (5-Day Session Cycle)



Study 16

Project Title: Enhancing Reading Comprehension of Grade 7 Learners Through Guided Self-Selected Reading (GSSR)

Author: Rosalie T. Abueva | SDO-Tagbilaran City

I. Innovation Overview

Mansasa National High School recognized a critical opportunity to strengthen its literacy landscape and support Grade 7 learners who are struggling to transition into content-heavy junior high school subjects. While educators integrated standard literacy strategies, initial reading assessments revealed that a significant portion of incoming seventh graders fell into the "Frustration Level". This deficiency directly hindered their ability to digest scientific concepts, follow procedural experiments, and interpret complex textual data, creating a pronounced academic learning gap. To systematically reverse this decline and support the Department of Education's (DepEd) mandate for data-driven instructional interventions, the school introduced the **Guided Self-Selected Reading (GSSR)** framework. This process innovation serves as a structured instructional mechanism, replacing rigid, uniform reading tasks with an interest-based, scaffolded strategy. By matching learner autonomy with expert teacher facilitation, this initiative successfully elevated reading comprehension levels and laid a solid foundation for improved academic performance.

II. Innovation Description

The process innovation is operationalized through a systematic, 12-session classroom reading routine distributed across three weekly meetings. Designed to bypass traditional instructional guesswork and dismantle reading barriers, the GSSR framework centers on four strategic core dimensions:

1. **Personnel Capacity:** Empowering teacher-facilitators to conduct brief, structured reading conferences and provide real-time, personalized instructional steering.
2. **Technical Support:** Standardizing the implementation scheme from pre-implementation mapping to actual individual oral reading trackers.
3. **Resource Optimization:** Curating a verified repository of grade-appropriate texts (short stories, articles, and informational content) vetted by Division master teachers.
4. **Monitoring & Evaluation:** Leveraging qualitative student notebooks, personalized goal cards, and diagnostic pre- and post-tests to gauge longitudinal skill shift.

Technical Description: The GSSR Session Framework

The core methodology drives independent reading proficiency within an intentional, hour-long framework built on a continuous "instruction-reflection loop". Each session executes a four-tiered literacy workflow:

- **Step 1: Goal Setting & Priming:** Teachers introduce the day's text matrix; learners preview materials, isolate unfamiliar vocabulary words using pocket dictionaries, and log a personal reading objective on their goal cards.
- **Step 2: Autonomized Selection:** Learners freely choose a reading piece that aligns with their internal interests, removing psychological resistance to text engagement.
- **Step 3: Supported Reading & Conferencing:** As learners read independently for the designated hour, the teacher roams the room, executing brief individual reading conferences, throwing targeted comprehension questions, and providing immediate clarification on scientific or narrative terminology.
- **Step 4: Paired Reflection Loop:** Before concluding the session, a short guided reflection is activated where students
 - share key insights in pairs, followed by random teacher-led reflection checks to monitor semantic processing.

III. Key Results and Impact Status

The application of the GSSR framework moved the targeted sample size of 18 frustrated readers toward verified levels of structural and textual mastery:

Performance Indicator	Baseline (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Comprehension Score Range	12.5% to 57.14%	50.00% to 85.71%	Shifted Upward
Learners at Frustration Level	18 Students (100%)	7 Students (38.89%)	Significant Reduction

Performance Indicator	Baseline (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Learners at Instructional Level	0 Students (0%)	7 Students (38.89%)	Positive Growth
Learners at Independent Level	0 Students (0%)	4 Students (22.22%)	Outstanding Leap

Evidence of Impact: The comparative analysis confirms the intervention's high efficacy, with 61.11% of the target group successfully escaping the "Frustration Level" and advancing into the Instructional or Independent categories. Qualitative data extracted from daily monitoring logs and sample written outputs verified that combining reader choice with guided teacher conferences directly amplified student reading motivation and confidence. By linking contextualized intervention directly to local student parameters, the innovation proved that a structured roadmap enables struggling readers to conquer complex grade-level texts, successfully bridging crucial instructional gaps.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the Guided Self-Selected Reading (GSSR) framework is a highly successful process innovation for remediating severe

comprehension challenges within junior high school populations. The notable transition of the majority of participants out of the frustration band highlights that poor learner performance is often a result of a lack of interest-driven, structured support systems rather than an organic cognitive limitation. By balancing learner autonomy with direct teacher mediation, the strategy satisfies the professional performance metrics required by the Department of Education while directly solving localized learning gaps.

Recommendations

- **Curriculum Integration:** Formally incorporate GSSR protocols into

regular subject class interactions—particularly within content-heavy areas like Science and Mathematics—to assist students in navigating advanced text layouts.

- **Resource Digitization & Expansion:** Provide and diversify leveled reading media banks across multiple formats to continually support varying student interests and capabilities.
- **Professional Development Advocacy:** Institutionalize targeted training workshops and professional development activities through Learning Action Cell (LAC) platforms to equip educators with GSSR instructional habits.
- **Extended Research Cycles:** Conduct follow-up action research studies to explore the long-term cognitive retention of GSSR or evaluate its impact when explicitly paired with multi-sensory literacy interventions.

V. Risk Management and Sustainability Plan

To maintain instructional momentum and secure long-term sustainability, the implementation scheme incorporated robust structural safeguards:

- **Resource Bottlenecks & Availability:** Addressed by securing financial tranches for continuous material printing and partnering with the Parent-Teacher Association (PTA) to

crowdsource and expand reading corners.

- **Student Learning Diversity:** Managed by deploying varied, leveled reading materials that allow at-risk or slower learners to engage with text at their current comfort tier without falling behind.
- **Instructional Discontinuity:** Safeguarded via a definitive Dissemination, Utilization, and

Advocacy (DUA) plan that embeds the strategy into the school research repository and faculty training calendars for institutional continuity.

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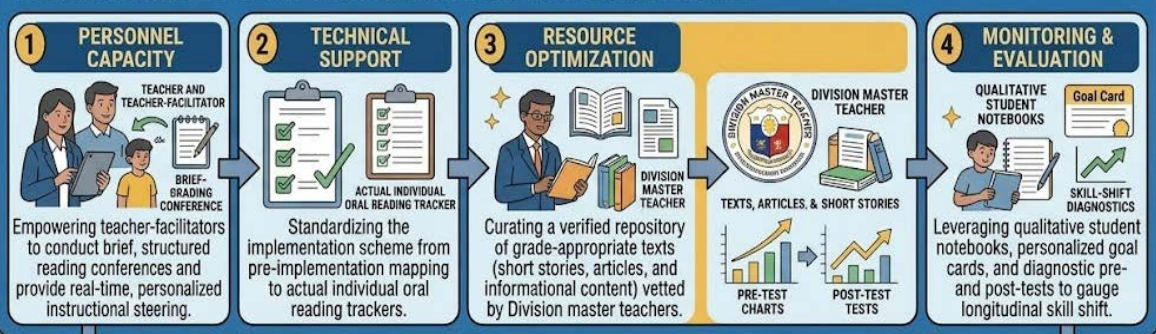
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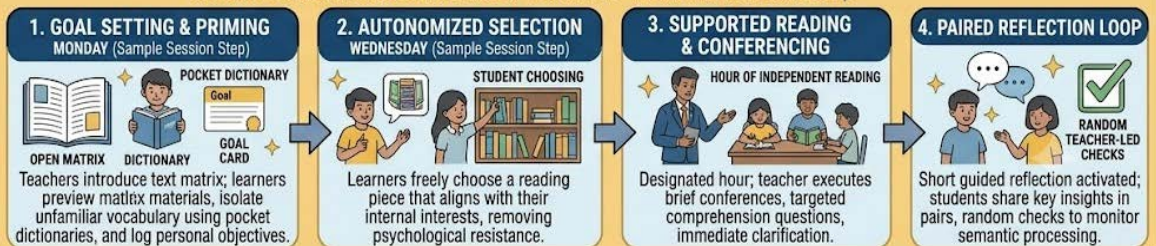
PROJECT TITLE: ENHANCING READING COMPREHENSION OF GRADE 7 LEARNERS THROUGH GUIDED SELF-SELECTED READING (GSSR)

II. INNOVATION DESCRIPTION: STRATEGIC CORE DIMENSIONS



TECHNICAL DESCRIPTION: THE GSSR SESSION FRAMEWORK

INTENTIONAL FRAMEWORK Built on Continuous "Instruction-Reflection Loop"



Study 17

Project Title: Project READ (Reading Engagement and Development): Improving Grade 7 Learners' Reading Proficiency with the Validated Toolkit

Author: Sheryleen Belcee G. Roma | SDO-Toledo City

I. Innovation Overview

Cantabaco National High School (CNHS) recognized a vital opportunity to address a critical

academic challenge: the recurring low reading proficiency among incoming Grade 7 learners. School year baseline statistics from the Philippine

Informal Reading Inventory (Phil-IRI) revealed that an alarming 78% of incoming seventh graders failed the Group Screening Test, leaving many operating as non-readers or frustration-level readers who struggled significantly with foundational decoding, vocabulary, and basic comprehension. This systemic deficit severely hindered their ability to access information across the curriculum, eroding their learning confidence and academic prospects.

To bridge this local learning gap and align with the Department of Education's (DepEd) literacy recovery initiatives, CNHS implemented **Project READ (Reading Engagement and Development)**. This instructional and process innovation centers on a context-sensitive, validated **Reading Toolkit** that transforms traditional, generic remediation into a highly structured, scaffolded, and technology-integrated literacy program. Featuring an eight-week dynamic cycle that interfaces classroom intervention with at-home parental reinforcement, the initiative successfully minimized psychological barriers like reading anxiety and accelerated student literacy development, systematically transitioning struggling students into capable, self-assured readers.

II. Innovation Description

The innovation is anchored in a comprehensive, localized framework designed to dismantle academic and affective reading barriers, seamlessly embedding sustainable literacy practices into the school's remedial infrastructure. The implementation focuses on five core operational strategic components:

1. **Targeted Differentiated Instruction:** Executing an intensive, 8-week daily remediation calendar (Monday to Friday, 1:00 PM – 3:00 PM) specifically tailored to the learners' individual Zones of Proximal Development.
2. **Context-Sensitive & Localized Material:** Utilizing culturally relevant literature specifically designed for Filipino secondary students to enhance textual connection and reading interest.
3. **Home-School Literacy Partnerships:** Institutionalizing structured weekly parental involvement protocols, empowering guardians with explicit prompts to guide and reinforce critical thinking at home.
4. **Blended Digital Integration:** Enhancing interactive learning and contemporary literacy capabilities by embedding digital interactive platforms into vocabulary and comprehension drills.

5. **Continuous M&E and Accountability:** Utilizing a robust system of trackers, logs, and diagnostic parallel testing to monitor real-time skill acquisition and adjust instruction dynamically.

Technical Description: *The Reading Toolkit Ecosystem*

At the heart of Project READ is a multi-component toolkit that guides learners through progressive phases of literacy development. The intervention ecosystem is operationalized through six integrated instruments and components:

- **Fluency-Building Component:** Employs targeted phonics, vocabulary games, choral read-alouds, and fill-in-the-blank drills to build decoding accuracy and reading speed.
- **Comprehension Development Framework:** Leverages story mapping, graphic organizers, and guided reading texts to shift students from literal recall to deep inferential thinking.
 - **Culturally Relevant Digital Repositories:** Features engaging localized narratives (e.g., *The Enchanted Whispering Seashell*, *Kalabaw and Tarsier's Friendship*) paired with digital platforms like Padlet to gamify fact-versus-opinion hunts and context-clue exercises.
- **Weekly Parent Engagement Prompts:** Provides structural, easy-to-follow instructional guides for parents to facilitate manageable home-based practice sessions.
- **Teacher's Observation Checklist:** Tracks real-time classroom behavior across five primary domains (Fluency, Comprehension, Strategy Use, Engagement, and Parent Support).
- **Phil-IRI Tracking Dashboard:** Measures individual pre- and post-intervention scores to cross-validate quantitative reading levels against qualitative student reflection logs.

III. Key Results and Impact Status

The implementation of Project READ successfully transitioned the target demographic from severe literacy deficits to substantial reading proficiency, as demonstrated by the verified Monitoring and Evaluation (M&E) results:

Performance Indicator	Base-line (Pre-Test)	Post-Intervention	Impact Status
Mean Reading	1.38/10	6.13/10 (61.25%)	Significant Academic

Performance Indicator	Baseline (Pre-Test)	Post-Intervention	Impact Status
Assessment Score	(13.75%)		Gain (+47.5% Mean Percentage Gain)
Non-Reader Demographic	3 Learners (37.5%)	0 Learners (0%)	Complete Eradication of Non-Reading Status
Instructional Reading Level	0 Learners (0%)	5 Learners (62.5%)	Accelerated Literacy Mastery
Student Engagement Rating	High Reading Avoidance / Fatigue	Mean Score: 3.25/4.00 (Agree)	Enhanced Motivation & Focus
Parental Usability Perception	Ad-hoc / Low Home Literacy Support	Mean Score: 3.44/4.00 (Strongly Agree)	Institutionalized Home Reinforcement

Evidence of Impact: The data confirms that the validated Reading Toolkit successfully engineered an absolute demographic shift, lifting 100% of non-readers out of zero-level proficiency and advancing the majority (62.5%) directly into the independent-leaning "Instructional Level." Triangulation of survey data, focus group discussions (FGDs), and teacher observation checklists revealed a profound cultural change. Students explicitly reported converted affective states, using Bisayan descriptors such as "*nindot*" (beautiful/good), "*excited*", and "*maka-confident*" to characterize their new relationship with reading.

Quantitative gains were directly mirrored in classroom behaviors, where teacher logs verified marked increases in independent strategy application (summarizing, predicting, and self-correction). Furthermore, parent surveys (3.50 mean score for perceived child impact) validated that these literacy practices effectively transferred outside the school environment, resulting in children reading more frequently and confidently at home.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the validated Reading Toolkit is a highly effective,

contextually sensitive solution for reversing severe reading deficits in secondary school learners. The substantial jump from a 13.75% baseline to a 61.25% post-intervention score proves that adolescent reading inactivity is primarily a product of unoptimized, generic materials rather than a baseline inability to learn. By unifying localized text selection, digital interaction, and structured scaffolding, the framework bridges the operational gap between DepEd literacy mandates and actual classroom realities, satisfying professional standards for student-centered instruction.

Recommendations

- **Formal Curricular Integration:** It is strongly recommended to formally institutionalize the Reading Toolkit into the regular Grade 7 English curriculum and the school's remedial reading blocks for subsequent academic terms.
- **Scale and Replicate:** SDO-Toledo City should consider scaling this structured model across other secondary schools in the division to target parallel reading frustration levels at the district level.
- **Expand Differentiated Fluency Support:** Future iterations must build in dedicated decoding and systemic phonics subsystems within the daily program to specifically elevate oral reading smoothness, which remains a developmental challenge.
- **Structure Parent Clinics:** Establish formal parent orientations at the start of each semester to train guardians on utilizing the home-prompts, thereby stabilizing the variability of home-based support.
- **Launch a Peer Mentorship Program:** Leverage the pioneer graduate learners of Project READ as "Student Ambassadors" or peer reading buddies to create an inclusive, sustainable culture of reading across grade sections.

V. Risk Management and Sustainability Plan

To protect and sustain these literacy gains against operational challenges, the project proactively mitigates risks through targeted structural strategies:

- **Fidelity of Implementation & Time Constraints:** Mitigated by embedding the 2-hour daily reading block directly into the official school activities calendar, ensuring regular remediation does not clash with teacher workloads or core academic timelines.
- **Variable Stakeholder Support at Home:** Addressed by designing the home toolkit

components to be completely user-friendly, requiring zero specialized teacher knowledge from parents. Ongoing teacher check-ins and reading recognition certificates keep parental morale high and encourage consistent home practice.

- **Fluency Progression Plateaus:** Resolved by maintaining individual student observation logs and formative assessments, allowing teachers to dynamically introduce peer-reading and targeted speed-drills when a learner's decoding pace stagnates.
- **Resource Preservation:** Sustained by establishing a digital repository of the toolkit via accessible school platforms while establishing a rotational printed copy system managed by the School Research Coordinator to ensure zero-cost continuous access.

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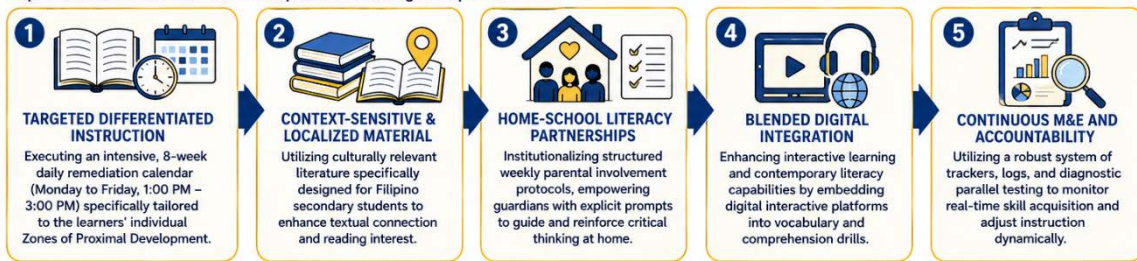
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PROJECT TITLE: PROJECT READ (READING ENGAGEMENT AND DEVELOPMENT): IMPROVING GRADE 7 LEARNERS' READING PROFICIENCY WITH THE VALIDATED TOOLKIT

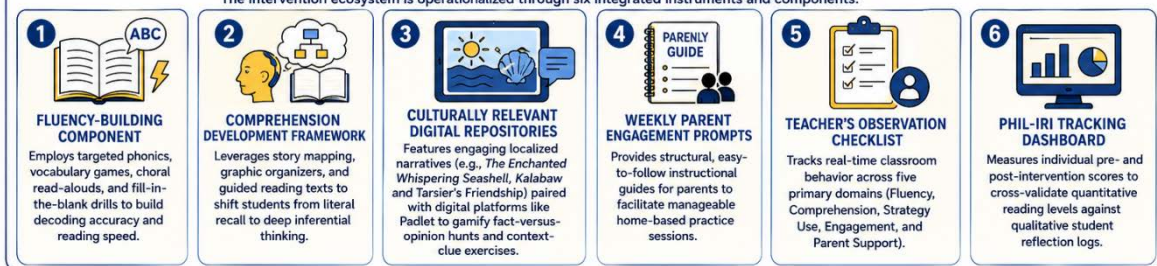
INNOVATION DESCRIPTION

The innovation is anchored in a comprehensive, localized framework designed to dismantle academic and affective reading barriers, seamlessly embedding sustainable literacy practices into the school's remedial infrastructure. The implementation focuses on five core operational strategic components:



TECHNICAL DESCRIPTION: THE READING TOOLKIT ECOSYSTEM

At the heart of Project READ is a multi-component toolkit that guides learners through progressive phases of literacy development. The intervention ecosystem is operationalized through six integrated instruments and components:



Project Title: Enhancing the Reading Comprehension of Grade 7 Students with Reading Difficulties Through Differentiated Instruction

Author: Sharon Grace C. Geralem | SDO-Toledo City

I. Innovation Overview

Luray II National High School recognized a critical need to support secondary

students transitioning from primary education who continued to battle severe reading challenges. Local assessments revealed that a staggering 89% of Grade 7 students were performing at the "frustration level" on the Philippine Informal Reading Inventory (Phil-IRI), plagued by high cognitive load, limited attention spans, and reading anxiety.

To bridge this literacy gap and advance the Department of Education's (DepEd) *Hamon: Bawat Bata Bumabasa (3Bs)* initiative, the school developed and implemented "**Reading Ladder Quest**." This process and pedagogical innovation replaces traditional, overwhelming remedial formats with data-driven, gamified **15-minute daily micro-sessions**. By utilizing scaffolded materials aligned directly with the learners' zones of proximal development, the strategy effectively dismantles technical hurdles, shifts student mindsets from avoidance to agency, and builds sustainable foundational literacy.

II. Innovation Description

The innovation is anchored in a targeted literacy development framework designed to streamline remediation without disrupting core instructional time. To ensure systemic integration, the framework focuses on:

1. **Targeted Micro-Sessions:** Delivering high-density, 15-minute daily small-group reading practices to maximize focus and avoid cognitive fatigue.
2. **Scaffolded Pedagogical Delivery:** Aligning context drills, guided oral reading, and vocabulary exercises directly with learner readiness levels.
3. **Gamified Motivation Systems:** Utilizing immediate feedback mechanisms, incentive micro-certifications, and mystery letters to foster intrinsic reader identification.
4. **Metacognitive Monitoring:** Utilizing structured self-assessments and multi-layered observer toolkits to evaluate real-time cognitive and affective growth.

Technical Description: The Reading Ladder Quest

At the heart of *Reading Ladder Quest* is a cyclical system of diagnostic tracking, guided execution, and reflective checks structured around five core instruments:

- **Leveled Reading Materials & Boxes:** Structured text passages categorized

across clear learning domains (Access & Retrieve, Integrate & Interpret, Reflect & Evaluate).

- **Learner Progress Monitoring Sheet (Quick Log):** A dashboard used by the instructor to track weekly mastery of letter sounds, sight words, CVC blending, and fluency.
- **Teacher Observation Checklist:** A 16-indicator observation matrix tracking real-time behavioral engagement and cognitive progress.
- **Student Self-Assessment Tool:** A metacognitive rating index designed to help learners measure their own perceived growth, confidence, and strategy application.
- **Weekly Reflection Journal Template:** A qualitative prompt framework that helps students document personal breakthroughs, internalize strategies, and process learning anxieties.

III. Key Results and Impact Status

The five-week implementation moved the target cohort from structural reading inactivity to measurable proficiency gains, as validated by quantitative and qualitative Monitoring and Evaluation (M&E) indicators:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Mean Reading Comprehension Score	46.0%	Significant Score Acceleration	Statistically Significant Gain ($t(10) = 3.89, p = .003$)
Phil-IRI Reading Level Status	100% Frustration Level ($n = 11$)	Progression to Instructional Level for multiple participants	Significant Literacy Recovery
Effect Size Metrics	0.00	$d = 1.17$ (Strong Effect Size) $f/g = 1.29$	Exceeded Performance Benchmarks

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Learner Self-Efficacy & Engagement	High Reading Anxiety & Low Motivation	High Autonomy & Positive Self-Perception	Metacognitive and Affective Growth

Evidence of Impact: The empirical data confirms that *Reading Ladder Quest* successfully optimized student learning equity. A paired-samples t-test demonstrated a remarkably strong effect size ($d = 1.17$, $g = 1.29$), demonstrating that the comprehension gains were the direct result of the intentional differentiated structure rather than extraneous factors. Qualitative tracking via the Weekly Reflection Journals revealed that the 15-minute micro-window successfully bypassed student attention limits and mitigated frustration.

Furthermore, the integration of gamified tracking mechanisms (such as the mystery letter system spelling out "I Am A Reader") acted as a powerful behavioral driver, shifting student perception from forced compliance to autonomous pride and active classroom participation.

IV. Conclusions and Recommendations

Conclusion

The action research establishes that gamified, chunked differentiated instruction is a powerful antidote to adolescent reading stagnation. The transition of participants from structural failure to instructional competence proves that adolescent reading deficits stem more from a lack of appropriately scaffolded, low-anxiety delivery systems than an inherent lack of learning capacity. By integrating cognitive load theory with responsive pacing, this framework successfully matches DepEd

policy mandates with practical classroom capabilities.

Recommendations

- **School-Wide Institutionalization:** Formally integrate the *Reading Ladder Quest* micro-session structure into the school's Learning Recovery and Continuity Plan (LRCP) with dedicated budget allocations for leveled printing arrays.
- **Fidelity Optimization:** Conduct focused professional development and Professional Learning Communities (PLCs) to equip junior high school teachers with rapid differentiation strategies.
- **Peer-Assisted Expansion:** Train graduating cohort members to act as reading buddies or peer-mentors to build a collaborative, self-sustaining culture of literacy within the student body.
- **Longitudinal Tracking:** Execute follow-up monitoring designs to ensure the long-term retention of comprehension strategies across other mainstream academic subjects.

V. Risk Management and Sustainability Plan

To safeguard the literacy gains achieved, potential execution risks are proactively minimized through targeted structural interventions:

- **Time and Schedule Overlap:** Mitigated by positioning the flexible 15-minute micro-sessions entirely within the mid-day break (12:00 PM to 1:00 PM), eliminating any disruptions to core subject areas.
- **Varying Implementation Fidelity:** Handled by standardizing the implementation through pre-validated Teacher Observation Checklists and strict alignment with DepEd Most Essential Learning Competencies (MELCs).
- **Cognitive Drop-off & Remediation Fatigue:** Addressed through personalized, multi-sensory materials within the Level

Reading Boxes, keeping text chunks deliberately short to prevent psychological resistance.

Geralem, S. G. C. (2025). *Enhancing the Reading Comprehension of Grade 7 Students with Reading Difficulties Through Differentiated Instruction*. Luray II National High School, SDO-Toledo City.

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Study 19

Project Title: Improving English Reading Comprehension of Grades 7-9 IPEd Learners Through Culturally Responsive Reciprocal Teaching (CRRT)

Authors: **Ritchel A. Lapinid, Kristy D. Aves, Abigail B. Camomot** | SDO-City of Naga

I. Innovation Overview

South Poblacion National High School (SPNHS) recognized a critical literacy challenge within its student body, particularly affecting its marginalized student population.

Baseline diagnostic data from the Philippine Informal Reading Inventory (Phil-IRI) indicated that 100% of the identified Indigenous Peoples Education (IPEd) learners from the Ati community in Grades 7-9 were reading at the "frustration" level, with 69%

flagged as at risk of dropping out. Traditional reading interventions frequently fell short because they addressed either literacy skills or cultural relevance in isolation. To bridge this gap, the school introduced **Culturally Responsive Reciprocal Teaching (CRRT)**. Funded by the Basic Education Research Fund (BERF), this pedagogical innovation merges structural comprehension monitoring strategies with localized texts co-developed alongside Ati community elders. By validating the learners' cultural identities, this strategy successfully transitioned struggling readers into proficient, engaged, and strategically sound independent learners.

II. Innovation Description

The process innovation is anchored in a comprehensive execution framework designed to dismantle structural and socio-cultural barriers to literacy instruction. To ensure sustained integration into the school's curriculum and local training designs, the framework focuses on:

1. Material Co-Creation & Validation:

Collaboratively designing a contextualized reading package (short stories, poems, and articles) with Ati elders to incorporate authentic traditions and *Inati* vocabulary, followed by academic and cultural validation.

2. Personnel Capacity Building:

Delivering localized Learning Action Cell (LAC) sessions to train English teachers on the explicit execution of dialogue-driven reading strategies.

3. Scaffolded Pedagogy:

Standardizing interactive, collaborative text-processing cycles directly inside classroom remedial timelines.

4. Monitoring & M&E Sustainability:

Utilizing continuous peer-coaching and parallel diagnostic tools (Phil-IRI pre/post-tests) to secure real-time progress monitoring.

5. Knowledge Dissemination:

Packaging the successful strategy into a Division-wide *Culturally Responsive Teaching Resource Package* to serve as an evidence-based prototype for other schools serving IP learners.

Technical Description: The Core CRRT Strategy

At the heart of the innovation is a dialogue-driven, cognitive scaffolding loop that guides learners through text interpretation. It operates through the integration of the four core metacognitive strategies of Reciprocal Teaching, executed through a socio-cultural lens:

- **Predicting:** Activating learners' cultural schemata and context clues to anticipate text direction.
- **Questioning:** Empowering learners to generate text-dependent queries and take an active role in meaning construction.
- **Clarifying:** Resolving vocabulary hurdles and cross-referencing *Inati* terms to deepen comprehension.
- **Summarizing:** Synthesizing the text collaboratively, allowing students to retell narratives through their unique cultural identity.

III. Key Results and Impact Status

The two-month implementation program (September–October 2025) yielded excellent measurable progress, transitioning students from severe reading deficits to academic efficacy:

Performance Indicator	Baseline (Pretest - June 2025)	Post-Intervention (Posttest - October 2025)	Impact Status
Mean Reading Score	2.07	5.14	Statistically Significant Increase ($t = -4.92$, $p = 0.00028$)
Phil-IRI Reading Level	100% Frustration Level	Promoted to Instructional & Independent Levels	Exceeded Standards / Positive Shift
Minimum Score Performance	0	2	Measurable Improvement among lowest

Performance Indicator	Baseline (Pretest - June 2025)	Post-Intervention (Posttest - October 2025)	Impact Status
Maximum Score Performance	5	10	Top Performers reached total independence

Evidence of Impact: Quantitative data derived from the paired-samples t-test analysis mathematically confirmed that the reading gains were directly attributable to the CRRT intervention rather than random chance ($p < 0.05$). Qualitatively, the shift from a baseline of profound frustration to instructional independence proved that combining structured metacognitive scaffolding with culturally affirming literature significantly lowers psychological and academic barriers to entry for indigenous students. Reading was successfully transformed from an intimidating task into an inclusive, empowering process that actively built student confidence, reduced dropout risks, and closed local learning gaps.

IV. Conclusions and Recommendations

Conclusion

The study concludes that Culturally Responsive Reciprocal Teaching (CRRT) is a highly effective, culturally sustaining pedagogical framework for accelerating literacy among indigenous learners. The exceptional transition in reading scores demonstrates that initial student underperformance is often a symptom of non-inclusive, uncontextualized learning materials rather than an inability to learn. By honoring local heritage and providing clear structured dialogue, the intervention successfully fulfills the inclusive mandates of Republic Act 10533 (Enhanced Basic Education Act) and the National IP Education Policy Framework.

Recommendations

- **Institutionalization:** Formally integrate the CRRT methodology and resource packages into the school's remedial English curriculum, backed by the School Improvement Plan (SIP) for dedicated time allocation.
- **Material Expansion:** Continue expanding the library of culturally relevant localized texts across other grade levels to sustain reading engagement.
- **Scalability:** Division and Regional IPED coordinators should adapt and replicate this context-specific prototype as a benchmark training design across other districts serving diverse demographics.
- **Professional Development:** Embed CRRT strategies inside systematic teacher professional development sessions and continuous LAC cycles to build broad institutional capacity.

V. Risk Management and Sustainability Plan

To safeguard the literacy gains achieved by the pioneer cohort, potential risks are managed through targeted sustainability practices:

- **Socio-Cultural Inauthenticity:** Avoided by institutionalizing a strict multi-layered validation protocol involving Ati tribal leaders to prevent cultural appropriation.
- **Implementation Inconsistency:** Mitigated through ongoing peer-coaching structures and routine LAC feedback loops where teachers collaboratively troubleshoot deployment issues.
- **Program Disengagement:** Sustained by utilizing the co-created *Culturally Responsive Teaching Resource Package* as a permanent library fixture to support both remedial classes and daily classroom instruction.

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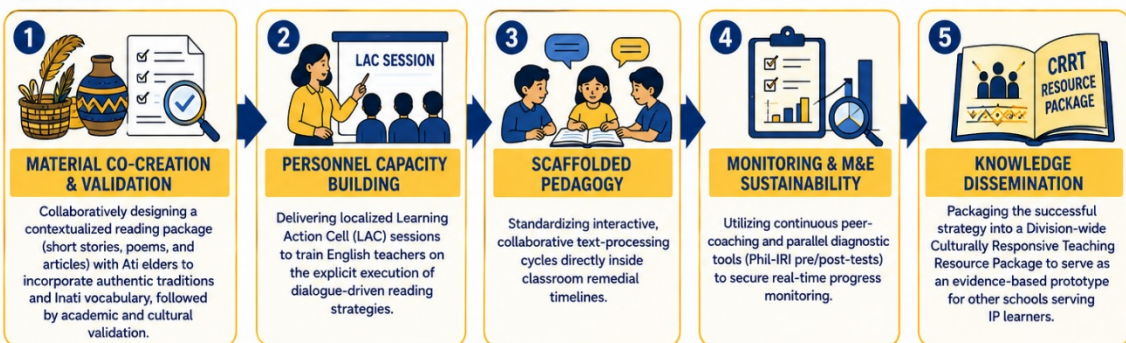
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PROJECT TITLE: IMPROVING ENGLISH READING COMPREHENSION OF GRADES 7-9 IPED LEARNERS THROUGH CULTURALLY RESPONSIVE RECIPROCAL TEACHING (CRRT)

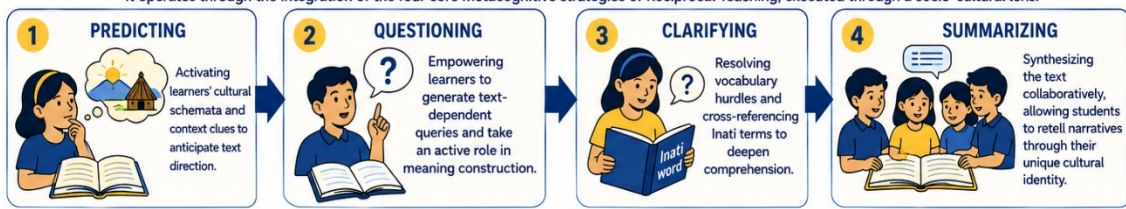
INNOVATION DESCRIPTION

The process innovation is anchored in a comprehensive execution framework designed to dismantle structural and socio-cultural barriers to literacy instruction. To ensure sustained integration into the school's curriculum and local training designs, the framework focuses on:



TECHNICAL DESCRIPTION: THE CORE CRRT STRATEGY

At the heart of the innovation is a dialogue-driven, cognitive scaffolding loop that guides learners through text interpretation. It operates through the integration of the four core metacognitive strategies of Reciprocal Teaching, executed through a socio-cultural lens:



Study 20

Project Title: Integrating Digital Novel Reading in English Instruction to Enhance Vocabulary and Reading Comprehension Among Grade 9 Students

Authors: **Ronalyn Y. Jadol, Nelia B. Archival, & Marlon T. Coniconde** | SDO-Cebu City

I. Innovation Overview

Pit-os National High School (PNHS) recognized a critical need to bridge the persistent literacy gap among its learners. Initial Phil-IRI assessment results for the school year revealed that a significant majority of students across Grades 7 to 10 were performing

below their expected reading levels, with many trapped at the "Frustration Level" due to weak decoding, word recognition, and basic comprehension skills. To resolve this and prevent reading deficiencies from severely hindering overall academic performance, PNHS introduced the systematic integration of

digital novel reading within the English curriculum.

This process innovation acts as an engaging instructional intervention that leverages tech-literacy to transform traditional reading remediation. By providing a highly interactive learning environment, the initiative effectively lowered students' affective filters, reduced reading anxiety, and heightened student motivation. This proactive pedagogical shift successfully transitioned struggling readers toward observable growth in foundational literacy skills, establishing a documented framework for evidence-based reading remediation.

II. Innovation Description

The process innovation is anchored in a comprehensive **PIPA (Pre-implementation, Implementation, Post-Implementation, and Action Research) Framework** designed to systematically target and dismantle basic literacy hurdles. To ensure its structural viability and potential for future integration into localized school reading programs, the framework focuses on:

1. **Participant Targeting & Profiling:** Using purposive sampling to identify specific frustrated readers and orienting them alongside parent/guardian involvement.
2. **Curriculum Integration:** Embedding structured digital reading intervals natively into the second quarter of the English curriculum.
3. **Tech-Assisted Scaffolding:** Implementing multi-sensory tools to assist students with navigation, pronunciation, and vocabulary building.
4. **Data-Driven M&E:** Systematically utilizing a pretest-posttest design to capture empirical reading progress and identify real-time challenges.
5. **Localized Dissemination:** Engaging key school stakeholders through formal Learning Action Cell (LAC) sessions and cross-curricular presentations to build a sustainable reading culture.

Technical Description: *The Tri-Media Intervention System*

At the heart of this innovation is a blended instructional system that reinforces word acquisition and comprehension before, during, and after reading. This is operationalized through three core integrated instruments:

- **Gamified Vocabulary Toolkit (Kahoot):** Utilized as a dynamic pre-reading activity to unlock and reinforce unfamiliar words, boosting initial student engagement.
- **Audio-Visual Supplementary Materials:** A digital audiobook setup (*The Little Prince*) providing simultaneous visual and auditory input to guide correct pronunciation, decode word forms, and establish reading fluency.
- **Scaffolding & Guided Reading Loops:** Personalized, step-by-step

teacher interventions that transition learners from audio-assisted reading to independent digital reading at their own individual pace.

III. Key Results and Impact Status

The intervention moved the target group from severe reading frustration toward positive developmental progress, as tracked by the Action Research data:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Mean Reading Score (Out of 40)	9.50	12.39	Observable Increase
Phil-IRI Literacy Classification	Frustration Level	Progressing Remediation	Positive Growth Observed
Student Reading Engagement	High Reading Anxiety	Lowered Affective Filter	Heightened Motivation

Evidence of Impact: The empirical data demonstrates that the integration of digital novel reading brought an immediate positive

impact to struggling readers. While the post-test mean scores did not yield a statistically significant difference at the 0.05 level due to the compressed 3-week implementation timeframe, qualitative data and observations strongly confirmed meaningful breakthroughs in student word recognition, reading fluency, and correct pronunciation.

Crucially, the multimedia nature of the digital novel functioned as an effective "affective shield," converting reading anxiety into sustained motivation. Students who initially struggled to recognize words successfully progressed into managing 3 to 5 chapters per day, proving that interactive tech-tools can lower the entry barrier for frustrated readers and successfully address localized learning gaps.

IV. Conclusions and Recommendations

Conclusion

The study concludes that integrating digital novel reading into English instruction is a highly viable remedial strategy for addressing basic reading difficulties. The transition to higher post-intervention mean scores and visibly improved reading behaviors indicates that reading inactivity or frustration is often a consequence of rigid traditional formats rather than an inherent lack of student capability. The framework successfully fulfills institutional standards for targeted literacy remediation by blending tech-literacy with standard basic education goals.

Recommendations

- **Remedial Adoption:** Formally adopt digital novel reading as a standard remedial strategy in English departments for underperforming or frustrated readers.
- **Progress Monitoring:** Establish regular, structured progress monitoring to continuously address individual gaps in reading fluency and pronunciation in real time.

- **Resource Optimization:** Enhance the accessibility of digital reading setups by fully utilizing school computer laboratories and installing pre-loaded reading software.
- **Stakeholder Symbiosis:** Reinforce continuous home-school collaboration by aligning with parents/guardians to sustain digital reading habits outside school hours.

V. Risk Management and Sustainability Plan

To protect instructional gains and secure long-term utility, potential implementation risks are mitigated as follows:

- **Technical Knowledge Gaps:** Addressed by providing dedicated time for navigating the digital novel

interfaces to ensure students are fully confident with the platform.

- **Environmental/Attendance Shifts:** Mitigated through a flexible delivery system, allowing verified online testing alternatives for students facing unforeseen physical attendance constraints.
- **Infrastructure Limits:** Sustained by utilizing offline digital PDF repositories and cached applications to bypass intermittent internet connectivity issues in the classroom.

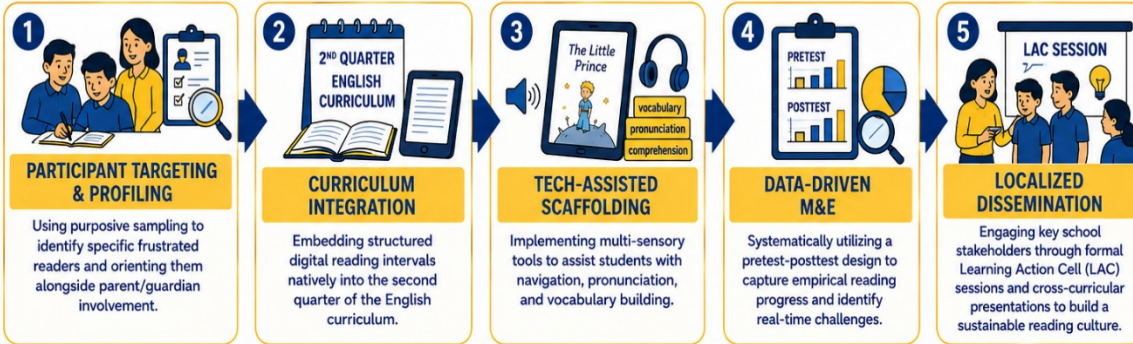
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PROJECT TITLE: INTEGRATING DIGITAL NOVEL READING IN ENGLISH INSTRUCTION TO ENHANCE VOCABULARY AND READING COMPREHENSION AMONG GRADE 9 STUDENTS

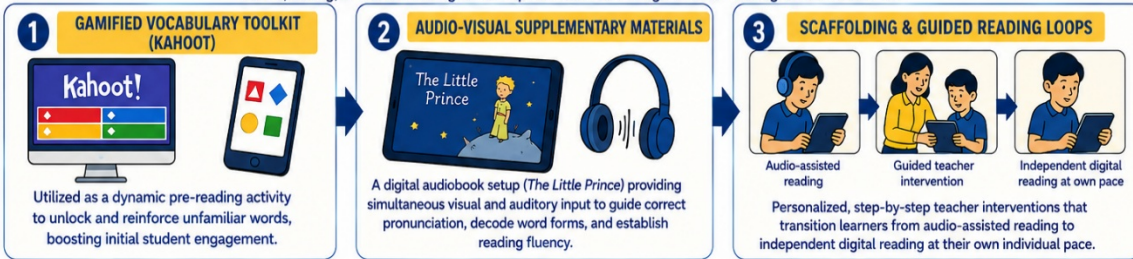
INNOVATION DESCRIPTION

The process innovation is anchored in a comprehensive PIPA (Pre-implementation, Implementation, Post-Implementation, and Action Research) Framework designed to systematically target and dismantle basic literacy hurdles. To ensure its structural viability and potential for future integration into localized school reading programs, the framework focuses on:



TECHNICAL DESCRIPTION: THE TRI-MEDIA INTERVENTION SYSTEM

At the heart of this innovation is a blended instructional system that reinforces word acquisition and comprehension before, during, and after reading. This is operationalized through three core integrated instruments:



Study 21

Project Title: Improving the Reading Comprehension of Grade One Pupils Through the Enhanced Reading Activity (ERA) Using the Phonics Approach (TPA)

Authors: **Edna L. Bonghanoy & Winesa C. Verola** | SDO-Talisay City

I. Innovation Overview

Tabunoc Central School (TCS) recognized a critical need to strengthen early literacy competencies and aggressively support beginning readers. Initial Comprehensive Rapid Literacy Assessment (CRLA) profiles at the beginning of the school year revealed that a significant group of Grade 1 learners were performing below their expected grade level, specifically stalling at the "Light Refresher" baseline. While these pupils could visually

identify separate alphabetic letters, they struggled to produce the corresponding phonetic sounds, creating an immediate barrier to advanced tasks like word identification, basic decoding, and sentence comprehension.

To address this localized literacy gap and align with the Department of Education's (DepEd) mandate for foundational reading mastery, TCS introduced the **Enhanced Reading Activity (ERA) using The Phonics Approach (TPA)**. This educational process innovation replaces standard, generalized

reading routines with an intensive, structured intervention system. By systematically bridging letter-sound correspondence with multi-sensory reading exercises, the initiative functioned as an essential learning scaffolding framework. This proactive pedagogical shift successfully minimized early cognitive fatigue, heightened student reading automaticity, and transitioned struggling early-stage learners into independent, grade-level-ready readers.

II. Innovation Description

The process innovation is anchored in a comprehensive **PIPA (Pre-implementation, Implementation, Post-Implementation, and Action Research Plan)** matrix designed to dismantle basic decoding hurdles. To ensure its long-term viability and seamless integration into the School Improvement Plan (SIP), the framework focuses on:

1. **Targeted Learner Profiling:** Using purposive sampling to extract and monitor early-grade readers categorized strictly under the "Light Refresher" tier.
2. **Curriculum Integration:** Developing a dedicated, daily 2-hour reading tutorial window operating continuously over an intensive 20-day implementation cycle.
3. **Home-School Synchronization:** Institutionalizing mandatory parental orientation sessions and secure Parental Consent Protocols to establish a dual-learning bridge.
4. **Data-Driven M&E:** Deploying custom-validated pretest-posttest assessment cycles aligned directly with standard CRLA matrices to capture precise reading progression.
5. **Cross-Grade Dissemination:** Utilizing school-based Learning Action Cell (LAC) sessions to cascade empirical research findings and expand instructional adoption across all early-grade faculty members.

Technical Description: The Tri-Tiered Phonics Toolkit

At the heart of this innovation is a systematic instructional loop that guides young learners from abstract letter identification to absolute reading automaticity. This is operationalized through three integrated instruments:

- **Letter-Sound Correspondence Worksheets (Test A):** An interactive

diagnostic instrument featuring picture-to-sound associations where students isolate, color, and write missing initial consonant sounds to build core phonemic awareness.

- **CVC Word Recognition Matrix (Test B):** A hands-on, multi-sensory "basket-draw" gamified activity targeting consonant-vowel-consonant (CVC) blends (e.g., *lad*, *bag*, *bin*, *jam*) where students orally decode words and instantly pair them with physical visual cards.
- **Sentence Reading Accuracy Protocol (Test C):** A contextual passage assessment containing ten structured, high-frequency sight sentences (e.g., "The cat is on the mat," "The pig is in a bin") designed to eliminate reading miscues and measure real-time contextual automaticity.

III. Key Results and Impact Status

The intervention successfully moved the target group from severe literacy stagnancy to outstanding reading readiness, as tracked by the Action Research metrics:

Performance Indicator	Base-line (Pre-Intervention)	Post-Intervention	Impact Status
Beginning Letter Identification Mean	92.31%	100.00%	Maximum Level Achieved
Word Recognition (CVC Decoding) Mean	80.77%	100.00%	Significant 19.23% Increase
Sentence Reading Accuracy Mean	92.15%	100.00%	Zero Miscues Documented
CRLA Part 1 Profile (Letter/Sentence)	100% Light Refreshers	100% Grade Level Ready	Exceeded Target Expectations
CRLA Part 2 Profile (Fluency/Comprehension)	100% Developing	100% Transitioning Readers	Positive Developmental Growth

Evidence of Impact: The empirical data proves that the systematic integration of project ERA successfully resolved early reading deficiencies. By the conclusion of the 20-day program, the overall consolidated mean difference across all basic indicators jumped by a clean 11.59%. The metrics reveal that the most substantial developmental growth occurred within the Word Recognition domain, surging

from a erratic 80.77% baseline to a flawless 100% ceiling score across all 13 primary participants.

Qualitative observations and student evaluations confirmed that this targeted approach successfully minimized reading anxiety. By transitioning the pupils away from intimidating rote text memorization toward systematic phonetic decoding, the innovation effectively reached a uniform leveling of learning outcomes. This total transition of 100% of the target group into "Grade Level Ready" for CRLA Part 1 showcases that structured phonics interventions can effectively secure educational equity among early-grade struggling readers.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Enhanced Reading Activity (ERA) using The Phonics Approach (TPA) is a highly viable instructional intervention for establishing early-grade literacy. The definitive leap from baseline deficiencies to standard 100% post-test competencies proves that reading frustration in Grade 1 is not a permanent learning disability but rather a symptom of un-scaffolded decoding instruction. The framework successfully satisfies institutional requirements by operationalizing DepEd's primary early literacy mandates into an explicit, daily classroom practice.

Recommendations

- **Institutionalization:** Formally integrate the ERA-TPA framework into the school's formal Reading Remediation Plan, ensuring institutional budget allocation for printed multi-sensory phonics materials and visual toolkits.
- **Instructional Scaling:** Replicate this systematic phonics intervention method among other early-grade sections within the Schools Division of Talisay City to mitigate localized "Light Refresher" rates at the district level.
- **Home-School Continuation:** Maintain the parental take-home reading material system to preserve student automaticity and prevent reading

regression outside regular school operating hours.

- **LAC-Driven Capacity Building:** Leverage the pioneer teacher-researchers to run specialized school LAC sessions focused on upskilling next-cycle teachers in phonetic blending and automated word recognition strategies.

V. Risk Management and Sustainability Plan

To protect these foundational reading gains, potential field implementation risks are actively mitigated as follows:

- **Instructional Fatigue & Short Attention Spans:** Managed by structuring lessons into highly interactive, gamified segments (e.g., CVC word drawing baskets) to keep young learners highly engaged while maintaining strict focus.
- **Home Learning Disconnect:** Counteracted by providing explicit, simplified take-home reading kits designed to allow parents—regardless of their personal academic background—to easily reinforce phonetic exercises at home.
- **Resource Depletion:** Sustained by building a permanent digital repository of validated, localized phonics worksheets and audio-visual instructional materials accessible offline to bypass school funding limits.

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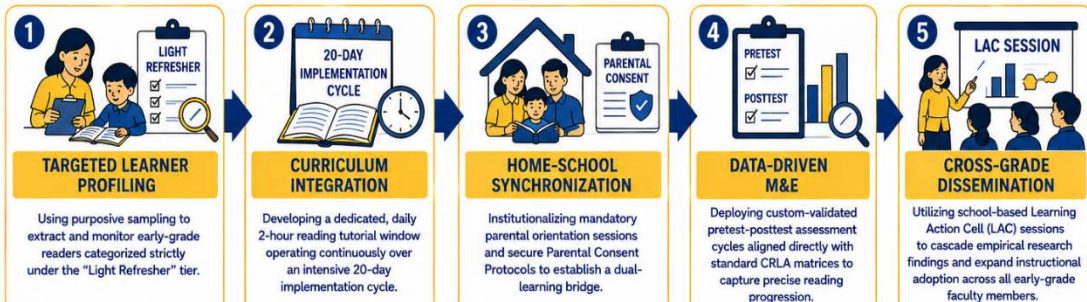
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PROJECT TITLE: IMPROVING THE READING COMPREHENSION OF GRADE ONE PUPILS THROUGH THE ENHANCED READING ACTIVITY (ERA) USING THE PHONICS APPROACH (TPA)

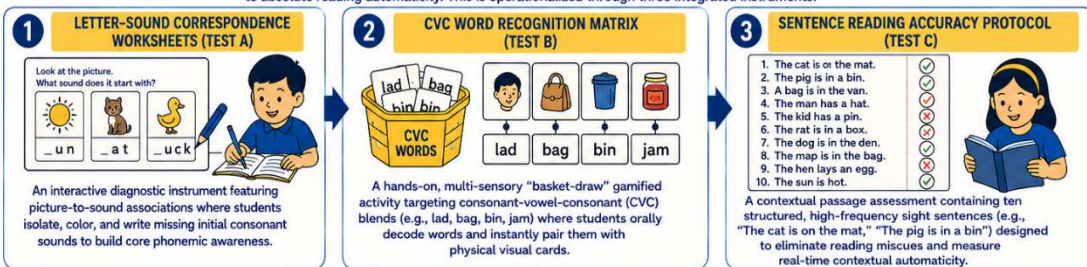
INNOVATION DESCRIPTION

The process innovation is anchored in a comprehensive PIPA (Pre-implementation, Implementation, Post-Implementation, and Action Research Plan) matrix designed to dismantle basic decoding hurdles. To ensure its long-term viability and seamless integration into the School Improvement Plan (SIP), the framework focuses on:



TECHNICAL DESCRIPTION: THE TRI-TIERED PHONICS TOOLKIT

At the heart of this innovation is a systematic instructional loop that guides young learners from abstract letter identification to absolute reading automaticity. This is operationalized through three integrated instruments:



Study 22

Project Title: GAME UP: Grammar Advancement Through Meaningful Engagement Using Play with Board Games for Grade 9 Students

Authors: Bryan Mercado & Diana L. Cañalita | SDO-Toledo City

I. Innovation Overview

Media Once National High School recognized a persistent challenge regarding the grammar proficiency of its Grade 9 students, which heavily impacted their academic performance and overall communication skills. Written assessments and classroom observations revealed frequent errors in foundational grammar components, specifically subject-verb agreement (SVA), verb tenses, and punctuation. These weaknesses caused poor writing quality, hindered reading comprehension, and eroded students' confidence to actively participate in class. Traditional instructional methods-relying

mostly on rote rule memorization, lecturing, and repetitive worksheet drill-proved inadequate, causing student disengagement without fostering structural understanding. To address these gaps and align with the Department of Education's (DepEd) thrust to promote interactive, resource-based learning, the school introduced "GAME UP" (Grammar Advancement through Meaningful Engagement Using Play). This process innovation shifts the grammar learning environment from passive reception to active, game-based learning by integrating physical board games into regular instruction. Serving as an affordable, high-impact

instructional scaffolding framework, this proactive strategy replaced traditional grammar drills with contextually relevant, peer-collaborative challenges. The initiative effectively dismantled student anxiety, enhanced cognitive retention, and successfully advanced underperforming learners into autonomous, proficient English communicators.

II. Innovation Description

The process innovation is anchored in the systematic **ADDIE instructional design framework (Analysis, Design, Development, Implementation, and Evaluation)**, creating an explicit road map to dismantle core grammatical hurdles. Designed to establish a sustainable, low-cost model for public schools with limited resources, the framework focuses on:

1. **Targeted Gap Analysis:** Identifying underperforming students through purposeful diagnostic screening and mapping specific grammatical deficiencies in writing compositions.
2. **Contextual Game Design:** Structuring custom educational board games directly aligned with the learning outcomes of the secondary English curriculum.
3. **Ethical Action Research Safeguards:** Securing formal parental consent protocols and student briefing sessions to guarantee voluntary participation.
4. **Structured Pedagogical Implementation:** Delivering an intensive 9-week intervention cycle consisting of three weekly game sessions led by the teacher as a facilitator.
5. **Data-Driven Evaluation & Archiving:** Applying descriptive pretest-posttest analysis to track performance gains, followed by school-level result sharing for online publication and localized classroom replication.

Technical Description: *The Tri-Game Toolkit*

At the heart of the innovation is a structured "play-feedback loop" that translates abstract rules into dynamic group problem-solving. This is operationalized through three integrated physical instruments:

- **Grammar Quest:** A modified Snakes and Ladders game targeting SVA, verb tenses, and punctuation. Correct answers allow players to advance, while incorrect answers send them back, using instant consequences to reinforce rule mastery.
- **Grammaropoly:** A customized property-trading board game where players acquire specific grammar challenges instead of real estate. Students earn competitive points by answering targeted questions, turning

repetitive review into a collaborative team sport.

- **Sentence Tower:** A modified Jenga game where each numbered wooden block corresponds to a syntax or punctuation question. Players must accurately solve the

grammar prompt while physically extracting the block, encouraging fine-motor focus alongside active sentence assembly.

III. Key Results and Impact Status

The intervention successfully transitioned underperforming Grade 9 learners from a state of learning frustration to absolute grade-level competence, as demonstrated by the Action Research metrics:

Performance Indicator	Base-line (Pre-Intervention)	Post-Intervention	Impact Status
Grammar Proficiency Mean Score	9.5 out of 30	19.9 out of 30	Significant +10.4 Point Gain
Subject-Verb Agreement (SVA) Mean	3.1	6.5	109.6% Competency Growth
Verb Tenses Mastery Mean	3.0	6.6	120.0% Competency Growth
Punctuation Accuracy Mean	3.4	6.8	100.0% Competency Growth
Learners at "Frustration Level"	75% of cohort (6 pupils)	0% of cohort (0 pupils)	Total Elimination of Frustration
Learners at "Independent Level"	0% of cohort (0 pupils)	50% of cohort (4 pupils)	Outstanding Growth

Evidence of Impact: The empirical data proves that the systematic implementation of the GAME UP intervention effectively filled structural language gaps. The aggregate class mean nearly doubled, rising from a baseline of 9.5 to an impressive 19.9 post-test average. Across all specific grammar areas, students achieved consistent mean gains between +3.4 and +3.6.

Qualitative observations and teacher reflections confirmed that the inclusion of instant feedback and peer collaboration during gameplay was the turning point in converting student hesitation into confidence. By making errors a

evaluate long-term grammar retention and verify if these structural gains carry over into long-form composition and oral communication.

V. Risk Management and Sustainability Plan

natural part of a game instead of a source of academic shame, the toolkit lowered psychological barriers. The standard deviation widened from 1.12 to 2.71, indicating that while students progressed at varied paces, every single participant completely moved out of the "Frustration Level" and advanced into instructional and independent domains.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the "GAME UP" game-based learning framework is an exceptionally viable, resource-optimized pedagogical strategy for public junior high schools. The significant transition of all participating students out of the low-performing tier proves that persistent grammar deficiencies are not rooted in an inability to learn, but are rather a consequence of uninspiring, passive instruction. By combining emotional engagement with structured context, the innovation transforms complex syntax rules into accessible, memorable knowledge. This framework effectively bridges the operational gap between curriculum mandates and actual learner automaticity.

To safeguard these academic gains and ensure long-term program sustainability, potential implementation barriers are actively managed:

- **Material Durability & Resource Depletion:** Mitigated by creating standardized, printable game templates archived in the department's digital repository. The physical parts use accessible, low-cost materials (e.g., wooden blocks, laminated question cards) that are easy to replace.
- **Pacing & Learning Speed Disparities:** Addressed by the teacher's role as a structural facilitator, utilizing flexible group rules that allow peer-mentoring loops where quicker students naturally support struggling teammates.
- **Institutional Continuity:** Sustained by officially including game-based material replenishment in the English Department's annual action plan, ensuring the toolkit remains fully active and updated for every fresh school year.

PROJECT TITLE: GAME UP: GRAMMAR ADVANCEMENT THROUGH MEANINGFUL ENGAGEMENT USING PLAY WITH BOARD GAMES FOR GRADE 9 STUDENTS

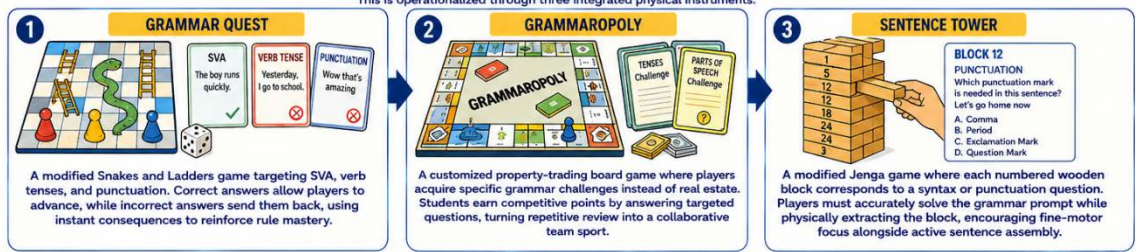
INNOVATION DESCRIPTION

The process innovation is anchored in the systematic ADDIE instructional design framework (Analysis, Design, Development, Implementation, and Evaluation), creating an explicit road map to dismantle core grammatical hurdles. Designed to establish a sustainable, low-cost model for public schools with limited resources, the framework focuses on:



TECHNICAL DESCRIPTION: THE TRI-GAME TOOLKIT

At the heart of the innovation is a structured "play-feedback loop" that translates abstract rules into dynamic group problem-solving. This is operationalized through three integrated physical instruments:



Board Games for Grade 9 Students. Media Once National High School, SDO-Toledo City.

Said, M. N., & Omar, N. (2020). The effectiveness of board games in improving students' grammar learning and motivation. *Asian Journal of Education and E-Learning*, 8(3), 45-52.

Vlachou, M., & Makri, K. (2019). Game-based learning in grammar instruction: Promoting collaboration and engagement in the EFL classroom. *Journal of Language and Education*, 5(4), 85-95.

Study 23



Project Title: Structured Singing Bee: Enhancing Vocabulary Acquisition Among HUMSS Grade 12 Students

Authors: Jinkee D. Baran, Diane B. Barangan, & Rieza L. Bargayo | SDO-Carcar City

I. Innovation Overview

Tal-ut National High School recognized a vital opportunity to strengthen the literacy landscape and support Senior High School students in achieving college readiness. Written diagnostics and class observations revealed that Grade 12 Humanities and Social Sciences (HUMSS) students severely struggled with reading comprehension due to low foundational vocabulary levels across their academic subjects. Traditional instructional approaches—relying heavily on rote memorization drills—caused student disengagement and failed to develop context-based word retention.

To bridge this learning gap and support the Department of Education's (DepEd) thrust to promote interactive, resource-based learning, the school introduced the "**Structured Singing Bee**" framework. This process innovation shifts the vocabulary learning environment from passive reception to active, song-based engagement by integrating music into the regular remediation period. Serving as an affordable, high-impact instructional scaffolding strategy, this proactive initiative replaced traditional language drills with rhythmic, peer-collaborative musical tasks. The initiative effectively dismantled student anxiety, enhanced long-term memory retention, and successfully advanced underperforming

learners into confident, articulate communicators.

II. Innovation Description

The process innovation is anchored in a comprehensive instructional design framework designed to dismantle the cognitive hurdles identified in the initial gap analysis. To establish a sustainable, low-cost model for public schools utilizing limited resources, the framework focuses on:

1. **Targeted Gap Analysis:** Identifying vocabulary deficits through baseline profiling and Quarterly Rating Assessment (QRA) data.
2. **Contextual Song Selection:** Curating age-appropriate, vocabulary-rich songs that match students' musical preferences and learning styles.
3. **Ethical Action Research Safeguards:** Securing formal parental consent and student assent protocols to guarantee voluntary participation.
4. **Structured Pedagogical Implementation:** Delivering an intensive 7-week intervention cycle consisting of a 2-hour session every Friday.
5. **Data-Driven Evaluation & Dissemination:** Applying descriptive pretest-posttest analysis to track performance gains, followed by sharing results in Learning Action Cell (LAC) sessions for cross-subject integration.

Technical Description: The Five-Activity Toolkit

At the heart of the innovation is a "play-feedback loop" that guides students through every phase of language acquisition during the weekly sessions. This is operationalized through five integrated instructional activities:

- **Activity 1: Sing With Me:** Students listen to and sing along with the target songs to build familiarity with rhythm, pronunciation, and language structure.
- **Activity 2: Supply the Lyrics:** A gamified fill-in-the-blanks task where students listen closely to identify and write down missing words, strengthening word recognition.

- **Activity 3: Unlocking the Words:** An analytical phase where key vocabulary

words from the lyrics are formally isolated, identified, and defined.

- **Activity 4: In-Context Meaning:** A guided comprehension task where students analyze how target words function contextually within the song's themes.
- **Activity 5: Use It:** An application exercise requiring students to construct their own sentences or short written passages using the newly acquired vocabulary.

III. Key Results and Impact Status

The intervention successfully transitioned the Grade 12 HUMSS learners from a state of learning frustration to grade-level competence, as demonstrated by the Action Research metrics:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Vocabulary Test Mean Score	101.74 out of 200	130.41 out of 200	Significant +28.67 Point Gain
Class Achievement Descriptor	Average Level	High Level	Advanced Proficiency Tier
Learners in "Struggling" Category	24 Students	19 Students	20.8% Decrease in Deficit
Learners Moving to "Average" Category	—	3 Students	Positive Performance Shift
Learners Moving to "Advanced" Category	—	2 Students	High-Level Acceleration

Evidence of Impact: The empirical data proves that the systematic implementation of the Structured Singing Bee intervention effectively filled structural language gaps. The class mean score experienced a notable increase, rising from 101.74 to 130.41, moving

the entire cohort from an "Average" descriptor into a "High" vocabulary proficiency tier.

Qualitative feedback gathered during Focus Group Discussions (FGDs) highlighted that the combination of group collaboration, rhythm-based memorization, and the introduction of small merit rewards (*e.g., school supplies*) was the turning point in converting text anxiety into active engagement. By embedding target terms into popular song lyrics, abstract words became memorable, enabling students to accurately define and apply sophisticated words in practical writing contexts.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Structured Singing Bee framework is a highly viable, resource-optimized pedagogical strategy for enhancing language skills in secondary schools. The significant shift in student vocabulary profiles proves that persistent comprehension gaps can be mitigated when instructional strategies are aligned with students' organic interests, such as music. By removing standard academic pressure and replacing it with structured play, this strategy successfully bridges the gap between curriculum demands and actual learner automaticity.

Recommendations

- **Curricular Integration:** Formally integrate the Structured Singing Bee strategy into the regular junior and senior high school English curriculum to build language skills early.
- **Targeted Song Selection:** Ensure that implementing teachers carefully select songs that align closely with the age, language proficiency, and specific cultural tastes of the students.
- **Horizontal Scaling:** Replicate the song-based vocabulary model across other subject areas that use English as the medium of instruction to maximize cross-disciplinary literacy.
- **Strategic Pacing Safeguards:** Adjust school activity calendars to protect intervention days (*such as remediation*

Fridays) from institutional schedule disruptions, preserving continuous learning momentum.

V. Risk Management and Sustainability Plan

To safeguard these academic gains and ensure long-term program sustainability, potential implementation barriers are managed through proactive measures:

- **Instructional Schedule Disruptions:** Mitigated by creating flexible, compressed modular sessions that can be deployed if Friday class schedules are cut short by sudden school activities or weather suspensions.
- **Material Durability & Resource Depletion:** Addressed by establishing a shared digital repository of the researcher-made activity guides, manuals, and song matrices, allowing any teacher to print out learning resources on-demand.
- **Financial Self-Reliance:** Sustained by utilizing low-cost classroom tools (*e.g., whiteboards, printed lyrics guides*) and leveraging localized department savings to fund simple merit rewards, keeping the strategy completely independent of heavy external funding.

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PROJECT TITLE: STRUCTURED SINGING BEE: ENHANCING VOCABULARY ACQUISITION AMONG HUMSS GRADE 12 STUDENTS

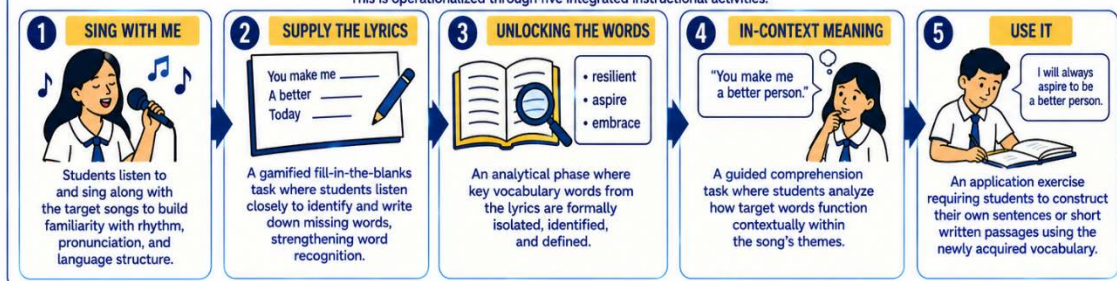
INNOVATION DESCRIPTION

The process innovation is anchored in a comprehensive instructional design framework designed to dismantle the cognitive hurdles identified in the initial gap analysis. To establish a sustainable, low-cost model for public schools utilizing limited resources, the framework focuses on:



TECHNICAL DESCRIPTION: THE FIVE-ACTIVITY TOOLKIT

At the heart of the innovation is a "play-feedback loop" that guides students through every phase of language acquisition during the weekly sessions. This is operationalized through five integrated instructional activities:



Study 24

Project Title: AI-Driven Approach: Enhancing Practical Research 2 Subject Knowledge and Skills Among Senior High School Learners

Author: **Violly Chyryl S. Bugtong** | SDO-Cebu City

I. Innovation Overview

OPRRA National High School recognized a vital opportunity to further strengthen its academic research landscape and support Senior High School learners in successfully mastering inquiry-based curriculum mandates. While students demonstrated basic interest in scientific inquiry, institutional diagnostic tracking revealed that a staggering 45% struggled with formulating clear research problems, 38% faced difficulties with coherent literature reviews and citations, and 52% produced substandard papers lacking proper data analysis. Traditional whole-class methodologies often failed to provide the personalized feedback required to navigate these complex academic hurdles.

To bridge these learning gaps and support the Department of Education's (DepEd) thrust to embed technology into teaching and

learning processes (DepEd Order No. 21, s. 2019; DepEd Memorandum No. 059, s. 2020), the school introduced the **AI-Driven Approach** framework. This process innovation serves as a comprehensive "pedagogical partner," replacing traditional independent writing struggles with a personalized, resource-scaffolded system that integrates machine learning tools directly into a structured collaborative environment. This proactive initiative empowered early-stage learners to overcome research anxieties, successfully elevating the student cohort's performance to an "Above Average" research competency rating.

II. Innovation Description

The process innovation is anchored in an adaptive, technology-scaffolded framework designed to dismantle the cognitive and technical hurdles identified in the initial student gap

analysis. To ensure long-term integration into the Senior High School curriculum and support the establishment of a future school-based **Smart Research Hub**, the framework focuses on:

1. **Learner Capacity Enrichment:** Upskilling students through a structured 20-hour technology-integrated research workshop series.
2. **AI-Enabled Technical Scaffolding:** Institutionalizing standard protocols for utilizing specialized software to handle repetitive editing and writing mechanics.
3. **Resource Optimization:** Building student digital competencies using open-access AI engines to lower learning resource barriers.
4. **Collaborative Learning Circles:** Organizing learners into distinct interactive teams to implement peer feedback cycles and shared research projects.
5. **Knowledge Dissemination:** Establishing a school-based presentation milestone for students to defend and share their technology-enhanced research outputs.

Technical Description: The Five-Session Toolkit

At the heart of the innovation is an "AI-driven personalization and collaboration loop" that guides students through every phase of the quantitative research cycle. This is operationalized through five integrated instructional intervention milestones:

- **Session 1: Introduction to AI Tools:** Focuses on the foundational overview and hands-on operational training of target applications (Grammarly, Microsoft Word, and ChatGPT).
- **Session 2: Collaborative Learning Strategies:** Engages participants in group brainstorming sessions and structured peer feedback loops using cloud-shared workspaces.
- **Session 3: Using AI Tools in Research:** Integrates technology into immediate development tasks, specifically targeting problem formulation, real-time cooperative editing, and automated language alignment.

- **Session 4: Advanced Data Analysis Exploration:** Provides guided instruction on utilizing natural language processing engines (ChatGPT) for structural ideation, statistical conceptualization, and interpretation layout.
- **Session 5: Integration and Final Review:** Concludes the cycle with comprehensive group project presentations, structured peer appraisals, and formative teacher feedback.

III. Key Results and Impact Status

The intervention successfully transitioned the Grade 12 learners from a state of research frustration to outstanding curriculum performance, as evidenced by the Action Research metrics using tools adapted from the DepEd Research Management Guidelines (*DepEd Order No. 16, s. 2017*):

Performance Indicator	Baseline (Pre-Intervention Target)	Post-Intervention (Actual Result)	Impact Status
Cohort Overall Mean Score	56.00 out of 80 points	63.00 out of 80 points	Exceeded Target (+7 Points)
Group 1 Performance Profile	Expected Target Met	65.00 Rating (High Performance)	Exceeded Local Standards
Group 2 Performance Profile	Expected Target Met	60.00 Rating (Average Performance)	Met Local Standards
Group 3 Performance Profile	Expected Target Met	63.00 Rating (Above Average Performance)	Exceeded Local Standards
Core Research Proficiencies	45%–52% Deficit Trends	High to Above Average Level Gains	Balanced Cohort Growth

Evidence of Impact: The empirical data proves that the innovation successfully shifted student capabilities across varied learner readiness profiles, leading to an overall mean score of 63, which decisively surpassed the passing target benchmark of 56. This cohort-wide shift indicates that the interactive toolset successfully lowered the learning barrier for advanced competencies

like data analysis and literature synthesis. Furthermore, qualitative feedback gathered from student focus group discussions highlighted that real-time AI feedback loop mechanics were the most critical factors in converting writing anxiety into academic self-efficacy. By combining modern AI tools with active human teaching, students gained the confidence needed to produce polished, contextually sound research papers.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the AI-Driven Approach, when paired with collaborative learning frameworks, is a highly viable and modern pedagogical method for enhancing student research competence. The achievement of high scores across all target student groups demonstrates that structural learning deficits in Practical Research 2 can be mitigated when tools handle mechanical writing burdens, freeing the student to focus on higher-order critical thinking. The system effectively bridges the gap between DepEd information technology mandates and everyday classroom teaching, fulfilling 21st-century skill goals for Senior High School graduates.

Recommendations

- **Institutionalization via Smart Research Hubs:** Formally incorporate digital research tool protocols into the school's continuous ICT development programs by establishing dedicated Smart Research Hubs.
- **Teacher Capacity Building:** Launch structured teacher training sessions focused on the ethical use and operational integration of AI assistance platforms in senior high classrooms.
- **Lesson Plan Integration:** Explicitly embed specific AI-assisted strategies (such as prompt engineering for ideation and cloud-based editing text systems) into weekly lesson plans.
- **Academic Integrity Frameworks:** Create explicit ethical guidelines alongside the technology integration to prevent student over-dependence and safeguard academic honesty.

V. Risk Management and Sustainability Plan

To protect these instructional gains and ensure program sustainability, potential implementation barriers are managed through proactive measures:

- **Digital Divide and Infrastructure Gaps:** Mitigated by creating a physical, resource-shared classroom tech hub to give all students equal computer and internet access.
- **Ethical Over-Dependence Risks:** Handled by enforcing strict human-in-the-loop validation checkpoints, ensuring AI is used only for brainstorming and mechanical checks while students drive the actual logic and analysis.
- **Curriculum Schedule Pressures:** Sustained by embedding the 20-hour training footprint seamlessly into the regular Senior High School academic year calendar to prevent student burnout.

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PROJECT TITLE: AI-DRIVEN APPROACH: ENHANCING PRACTICAL RESEARCH 2 SUBJECT KNOWLEDGE AND SKILLS AMONG SENIOR HIGH SCHOOL LEARNERS

INNOVATION DESCRIPTION

The process innovation is anchored in an adaptive, technology-scaffolded framework designed to dismantle the cognitive and technical hurdles identified in the initial student gap analysis. To ensure long-term integration into the Senior High School curriculum and support the establishment of a future school-based Smart Research Hub, the framework focuses on:



Study 25



Project Title: Enhancing Grade 10 Learners' Writing Performance and Statistical Literacy Through the STEWARDS Strategy

Authors: Kaeryll May N. Mangubat, Nerissa H. Largo, & Arden Clie S. Alday | SDO-City of Naga

I. Innovation Overview

Mainit National High School (MNHS) recognized a vital opportunity to further strengthen its academic literacy landscape and support Grade 10 learners in bridging the persistent divide between writing instruction and data analysis. While students demonstrated basic capabilities in narrative composition, institutional baseline diagnostic tracking revealed that a staggering 58% struggled with structured writing and argument development, while 64% exhibited low statistical literacy and an inability to interpret elementary data. Traditional, isolated teaching methodologies often failed to build the higher-order reasoning skills essential for evidence-based research communication.

To bridge these learning gaps and support the Department of Education's (DepEd) MATATAG Curriculum mandates and Learning Recovery Program (*DepEd Order No. 8, s. 2015*), the school introduced the

STEWARDS (Student Text Engagement and Writing Assessment through Research and Data Statistics) strategy. This process innovation serves as a comprehensive "pedagogical bridge," replacing separated, standalone subject cycles with a data-driven system that embeds statistical data points directly into structured writing tasks. This proactive initiative empowered early-career researchers to overcome academic anxieties, successfully elevating the student cohort's language and numeracy performance to an outstanding competency rating.

II. Innovation Description

The process innovation is anchored in an integrated, dual-competency curriculum framework designed to dismantle the technical hurdles identified in the initial student gap analysis. To ensure long-term integration into daily classroom practices, the framework focuses on:

1. **Personnel Capacity Enrichment:** Upskilling teachers through collaborative instructional design workshops and continuous peer-sharing sessions.
2. **Technical Support Integration:** Institutionalizing standardized writing rubrics and statistical assessment tools to evaluate performance improvements objectively.
3. **Resource Optimization:** Maximizing curriculum time allocations within the English 10 program using contextualized, evidence-based writing modules.
4. **Monitoring & Evaluation (M&E):** Ensuring continuous diagnostic tracking across pre-, mid-, and post-implementation phases to refine learning delivery.
5. **Dissemination:** Establishing school-level sharing sessions and submission to official education repositories like *E-Saliksik: the DepEd Research Portal*.

Technical Description: The Five-Stage Writing Blueprint

At the heart of the innovation is a structured "text engagement and statistical reasoning loop" operationalized through a series of integrated writing modules:

- **Baseline Diagnostic Stage:** Establishing writing and data skills through an introductory paragraph assignment and a 10-item statistical literacy test.
- **Module 1 (Data-Based Opinion Writing):** Teaching students to construct clear stances using a 4-point student screen-time dataset to justify assertions.
- **Module 2 (Data-Based Argumentative Writing):** Guiding students through a 4-paragraph essay analyzing a public school four-day school week dataset,

featuring custom counterargument sections.

- **Module 3 (Data-Based Informative Writing):** Requiring students to write an

evidence-based overview detailing national teenage wellness trends by tracking five key healthy lifestyle variables.

- **Synthesis Phase:** Concluding the instructional cycle with post-test text synthesis, collaborative peer reviews, and formative teacher feedback.

III. Key Results and Impact Status

The intervention successfully transitioned the Grade 10 cohort from a state of academic difficulty to outstanding mastery, as evidenced by the Action Research metrics using tools validated by the Division Education Supervisor (*DepEd Order No. 8, s. 2015*):

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention (Actual Result)	Impact Status
Mean Writing Performance Score	8.38 out of 20 points	14.79 out of 20 points	Significant Increase (+6.41)
Writing Mean Percentage Score (MPS)	42%	74%	Narrowed Competency Gaps
Mean Statistical Literacy Score	3.56 out of 10 points	7.88 out of 10 points	Significant Increase (+4.32)
Statistical Mean Percentage Score (MPS)	36%	79%	Exceeded Local Passing Standards
Cohort Score Consistency (Writing SD)	3.67 (High Variability)	4.08 (Standardized Shifts)	Uniform Cohort Growth

Evidence of Impact: The empirical data proves that the innovation successfully shifted the classroom culture across the entire student spectrum. The Writing MPS surged by 32%, while the Statistical Interpretation MPS improved by 43%, demonstrating that contextualized data tasks lower learning barriers.

Furthermore, the paired *t*-test calculations yielded highly significant values (*t* = 10.82 for writing, *t* = 12.26 for statistics), confirming that these gains were a direct result of the

STEWARDS strategy and not chance. Interestingly, a Pearson Correlation value of 0.0179 revealed that while both skills grew dramatically, they developed independently, showing that the strategy successfully targeted both language and math skills without making one dependent on the other.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the STEWARDS strategy is an effective instructional approach for concurrently developing written expression and data literacy. The significant transition from a "Developing" baseline to "Excellent" post-test scores proves that students can successfully write evidence-based arguments when given structured data tasks. The strategy aligns perfectly with DepEd standards by combining literacy and numeracy into a cohesive classroom application.

V. Risk Management and Sustainability Plan

To safeguard these instructional gains and ensure program sustainability, potential implementation barriers are managed through proactive measures:

- **Varied Student Learning Speeds:** Addressed by using differentiated instruction techniques, providing extra guided assistance to students with weaker initial math skills.
- **Resource Shortages:** Handled by sourcing financial support from the Basic Education Research Fund (BERF) to cover the cost of printed modules and instructional worksheets.
- **Schedule Conflicts:** Sustained by integrating the writing modules directly into the regular English 10 school year calendar to avoid overwhelming students.



Higher Education, 46(11), 2325-2337.



Study 26

Project Title: Interdisciplinary Integration of Performance Tasks: A Strategy to Reduce Student Workload and Enhance Learning in Senior High School

Authors: Monnalisa G. Torino, Verna L. Mortal, Lorrie Mae L. Padigos | SDO-Talisay City

I. Innovation Overview

Cansojong National High School (CNHS) recognized a vital opportunity to enhance its academic ecosystem by systematically reducing the overwhelming academic burdens placed on Senior High School (SHS) learners. While performance tasks are crucial for assessing competencies, the school identified that overlapping deadlines, high financial strains, and sheer task volume (ranging from 48 to 64 tasks across all subjects per semester) frequently triggered student stress and surface-level learning. To target these gaps and support the Department of Education's (DepEd) mandate for meaningful, learner-centered education, CNHS introduced the **Interdisciplinary Integration of Performance Tasks**. This process innovation replaces fragmented, isolated subject assignments with collaborative, cross-curricular projects. By transforming multiple distinct requirements into shared, authentic

tasks—such as the "Waste Management Innovation Plan"—this proactive initiative minimized redundancy, fostered deep engagement, and successfully optimized instructional efficiency for both students and faculty.

II. Innovation Description

The process innovation is anchored in a comprehensive curriculum-alignment strategy designed to dismantle the operational hurdles identified in the initial workload analysis. To ensure long-term integration into the Senior High School program, the framework focuses on:

1. **Personnel Capacity:** Capacitating teachers through targeted Learning Action Cell (LAC) sessions dedicated to cross-subject planning and designing unified assessment tools.
2. **Technical Support:** Institutionalizing standardized interdisciplinary formats and

- evaluation guidelines to eliminate grading ambiguity among collaborating teachers.
3. **Resource Optimization:** Consolidating material requirements to reduce individual financial contributions and maximizing the use of shared class periods for student collaboration.
 4. **Monitoring & Evaluation:** Applying pre- and post-intervention assessment tools to regularly evaluate shifts in student workload, stress levels, and academic performance.
 5. **Dissemination:** Sharing findings across the Junior and Senior High School departments through faculty assemblies and research congresses to foster a sustainable school culture of collaborative instruction.

Technical Description: The Interdisciplinary Framework

At the heart of the innovation is a collaborative instructional model that merges competencies from multiple distinct fields into a singular, real-world task. This is operationalized through an integrated project pipeline:

- **Collaborative Mapping Protocol:** A regular session where subject teachers identify overlapping competencies (e.g., General Mathematics, Earth Science, Philosophy, and Languages) to ground the project.
- **The Interdisciplinary Integration Format:** A unified matrix detailing the criteria, techniques, and shared grading rubrics across participating subjects.
- **Guided Consultation Windows:** Structured periods within existing schedules where multiple teachers co-facilitate, answer inquiries, and provide real-time formative feedback.
- **Authentic Problem-Solving Blueprints:** Student-driven designs (e.g., graphing waste functions in Math, identifying soil impacts in Earth Science, and executing oral defenses) that resolve school-community problems.
- **Daily Group Monitoring Rubric:** A peer-led tracker utilized by group leaders to evaluate real-time individual participation and minimize collective dependency.

III. Key Results and Impact Status

The intervention successfully transitioned the department from an intense state of student academic stress to a more

optimized, high-performing learning environment, as evidenced by the following Monitoring and Evaluation (M&E) results:

Performance Indicator	Base-line (Pre-Intervention)	Post-Intervention	Impact Status
Simultaneous Task Assignment (Student Perception)	Mean: 4.36 (Strongly Agree)	Mean: 3.36 (Neutral)	Significant Workload Reduction
Overwhelming Task Feelings (Student Perception)	Mean: 4.36 (Strongly Agree)	Mean: 3.32 (Neutral)	Significant Stress Mitigation
Task Manageability (Teacher Perception)	Mean: 3.14 (Neutral)	Mean: 4.43 (Strongly Agree)	Exceeded Curricular Standards
Student Engagement & Motivation (Teacher Perception)	Mean: 3.43 (Agree)	Mean: 4.43 (Strongly Agree)	Enhanced Learning Depths
Volume of Major Performance Tasks	2-3 Major Tasks per Subject (48-64 total)	1 Integrated Major Project per Grading	Streamlined Resource Consumption

Evidence of Impact: The quantitative data proves that the innovation successfully shifted the school's instructional approach from independent silos to a highly inclusive, combined ecosystem. The significant drops in students feeling overwhelmed indicate that the framework directly removed the barrier of competing deadlines. Qualitatively, focus group discussions revealed that the interdisciplinary integration promoted financial efficiency, as students consolidated their monetary resources into fewer, higher-

quality outputs. Furthermore, the systematic guidance from multiple observing teachers pushed students to internalize concepts deeply, resulting in a marked decrease in their reliance on AI tools for compliance. Rather than generating surface-level text, learners applied

original critical thinking to address real-world community issues.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Interdisciplinary Integration of Performance Tasks is a highly effective strategic intervention for reducing student burnout while simultaneously enhancing learning quality. The transition from scattered, uncoordinated deadlines to single, cohesive milestones demonstrates that high stress is often the byproduct of fragmented structures rather than rigorous content. The framework successfully fulfills the standards of both the Philippine Professional Standards for Teachers (PPST) by promoting collaboration and learner-centered strategies, and the overall objectives of the Basic Education curriculum.

Recommendations

- **Institutionalization:** It is strongly recommended that this framework be formally institutionalized across both the Junior High School and Senior High School levels as a permanent standard operating procedure for performance assessments.
- **Professional Development:** School administrations must safeguard dedicated, structured scheduling allocations for teachers to collaborate, plan, and prepare upcoming interdisciplinary matrices prior to each grading period.
- **Rubric Contextualization:** Future cycles should refine the shared grading system to explicitly address student concerns regarding "shared consequences," ensuring individual accountability is clear within the group grade.

- **Scalability:** The Schools Division Office should consider replicating this collaborative model in other secondary institutions to eliminate repetitive assessments and elevate standard performance tasks at the district level.

V. Risk Management and Sustainability Plan

To safeguard these instructional gains, the implementation addressed potential structural risks through proactive mitigation:

- **Shared Grade Anxieties:** Managed by integrating clear, student-centered rubrics, continuous formative assessment, and a daily individual participation matrix to isolate individual slacking from group grades.
- **Integration Hurdles:** Addressed by allowing highly technical or specialized subject competencies to connect at a surface level or shift integration targets into the subsequent

grading period where alignments fit naturally.

- **Planning Time Constraints:** Resolved by using existing school-level Learning Action Cell (LAC) sessions as built-in workspaces, shifting the faculty's focus from repetitive individual checking to shared, high-value project facilitation.

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PROJECT TITLE: INTERDISCIPLINARY INTEGRATION OF PERFORMANCE TASKS: A STRATEGY TO REDUCE STUDENT WORKLOAD AND ENHANCE LEARNING IN SENIOR HIGH SCHOOL

INNOVATION DESCRIPTION

The process innovation is anchored in a comprehensive curriculum-alignment strategy designed to dismantle the operational hurdles identified in the initial workload analysis. To ensure long-term integration into the Senior High School program, the framework focuses on:



Study 27



Project Title: Synergy in Action: Bridging Disciplines Through Cross-Collaborative Performance Tasks to Enhance Grade 11 Student Engagement and Academic Achievement

Authors: Rose Ann P. Ebesa, Reynato E. Alberto II, & Robert F. Rivera | SDO-Cebu City

I. Innovation Overview

Tisa National High School recognized a critical need to address a prevailing challenge among Senior High School students: "remediation fatigue" and fragmented learning caused by a high volume of separate, uncoordinated performance-based assessments across different subjects. Traditional setups subjected learners to overlapping deadlines, intense scheduling pressure, and disconnected academic requirements, which frequently resulted in cognitive disengagement and low real-world knowledge application.

To streamline these academic demands and operationalize the Department of Education's (DepEd) mandate for integrated, competency-based learning under the K-12 curriculum, the school pioneered the "**FiliKula Film Festival**". This process and pedagogical innovation replaces standard, isolated classroom testing with an interdisciplinary **Cross-Collaborative Performance Task (CCPT)** framework. By synthesizing core standards into a single, cohesive filmmaking project, the innovation successfully reduced the student workload,

removed curricular silos, and drove deep student motivation, ultimately turning passive instruction into a highly cooperative learning experience.

II. Innovation Description

The process innovation is anchored in a comprehensive, interdisciplinary competency framework designed to harmonize secondary subjects without compromising individual course descriptions. To ensure long-term integration and structural scalability, the framework focuses on five core operational pillars:

1. **Competency Alignment:** Mapping and merging the distinct learning standards of five key core and applied subjects into a single instructional outline.
2. **Coordinated Team Teaching:** Institutionalizing shared planning, synchronized rubrics, and deliberate Learning Action Cell (LAC) adjustments among collaborating teachers.
3. **Authentic real-world Projects:** Requiring students to transform abstract concepts into tangible, real-world media outputs.
4. **Structured Group Management:** Developing non-academic soft skills, peer

- accountability, and clear leadership distribution inside team project tasks.
5. **Systematic Multi-Dimensional Evaluation:** Utilizing a synchronized, teacher-student tracking matrix to observe academic achievement, student engagement, and group cohesion simultaneously.

Technical Description: The Reading/Learning Quest Innovation Package

The central deliverable of this strategy is a self-contained, systematic **Cross-Collaborative Performance Task (CCPT) Innovation Package**. Instead of using scattered individual project sheets, the *FiliKula Film Festival* organizes instruction, monitoring, and synthesis into five distinct, branded tools:

- **The Cross-Collaborative Performance Task (CCPT) Design Matrix:** The foundational instructional blueprints and standardized rubrics that connect lessons across *Komunikasyon at Pananaliksik sa Wika at Kulturang Filipino*, *21st Century Literature*, *Introduction to the Philosophy of the Human Person*, *Oral Communication*, and *Disciplines and Ideas in the Social Sciences* into one unified project.
- **The Interdisciplinary Competency Map:** A teacher-facing scheduling tool that clarifies how student milestones correspond to specific K-12 curriculum outcomes, ensuring all blended subject parts are clearly tracked.
- **The Multi-Intelligence Engagement Checklist:** A diagnostic observation form used by teachers to monitor student participation across multiple learning modes (linguistic, interpersonal, intrapersonal, and visual-spatial skills) in real-time.
- **The Peer Synergy Log (Student Progress Matrix):** A student-facing tracking tool that monitors internal team communication,

project task assignments, and daily student responsibilities during film production.

- **The Creative Synthesis Reflection Framework:** A structured student notebook that provides writing prompts for learners to connect theoretical concepts with real-world filmmaking situations, helping to solidify deep academic understanding.

III. Key Results and Impact Status

The implementation of the collaborative performance task framework yielded exceptional outcomes across the target group of 130 Grade 11 students and eight core subject teachers:

Performance Indicator	Evaluative Tool Mean Score	Verbal Interpretation	Impact Status
Interdisciplinary Material Feasibility	3.67 out of 4.00	Strongly Agree	High Teacher Consensus & Smooth System Integration
Learner Classroom Engagement	3.32 out of 4.00	Strongly Agree	Deep Intrinsic Motivation & Active Group Leadership
Academic Achievement Acceleration	3.27 out of 4.00	Strongly Agree	Enhanced Critical Analysis & Complex Problem-Solving
Real-World Application Appreciation	3.39 out of 4.00	Strongly Agree	Strong Theory-to-Practice Transition

Evidence of Impact: The empirical data shows that the CCPT framework successfully improved student performance and motivation. The high average score from teachers (Mean = 3.67) confirms that cross-subject coordination is fully practical, helps clarify instruction, and provides a clear model for secondary classrooms. On the student side, the strong engagement score

(Mean = 3.32) proves that the innovation built a highly interactive learning environment, significantly lowering performance anxiety by replacing repetitive individual assignments with positive group work.

Qualitative data from the *Creative Synthesis Reflection Framework* highlighted that filmmaking served as an excellent practical learning method. The approach prompted students to move beyond rote memorization to combine diverse ideas, develop better project management skills, and see the logical connections among Literature, Philosophy, and Communication in a clear, real-world context.

IV. Conclusions and Recommendations

Conclusion

The action research demonstrates that cross-collaborative performance tasks are a powerful, practical strategy to increase student engagement and academic growth in senior high school. The project proves that adolescent performance anxiety and disengagement are often structural issues stemming from too many uncoordinated assignments, rather than a lack of student capability or interest. By structuring interdisciplinary assignments properly, schools can meet complex DepEd standards while building a highly encouraging environment that supports real professional growth for teachers and holistic outcomes for students.

Recommendations

- **Formal Curricular Integration:** Institutionalize the CCPT framework and the *FiliKula Film Festival* directly into the School Improvement Plan (SIP) as a standard alternative assessment technique for the first semester of the school year.
- **LAC Session Standardization:** Utilize professional Learning Action Cell (LAC) sessions to build cross-department teams, providing senior high school teachers with the tools and schedules needed to align their subject competencies.
- **Production Resource Pools:** Create shared digital templates and student toolkits to streamline student coordination, resource management, and work distribution during collaborative production phases.
- **Divisional Scalability:** Present the CCPT *Innovation Package* to the Schools Division Office (SDO) for potential pilot testing in other secondary schools encountering similar student fatigue and high task volume.

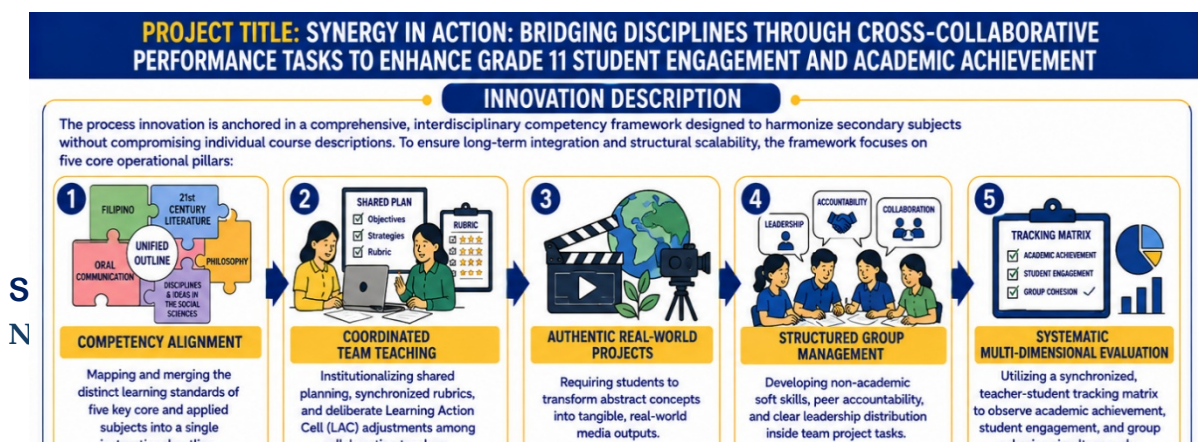
To protect these instructional gains and ensure long-term stability, potential operational risks are managed through proactive strategies:

- **Logistical and External Schedule Disruptions:** Managed by creating flexible project timelines, setting up alternative deadlines, and doing continuous status checks to absorb unexpected changes in the school calendar.
- **Unequal Team Contribution and Workload Imbalances:** Addressed through the *Peer Synergy Log*, which assigns distinct roles (such as scriptwriting, directing, acting, and editing) to give every student individual accountability.
- **Initial Student and Teacher Misalignment:** Solved by providing clear, standardized instruction guides across all involved subjects beforehand, keeping evaluation rules transparent, consistent, and easy to understand.

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V. Risk Management and Sustainability Plan



Project Title: Boosting Students' Engagement and Academic Performance in HOPE 3 Through the Integration of Interactive Technology-Based Learning (ITBL) among Grade 12 STEM Students

Author: Yvette Eve R. Villanueva | SDO-Cebu City

I. Innovation Overview

Pardo National High School recognized a vital opportunity to address the low level of student participation and deteriorating academic achievement among Grade 12 STEM students in Health Optimizing Physical Education (HOPE) 3. Traditional physical education sessions were frequently restricted to routine, skill-based assignments and teacher-directed instruction. The school identified that these conventional approaches failed to fully engage digital-native students who respond more effectively to multimedia and interactive learning environments.

To bridge this engagement gap and align with the Department of Education's (DepEd) push for digital aid and technological integration, the school introduced the **Interactive Technology-Based Learning (ITBL)** framework. This pedagogical innovation transforms physical education from a traditional, teacher-centered environment into an active, student-focused setting by utilizing digital applications and multimedia resources. The implementation successfully turned passive learners into motivated participants, driving significant growth in student interest and physical education competency.

II. Innovation Description

The pedagogical innovation is anchored in a comprehensive, student-centered framework designed to modernize physical education and accommodate diverse learning needs. To ensure structural sustainability and integration into daily instructional routines, the framework focuses on four core operational pillars:

1. **Differentiated Learning:** Allowing students with varying physical and technical abilities to engage with instructional modules at their own pace.
2. **Technological Merging:** Infusing 21st-century digital tools into physical education to promote creativity, cooperation, communication, and critical thinking.
3. **Student-Centered Autonomy:** Transitioning accountability to the learners, encouraging independence and personal responsibility in developing physical fitness.
4. **Multi-Stakeholder Collaboration:** Clarifying and leveraging the distinct roles of teacher-researchers, students, ICT coordinators, and parents to support the learning process.

Technical Description: The ITBL Learning Quest Innovation Package

At the heart of the innovation is a structured digital ecosystem that provides students with immediate feedback and highly interactive content. This framework is operationalized through a specialized **ITBL Innovation Package** consisting of five integrated digital and pedagogical instruments:

- **Multimedia Fitness Orientation & Video Modules:** Curated digital workout assessments, instructional recordings, and YouTube physical education tutorials used to model proper execution and form.
- **Gamified Assessment Tools (Quizizz & Google Forms):** Online interactive testing platforms that replace traditional paper-and-pencil tests, providing instant scores and data-driven feedback.
- **Digital Fitness Portfolio & Logs:** Student-managed digital tracking logs and workout records hosted on cloud platforms to track physical performance and long-term habits.
- **Google Classroom & Drive Monitoring Hub:** A real-time cloud repository where the teacher-researcher tracks performance tasks, submissions, and overall student participation.
- **Online Reflection Logs:** A digital journal system specifically designed to capture qualitative student reflections, helping learners process their confidence, peer collaboration, and fitness insights.

III. Key Results and Impact Status

The intervention successfully transitioned the target group of 35 Grade 12 STEM students from passive observers to highly proficient, active participants, as demonstrated by the pre-test and post-test monitoring and evaluation results:

Performance Indicator	Baseline Mean / Score	Post-Intervention Mean / Score	Impact Status
Overall Student Engagement	2.80 out of 5.00 (Moderate)	4.10 out of 5.00 (High)	Statistically Significant

Performance Indicator	Baseline Mean / Score	Post-Intervention Mean / Score	Impact Status
Academic Performance (HOPE Concepts)	68.00% (Satisfactory)	85.00% (Very Good)	Increase ($p < 0.05$) Statistically Significant Growth ($p < 0.05$)
Practical Skills Performance	70.00% (Satisfactory)	86.00% (Very Good)	Enhanced Skill Execution & Competency
Classroom Participation Indicator	2.70 out of 5.00 (Moderate)	4.00 out of 5.00 (High)	Heightened Active Learning & Interest
Peer Collaboration Metric	2.80 out of 5.00 (Moderate)	4.20 out of 5.00 (High)	Inclusive Teamwork & Cooperation

Evidence of Impact: A paired t-test was conducted to measure the impact of the framework, revealing a statistically significant difference ($p < 0.05$) across all major indicators. Specifically, the student engagement t-value reached 8.23 ($p = 0.001$), and the academic performance t-value reached 9.15 ($p = 0.001$), confirming that the improvement was a direct result of the ITBL intervention rather than external variables.

Qualitative evidence collected from student reflection journals showed a substantial boost in student confidence when answering questions and executing fitness movements. The

transition from traditional instruction to interactive multimedia enabled self-paced learning, effectively eliminating the boredom and participation drops often seen in standard physical education lectures.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the integration of Interactive Technology-Based Learning (ITBL) is a highly effective instructional strategy for boosting student engagement and academic performance in HOPE 3. The transition from a baseline score of 68% to a post-intervention average of 85% demonstrates that student disengagement in physical education is often driven by outdated, rigid teaching delivery rather than a lack of interest in physical fitness. By utilizing interactive platforms, the framework establishes a dynamic, student-focused educational setting that helps learners develop vital 21st-century skills.

Recommendations

- **Institutionalization Across Subject Areas:** It is strongly recommended to expand and scale the ITBL methodology beyond physical education into other high school subjects to support technology-based learning across the school.
- **LAC Session Integration:** Formally utilize school-based Learning Action Cell (LAC) sessions to share these findings and train other educators on incorporating interactive tools like Quizizz and cloud-based portfolios into their lesson planning.
- **Stakeholder Presentation:** Present the research findings to school stakeholders and the Division Research Conference to advocate for sustained digital resource allocation and broader institutional support.
- **ICT Infrastructure Optimization:** Collaborate closely with the School ICT Coordinator to build a permanent digital repository of instructional videos and modules, making materials readily accessible for future academic terms.

V. Risk Management and Sustainability Plan

To safeguard these instructional improvements and maintain high student

engagement, the innovation incorporates a proactive mitigation plan:

- **Technical Delays and Infrastructure Outages:** Managed by providing downloadable options for instructional videos and maintaining offline, printable backups of digital modules to keep learning smooth and uninterrupted.
- **Inequalities in Device Access:** Addressed by offering flexible, self-paced submission windows via Google Drive and allowing students to work on home-based fitness challenges that do not require specialized equipment.
- **Varying Student Technical Literacy:** Resolved by using the first week of implementation for a dedicated multimedia and fitness tool orientation, ensuring all learners feel comfortable using the software before formal grading starts.

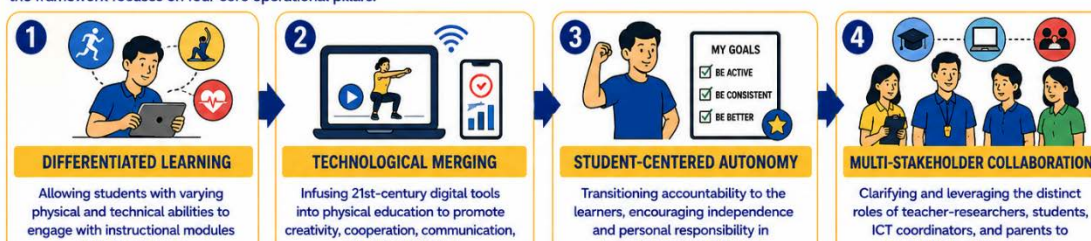
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PROJECT TITLE: BOOSTING STUDENTS' ENGAGEMENT AND ACADEMIC PERFORMANCE IN HOPE 3 THROUGH THE INTEGRATION OF INTERACTIVE TECHNOLOGY-BASED LEARNING (ITBL) AMONG GRADE 12 STEM STUDENTS

INNOVATION DESCRIPTION

The pedagogical innovation is anchored in a comprehensive, student-centered framework designed to modernize physical education and accommodate diverse learning needs. To ensure structural sustainability and integration into daily instructional routines, the framework focuses on four core operational pillars:



Study 29



Project Title: Improving Learner's Performance on the Identified Difficult Competency in Filipino V Through Simplified Worksheets

Authors: Fatima G. Manatad & Merasol G. Marzado | SDO-Mandaue City

I. Innovation Overview

Paknaan Elementary School (PES) identified a critical learning gap during the quarterly analysis of the Monitoring and Evaluation (M&E) Form XIV. Several Grade V learners struggled significantly to master the core Filipino competency involving the identification and utilization of general references (*pangkalahatang sanggunian*) to record key information regarding local and societal issues. Due to compressed instructional time and text-heavy learning materials, these students exhibited short retention spans, culminating in low performance standards.

To systematically address this gap and align with the Department of Education's (DepEd) mandate for instructional excellence, the researchers introduced **Project "PANATA" (Utilization of Simplified Worksheets)**. This instructional process innovation replaces traditional, dense classroom delivery with scaffolded, visually supportive, and context-enclosed learning materials. Designed to build "Professional Efficacy" and foster independent mastery, this proactive intervention successfully bridged the gap between raw curriculum mandates and active classroom

understanding, elevating student proficiency to an outstanding level.

II. Innovation Description

The instructional innovation is anchored in a structured **3-Stage Implementation Approach** designed to eliminate technical roadblocks and seamlessly embed remediation into local instructional frameworks:

1. **Pre-Implementation Phase:** Securing administrative approvals from the School Head, PSDS, and Schools Division Superintendent, acquiring informed parental consent, and crafting targeted pre-tests to establish baseline profiles.
2. **Implementation Phase:** Utilizing the validated, printed Simplified Worksheets systematically during remediation weeks, paired with daily targeted reading interventions for heavily struggling learners.
3. **Post-Implementation Phase:** Tabulating comparative pre- and post-test data, evaluating instructional efficacy, conducting school-wide peer sharing, and institutionalizing the materials into local guidelines.

Technical Description: The Scaffolded Worksheet Strategy

At the core of the innovation is a structured series of **six integrated weekly instruments** that sequentially introduce general references, moving from foundational conceptual mapping to dynamic application:

- **Worksheet #1 (Foundational Selection):** Drills learners on identifying appropriate general references (dictionary, almanac, encyclopedia, atlas) for real-world scenarios.
- **Worksheet #2 (Contextual Matching):** Contextualizes mastery by forcing multi-choice discrimination regarding modern medical or historical information sources.
- **Worksheet #3 (Concept Reinforcement):** Solidifies retention through open-ended identification tasks across diverse historical and sports-related timelines.
- **Worksheet #4 (Expanded Materials Focus):** Transitions the learner into advanced printing media, introducing specialized terms like thesaurus (*tesawuro*), newspapers (*pahayagan*), and magazines (*magasin*).
- **Worksheet #5 (Digital & Global Literacy):** Expands into spatial and technological domains, teaching the precise utility of the globe, computers, yearbooks, and the internet.
- **Worksheet #6 (Comprehensive Integration):** Evaluates synoptic mastery through a blend of context-dependent synthesis matching before the deployment of the diagnostic post-test.

III. Key Results and Impact Status

The introduction of Project "PANATA" successfully moved the targeted groups from a state of critical learning deficiency to exceptional competency mastery, as detailed by the M&E performance indicators:

Performance Indicator	Baseline (Pre-Test / SY 24-25)	Post-Intervention (Post-Test / SY 24-25)	Impact Status
V-Pomelo Mastery Level	52.30% Mean Percentage	85.75% Mean	Significant Increase

Performance Indicator	Baseline (Pre-Test / SY 24-25)	Post-Intervention (Post-Test / SY 24-25)	Impact Status
	ge Score (MPS)	Percentage Score (MPS)	e (+33.45 % Gain)
V-Sweetsop Mastery Level	51.25% Mean Percentage Score (MPS)	88.75% Mean Percentage Score (MPS)	Exceeded Standards (+37.50 % Gain)
Target Cohort Performance	69% of learners scored below a 60% mark	100% of learners scored within the 75%–100% bracket	Inclusive Academic Growth

Evidence of Impact: The empirical data proves that the process shifted the learning culture from predictive failure to an inclusive model of active mastery. Baseline data recorded individual scores as low as 35%, pinpointing severe learning gaps. Post-intervention analysis showed zero instances of decline; instead, individual student score differences jumped between 25% and 50%.

Qualitative indicators from classroom observations verified that breaking down complex competencies into logic-driven, visually clean layouts systematically eliminated cognitive exhaustion and test-taking anxiety. By creating an accessible roadmap, 25 high-risk early elementary learners successfully aligned with the expectations of DepEd Order No. 8, s. 2015, translating abstract knowledge into independent academic efficacy.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the utilization of scaffolded, simplified worksheets is a highly effective instructional intervention for mitigating learning gaps in elementary

Filipino. The dramatic surge from failing baselines to excellent post-test mastery demonstrates that student underperformance is frequently a function of dense, inaccessible material layout rather than a lack of cognitive capacity. This intervention successfully bridges the gap between DepEd's Most Essential Learning Competencies (MELCs) and classroom-level realities, directly satisfying the quality demands outlined in the Philippine Professional Standards for Teachers (PPST).

Recommendations

- **Institutionalization:** It is strongly recommended to formally institutionalize Project "PANATA" into the School Improvement Plan (SIP) and Annual Implementation Plan (AIP) to establish permanent reproduction budgeting and schedule dedicated remediation hours.
- **Scalability:** The Schools Division Office (SDO) should consider sharing this worksheet template layout across other district schools during district-wide Learning Action Cells (LAC) to mitigate similar competency gaps in neighboring elementary centers.
- **Curriculum Adjustment:** Teachers should regularly integrate these structured, text-friendly worksheet formats directly into core lesson planning rather than utilizing them solely as a back-end remediation asset.
- **Digital Repository Expansion:** School management should transition these validated physical materials into digitized assets uploaded onto the DepEd E-Saliksik research portal for wider regional replication.

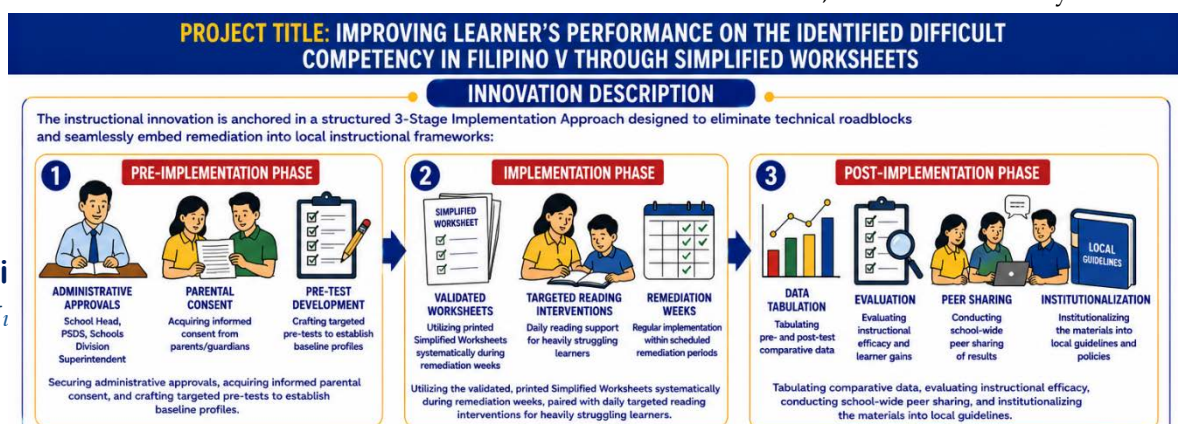
To protect these academic milestones from backsliding, potential implementation risks were systematically mitigated:

- **Instructional Fatigue:** Addressed by limiting worksheet lengths, prioritizing high-impact visual examples, and avoiding cognitive overload.
- **Varying Section Readiness:** Managed by conducting section-specific monitoring (noting that the V-Sweetsop class required slightly more adaptive tracking than V-Pomelo due to baseline unpredictability).
- **Material Sustainability:** Secured through formal inclusion in the school's regular budget line for printing supplies, supported by peer validation from senior master teachers to ensure continuous content alignment.

References

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V. Risk Management and Sustainability Plan





Project Title: Integrasyon ng Estratehiyang SQ3R sa PHIL-IRI: Pagpapahusay ng Kasanayan sa Pag-unawa ng mga Mag-aaral sa Filipino 7

Authors: Chrisela T. Tapasao, Erlinda A. Cabrillos, & Shyl-an Mae B. Gesman | SDO-City of Naga

I. Innovation Overview

Lanas National High School (LNHS) recognized a critical need to address persistent challenges in reading comprehension among its junior high school learners. Baseline profiles from the July 2025 Philippine Informal Reading Inventory (Phil-IRI) Verification Test revealed that an alarming 81% of Grade 7 students were stagnant at the Frustration and Instructional levels. Traditional reading interventions and ad-hoc remedial frameworks proved insufficient in accelerating recovery from pandemic-induced learning losses.

To systematically dismantle these barriers and align with the Department of Education's (DepEd) National Learning Recovery Program, LNHS developed a targeted process innovation: the **Strategic Integration of SQ3R (Survey, Question, Read, Recite, Review) within Phil-IRI Passages**. This instructional innovation transforms passive reading into an active, cognitive process, replacing traditional rote reading exercises with a structured framework. By providing students with a clear, step-by-step roadmap for textual analysis, this proactive approach

dramatically reduced student reading frustration and cultivated robust professional efficacy among the implementing faculty.

II. Innovation Description

The instructional innovation introduces a systematic, 5-stage processing cycle specifically customized for standardized Phil-IRI materials. To ensure long-term integration into the school's continuous improvement plans, the intervention maps across core educational pillars:

1. **Personnel Capacity:** Upskilling classroom teachers to shift roles from traditional lecturers to facilitators of cognitive reading strategies (e.g., scaffolding and modeling).
2. **Technical Support:** Standardizing the implementation of reading toolkits to

eliminate ambiguity during independent study periods.

3. **Resource Optimization:** Designing contextualized, reproducible student worksheets and lesson exemplars

aligned with the MATATAG Curriculum.

4. **Monitoring & Evaluation:** Continuous data tracking through a specialized tracking matrix comparing baseline pre-tests against structured post-tests.
5. **Stakeholder Collaboration:** Actively engaging parents through structured orientations and consent networks to foster a supportive reading environment at home.

Technical Description: The Five-Step SQ3R Framework

At the heart of this innovation is a structured metacognitive loop operationalized during targeted reading intervention sessions:

- **Survey (Suriin):** Students spend 5 minutes previewing the text, titles, and visual elements to activate prior knowledge and mentally prepare for the topic.
- **Question (Magtanong):** Students spend 2 to 5 minutes generating 3 self-directed questions based on their initial survey to establish reading targets.
- **Read (Magbasa):** A dedicated 10-to-15-minute active reading session where students flag core details and track text answers alongside structural teacher scaffolding.
- **Recite (Ibuod/Sagutin):** Students use 5 minutes to answer their generated questions in their own words or engage in peer-pairing to synthesize concepts.
- **Review (Balikan):** A final 5-minute verification loop where students confirm their answers, clarify misconceptions, and summarize the core themes of the text.

III. Key Results and Impact Status

The integration of SQ3R successfully transitioned the target cohort from high linguistic anxiety and low comprehension to documented academic proficiency, as validated by the following Monitoring and Evaluation (M&E) indicators:

Performance Indicator	Baseline (Pre-test / July 2025)	Post-Intervention (Post-test / SY 2025-2026)	Impact Status
Cohort Mean Score	3.54 (Frustration Level)	5.89 (Instructional Level)	Significant Academic Shift
Cohort Variance / SD	SD = 1.81 (Uneven Performance)	SD = 1.51 (Equitable Growth)	Performance Equalization
Frustration Level Rate	62.86% (22 Students)	20.00% (7 Students)	42.86% Absolute Decrease
Independent Level Rate	5.71% (2 Students)	37.14% (13 Students)	Marked Literacy Acceleration

Evidence of Impact: Inferential statistical analysis confirms the profound efficacy of the innovation. A Paired Samples T-test yielded a critical t -value of -4.81 and a p -value of 0.00003 , well below the standard 0.05 threshold of significance. This data underscores that the transition from a default reading environment to the structured SQ3R methodology was the definitive catalyst for growth.

Qualitative feedback via Focus Group Discussions (FGD) confirmed that breaking down the reading process into the 5 distinct tool stages effectively eliminated cognitive overstimulation. The systematic nature of the worksheets lowered psychological barriers for struggling readers, transforming text navigation into a rewarding problem-solving activity.

IV. Conclusions and Recommendations

Conclusion

The study conclusively demonstrates that integrating the SQ3R strategy within standard Phil-IRI monitoring is highly effective for enhancing reading comprehension. The

sharp drop in frustration-level readers underscores that student reading deficiencies are often caused by the absence of systematic, metacognitive navigation strategies rather than an innate lack of interest or capability. This process innovation successfully operationalizes the literacy goals of the DepEd Basic Education Research Agenda, transforming high-level policy into functional classroom success.

Recommendations

- **Institutionalization:** LNHS should formally integrate the SQ3R-Phil-IRI instructional package into its school reading program, allocating permanent slots within the Daily Lesson Logs (DLL) and School Improvement Plans (SIP).
- **Cross-Curricular Scalability:** SDO-City of Naga should consider replicating this structural framework across other content areas (e.g., Science, Social Studies) where reading comprehension directly influences performance.
- **Differentiated Support:** Differentiated, individualized tracking sheets should be designed for the remaining 20% of students in the frustration band to provide personalized reading intervention.
- **Community Alignment:** Build sustainable home-based reinforcement loops by supplying parents with simplified SQ3R guides to sustain reading gains beyond school hours.

V. Risk Management and Sustainability Plan

To protect these reading improvements from regressions, potential project bottlenecks were proactively countered with the following mitigations:

- **Instructional Time Pressures:** Managed by organizing the strategy into a crisp, 35-minute operational timeline that fits smoothly within standard 60-minute class schedules without disrupting other parts of the lesson.
- **Varying Learner Paces:** Addressed through targeted teacher scaffolding and peer-pairing during the "Recite" stage, ensuring advanced readers could practice peer-coaching while struggling students received supportive help.
- **Implementation Attrition:** Sustained through continuous, structured tracking sheets that keep students accountable, shifting their focus from simple compliance to independent, lifelong reading mastery.

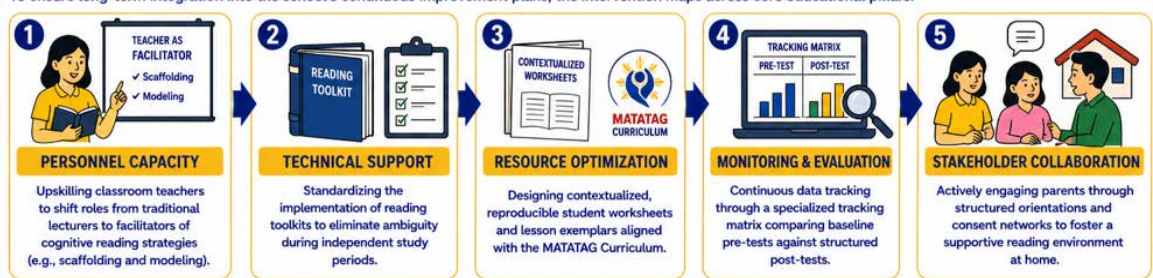
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PROJECT TITLE: INTEGRASYON NG ESTRATEHIYANG SQ3R SA PHIL-IRI: PAGPAPAHUSAY NG KASANAYAN SA PAG-UNAWA NG MGA MAG-AARAL SA FILIPINO 7

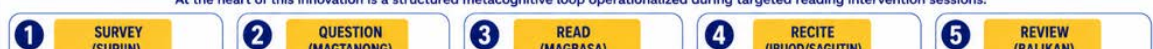
INNOVATION DESCRIPTION

The instructional innovation introduces a systematic, 5-stage processing cycle specifically customized for standardized Phil-IRI materials. To ensure long-term integration into the school's continuous improvement plans, the intervention maps across core educational pillars:



TECHNICAL DESCRIPTION: THE FIVE-STEP SQ3R FRAMEWORK

At the heart of this innovation is a structured metacognitive loop operationalized during targeted reading intervention sessions:



Study 31



Project Title: TeachPlay **Hub:** Enhancing **Mathematical Proficiency**
of Grade 3 Learners Through Game-Based Strategies

Author: Dianne Claire C. Pulvera | SDO-Cebu Province

I. Innovation Overview

Cadaruhan Elementary School recognized a critical opportunity to improve foundational math outcomes and support young learners in overcoming early academic hurdles. Baseline results from the Early Grade Mathematics Assessment (EGMA) revealed that more than half of the Grade 3 cohort faced structural difficulties in mathematics, leading to systemic performance anxiety and low classroom engagement. To directly target these foundational gaps and align with the Department of Education's (DepEd) mandate to track and improve early numeracy, the school introduced the **TeachPlay Hub** framework.

This process and instructional innovation replaces traditional abstract remediation with an engaging, structured, and teacher-led game-based learning environment. By integrating tangible, non-digital games into dedicated remedial hours, the program established a reliable supportive routine for struggling students. This proactive intervention significantly advanced the numeracy status of the target demographic,

effectively converting localized learning anxiety into an active, positive attitude toward mathematical exploration.

II. Innovation Description

The process and pedagogical innovation is built upon a **3-Stage Implementation Plan** integrated into the school's regular remediation framework, systematically addressing the learning gaps identified during baseline testing:

1. **Pre-Implementation Phase:** Focused on baseline assessment validation using the EGMA tool, mapping specific mathematical vulnerabilities, securing

community and administrative clearances, and structuring customized physical learning materials.

2. **Implementation Phase:** Executing daily, teacher-facilitated game sessions during remediation hours (3:00 to 4:00 PM) over a rigorous four-week block, supported by structural rotation and milestone assessments.
3. **Post-Implementation Phase:** Evaluating progress through a comparative pre-test/post-test analysis, documenting individual performance trajectories, and sharing best practices across internal faculty mechanisms.

Technical Description: The Three Game-Based Strategies

At the core of the **TeachPlay Hub** is a multi-sensory math integration model that translates abstract mathematical concepts into experiential, contextual play. It is operationalized through three physical, non-digital instruments:

- **Math BINGO:** Explicitly designed to build fluency in Subtraction (Level 2). It transforms standard drill exercises into high-engagement grid matches, reinforcing procedural subtraction tracking in a low-stress environment.
- **Memory Match:** Focused on number sequence completion and pattern recognition. It utilizes card-flipping mechanics to enhance short-term memory, number sense, and the identification of hidden numerical relationships.
- **Picture Puzzle:** Engineered to decode mathematical word problems. Students must unpack and correctly solve situational arithmetic equations to earn interlocking puzzle pieces that physically reveal a hidden contextual image, transforming abstract logic into tangible visual rewards.

III. Key Results and Impact Status

The intervention transformed the target student demographic from structural non-numeracy to established mathematical proficiency, as detailed by the data metrics below:

Performance Indicator	Baseline (Pretest)	Post-Intervention (Posttest)	Impact Status
Mean Numeracy Score	13.8 / 35 (39.4%)	26.1 / 35 (74.7%)	+12.3 Overall Point Gain
Proficient Numerates	0 Learners (0%)	7 Learners (70%)	Significant Categorical Shift
Target Student Profile	100% Non-Numerate Class	30% Remaining Non-Numerate	Inclusive Baseline Growth

Evidence of Impact: The data confirms that the **TeachPlay Hub** successfully shifted the academic culture from passive remediation avoidance to inclusive, self-driven growth. Seven out of the ten targeted learners effectively graduated from "Non-Numerate" to "Numerate" categories, achieving individual post-test ratings as high as 89%.

Furthermore, data from the weekly quiz trackers highlighted that regular repetition and the interactive nature of the games helped students retain concepts consistently, maintaining a passing rate above 50% from the second week onward.

Qualitative observation notes indicated that the combination of physical learning aids and a supportive incentive system effectively converted high math anxiety into generalized math efficacy, helping lower-tier students catch up to their expected grade-level milestones.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the **TeachPlay Hub** framework is a highly effective, scalable, and replicable intervention for bridging foundational numeracy gaps in early elementary education. The transformation of 70% of the non-numerate sample cohort into numerate learners shows that early childhood underperformance in mathematics is often a reflection of rigid instructional delivery rather than an inherent lack of student capability. By integrating structured, non-digital gamification into the remediation calendar, the school successfully bridged the gap between DepEd policy expectations and actual daily classroom practices.

Recommendations

- **Institutionalization:** Grade 3 instructional leaders should formally incorporate the TeachPlay Hub framework as an established remedial protocol within the Annual Implementation Plan (AIP).
- **Faculty Capacity Building:** School heads should design targeted Learning Action Cell (LAC) sessions to train primary grade teachers in developing and executing contextualized game-based mathematics materials.
- **Resource Contextualization:** Primary departments are encouraged to expand production of localized, physical game pieces that match local learning needs and cultural reference points.
- **Continuous Formative Trackers:** The school should keep using standard

baseline diagnostic tools alongside weekly gamified trackers to identify and support at-risk students early.

V. Risk Management and Sustainability Plan

To maintain these academic improvements and manage execution risks, the project incorporated proactive safeguards:

- **Instructional Fatigue & Absences:** Managed by instituting dynamic "make-up" gamified routines during flexible lunch hours to keep chronic absentees caught up without breaking continuity.
- **Varying Progress Trajectories:** Addressed via individualized tracking sheets where teachers simplified or advanced puzzle complexities dynamically based on real-time feedback.
- **Resource Deterioration:** Handled by dedicating a portion of regular operational and research funding to laminate, bind, and securely store durable non-digital game components in shared toolboxes for multi-cycle use.

References

Department of Education. (2015). *DepEd Order No. 57, s. 2015: Utilization of the Early Grade Reading Assessment (EGRA) and Early Grade Math Assessment (EGMA) Tools for System Assessment.*

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Pulvera, D. C. C. (2026). *TeachPlay Hub: Enhancing Mathematical Proficiency of Grade 3 Learners Through Game-Based Strategies.* Cadaruhan Elementary School, Schools Division of Cebu Province.

PROJECT TITLE: TEACHPLAY HUB: ENHANCING MATHEMATICAL PROFICIENCY OF GRADE 3 LEARNERS THROUGH GAME-BASED STRATEGIES

INNOVATION DESCRIPTION

The process and pedagogical innovation is built upon a 3-Stage Implementation Plan integrated into the school's regular remediation framework, systematically addressing the learning gaps identified during baseline testing:





Study 32

Project Title: The Empowered Achievers as Mentors (TEAM) Program: Leading the Way to Mastery of Four Fundamental Skills in Mathematics Among Grade 4 Learners

Author: Pretty Mae R. Peñaroya | SDO-Carcar City

I. Innovation Overview

Kayam Elementary School recognized a critical opportunity to improve basic math outcomes and support young learners in overcoming early academic hurdles. Baseline data from quarterly assessment reports showed that nearly one-fifth (17.85%) of the student cohort faced structural difficulties in mastering the four fundamental mathematical operations. These persistent computational gaps frequently caused low academic confidence and high learning anxiety among struggling students. To directly target these foundational gaps and align with the Department of Education's (DepEd) mandate to track and improve early numeracy, the school introduced **The Empowered Achievers as Mentors (TEAM) Program**.

This process and pedagogical innovation replaces traditional teacher-led remediation with a structured, student-led peer-assisted learning framework. By pairing struggling learners with high-performing classmates ("Achievers") for targeted mentoring sessions outside regular class hours,

the program established a reliable and supportive routine. This proactive intervention significantly advanced the numeracy status of the target demographic, effectively converting localized learning anxiety into an active, positive attitude toward mathematical exploration.

II. Innovation Description

The process and pedagogical innovation is built upon a **3-Stage Implementation Plan** integrated into the school's regular remediation framework, systematically addressing the learning gaps identified during baseline testing:

1. **Pre-Implementation Phase:** Focused on baseline assessment validation using quarterly reports, mapping specific mathematical vulnerabilities

through a diagnostic pre-test, securing parental consent, and structuring customized physical activity sets.

2. **Implementation Phase:** Executing daily, peer-facilitated mentoring sessions during students' free times or after lunch over a rigorous one-quarter block, supported by mentor training and progress trackers.
3. **Post-Implementation Phase:** Evaluating progress through a comparative pre-test/post-test analysis, documenting individual performance trajectories, running focus group discussions, and mapping out a grade-level expansion strategy.

Technical Description: The Peer-Assisted Learning Strategy

At the core of the **TEAM Program** is a collaborative learning model based on Vygotsky's Zone of Proximal Development (ZPD), transforming abstract arithmetic into interactive, accessible peer discussions. It is operationalized through three physical instruments and feedback mechanisms:

- **Customized Math Activity Sets:** Explicitly designed to build fluency in the four basic operations (Addition, Subtraction, Multiplication, and Division) through structured, localized examples and simplified peer instruction.
- **Mentor Progress Tracker:** Serves as a visual dashboard that monitors real-time student improvements, mapping out performance shifts across formative assessments, pre-tests, and post-tests.
- **Semi-Structured Feedback Loops:** A multi-stakeholder qualitative

evaluation mechanism using student interviews, mentor reflection logs, and parental feedback trackers to systematically identify execution gaps and capture behavioral growth.

III. Key Results and Impact Status

The intervention transformed the target student demographic from structural non-numeracy to established mathematical

proficiency, as detailed by the data metrics below:

Performance Indicator	Baseline (Pretest Mean)	Post-Intervention (Posttest Mean)	Impact Status
Addition Proficiency	7.4 / 10 (Developing)	9.4 / 10 (Proficient)	+2.0 Point Gain (Significant)
Subtraction Proficiency	7.6 / 10 (Developing)	9.4 / 10 (Proficient)	+1.8 Point Gain (Significant)
Multiplication Proficiency	7.4 / 10 (Developing)	8.8 / 10 (Proficient)	+1.4 Point Gain (Significant)
Division Proficiency	3.8 / 10 (Struggling)	6.6 / 10 (Developing)	+2.8 Point Gain (Highest Growth)

Evidence of Impact: The data confirms that the **TEAM Program** successfully shifted the academic culture from passive remediation avoidance to inclusive, self-driven growth. Struggling learners made substantial progress, with addition and subtraction mean scores jumping to a highly proficient 9.4. Most notably, division—which was the most severe baseline vulnerability at a struggling 3.8—exhibited the largest mean increase of 2.8 points, climbing safely into the developing tier. Furthermore, qualitative feedback from interviews and focus groups highlighted that

the low-stress, peer-to-peer environment was the most critical factor in converting math anxiety into self-confidence. Mentees noted they felt comfortable asking their peer mentors questions without fear of being scolded. Additionally, parents observed a major behavioral shift at home, noting that their children became more disciplined, independent with homework, and enthusiastic about attending school math activities.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the **TEAM Program** framework is a highly effective, scalable, and replicable intervention for bridging foundational numeracy gaps in elementary education. The transition from struggling baseline scores to proficient post-test performance demonstrates that early childhood underperformance in mathematics is often a reflection of rigid instructional delivery rather than an inherent lack of student capability. By integrating structured peer mentoring into the remedial schedule, the school successfully bridged the gap between DepEd policy expectations and actual daily classroom practices, while simultaneously building leadership and empathy among high-achieving students.

Recommendations

- Institutionalization and Expansion:** School instructional leaders should formally incorporate the TEAM Program framework into the school's continuous intervention plans and consider expanding it across multiple grade levels.
- Session Duration Optimization:** Adjust regular implementation schedules to lengthen the mentoring sessions, ensuring that struggling learners have enough time to digest difficult topics like division.
- Ongoing Capacity Building:** Offer continuous mentor training workshops to equip student achievers with stronger teaching, communication, and time-management skills.
- Systematic Parental Engagement:** Create structured orientation channels to help parents continuously guide and reinforce their children's gamified or peer-assisted learning habits at home.
- Resource Wear and Tear:** Managed by utilizing Basic Education Research Fund (BERF) tranches to purchase durable whiteboards, laminating films, and PVC covers to securely bind and preserve all customized peer activity sets for multiple cycles.

V. Risk Management and Sustainability Plan

To maintain these academic improvements and manage execution risks, the project incorporated proactive safeguards:

- Instructional Time Constraints:** Solved by keeping all peer mentoring sessions strictly outside regular class hours (such as free times or right after lunch) so standard lessons were never interrupted.
- Concept Explanation Barriers:** Mitigated by training mentors to use simplified, everyday examples and practical methods (like finger-counting shortcuts) tailored to their peer's immediate learning level.

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- Peñaroya, P. M. R. (2025). *The Empowered Achievers as Mentors (TEAM) Program: Leading the Way to Mastery of Four Fundamental Skills in Mathematics Among Grade 4 Learners*. Kayam Elementary School, Schools Division of Carcar City.

PROJECT TITLE: THE EMPOWERED ACHIEVERS AS MENTORS (TEAM) PROGRAM: LEADING THE WAY TO MASTERY OF FOUR FUNDAMENTAL SKILLS IN MATHEMATICS AMONG GRADE 4 LEARNERS

INNOVATION DESCRIPTION

The process and pedagogical innovation is built upon a 3-Stage Implementation Plan integrated into the school's regular remediation framework, systematically addressing the learning gaps identified during baseline testing:



TECHNICAL DESCRIPTION: THE PEER-ASSISTED LEARNING STRATEGY

Study 33



Project Title: VRE Math: A Lesson Framework Using Video, Rathmell Triangle Model, and Exercises to Enhance Problem-Solving Skills

Authors: Jose Karlo Trocio, Shiela Mae S. Nacor, Jerome E. Fajardo | SDO-Toledo City

I. Innovation Overview

Calibasan Elementary School (CES) recognized a vital opportunity to address foundational numeracy gaps and enhance the mathematical problem-solving performance of its intermediate learners. Early diagnostic results from the Rapid Mathematics Assessment (RMA) revealed a critical shortfall, with the vast majority of Grade 4 learners functioning at the "Emerging" level. While students struggled with word problems, the school identified that traditional abstract teaching methods often missed the vital intersection between reading comprehension, visual representation, and procedural calculation.

To address these barriers and support the Department of Education's (DepEd) national thrust for contextualized and competency-based numeracy intervention, CES introduced the **VRE Math Framework**. This instructional process innovation replaces rigid computation routines with a scaffolded, multimedia-enhanced learning journey. By anchoring abstract math in contextually familiar narratives, this proactive initiative effectively minimized math anxiety and successfully converted low-performing

learners into proficient, confident problem solvers.

II. Innovation Description

The process innovation is strategically integrated into a localized implementation blueprint designed to dismantle the cognitive and linguistic barriers learners face in mathematics. To ensure sustainable application and alignment with the school's strategic action plans, the framework focuses on:

1. **Multimedia Integration:** Producing and utilizing 10 localized, teacher-made animated video stories to ground mathematical concepts in real-world scenarios.
2. **Representational Scaffolding:** Moving intentionally from visual representations to mathematical language, and finally to abstract symbolic formulations.
3. **Contextualized Learning Materials:** Utilizing structured, localized Learning Activity Sheets (LAS) tailored

to Filipino culture and community contexts.

4. **Data-Driven Diagnostics:** Grounding remediation goals directly on the target indicators of the Rapid Mathematics Assessment (RMA).
5. **Open-Access Repository:** Building a digital repository for online access and easy replication of lesson plans (i-Plans), videos, and activity sheets for fellow educators.

Technical Description: *The Three-Phase instructional Framework*

At the core of the innovation is a structured, three-phase instructional sequence that guides learners from concrete visual engagement to independent mastery:

- **Video Phase (Animated Stories):** Serves as a high-interest motivational hook. It introduces complex word problems through animated stories set in familiar local contexts (e.g., Sinulog Festival, local markets, and traditional delicacies), making math concepts relatable.
- **Rathmell Triangle Model Phase (Guided Abstraction):** The conceptual core where the teacher links three critical cognitive nodes: *Visualization* (pictures/drawings), *Language* (explaining math in their own words), and *Symbols* (writing mathematical operations and equations).
- **Exercise Phase (Contextualized LAS):** Provides structured independent practice using target-competency Learning Activity Sheets. This phase reinforces skills, builds confidence, and transitions learners toward mathematical independence with minimal teacher assistance.

III. Key Results and Impact Status

The intervention successfully shifted the grade level's numeracy landscape from extensive learning gaps to nearly proficient

performance, as documented by the post-intervention data:

Performance Indicator	Baseline (Pre-test)	Post-Intervention (Post-test)	Impact Status
RMA Group Mean Score	1.75 (Emerging)	3.37 (Developing)	Significant Improvement ($p = 0.0003$)
Developing Level Learners	2 Learners	12 Learners	Substantial Growth in Mastery
Emerging (Not Proficient) Learners	7 Learners	1 Learner	Drastic Reduction in Learning Gaps
Learner Perception of VRE Math	N/A	3.58 (Highly Effective)	Outstanding Positive Engagement

Evidence of Impact: The quantitative data proves that the VRE Math Framework generated a statistically significant improvement ($p = 0.0003$, tested at a 0.05 margin of error) in the learners' problem-solving proficiency. The overall group mean surged from 1.75 to 3.37, steering the target group from an "Emerging (Low Proficient)" state toward a "Developing (Nearly Proficient)" level. Qualitative perceptions from the survey instruments highlighted that the multimedia element scored a composite mean of 3.61 ("Highly Effective"), proving that visual-verbal

integration dramatically reduced math anxiety. While independent transfer remains a slight development point, the dramatic shift of 12 learners moving squarely into the developing tier and others reaching proficient boundaries confirms that scaffolded, context-based models effectively lower cognitive barriers for early learners.

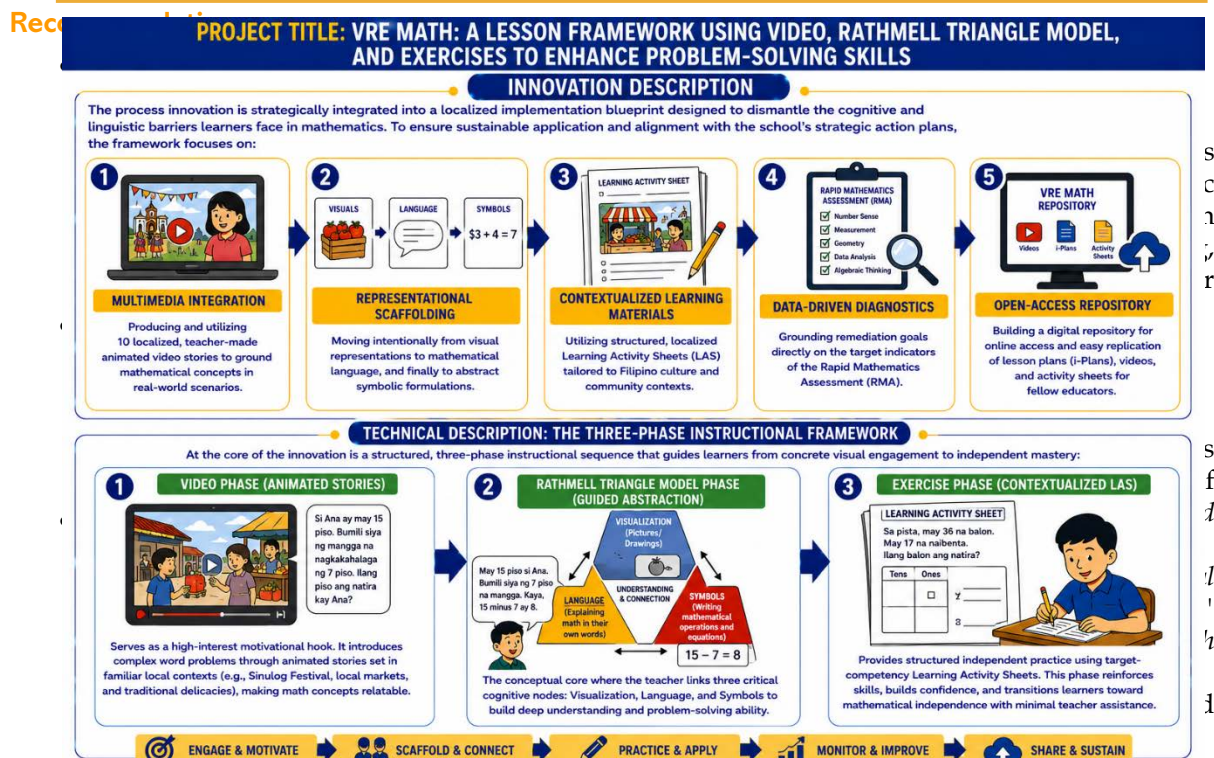
IV. Conclusions and Recommendations

Conclusion

The study concludes that the VRE Math Framework is a highly effective intervention for enhancing mathematical comprehension and problem-solving skills in elementary school environments. The transition from widespread low proficiency to strong developing capacities indicates that student difficulties in math word problems stem heavily from representation gaps rather than a complete lack of computational interest. By systematically integrating multimedia storytelling with the Rathmell Triangle Model, the framework effectively bridges the gap between abstract equations and real-world understanding, validating cognitive and multimodal learning theories within a localized Philippine context.

To safeguard the performance gains and ensure institutional longevity, the project built-in proactive risk management measures:

- **Resource Limitations:** Mitigated by creating a sustainable digital repository hosting all lesson plans (i-Plans), video modules, and materials, eliminating long-term printing dependencies.
- **Technical Learning Curve:** Addressed through the distribution of a detailed Teacher's Manual for creating animated stories on Canva, enabling peer-led upskilling.
- **Varying Instructional Pacing:** Handled by optimizing the video pacing and providing teacher-guided support during transition stages within the Rathmell model discussions.



steps within the Learning Activity Sheets (LAS) to further support autonomous transfer.

- **Division-Wide Scaling:** Schools Division Offices (SDOs) should utilize the developed open-access web repository to replicate and scale this numeracy intervention across other districts facing persistent RMA performance gaps.

develop mathematical thinking. In *Visual learning in mathematics* (pp. 25-34). National Council of Teachers of Mathematics.

Trocio, J. K., Nacor, S. M. S., & Fajardo, J. E. (2025). *VRE Math: A Lesson Framework Using Video, Rathmell Triangle Model, and Exercises to Enhance Problem-Solving Skills*. SDO Toledo City.

V. Risk Management and Sustainability Plan



Study 34

Project Title: Demystifying Integer Operations to Enhance Grade 7 Learners' Proficiency Through the Kindle & Fun Workbook

Authors: Kerhstine P. Sundo, Felrosame T. Auxilio, & Mafe S. Ponting | SDO-Toledo City

I. Innovation Overview

Bato National High School (BNHS) recognized a vital opportunity to address a critical math proficiency gap when third-quarter assessment data revealed that 37.98% of Grade 7 learners were failing to master fundamental math competencies. Traditional classroom adjustments left many struggling students behind due to an abstract curriculum and low engagement, manifesting as mathematical anxiety.

To bridge this learning gap and support the Department of Education's (DepEd) mandate for targeted interventions, BNHS introduced the *Demystifying Operations on Integers: Kindle & Fun Way* framework. This instructional and material innovation replaces passive lecture systems with an interactive, superhero-themed, gamified workbook. This proactive approach turned math anxiety into playful competency, transforming struggling students from academic bystanders into high-performing math learners.

II. Innovation Description

The innovation is anchored in a structured, four-week instructional framework embedded into the school's mathematics program. To ensure deep conceptual integration and structured deployment, the framework focuses on:

1. **Foundational Scaffolding:** Breaking down complex algebraic sign rules into systematic, daily lesson blocks.
2. **Gamified Pedagogy:** Infusing physical movement and game mechanics into everyday lessons to remove abstraction.
3. **Fluency Development:** Using timed speed drills to transition learners from basic conceptual understanding to automatic recall.
4. **Motivational Tiering:** Utilizing visual tracking and performance tiers to boost self-efficacy.
5. **Collaborative Reflection:** Aligning student performance data with professional teacher development

during School Learning Action Cell (SLAC) sessions.

Technical Description: *The Kindle & Fun Toolkit*

At the heart of this innovation is a gamified, learner-centered ecosystem operationalized through specialized interactive tools and structured routines across an intensive 4-week cycle (meeting Mondays, Wednesdays, and Fridays from 3:30 to 4:45 PM):

- **Human Number Line & Hopscotch:** Interactive, physical movement games that visually map out integer addition and subtraction directions.
- **Red vs. Blue Stick Flight & Integer Mystery Box:** Gamified manipulation tasks designed to help students master operations involving unlike signs without guessing.
- **Array Models, Flashcard Sprints, & Puzzle Races:** Collaborative visual tools used to naturally reinforce multiplication and division logic.
- **Superhero Fluency Tiers:** A 4-level motivational framework (Level 1: Krystala to Level 2: Lastikman, Level 3: Darna, and Level 4: Captain Barbell) where students map their drill scores to clear progression milestones.
- **Continuous Feedback Loop:** Weekly learner progress dashboards that allow subject teachers to immediately spot error patterns and adjust daily scaffolding.

III. Key Results and Impact Status

The intervention successfully transitioned the target demographic from severe learning losses to exemplary academic performance, as demonstrated by the pre- and post-intervention statistical metrics:

Performance Indicator	Baseline (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Mean Score (out of 30 items)	10.28	28.00	Substantial Improvement (+17.72)
Standard Deviation (SD)	3.77	2.12	Improved Score Consistency (-1.65)
Dominant Performance Category	100% Did Not Meet Expectations (DME)	100% Outstanding / Very Satisfactory	Large Learning Gains Across All
Statistical Effect Size	—	Cohen's <i>d</i> = 8.89	Extremely Large Intervention on Effect

Evidence of Impact: The quantitative data proves that the innovation completely erased the target group's baseline deficit, moving the cohort mean from a failing 10.28 score up to an outstanding 28.00 level. The significant drop in standard deviation highlights that learning became highly consistent across all 18 struggling students. Furthermore, the computed Cohen's *d* effect size of 8.89 demonstrates an extraordinarily high practical impact.

Qualitative observations confirmed that pairing physical math games (like *Integer Bowling* and *Hopscotch*) with superhero tier rewards effectively converted historical "math phobia" into deep personal confidence. This lowered the conceptual barrier for struggling learners and allowed them to confidently solve complex, multi-sign word problems.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the *Demystifying Operations on Integers: Kindle & Fun Workbook* program is a highly effective

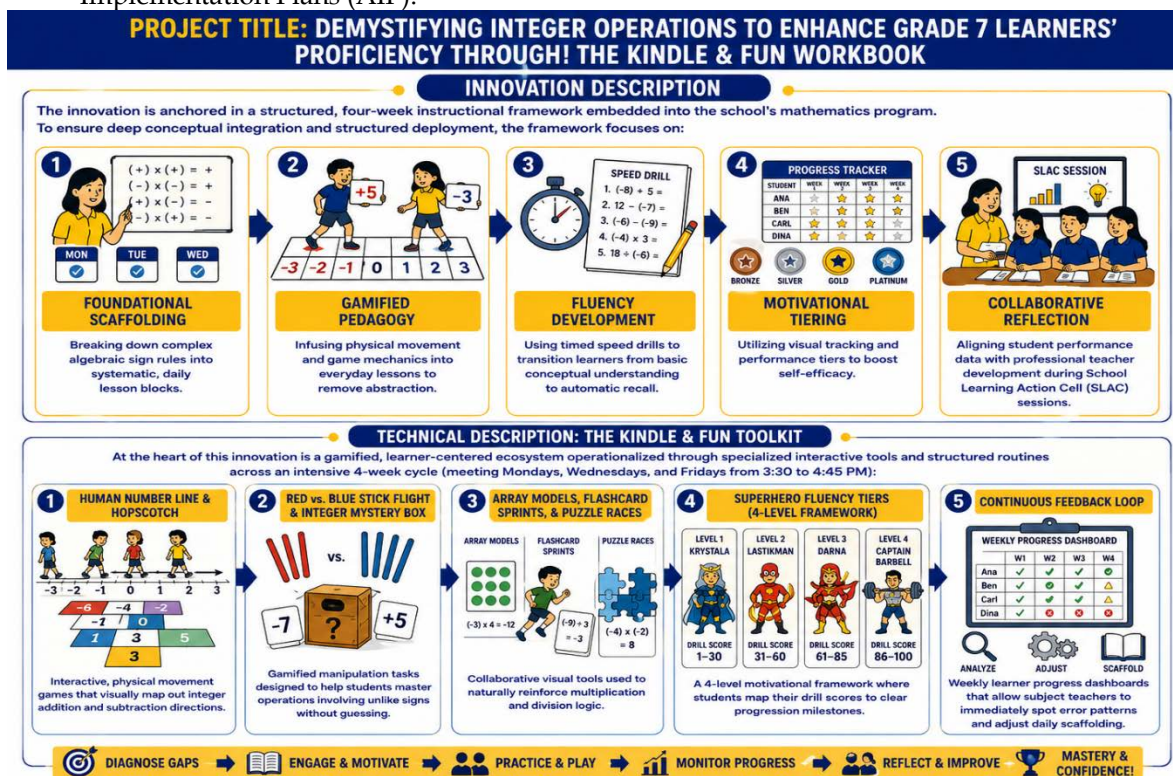
instructional intervention for erasing persistent mathematical learning gaps. The rapid leap from uniform failure to near-perfect post-test scores proves that student underperformance is often caused by abstract instructional delivery rather than an inability to learn. By shifting math pedagogy from rote memory to interactive, learner-centered experiences, this innovation successfully fulfills the professional standards required for targeted remedial intervention under the Philippine Professional Standards for Teachers (PPST).

Recommendations

- Institutionalization:** Formally integrate the *Kindle & Fun Workbook* into the school's annual Mathematics Remediation Plan and secure funding for full color printing in future Annual Implementation Plans (AIP).

To protect these academic gains, the implementation team proactively managed operational risks:

- Time Constraints & Fatigue:** Addressed by scheduling sessions right after standard classes (3:30–4:45 PM) and using high-energy, physical games to keep tired students engaged.
- Material Fatigue & Wear:** Handled by producing durable workbook materials and digital masters via MS Forms to ensure long-term usability.
- Sustaining Student Motivation:** Maintained through the superhero rewards program, which shifted the students' mindset from avoiding mistakes to actively leveling up their math skills.



strategies for an effective mathematics teaching and learning. *European Journal of Science and Mathematics Education*, 11(3), 573-588.

V. Risk Management and Sustainability Plan

Study 35



Project Title: Demystifying Integer Operations to Enhance Grade 7 Learners' Proficiency Through the Kindle & Fun Workbook

Author: Vernie C. Ruiz | SDO-Mandaue City

I. Innovation Overview

Pagsabungan National High School (PNHS) identified an urgent need to address persistent learning losses when results from the Test of Fundamental Academic Skills (TOFAS) revealed that a core group of eighth graders lacked basic numerical competence, specifically obtaining an alarming 0% accuracy rate in fraction operations. Traditional paper-based teaching methods failed to engage these students, reinforcing a cycle of mathematical anxiety, low self-confidence, and severe academic deficits.

To bridge this specific knowledge gap and support the Department of Education's (DepEd) mandate for technology-enhanced learning, PNHS developed and deployed **Teacher-Made Digitized Activities**. This material and pedagogical innovation replaces rigid lecturing with an interactive, gamified digital platform. By combining immediate automated feedback with play-based learning loops, this proactive initiative transformed mathematical phobia into autonomous proficiency, elevating historically underachieving students into successful, confident math learners.

II. Innovation Description

The innovation is organized into a highly structured, multi-week implementation ecosystem integrated directly into the Grade 8

Mathematics program. Designed to replace traditional rote memorization with technology-enabled, learner-centered experiences, the framework focuses on four pillars:

1. **Diagnostic Profiling:** Utilizing target diagnostics (TOFAS) to isolate specific mechanical failures, such as struggles with least common denominators and fraction renaming.
2. **Technology-Enabled Pedagogy:** Merging mathematical rules with interactive, animated interface layouts to bring abstract computations to life.
3. **Formative Tracking Loops:** Employing bi-weekly digital assessments to continuously track progress and adapt remedial timelines without delaying the class.
4. **Stakeholder Collaboration:** Actively involving parents through structured orientations and updates to maintain an independent learning culture at home.

Technical Description: The Interactive Fraction Gamification Module

The innovation is operationalized through a specialized, offline-capable digital

application titled "Operations on Fractions: Interactive Learning for Grade 6-8". Rather than completing standard paper worksheets, students log in as a "brave adventurer" navigating an epic interactive quest line:

- **Interactive Learning Cards:** Clickable, visually animated menu cards covering fraction concepts like "Finding Common Denominators" and "Renaming Mixed Numbers".
- **Rapid-Fire Drills & Application Games:** Interactive modules (e.g., *Fraction Hangman*, *Matching Card Online*, *Practice Shooting Gallery*) designed to build computational automaticity through repetitive play.
- **The Dragon Slayer Boss Battle:** A high-stakes gamified assessment where students defeat obstacles by calculating fractional additions and subtractions correctly.
- **Automated Milestone Badges:** A 6-tiered rewards loop where students unlock digital achievement badges sequentially upon passing formative checks.
- **Instant Certification Loop:** Upon completing all 6 badges, the app automatically generates a personalized *Certificate of Recognition*, triggering a direct digital progress notification to the teacher's dashboard.

III. Key Results and Impact Status

The deployment of the digitized instructional platform successfully erased the baseline learning deficits of the target group, as evidenced by pre- and post-intervention statistical metrics:

Performance Indicator	Baseline (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
Mean Score (out of 48 items)	2.09	33.18	Massive Raw Gain (+31.09)
Mean Percentage Score (MPS)	4.35%	69.12%	Substantial Learning Leap

Performance Indicator	Baseline (Pre-Test)	Post-Intervention (Post-Test)	Impact Status
			(+64.77%)
Standard Deviation (SD)	1.78	3.18	High Stability & Performance Uniformity
Dominant Mastery Interpretation	100% Beginning / Very Low Mastery	Proficient (Developing to Advanced Masteries)	Complete Eradication of 0% Failure Rate

Formative Growth Progress (48-Item Scale)

To highlight the gradual acceleration of student performance over the 8-week cycle, tracking data revealed steady conceptual mastery:

- **Week 1:** 18% (Very Low Mastery)
- **Week 3:** 33% (Low Mastery)
- **Week 5:** 45% (Developing Mastery)
- **Week 7:** 56% (Approaching Proficient)
- **Week 8:** 62% (Nearly Proficient Level)

Evidence of Impact: The quantitative evaluation confirms that the innovation achieved outstanding academic turnarounds. The student cohort moved from an initial failing baseline of 4.35% MPS to a proficient 69.12% post-test MPS. Every single participant who initially scored an absolute 0% on fraction components shifted successfully into standard passing echelons.

Qualitative observations confirmed that replacing paper worksheets with immediate-feedback digital tools removed the fear of making mistakes. Students actively corrected their errors in real time, turning computational practice into an enjoyable game that built long-term problem-solving confidence.

IV. Conclusions and Recommendations

Conclusion

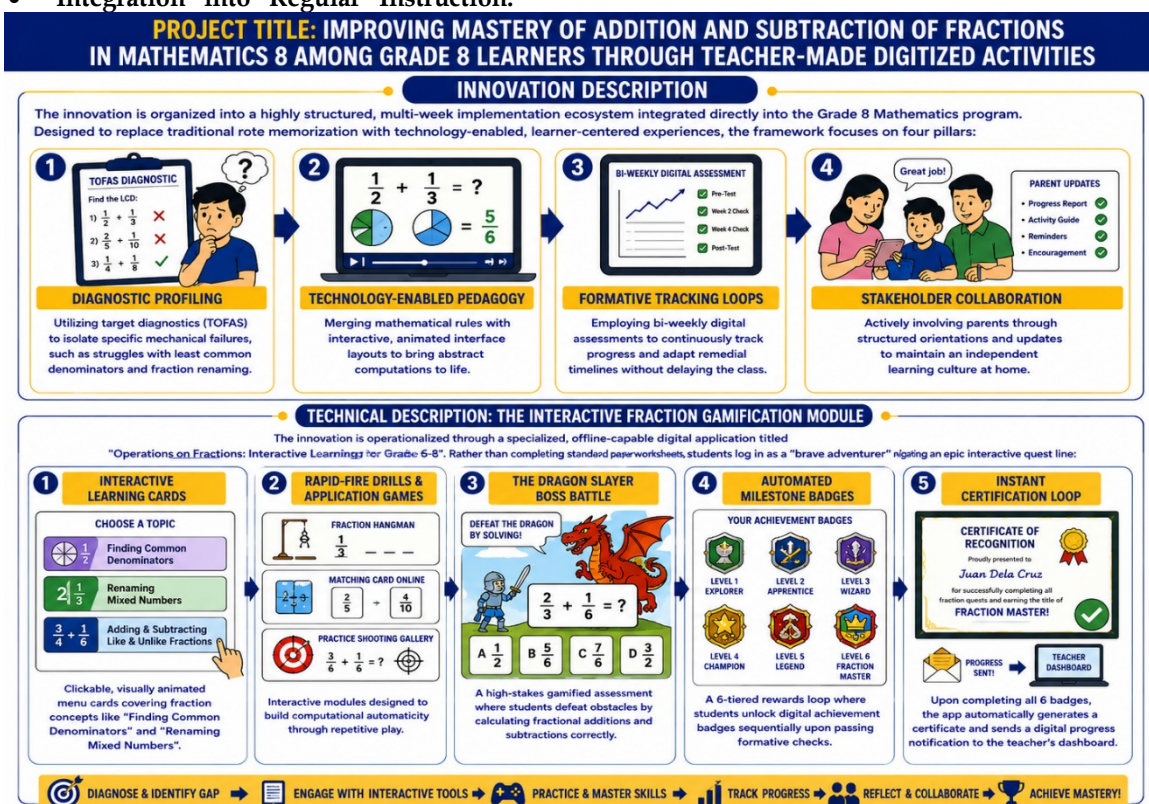
This action research proves that teacher-made digitized activities serve as an exceptionally powerful instructional intervention for clearing severe mathematical blocks. The dramatic turnaround from a near-zero baseline to high proficiency confirms that persistent student failure is frequently a symptom of abstract, unengaging instructional design rather than an inherent inability to learn. By grounding math instruction in gamified, technology-enhanced systems, this innovation successfully meets the critical professional standards for differentiated remediation required by the Philippine Professional Standards for Teachers (PPST).

offline-capable digital installation modules that operate smoothly without constant internet access.

- **Student Cognitive Burnout:** Mitigated by breaking down dense topics into short, gamified levels (such as rapid-fire quizzes and shooting targets), making math practice feel like an interactive game.
- **Long-Term Engagement Loss:** Maintained through an automated rewards loop where unlocking milestones triggers badges and automated certificates, keeping students intrinsically motivated to keep learning.

Recommendations

- **Integration into Regular Instruction:**



V. Risk Management and Sustainability Plan

To safeguard these instructional breakthroughs over subsequent school terms, operational risks are managed via proactive mitigations:

- **Hardware & Connectivity Limitations:** Addressed by designing standalone,

Zheng, B., Warschauer, M., & Lin, C. H. (2021). Digital Learning Applications and Their Impact on Mathematical Proficiency. *Computers & Education*, 165, 10412

Project Title: Enhancing Grade 10 Students' Graphing Skills in Polynomial Functions Using GeoGebra Mobile Application**Author: Mary Gold N. Ofriil | SDO-Lapu-Lapu City****I. Innovation Overview**

Babag National High School (BNHS) recognized a valuable opportunity to strengthen its mathematics learning environment and support students in mastering complex algebraic graphing concepts. While teachers provided regular instruction, the school identified that abstract mathematical rules and traditional static graphing methods left many learners at risk of failing. Analysis of second-quarter assessments over three consecutive years (2021–2023) confirmed a persistent learning gap, showing that struggling students consistently failed to visualize polynomial behavior or locate key graphical elements like intercepts, roots, and turning points.

To address these gaps and support the Department of Education's (DepEd) Basic Education Development Plan (BEDP) 2030 targets for technology-enabled learning, BNHS introduced an 8-session GeoGebra-based remediation program. This pedagogical innovation replaces traditional, static blackboard instruction with an interactive, mobile-app-driven learning environment on students' personal devices. This proactive initiative empowered at-risk learners to overcome mathematical anxiety and build strong visualization skills, successfully transforming persistent learning deficits into independent content proficiency.

II. Innovation Description

The pedagogical innovation is anchored in a 3-Phase Action Plan designed to dismantle the cognitive and technical hurdles identified in the initial gap analysis. To ensure long-term integration into remedial and regular school instruction, the framework focuses on:

1. **Diagnostic Profiling & Selection:** Pinpointing the ten lowest-performing learners through targeted pre-tests to maximize the impact of remedial resources.
2. **Technology-Enabled Pedagogy:** Using the GeoGebra mobile application on personal mobile devices to provide real-time, interactive visual feedback.
3. **Scaffolded Graph Exploration:** Moving students step-by-step from manual paper-and-pencil sketching to dynamic digital confirmation.
4. **Collaborative Problem-Solving:** Using strategic group challenges and peer collaboration to counter limited device access and promote shared learning.
5. **Institutional Dissemination:** Sharing verified action research insights through the Research Review Committee (RRC)

and school-level Learning Action Cell (LAC) sessions to build a wider culture of innovative practice.

Technical Description: The 4-Step Session Framework

At the heart of the innovation is a structured, eight-session remediation cycle delivered twice per week before regular class hours. Each session is operationalized through an integrated four-step framework:

- **Warm-Up:** Involves quick polynomial puzzles, short mathematical recaps, and leaderboard updates to minimize resistance and activate student interest.
- **Exploration Phase:** Guides students to observe patterns by changing coefficients, tracking roots, and manually plotting functions alongside real-time digital verification.
- **Gamified Activity:** Engages learners in high-energy group competitions, such as matching equations to graphs or modeling real-world ball trajectories, where points are awarded for speed and accuracy.
- **Reflection and Wrap-Up:** Provides a dedicated space for teachers to resolve misconceptions and for students to share

their learning insights, building long-term confidence.

III. Key Results and Impact Status

The intervention successfully cleared the chronic learning deficits of the target group, as demonstrated by the quantitative and qualitative monitoring results:

Performance Indicator	Baseline (Pre-test)	Post-Intervention (Post-test)	Impact Status
Mean Score (out of 15 items)	4.1	6.5	Significant Academic Gain (+2.4)
Standard Deviation (SD)	2.6	2.3	Increased Consistency &

Performance Indicator	Baseline (Pre-test)	Post-Intervention (Post-test)	Impact Status
Statistical Significance	Low Content Mastery	$t = 4.1295$, $p = 0.002561$	Uniform Learning Highly Significant (Exceeded Standards)
Student Attitude & Mindset	Hesitant, Anxious, or Stressed	Motivated, Curious, and Engaged	Positive Attitudinal Shift

Evidence of Impact: The data proves that the innovation successfully addressed deep-seated learning gaps, elevating at-risk students into standard passing ranges. A paired t-test confirmed a statistically significant difference ($t = 4.1295$, $p = 0.002561$), proving that the performance gains were directly caused by the remediation program. Qualitative feedback from focus group discussions (FGD) showed that the interactive features of GeoGebra effectively broke down the barriers of "Math Anxiety". By acting as a visual confirmation tool, the app allowed students to immediately check their manual work, catch calculation errors, and connect abstract algebraic formulas to real-world visual shapes. This real-time feedback loop turned frustration into curiosity, giving struggling learners the confidence to handle higher-degree polynomial functions independently.

IV. Conclusions and Recommendations

Conclusion

The study concludes that integrating the GeoGebra mobile application is a highly effective instructional intervention for enhancing the polynomial graphing skills of Grade 10 learners at risk of failing. The transition from low, scattered pre-test baselines to uniform, higher post-test performance indicates that student difficulties are often a reflection of static teaching models rather than an inability to grasp math. This framework successfully bridges the gap between DepEd curriculum policies and real classroom needs,

fulfilling the interactive and technology-supported learning standards expected of modern educators under the Philippine Professional Standards for Teachers (PPST).

Recommendations

- **Institutionalization:** Formally integrate the GeoGebra remediation framework into the School Improvement Plan (SIP) and math department remedial schedules to ensure permanent time slots for struggling learners.
- **Scalability:** Encourage Schools Division Offices (SDOs) to share and replicate this mobile-based graphing model across other schools to resolve regional learning gaps in secondary algebra.
- **Blended Methodologies:** Maintain a balanced integration of both manual paper-and-pencil sketching and digital tool verification to ensure students build strong procedural and conceptual foundations simultaneously.
- **Professional Capacity Building:** Expand school-level LAC sessions to train regular math teachers in utilizing dynamic geometry software, ensuring a sustainable, technology-rich instructional culture.

lessons, allowing students without personal mobile phones to learn alongside their classmates.

- **App Navigation & Technical Hurdles:** Resolved via structured teacher modeling, step-by-step printed application guides, and hands-on help during the early exploration phases.
- **Over-Reliance on Technology:** Countered by keeping manual paper-and-pencil plotting worksheets as a prerequisite task, ensuring the digital app is used for verification and deep visualization rather than as a computational shortcut.

This interactive platform now serves as a vital bridge between DepEd's technology targets and actual classroom instruction, maintaining a supportive learning environment that perfectly addresses the professional standards of the PPST.

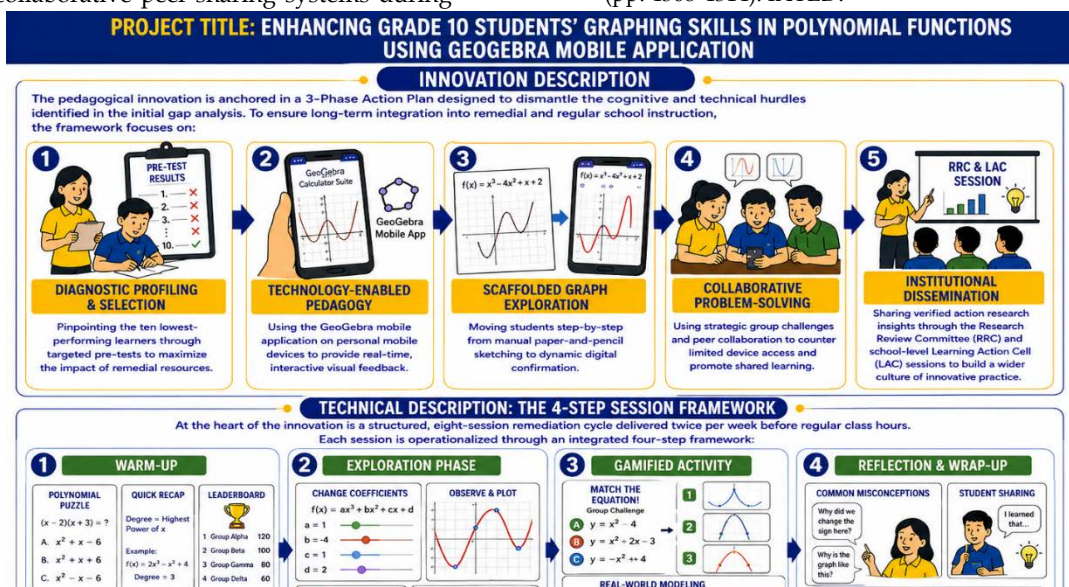
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V. Risk Management and Sustainability Plan

To preserve these educational gains against future operational challenges, potential risks are mitigated through proactive strategies:

- **Device Access & Infrastructure Limitations:** Managed by setting up collaborative peer-sharing systems during



Study 37



Project Title: Improving Grade 8 Students' Problem-Solving Skills in Measures of Central Tendency for Ungrouped Data Through Desmos Unified Worksheet Activities (DUWA)

Author: Amelton I. Ofriol | SDO-Lapu-Lapu City

I. Innovation Overview

Babag National High School recognized a vital opportunity to address a persistent challenge in Grade 8 mathematics education: weak problem-solving skills and procedural misconceptions regarding the measures of central tendency (mean, median, and mode) for ungrouped data. Analysis of least-learned competencies from 2022 to 2024 revealed that students frequently struggled with abstract statistical concepts due to computational errors, low engagement, and limited access to tools fostering higher-order thinking.

To bridge this learning gap, the school introduced **Project DUWA (Desmos Unified Worksheet Activities)**. This pedagogical process innovation serves as an equitable "blended learning framework," shifting instructions from traditional rote memorization to a dynamic, tech-supported setup. By marrying the interactive computing capabilities of the Desmos platform with physical instructional materials, Project DUWA systematically lowered learning barriers, heightened student engagement, and resulted in a highly significant statistical surge in learner problem-solving proficiency.

The process innovation is anchored on the **4-Point DUWA Framework** deliberately designed to target conceptual and accessibility gaps identified during the diagnostic phase. To guarantee a sustainable setup that can seamlessly integrate into long-term remediation plans, the framework focuses on:

1. **Digital Integration:** Incorporating interactive technology through the Desmos platform to manipulate dynamic datasets.
2. **Understanding Visualization:** Helping students easily decipher abstract mathematical relationships through immediate visual feedback.
3. **Worksheet Engagement:** Guaranteeing complete inclusivity by offering identical worksheets in both digital and printed/hard-copy configurations.
4. **Active Reflection:** Embedding mandatory metacognitive journals to encourage students to assess their own strategy building and self-regulation.

II. Innovation Description

Technical Description: Aligned Polya-Desmos Loop

At the heart of the innovation is an active problem-solving sequence that maps traditional math heuristics onto digital interfaces. This is operationalized through an instructional framework modeled after Pólya's Four-Step Method:

- **Understand the Problem (Inside Desmos):** Students open the graphing interface, define initial parameters, and input real-world datasets into variable fields.
- **Devise a Plan (Using Desmos Tools):** Students organize statistical trajectories and plan mathematical functions (e.g., programming calculations such as $\text{mean}(A)$ or $\text{median}(A)$).
- **Carry Out the Plan (Desmos Interaction):** Learners visually plot points on a horizontal grid, observe data clustering, and actively modify individual data variables to evaluate the stability of the measures under extreme changes or outliers.
- **Look Back / Review (Desmos Visual Reflection):** Students compare comparative shifts, self-correct calculation errors, and identify which statistical measures are most sensitive to modification.

III. Key Results and Impact Status

The implementation transitioned a targeted group of low-performing Grade 8 learners from computational uncertainty to confident execution, as validated by the following Monitoring and Evaluation (M&E) indicators:

Performance Indicator	Baseline (Pre-Assessment)	Post-Intervention (Post-Assessment)	Impact Status
Mean Assessment Score	6.50	7.80	Significant Point Gain (+1.30)
Statistical Significance (t-test)	N/A	$t(9) = 6.09, p < .001$	Statistically Highly Significant
Intervention Effect Size	N/A	1.93	Exceptionally Strong Impact
Student Self-Correction Capability	High reliance on teacher promptings	Tech-supported independent validation	High Growth in Autonomy

Evidence of Impact: The quantitative evaluation proves that the DUWA framework successfully altered classroom performance, demonstrating a definitive shift across the board with a strong effect size of 1.93. Qualitatively, thematic analysis generated distinct markers of success. Focus Group Discussions (FGD) revealed that the hybrid framework sparked *Enhanced Learning Engagement* (fostering persistence despite initial difficulties) and *Stronger Problem-Solving*

Strategies with Desmos acting as a reliable validation buffer. Thematic reflections confirmed that giving students a digital safety net to test, fail, and instantly visualize errors directly transformed math anxiety into rising self-assurance.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the Desmos Unified Worksheet Activities (DUWA) framework is a highly potent intervention for unlocking mathematical problem-solving capabilities in secondary education. The

transition of statistical growth and p -value metrics indicates that student struggles are often structural and tied to abstract delivery rather than a lack of intrinsic student capability. By combining tactile printed layouts with interactive visual calculations, the intervention effectively unburdens cognitive load, satisfies the competencies of the updated curriculum, and accelerates logical reasoning.

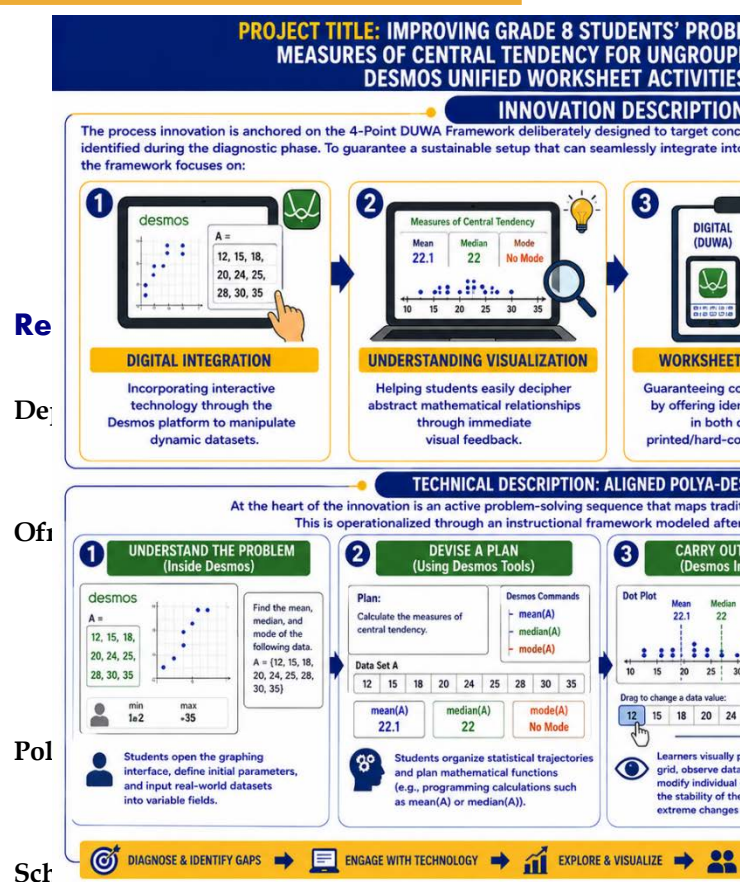
Recommendations

- **Institutionalization:** Formally establish the DUWA framework within local school remediation plans and integrate it into standard math instruction modules.
- **Scalability & LAC Integration:** Expand the reach of this innovation by launching it across regional Learning Action Cell (LAC) circles and sharing curriculum blueprints with peer math educators.
- **Desmos Awareness Campaigns:** Initiate division-wide training and quick-access student tutorials to democratize graph software tools for take-home or in-class exercises.
- **Reinforcement Layouts:** Develop advanced iterations of the workbook focusing on complex story-based problems to fulfill the students' explicit desire for extra practice opportunities.

V. Risk Management and Sustainability Plan

To protect performance gains and ensure continuity, the implementation protocol mitigated operational bottlenecks through proactive safeguards:

- **Technology Access Constraints:** Completely neutralized by creating parallel hard-copy printed workbooks and pairing students during mobile interactive tasks.
- **Core Calculation Bottlenecks:** Addressed by providing focused, targeted practice worksheets on basic operations (multiplication and division) alongside the software instructions to ensure students mastered standard procedures while interpreting graphic outcomes.
- **Conceptual Confusion:** Prevented by anchoring activities inside real-world scenarios (e.g., allowance distribution, tracking small-business product sales)



Problem Solving. Academic Press.

**Project Title: Enhancing Math Performance of Struggling Grade 9 Learners Through Teacher-Created Video Lesson Tutorials****Authors: Rogelio V. Mañanita, Shiela Marie L. Doña, Emma T. Ares | SDO-Cebu Province****I. Innovation Overview**

Calumboy National High School recognized an urgent need to bridge the expanding learning gaps in Mathematics, which were heavily exacerbated by systemic post-pandemic disruptions and a distinct lack of real-time instructional support at home. While traditional face-to-face methods remain fundamental, abstract mathematical concepts often induce high friction and low self-efficacy among at-risk students, leaving struggling learners falling further behind. To operationalize learning recovery and implement student-centered interventions in line with regional mandates, the school conceptualized the **Learning to Learn Project (LLP)**.

This process and product innovation replaces conventional, one-size-fits-all remediation with **Teacher-Created Video Lesson Tutorials (TC-VLT)**. By shifting the remedial paradigm from a rigid schedule to an accessible, flexible, and self-paced environment, the innovation provides a tailored academic safety net. This proactive initiative effectively targeted the lowest 10% of struggling Grade 9 learners, transforming their historical performance threshold into an exceptional standard of mathematical proficiency.

II. Innovation Description

The process innovation is strategically built around a holistic framework designed to

eliminate the technological, pedagogical, and psychological barriers surrounding mathematics remediation. To ensure institutional integration and structural sustainability, the framework focuses on six pillar implementation strategies:

1. **Concept-Specific Curation:** Formulating short, interactive video units detailing step-by-step mathematical problem-solving based directly on localized least mastered competencies.
2. **Format Compatibility Optimization:** Encoding all multimedia assets into standard cross-device formats (MP4, MPEG-V, AVC) to guarantee seamless offline viewing on accessible home gadgets and phones.
3. **Resource Integration:** Interlocking the video tutorials directly with corresponding Self-Learning Modules (SLMs), PowerPoint decks, and integrated formative assessments.
4. **Peer-Mediated Support (Learning Buddies):** Partnering lower-achieving students with high-performing

- classmates to demystify complex concepts using shared peer language.
- 5. Flexible Learning Engagement:** Empowering students to absorb mathematical concepts at their own pace outside traditional school hours in their preferred safe learning spaces.
 - 6. Collaborative Home Ecosystems:** Structuring targeted parent and guardian orientations to establish a deliberate home-based support mechanism.

Technical Description: The Three-Phase Cycle

The strategy operates through a structured deployment loop that maps clean milestones across the academic calendar:

- Pre-Implementation Phase:** Hard data mining via documentary analysis of Form 14 and class records to isolate learning loss metrics, followed by collaborative scriptwriting, video production, and stakeholder orientations.
- Implementation Phase:** Baseline diagnostic testing, followed by the rigorous application of the TC-VLT suite during specialized modular remedial sessions, coupled with systematic monitoring and active peer tutoring.
- Post-Implementation Phase:** Summation via post-testing, evaluating learning margins using paired inferential metrics (t -test and Cohen's d), and iteratively refining instructional tools based on direct classroom feedback.

III. Key Results and Impact Status

The introduction of the Learning to Learn Project safely moved the target student demographic from severe mathematical deficiency to profound cognitive mastery, as validated by quantitative monitoring and evaluation (M&E) indicators:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Mean Percentage Score (MPS)	23.49%	89.97%	+66.48% Absolute Gain (Exceeded Threshold)
Statistical Significance (t -test)	t -critical = 2.262	t -computed = -28.027	Highly Significant Difference ($p < 0.05$)
Intervention Effect Size (d)	$d = 0.2$ (Small Threshold)	$d = 8.47$	Extremely Large Impact Size
Learner Self-Efficacy & Growth	Severe learning loss/anxiety	Up to 466.67% individual score increment	Inclusive Academic Empowerment

Evidence of Impact: The empirical findings conclusively confirm that the TC-VLT system shattered the cognitive barrier for at-risk pupils. The baseline data showed alarming trends, particularly in complex topics like oblique

triangles solved via the Sine and Cosine Laws, which registered an initial MPS of just 5.00%. Post-intervention metrics proved that every single competency successfully crossed the Department of Education's 75.00% minimum standard threshold, peaking at an outstanding 97.50% MPS for right triangles solved via two legs.

The absolute negative value of the t -test ($t = -28.027$) proves that post-test metrics were mathematically superior and not a result of variance, while a Cohen's d value of 8.47 underscores an extraordinarily strong effect size that fundamentally reshaped classroom performance. Qualitatively, the combination of self-paced video navigation and peer "learning buddies" minimized the abstract cognitive load, successfully transforming math anxiety into independent problem-solving mastery.

IV. Conclusions and Recommendations

Conclusion

The study confirms that teacher-created multimedia tutorials, when paired with structured peer mentoring and home collaboration, serve as an exceptionally powerful tool to reverse student learning loss. The leap from an alarmingly low baseline to high-tier academic proficiency proves that persistent student failure in abstract courses often points to an absence of context-appropriate delivery channels rather than a lack of innate student capability. By adapting ICT tools directly to localized needs, the project achieves seamless national recovery.

Recommendations

- **Concept-Specific Curation:** Formulating short, interactive video units detailing step-by-step mathematical problem-solving based directly on localized least mastered competencies.
- **Format Compatibility Optimization:** Encoding all multimedia assets into standard cross-device formats (MP4, MPEG-V, AVC) to guarantee seamless offline viewing on accessible home gadgets and phones.
- **Resource Integration:** Interlocking the video tutorials directly with corresponding Self-Learning Modules (SLMs), PowerPoint decks, and integrated formative assessments.
- **Peer-Mediated Support (Learning Buddies):** Partnering lower-achieving students with high-performing classmates to demystify complex concepts using shared peer language.
- **Flexible Learning Engagement:** Empowering students to absorb mathematical concepts at their own pace outside traditional school hours in their preferred safe learning spaces.
- **Collaborative Home Ecosystems:** Structuring targeted parent and guardian orientations to establish a deliberate home-based support mechanism.
- **Technical Implementation: The Three-Phase Cycle**
The strategy operates through a structured deployment loop that maps clean milestones across the academic calendar:
 - 1 PRE-IMPLEMENTATION PHASE**
FORM 14 CLASS RECORDS → DATA MINING (Learning Loss Metrics) → COLLABORATIVE SCRIPTWRITING → VIDEO PRODUCTION → STAKEHOLDER ORIENTATIONS
Hard data mining via documentary analysis of Form 14 and class records to isolate learning loss metrics, followed by collaborative scriptwriting, video production, and stakeholder orientations.
 - 2 IMPLEMENTATION PHASE**
BASELINE DIAGNOSTIC TESTING → AMPLIFICATION OF TC-VLT SUITE (Video Tutorials) → PEER TUTORING & LEARNING BUDDIES → MONITORING & PROGRESS TRACKING
Baseline diagnostic testing, followed by the rigorous application of the TC-VLT suite during specialized modular remedial sessions, coupled with systematic monitoring and active peer tutoring.
 - 3 POST-IMPLEMENTATION PHASE**
POST-TESTING → INFERRENTIAL ANALYSIS (t-test & Cohen's d) → TOOLS REFINEMENT → CLASSROOM FEEDBACK
Summation via post-testing, evaluating learning margins using paired inferential metrics (t-test and Cohen's d), and iteratively refining instructional tools based on direct classroom feedback.
- **Diagnose & Identify Gaps** → **Engage with Video Tutorials** → **Learn Together & Support** → **Track Progress & Grow** → **Reflect, Refine & Improve** → **Achieve Math Success!**
- **Institutional Scalability:** SDO-Cebu Province should look at adapting this localized blended tutorial model across regional clusters to address similar math performance deficiencies.
- **Sustainability via Peer-Mentorship:** Expand the "Learning Buddy" model by tapping the successfully rehabilitated Grade 9 students to serve as future peer mentors, cultivating a continuous culture of cooperative learning.

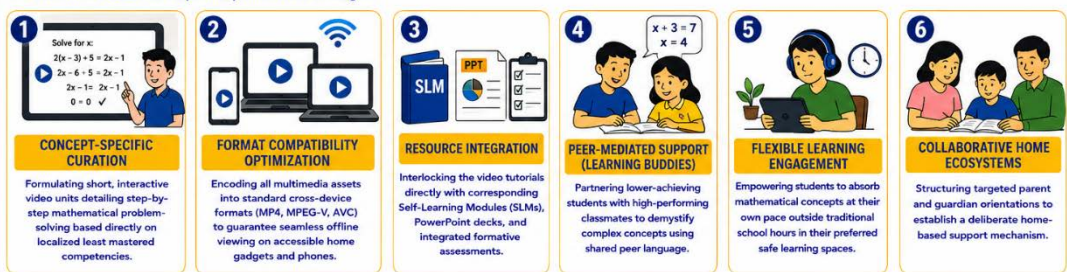
V. Risk Management and Sustainability Plan

- **Infrastructure Constraints:** Addressed proactively by ensuring that all teacher-made tutorials are encoded into low-bandwidth, highly-compatible offline configurations (MP4/AVC) that transfer easily over local flash drives or mobile devices without needing active internet connections.
- **Student Isolation and Attrition:** Mitigated through the deliberate implementation of the peer "Learning Buddy" system,

PROJECT TITLE: ENHANCING MATH PERFORMANCE OF STRUGGLING GRADE 9 LEARNERS THROUGH TEACHER-CREATED VIDEO LESSON TUTORIALS

INNOVATION DESCRIPTION

The process innovation is strategically built around a holistic framework designed to eliminate the technological, pedagogical, and psychological barriers surrounding mathematics remediation. To ensure institutional integration and structural sustainability, the framework focuses on six pillar implementation strategies:



TECHNICAL IMPLEMENTATION: THE THREE-PHASE CYCLE

The strategy operates through a structured deployment loop that maps clean milestones across the academic calendar:



DIAGNOSE & IDENTIFY GAPS → ENGAGE WITH VIDEO TUTORIALS → LEARN TOGETHER & SUPPORT → TRACK PROGRESS & GROW → REFLECT, REFINE & IMPROVE → ACHIEVE MATH SUCCESS!

implementation of joint Delivery voucher Program for Senior High School Technical-Vocational-Livelihood Specialization.

Mañanita, R. V., Doña, S. M. L., & Ares, E. T. (2025). *Enhancing Math Performance of Struggling Grade 9 Learners Through Teacher-Created Video Lesson Tutorials*. Calumboy National High School, SDO-Cebu Province.

Study 39



Project Title: Strategic Intervention Materials Utilizing PhET Simulations (SIM-UPS): An Interactive Learning Approach for Enhancing the Written Performance of Grade 8 Science Learners on the Least Learned MELCs in Physics

Author: Leome Estreba | SDO-Mandaue City

I. Innovation Overview

Subangdaku Technical Vocational School (STVS) recognized an urgent opportunity to address learning bottlenecks in junior high school physics. Based on school-level performance monitoring (SMEA) data, Grade 8 learners registered the lowest written output mean percentage score (MPS) at a critically low average of 57.40%, signaling deep academic challenges with abstract concepts in Physics. Traditional classroom methods often struggled to bridge the gap between theoretical math equations and real-world physical phenomena, inducing learner passivity and low confidence.

To address this challenge and anchor instruction in the Department of Education's (DepEd) push for contextualized and technology-supported learning, STVS developed and implemented the **Strategic Intervention Materials Utilizing PhET Simulations (SIM-UPS)** framework. This process and material innovation acts as a dynamic instructional roadmap, converting static lectures into interactive, student-centered discovery spaces. By embedding Physics Education Technology (PhET) interactive simulations inside structural physical modules, the innovation successfully targeted the least learned Most Essential Learning Competencies (MELCs), sparking curiosity and systematically

transforming underperformance into verified content mastery.

II. Innovation Description

The SIM-UPS innovation is anchored on constructivist learning theory, where digital immersion enables students to subjectively decode sensory data, analyze tasks, and construct robust mental models of scientific principles. Designed for modern 21st-century digital learners, the framework focuses on a five-component structured layout integrated directly into remediation and daily lessons:

1. **Guide Card:** Provides clear orientation, setting learning objectives and highlighting real-life applications to activate student interest.
2. **Activity Card:** Dictates student-centered, simulation-based tasks using the digital *PhET Circuit Construction Kit* to investigate complex relationships.
3. **Assessment Card:** Offers immediate formative and summative metrics to track individual learning gains and measure task retention.
4. **Enrichment Card:** Extends mastery through higher-order thinking tasks,

comparative reflections, and advanced conceptual applications.

5. **Reference Card:** Connects learners with carefully selected resource platforms to support independent, self-paced review.

Technical Description: *The Active Learning Loop*

At the heart of the SIM-UPS intervention is a technology-supported interactive cycle operationalized across three core simulation modules:

- **Activity 1: Ohm My!** – A virtual workspace where learners manipulate voltage, current, and resistance variables to map real-time changes in series and parallel circuits.
- **Activity 2: Could You Analyze Me?** – A technical problem-solving module where students combine mathematical equations with active digital tools (virtual ammeters/voltmeters) to verify calculated values against live simulations.
- **Activity 3: It's Application Time!** – A contextual scenario deck focusing on household circuit wiring rules, ensuring students translate abstract concepts directly to domestic electrical safety.

III. Key Results and Impact Status

The introduction of SIM-UPS successfully transitioned the target group from systemic academic difficulty to outstanding performance, as validated by quantitative pre- and post-test data:

Performance Indicator	Baseline (SY 2024-2025, Q1)	Post-Intervention (SY 24-25, Q4)	Impact Status
Written Output Average (MPS)	57.40% (Did Not Meet Expectations)	73.60% (Met Expectations)	+28.4% Percent Increase
Complete Mastery Level (96%-)	0% of Learners	48% of Learners (12 students)	Significant Upward Shift

Performance Indicator	Baseline (SY 2024-2025, Q1)	Post-Intervention (SY 24-25, Q4)	Impact Status
100% Bracket)			
Low/Very Low Mastery (Under 35% Bracket)	48% of Learners (12 students)	16% of Learners (4 students)	Dramatic Drop in Learning Gaps
Statistical Significance (Paired t-Test)	$M = 4.52$, $SD = 1.39$	$M = 7.36$, $SD = 2.38$	Highly Significant ($t(24) = 5.074, p < .001$)

Evidence of Impact: The evaluation results confirm that SIM-UPS effectively lowered the cognitive barrier for abstract science subjects. Prior to implementation, 0% of the target group achieved mastery, with the majority trapped in low or average performance brackets due to difficulties connecting mathematical models to physics. Post-intervention, the paired t-test confirmed a statistically significant improvement ($p < .001$), with 48% reaching absolute mastery. Qualitative observations showed that replacing traditional instruction with dynamic visualizations transformed physics anxiety into deep learner engagement, allowing students to collaboratively exchange configurations, share discoveries, and successfully master the interrelationship of voltage, current, and resistance.

IV. Conclusions and Recommendations

Conclusion

The study demonstrates that the SIM-UPS framework is a highly structured, valid, and effective classroom intervention for elevating student written performance in Physics. The transition from a failing baseline of 57.40% to a passing average of 73.60% indicates that persistent learner difficulties are frequently driven by static instructional delivery rather than an inherent lack of capacity. By blending strategic print materials with ICT tools, this innovation successfully

contextualizes the K-12 Science curriculum, fulfilling the professional standards required under the Philippine Professional Standards for Teachers (PPST) regarding digital pedagogy and differentiated learning.

Recommendations

- **Institutionalization:** Formalize the integration of SIM-UPS inside the regular School Improvement Plan (SIP) and Annual Implementation Plan (AIP) to establish permanent resource copying budgets and dedicated remediation schedules.
- **Department-Wide Standardization:** Science departments should expand the development of SIM-UPS modules to target remaining least-learned competencies across other grading periods and grade levels.
- **Pedagogical Scaling:** Utilize standard school channels, such as school-level Learning Action Cell (LAC) sessions, to share best practices, train fellow educators in digital simulation facilitation, and advocate for cross-subject utilization (e.g., in TLE or Mathematics).
- **Infrastructure Support:** School leadership must prioritize expanded student access to school ICT resources, stable connectivity, and professional growth programs centered around interactive digital methodologies.

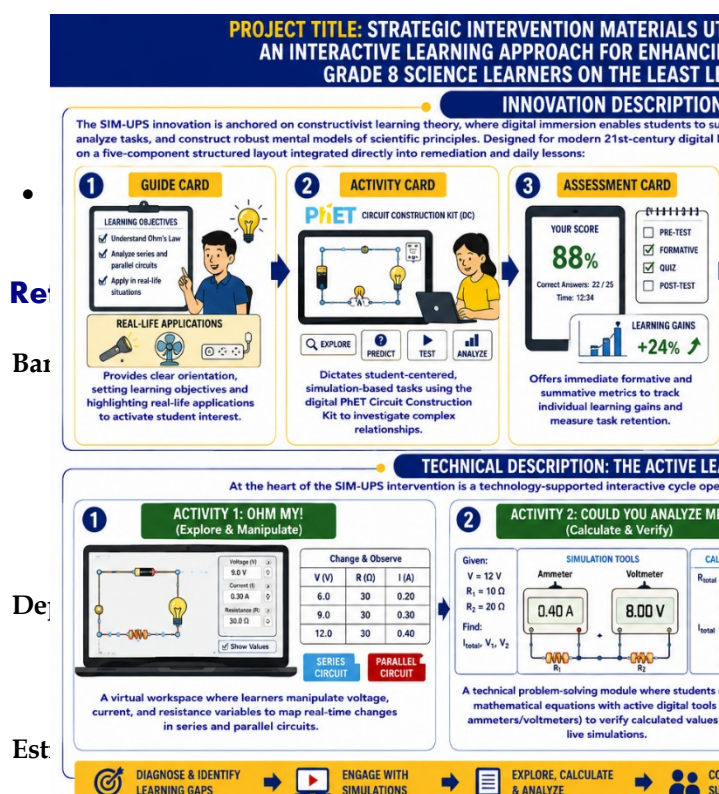
V. Risk Management and Sustainability Plan

To safeguard the performance improvements achieved, the framework incorporates strategic safeguards against deployment challenges:

- **Intermittent Connectivity:** Addressed by pre-downloading the PhET simulation applications and utilizing offline virtual configurations within laboratory computers, ensuring

learning continues regardless of internet status.

- **Mathematical Knowledge Gaps:** Mitigated by creating clear mathematical reference maps within the Activity Cards, guiding students step-by-step through algebraic equations using calculators before linking them to simulation views.
- **Student Tool Unfamiliarity:** Managed by implementing dedicated orientation sessions for both students and parents on day one, ensuring seamless user



(SIM-UPS): AN INTERACTIVE LEARNING Approach for Enhancing the Written Performance of Grade 8 Science Learners on the Least Learned MELCs in Physics. Subangdaku Technical Vocational School, SDO-Mandaue City.



Study 40

Project Title: Atomic Quest Board Game: A Hands-on Exploration to Enhance Conceptual Understanding and Engagement in Atomic Structure for Grade 8 Learners

Authors: Marie Jel M. Llanto, Cherry Ann G. Miñoza, Antoneth I. Diaz | SDO-Toledo City

I. Innovation Overview

Bunga National High School (BNHS) recognized a critical challenge in junior high school chemistry instruction: the persistent difficulty Grade 8 learners encountered when trying to grasp highly abstract atomic concepts. Traditional, teacher-centered instruction often relied heavily on rote memorization, causing students to experience low learning motivation and a distinct lack of hands-on, interactive manipulation. Diagnostic tests consistently indicated that a significant portion of students scored below 50% in foundational competencies, particularly in determining subatomic particles.

To address these learning gaps and align with the Department of Education's (DepEd) push for contextualized learning, BNHS developed and deployed the **Atomic Quest Board Game**. This contextualized, game-based process innovation transforms abstract science concepts into a tangible learning environment. By embedding crucial chemistry benchmarks into an interactive tabletop model, the innovation successfully eliminated passive instruction, lifting the class from critical learning deficiencies to a near-perfect mastery level across all key learning objectives.

II. Innovation Description

The instructional process innovation is structurally anchored in the **ADDIE Instructional Design Model** (Analysis, Design, Development, Implementation, and Evaluation) to systematically address low academic performance. To ensure structural deployment and sustained integration into daily science lesson logs, the framework addresses key domains:

1. **Learner Profiling:** Classifying target students using the VAK (Visual, Auditory, Kinesthetic) learning modalities to align game dynamics with natural student engagements.
2. **Contextual Design:** Building robust, tactile learning aids using durable material (Sintrabourd tabletop sheets) featuring simulated real-atomic layouts.
3. **Peer-Moderator Management:** Shifting the classroom dynamic from a purely teacher-centric setup into a collaborative structure where advanced peers act as game moderators.
4. **Active Assessment Loop:** Incorporating real-time formative checks into daily lesson plans, including parts for activating prior

knowledge, guided practice, and structured generalizations.

Technical Description: The Six-Card Deck and Moderator System

At the core of the innovation is an active "gamified reflection loop" driven by interactive dice mechanics, specific tabletop tokens, and an integrated dashboard of card decks that address diverse learning styles:

- **Question Cards:** Prompt direct recall questions regarding atomic theory to check factual knowledge.
- **Definition Cards:** Reinforce structural retention by requiring definitions of terms like isotopes, ions, and nucleons.
- **Challenge Cards:** Direct learners to engage in quick physical tasks or kinesthetic activities related to atomic configuration.
- **Creative Cards:** Invite students to express abstract concepts visually by sketching or modeling atomic components.
- **Memory Cards:** Challenge players to recall concepts introduced in earlier stages of the game session.
- **Reward Cards:** Inject strategy and high engagement by offering skips, bonus movements, or immunity elements.
- **Answer Key for Moderators:** Provides a real-time validation tool that enables designated student moderators to manage the game accurately without direct teacher intervention.

III. Key Results and Impact Status

The board game effectively transitioned a targeted cohort of low-performing Grade 8 students from structural failure to high-tier academic mastery, as validated by pre-test and post-test comparative indicators:

Learning Objectives Evaluated	Baseline Mean (Pre-test)	Post-Intervention Mean (Post-test)	Impact Status
Identify early atomic models & basic structure	38.34%	98.33%	Significant Mastery Gains

Learning Objectives Evaluated	Baseline Mean (Pre-test)	Post-Intervention Mean (Post-test)	Impact Status
Recognize & describe subatomic properties	34.92%	95.00%	Exceptional Conceptual Growth
Determine atomic composition (p^+ , e^- , n^0)	21.67%	98.67%	Reached Near-Perfect Mastery
Distinguish between atoms, ions, & isotopes	31.67%	96.67%	Critical Barriers Dismantled
Infer atomic relationships among elements	40.64%	98.33%	Analytical Mastery Achieved

Evidence of Impact: The empirical metrics demonstrate that the highest increase occurred within the target competency (**Determining atomic composition**), skyrocketing from an unmastered baseline of 21.67% to an outstanding 98.67%. Qualitative analysis indicates that utilizing tactile components and game loops lowered cognitive anxiety and corrected long-held misconceptions (e.g., confusing mass counts with charge variances). By shifting the role of learning from passive listening to game-based problem solving, students demonstrated heightened retention, making the topic accessible and memorable.

IV. Conclusions and Recommendations

Conclusion

The implementation proves that the *Atomic Quest Board Game* is an exceptionally viable, low-cost instructional process innovation for science classrooms. The dramatic upward leap in student marks indicates that student underachievement is frequently driven by traditional, passive delivery methods rather than an inability to understand complex concepts. The tool

successfully aligns classroom practice with 21st-century interactive teaching standards.

Recommendations

- **Institutionalization:** Integrate game-based contextualized tools formally into the Learning Action Cell (LAC) sessions and standard Daily Lesson Logs (DLL) for junior high school science.
- **Peer Leadership Development:** Train the pioneer group of students to coach subsequent classes, establishing a self-sustaining student-led study dynamic.
- **Scale and Expansion:** Develop regional spin-offs of the board game layout targeting adjacent science strands, such as cellular structures or periodic table dynamics.
- **Material Standardization:** Secure institutional funds to transition prototypes into standard, mass-produced school learning kits.

V. Risk Management and Sustainability Plan

To protect these instructional gains, potential risks are systematically neutralized through specific countermeasures:

- **Time Constraints within Curriculum:** Managed by integrating the board game play directly into the regular two-week instructional timeline,

replacing monotonous worksheets with targeted gamified tasks.

- **Classroom Management & Noise:** Resolved by deploying the peer-moderator structure. Distributing localized answer keys directly to team leaders keeps all groups engaged without placing extra burdens on the teacher.
- **Material Wear and Tear:** Addressed during the development phase by producing the primary game boards on high-density Sintra boards and laminating the card decks to withstand heavy everyday use.

References

Llanto, M. J. M., Miñoza, C. A. G., & Diaz, A. I. (2025). *Atomic Quest Board Game: A Hands-on Exploration to Enhance Conceptual Understanding and Engagement in Atomic Structure for Grade 8 Learners*. Bunga National High School, SDO Toledo City.

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Study 41



Project Title: Enhancing Digital Literacy and Academic Performance in Mathematics Through Google Forms-Based Assessments

Authors: Edgar J. Gonzaga & Jose Bonie C. Cabezas | SDO-City of Naga

I. Innovation Overview

The Schools Division of City of Naga, specifically South Poblacion National High School (SPNHS), recognized a critical gap in students' online exam readiness and overall digital literacy. Baseline metrics revealed that students struggled significantly with digital testing formats, scoring an average of only 35% to 40% on the Test of Fundamental Academic Skills (TOFAS) post-assessment. To address these technological challenges and support the Department of Education's (DepEd) MATATAG curriculum framework, the researchers introduced the integration of **Google Forms-Based Assessments** into Grade 7 Mathematics classes.

This process innovation transitioned traditional paper-based testing into a web-based, interactive diagnostic environment. By replacing time-delayed manual grading with real-time automated scoring and immediate explanatory feedback, the framework dismantled digital anxiety, boosted technological confidence, and dramatically enhanced student engagement and academic output.

II. Innovation Description

The process innovation is deployed across a highly structured, three-tiered

framework (**Pre-Implementation, Implementation, and Post-Implementation phases**) designed to seamlessly embed digital assessments into the daily instructional ecosystem. To achieve institutional synchronization and technical clarity, the strategy focuses on:

1. **Stakeholder Alignment:** Securing formal administrative clearance from school and division heads while analyzing baseline hardware access.
2. **Quality-Assured Content Construction:** Designing contextualized Mathematics 7 test items (covering perfect squares, square roots, and cube roots) vetted by an independent peer-review and quality assurance team.
3. **Automated Feedback Integration:** Utilizing automated quiz-marking features to eliminate processing delays and provide instantaneous feedback to learners.
4. **Skills Customization:** Structuring basic practice exercises to help early-stage learners navigate user-experience layouts smoothly.
5. **Equitable Infrastructure Support:** Orchestrating dedicated computer laboratory sessions to guarantee inclusive participation for students lacking personal smartphones or internet connections.

Technical Description: The Digital Assessment Suite

At the core of this operational change is an immediate feedback and verification cycle managed through five integrated pillars:

- **Pre-Test Device & Readiness Survey:** A diagnostic questionnaire used to assess students' technology situations and adapt form structures accordingly.
- **Standardized Digital Math Formats:** Web-based testing tools designed with multiple question types tailored to K-12 mathematical competencies.
- **Automated Scoring Matrix:** A processing back-end that tallies scores immediately, instantly clarifying student performance levels for teachers.
- **Real-Time Remediation Loop:** A prompt response system built into the forms that allows students to view their mistakes and immediately understand the correct mathematical solutions.
- **Analytics Dashboard:** A localized tracking tool used by school leadership to evaluate growth in student achievement and technological fluency simultaneously.

III. Key Results and Impact Status

The digital intervention successfully shifted the classroom environment from low engagement and test anxiety to outstanding academic performance, as evidenced by the action research data:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Mathematics Mean Score	7.06 (out of 21)	13.72 (out of 21)	Near Doubled Outcomes
Mean Percentage Score (MPS)	33.62%	65.33%	Significant Academic Growth

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Digital Literacy Mean	2.54 (Disagree)	4.50 (Agree)	Substantial Skill Elevation
Technological Confidence	2.58	4.52	Psychological Efficacy
Perception of Digital Testing	2.52	4.52	Positive Cultural Shift
Student Motivation Level	2.36	4.60	Enhanced Learner Drive

Evidence of Impact: The empirical data demonstrates that transitioning to web-based quizzes successfully modernized the classroom ecosystem. While statistical modeling (Pearson $r = 0.015, p = 0.458$) indicates that sheer digital capability alone does not replace core content mastery, the descriptive gains show that the immediate feedback loops significantly accelerated understanding. The dramatic jump in digital literacy (2.54 to 4.50) confirms that embedding technology within daily routines lowered the barrier to entry for students unfamiliar with online environments, driving them toward independent, technology-reliant problem solving.

IV. Conclusions and Recommendations

Conclusion

The study concludes that integrating Google Forms-based assessments is an exceptionally effective framework for boosting both math scores and digital literacy in basic education. The shift in scores shows that historical underperformance was heavily tied to traditional paper formats and delayed grading cycles rather than a lack of student capability. The strategy perfectly matches the goals of the DepEd MATATAG curriculum, proving that interactive, data-driven tools give

teachers the agility needed to correct student misunderstandings in real time.

Recommendations

- **Institutionalization:** Formally integrate web-based testing frameworks into the standard formative and summative schedules of the School Implementation Plan across junior high school levels.
- **Faculty Capacity Building:** Expand division-level training workshops for teachers focused on advanced digital test design, automated workflows, and data-driven instruction.
- **Resource Optimization:** Upgrade and maintain school computer lab spaces systematically to ensure students have reliable device access and equal testing opportunities.
- **Pedagogical Blending:** Continue grounding technology usage in strong math instruction, ensuring digital tools enhance deep understanding rather than just automating tasks.

V. Risk Management and Sustainability Plan

To protect these instructional gains, the project addressed potential operational threats with clear, proactive solutions:

- **Device & Hardware Gaps:** Managed by arranging dedicated computer lab schedules and keeping alternative paper versions ready so no student was left behind due to technical limits.

- **Connectivity Hurdles:** Addressed by designing clean, low-bandwidth forms and offering flexible testing times to accommodate slow internet connections.
- **Digital Stress & Mistake Anxiety:** Resolved through practice dry-runs and automated, helpful feedback that transformed tests from high-stakes hurdles into useful tools for self-evaluation.

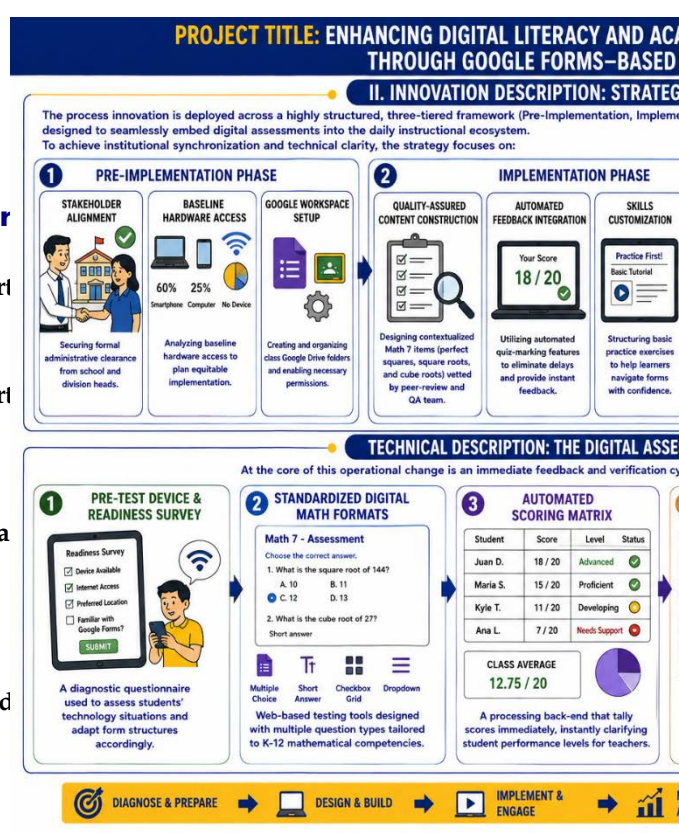
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Study 42

Project Title: Enhancing Students' Reasoning Skills Through Microsoft Teams: An Action Research on Structured Interventions for Mental Ability Test Preparation at RMDSF-STEC

Authors: Arque G. Beduya, Venci Mae A. Suello, & John Michael T. Gian | SDO-Danao City

I. Innovation Overview

The Ramon M. Durano Sr. Foundation-Science and Technology Education Center (RMDSF-STEC) recognized a critical challenge regarding its Special Science Program eligibility requirements. While applicants faced competitive baseline benchmarks—including a project pitch and communication test—a severe performance bottleneck was identified in the mandatory admission mental ability test. During the 2023–2024 academic year, elementary graduates averaged a remarkably low score of just 5.563 out of 50, with scores ranging from a minimum of 2 to a maximum of 13.

To bridge this performance gap and meet the Department of Education's directive to cultivate higher-order thinking skills under the Special Science Elementary Schools (SSES) guidelines, the school introduced a structured digital preparation framework. This process innovation strategically combined focused cognitive preparation with the collaboration and interaction features of **Microsoft Teams**. By moving test preparation from a traditional approach into a flexible digital space, the framework successfully reduced student test anxiety, improved technological familiarity, and raised reasoning performance.

II. Innovation Description

The process innovation is deployed across a systematic, three-tiered framework (**Pre-**

Implementation, Implementation, and Post-Implementation phases) designed to blend test preparation seamlessly with demanding regular school schedules. To achieve clear delivery and data-backed instruction, the strategy focuses on:

1. **Targeted Instructional Delivery:** Using digital spaces to run flexible support sessions that overcome the constraints of long face-to-face class hours.
2. **Structured Revision Schemes:** Organizing specialized resource hubs and dedicated channels by topic to help

students manage study materials effectively.

3. **Task Management Guidance:** Leveraging built-in planning workflows to track progress and help students build essential time management skills.
4. **Continuous Assessment Loops:** Embedding regular, learning-focused tests that deliver instant performance feedback to replace high-stakes pressure with regular practice.
5. **Data-Driven Adaptation:** Tracking engagement patterns to adjust instructional speed and target specific areas where students struggle.

Technical Description: The Microsoft Teams Preparation Suite

At the core of this operational change is a real-time tracking and collaborative workspace run through five integrated digital tools:

- **Virtual Conference Breakout Rooms:** Small-group digital workspaces where students solve verbal, numerical, and logical problems together, using shared digital whiteboards to visualize solutions.
- **Microsoft Forms Quiz Module:** An assessment tool using adaptive branching techniques to deliver customized, level-appropriate reasoning challenges with instant feedback.
- **Teams Planner Application:** A digital dashboard providing automated task reminders and schedules to support structured active recall and spaced repetition.
- **Teams Insights Engine:** A backend analytics dashboard that tracks how often students access resources, allowing teachers to customize interventions for individuals.
- **Analytics Dashboard:** A tracking system used to compare pre- and post-test data, ensuring the overall intervention remains aligned with student progress.

III. Key Results and Impact Status

The digital intervention successfully shifted the preparation framework from low baseline metrics to measurable, verified progress across all targeted reasoning domains:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Logical Reasoning Mean	2.40 (Needs Improvement)	3.50 (Basic)	Stable Target Attainment
Numerical Reasoning Mean	2.10 (Needs Improvement)	3.20 (Basic)	Incremental Growth

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention	Impact Status
Verbal Reasoning Mean	2.50 (Basic)	3.60 (Basic to Proficient)	Highest Relative Acceleration
Composite Skills Mean	2.33 (Needs Improvement)	3.43 (Basic)	Verified Competency Elevation

Evidence of Impact: The empirical data demonstrates that the structured digital framework successfully upgraded students' problem-solving capacities. A paired t -test verified a statistically significant improvement in composite reasoning scores, ($t(19) = 4.72, p < .001$), confirming that the intervention generated reliable academic gains. A repeated-measures ANOVA also revealed notable variation in progress across domains, ($F(2,38) = 5.41, p < .01$). Subsequent Tukey's HSD post-hoc testing showed that verbal reasoning gains (3.60) significantly outpaced numerical reasoning growth (3.20). The overall pre-to-post change yielded a Cohen's $d = 0.45$, showing a solid moderate effect size that confirms the practical value of short, well-monitored digital preparation loops.

IV. Conclusions and Recommendations

Conclusion

The study concludes that integrating structured interventions through Microsoft Teams is an efficient, scalable, and highly reproducible approach for improving high-stakes assessment readiness. The shift in scores shows that low baseline entry metrics stemmed from a lack of explicit, structured reasoning practice rather than an actual deficit in student capability. The digital model successfully balanced rigorous learning with stress reduction, demonstrating that embedding interactive tools within routine

preparation lowers student test anxiety while building essential 21st-century digital skills.

Recommendations

- **Strategic Revision for Target Focus:** Design the next action research cycle to target numerical reasoning specifically, introducing specialized instruction and cumulative practice to lift numerical skills toward the Proficient level.
- **Platform Institutionalization:** Formalize the use of Microsoft Teams workspaces for Special Science Program test preparation, making online breakout channels and adaptive forms a permanent part of the pre-admission timeline.
- **Resource Optimization:** Continue expanding localized digital question banks within Microsoft Forms, focusing on structured error explanations to encourage self-directed learning.
- **Expanded Analytics Tracking:** Train instructional teams to actively monitor real-time data through Teams Insights, using engagement patterns to flag and support lagging students early.

V. Risk Management and Sustainability Plan

To safeguard these instructional gains against common implementation obstacles, the project followed a practical risk management plan:

- **Time Constraints:** Managed by using Microsoft Teams to host virtual sessions, allowing students to access resources flexibly from anywhere and avoiding conflicts with long physical school hours.

- **Varying Baseline Skills:** Handled by building adaptive branching into Microsoft Forms quizzes, ensuring early-stage learners received manageable questions while more advanced students faced suitable challenges.
- **Test Anxiety & Stress:** Addressed by using small digital breakout rooms and collaborative group tools, which fostered supportive peer learning and made test practice feel like an engaging, dynamic process.

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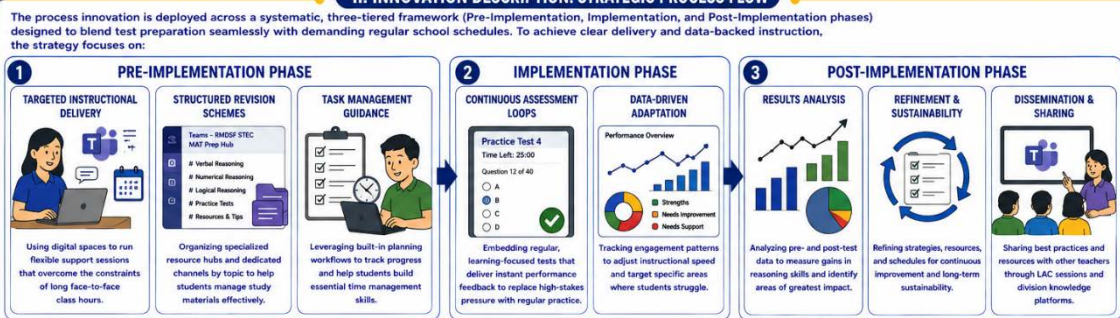
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PROJECT TITLE: ENHANCING STUDENTS' REASONING SKILLS THROUGH MICROSOFT TEAMS: AN ACTION RESEARCH ON STRUCTURED INTERVENTIONS FOR MENTAL ABILITY TEST PREPARATION AT RMDSF-STEC

II. INNOVATION DESCRIPTION: STRATEGIC PROCESS FLOW



TECHNICAL DESCRIPTION: THE MICROSOFT TEAMS PREPARATION SUITE

At the core of this operational change is a real-time tracking and collaborative workspace run through five integrated digital tools:



Study 43



Project Title: Enhancing Student Engagement and Learning Outcomes in TLE 9-Cookery Through the Use of Moodle as an Adaptive Learning Tool

Authors: Keichie R. Quimco, Sonny Rey M. Calvo, & Ma. Adele Fe M. Manulat | SDO-Danao City

I. Innovation Overview

B. Durano Integrated School recognized a critical challenge in its Technology and Livelihood Education (TLE) program: a severe scarcity of physical cooking textbooks coupled with historically low Mean Percentage Scores (MPS) among students. While Cookery requires active hands-on exposure and solid conceptual understanding, traditional instructional methods left gaps in student mastery and performance. To modernize the learning landscape and support the Department of Education's (DepEd) push for digital instruction, the school introduced **Moodle as an Adaptive Learning Tool**.

This technology-driven process innovation serves as a dynamic, personalized educational repository. By replacing standard pencil-and-paper instruction with interactive online course modules, virtual demonstrations, and real-time assessments, the tool bridges the gap caused by missing physical learning resources. This proactive intervention successfully transformed student performance, building technical and digital capabilities that prepare learners for future integration into the culinary industry.

The process innovation leverages Adaptive Learning Theory to build a learner-centered pedagogical environment tailored to individual cognitive speeds. To ensure deep institutional integration and alignment with 21st-century skill frameworks, the implementation strategy focuses on:

1. **Instructional Customization:** Dynamically tailoring the sequence and complexity of cookery instruction to match distinct student learning paces.
2. **Resource Digitization:** Solving physical textbook deficits by transforming Cookery 9 modules into interactive digital contents and video tutorials.
3. **Real-Time Data Evaluation:** Using instant platform metrics to evaluate learning gaps and adapt instructional methods immediately.
4. **Active Stakeholder Advocacy:** Embedding the tool into School Learning Action Cell (SLAC) workshops and the School Improvement Plan (SIP) for budgetary security.

II. Innovation Description

Technical Description: The Moodle Learning Management System (LMS)

At the heart of this innovation is an adaptive platform optimized via a local offline network setup to guide students through the theoretical and practical dimensions of Cookery. The system is operationalized through five strategic modules derived from the Technology Acceptance Model (TAM):

- **Interactive Media Forum:** A digital center where students upload home/classroom culinary outputs, exchange recipes, and execute peer-feedback loops.
- **Instant-Feedback Assessment Engines:** Adaptive quizzes evaluating theoretical (food safety, nutrition) and practical concepts (measurements, substitutions) with automated corrections.
- **Perceived Usefulness (PU) Trackers:** Curated content pathways designed to heighten student learning efficiency and boost academic achievement.
- **Perceived Ease of Use (PEU) Layouts:** User-friendly interfaces built to ensure simple navigation and low technical entry thresholds for students.
- **Computer Self-Efficacy (CSE) Frameworks:** Practical digital modules designed to confidently guide independent, self-paced learning behaviors.

III. Key Results and Impact Status

The integration of Moodle moved the learner demographic from low mastery and engagement to high academic performance and technical efficiency, as demonstrated by the experimental data:

Performance Indicator	Baseline (Conventional Group)	Post-Intervention (Moodle Group)	Impact Status
Mean Score Improvement (Gain)	3.24	5.63	Significant Performance Increase
Perceived Usefulness (PU)	—	4.40 (Strongly Agree)	High Academic Efficacy

Performance Indicator	Baseline (Conventional Group)	Post-Intervention (Moodle Group)	Impact Status
Perceived Ease of Use (PEU)	—	4.37 (Strongly Agree)	Seamless Navigation
Computer Self-Efficacy (CSE)	—	4.37 (Strongly Agree)	Independent Mastery Achieved
Attitude Towards Learning	—	4.63 (Strongly Agree)	Elevated Engagement & Fun
Intention to Use (IU)	—	4.80 (Strongly Agree)	High Sustainability Demand

Evidence of Impact: The empirical findings confirm that the Moodle platform significantly altered student learning outcomes, with the experimental group noticeably outperforming the conventional instruction cohort ($p < 0.05$). The mean score gain of 5.63 within the Moodle group far exceeded the baseline gain of 3.24 recorded in traditional setups.

Qualitative indicators gathered from student metrics reveal that exceptional platform usability (4.37) and a positive learning attitude (4.63) converted initial digital unfamiliarity into structural self-efficacy. Students took greater charge of learning paths, using virtual demonstrations and interactive assignments to master complex competencies

like food safety, preparation calculations, and recipe development—even amidst severe local textbook shortages.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that Moodle serves as an exceptional catalyst for boosting student engagement and improving learning outcomes within a skill-based

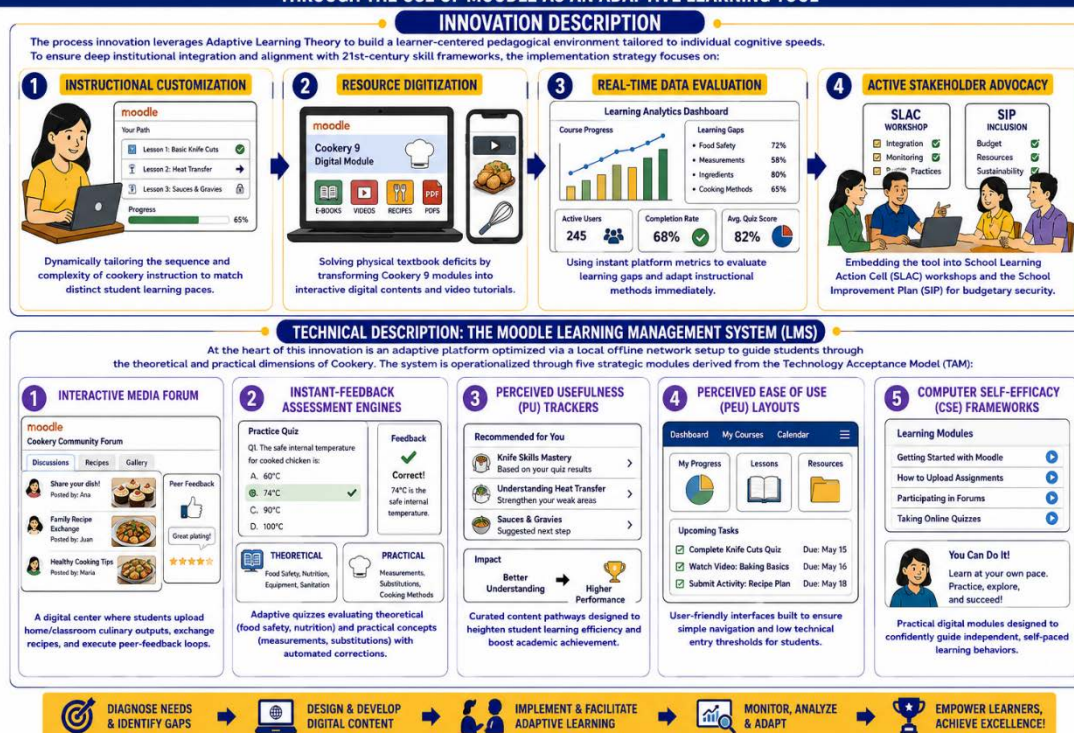
curriculum. The transition to higher post-test mean scores indicates that low student achievement often points to a lack of interactive instructional materials rather than student disinterest. The intervention successfully establishes that combining traditional skill acquisition with digital learning tools bridges local resource gaps and fulfills the technical standard demands of 21st-century basic education.

Recommendations

- **Formal Institutionalization:** Formally integrate the offline Moodle LMS setup into the School Improvement Plan (SIP) and school maintenance budgets

- **Infrastructure Bottlenecks & Connectivity Gaps:** Addressed by establishing a localized offline server network architecture, completely bypassing external internet reliance.
- **Resource Shortages & Maintenance Costs:** Managed by presenting explicit performance metrics (such as the 4.80 Intention to Use score) to the School Head and PTA to lock down dedicated funds in the annual maintenance layout.
- **Technical Unfamiliarity:** Resolved by running dedicated hands-on Moodle orientations and distributing user

PROJECT TITLE: ENHANCING STUDENT ENGAGEMENT AND LEARNING OUTCOMES IN TLE 9-COOKERY THROUGH THE USE OF MOODLE AS AN ADAPTIVE LEARNING TOOL



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V. Risk Management and Sustainability Plan

To safeguard these performance gains, potential long-term risks are neutralized through targeted mitigation measures:



Study 44

Project Title: Enhancing Instructional Delivery Through the 'Kaban Ni Mariano' Shared Repository: Improving Teachers' Access to Standardized and Contextualized Learning Resources

Authors: Mike Vincent F. Baccol & Rose Claudine T. Oliverio | SDO-Danao City

I. Innovation Overview

Mariano L. Espera Jr. National High School (MLEJNHS) recognized a critical challenge in its local instructional landscape: severe disparities in teachers' access to standardized, high-quality, and contextualized learning resources. The school identified that educators, particularly those forced to teach outside their primary areas of specialization or coping with resource-starved settings, faced increased burnout and instructional fragmentation.

To address these systemic bottlenecks and align with the Department of Education's (DepEd) MATATAG Curriculum and the Basic Education Development Plan (BEDP) 2030, MLEJNHS conceptualized and launched the 'Kaban Ni Mariano' Shared Repository. Hosted on Google Drive, this digital infrastructure serves as a centralized, curriculum-aligned hub that converts fragmented, ad-hoc lesson planning into an institutionalized, collaborative ecosystem. The initiative successfully democratized resource access, drove monumental student academic growth, and cultivated an inclusive culture of digital collaboration among faculty members.

II. Innovation Description

The innovation is operationalized through a strategic framework built around core development phases and structured resource categories, designed to ensure immediate integration into the School Improvement Plan (SIP). The intervention focuses on four primary operational layers:

- 1. Infrastructure & Accessibility:** Constructing a systematic, secure cloud environment on Google Drive containing grade-specific folders with offline-download capability to mitigate local connectivity boundaries.
- 2. Quality Assurance Protocols:** Establishing a multi-tiered content management workflow led by the Learning Resources Coordinator and Master Teachers to rigorously vet accuracy and curriculum alignment.

3. **Contextualization and Localization:** Empowering teachers to upload and indigenize instructional materials that embed local culture, dialects (English-to-Cebuano translations), and regional references.
4. **Professional Integration:** Institutionalizing platform utilization through Learning Action Cell (LAC) sessions and collaborative teaching networks.

Technical Description: The Five-Component Repository Toolkit

The Kaban Ni Mariano framework functions as a dynamic system that standardizes and diversifies instructional options through five primary resource components:

- **Pretested Standard Lesson Plans:** Unified structural roadmaps aligned strictly with the Most Essential Learning Competencies (MELCs).
- **Multimedia Instructional Resources:** Interactive modules, video files, and digital simulations that accommodate diverse learning styles and boost classroom engagement.
- **Differentiated Activity Sheets:** Extension tasks for advanced learners alongside remediation worksheets targeting core competencies.
- **Bilingual Terminology Support Tool:** English-to-Cebuano contextual guides designed specifically to eliminate local language comprehension barriers.
- **Individual Progress Dashboards:** Formative and self-assessment features integrated into the repository to allow students a private, self-paced learning environment.

III. Key Results and Impact Status

The deployment of the shared repository successfully transformed the target cohorts from baseline academic vulnerability to outstanding mastery, as validated by rigorous

non-parametric statistical evaluation (Jamovi software):

Performance Indicator	Baseline (Pre-test)	Post-Intervention (Post-test)	Impact Status
Mean Performance Score (MAPEH 9)	~11.5 / 20 (approx. 55% mastery)	~18.0 / 20 (approx. 90% mastery)	Highly Significant Increase ($W = 0.00, p < .001$)
Magnitude of Effect (Cohen's d Equivalent)	N/A	Cliff's $\Delta = +0.954$	Extremely Large Statistical Impact
Equity Across Class Sections (A, B, C, D)	High Variance in Baseline Strengths (9.7 to 12.4)	Converged Mastery Levels across all contexts (16.7 to 18.2)	Inclusive Growth Established (Kruskal-Wallis $p = 0.419$)

Evidence of Impact: The empirical data proves that the innovation functioned as a powerful instructional equalizer. Lower-performing cohorts (e.g., Section B and D) achieved massive, historical academic gains. For instance, outlier students who scored as low as 5/20 or 6/20 on the pretest achieved perfect 20/20 scores post-intervention once motivational and resource access barriers were dismantled. Qualitative feedback recorded during observations showed that the repository successfully transformed the pedagogical layout: high-flying sections used extension materials to prevent complacency,

while vulnerable sections leveraged localized bilingual tools to overcome long-standing language barriers, substantially increasing student autonomy, interest, and daily attendance.

IV. Conclusions and Recommendations

Conclusion

The action research concludes that the 'Kaban Ni Mariano' Shared Repository is an

exceptionally potent mechanism for optimizing instructional delivery and student learning outcomes. The uniform, high-magnitude improvement across all heterogeneous sections demonstrates that disparities in student achievement are heavily rooted in uneven access to quality materials rather than student capacity limitations. By centralizing verified resources, the framework bridges the systemic gap between curriculum mandates and classroom realities, building digital literacy and collaboration for both students and faculty.

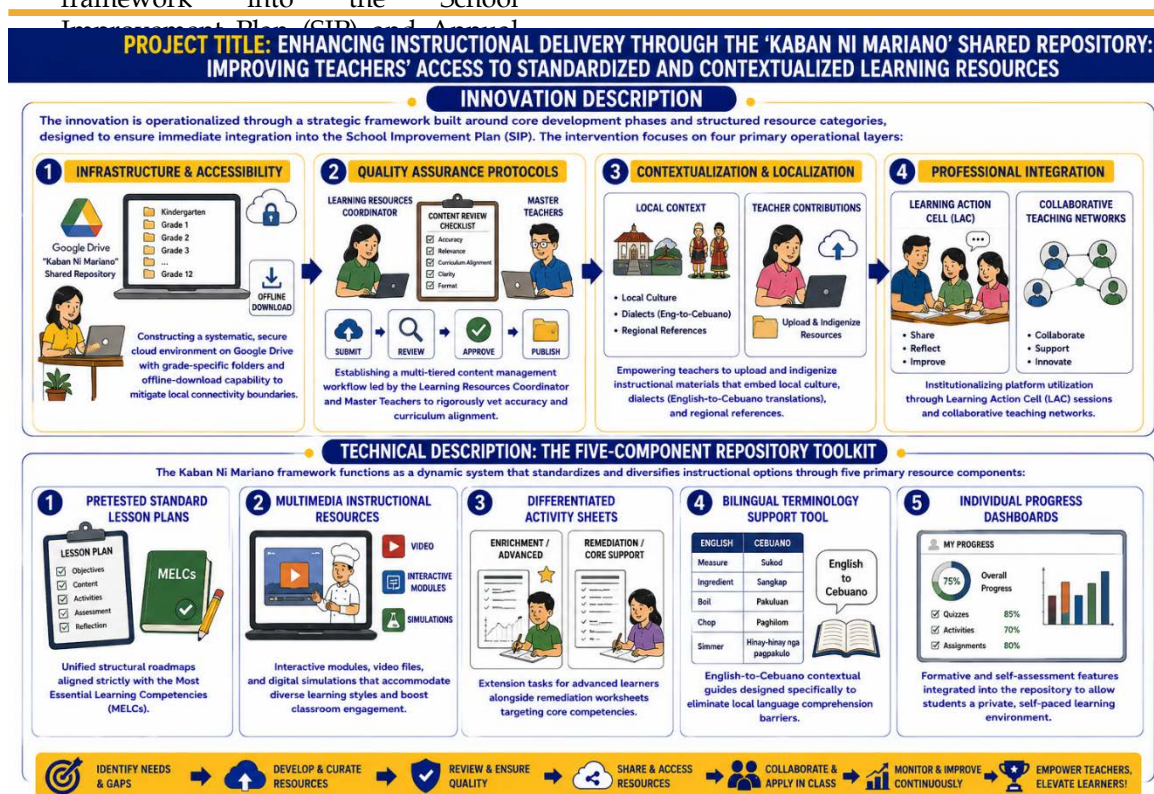
Recommendations

- **Institutional Adoption:** Formally integrate the Kaban ni Mariano framework into the School Improvement Plan (SIP).

V. Risk Management and Sustainability Plan

To protect instructional gains over time, the implementation framework actively addresses predictable vulnerabilities with targeted mitigation strategies:

- **Bandwidth and Internet Deficiencies:** Managed by creating pre-downloaded offline resource bundles and distributed physical printouts so technical bottlenecks never halt a student's momentum.
- **Information Overload/Navigation Stress:** Resolved by conducting structured digital literacy workshops inside the school's computer laboratories, training users exactly how to match available content with targeted learning outcomes.



- **Infrastructure Investment:** Allocate funds specifically toward improving device availability (tablets/computers) and ensuring stable offline printing modes to protect equitable access for offline communities.

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Study 45



Project Title: Strengthening the Social-Emotional Literacy of Grade 10 Students Through the Motivation, Understanding the Text, Lifelong Learning, Affective Assessment, and Output Presentation (M.U.L.A.O.) Learning Plan

Author: Cyril Q. Bitoon | SDO-Cebu Province

I. Innovation Overview

Compostela National High School-Evening Class identified a critical need to champion the holistic development of its learners, particularly those attending evening sessions who frequently balance heavy professional, economic, and familial responsibilities. The school observed that recurring issues—such as employment-related concerns, family problems, low social exposure, and community displacements—frequently caused elevated student anxiety and hindered active classroom engagement.

To address these socio-emotional learning gaps and actively align with the Department of Education's (DepEd) mandates to promote student mental health and 21st-century core competencies, the school introduced the **M.U.L.A.O. Learning Plan** during Catch-up Fridays. This instructional process innovation shifts reading lessons from purely cognitive tasks into structured, supportive, and emotionally resilient growth experiences. Serving as a contextually sensitive "safety net," it successfully elevated the students' overall Social-Emotional Literacy (SEL) mean score from a baseline of **3.34** to a post-intervention average of **3.87**.

II. Innovation Description

The process innovation is strategically integrated within a **5-Core Competency**

Framework (anchored in Daniel Goleman's Social Intelligence model and CASEL guidelines) designed to dismantle the specific emotional and situational barriers faced by evening class students. To guarantee long-term incorporation into the School Improvement Plan (SIP) and Annual Implementation Plan (AIP), the framework targets:

1. **Personnel Capacity:** Upskilling language teachers on how to explicitly infuse contextually sensitive SEL strategies directly into daily reading instruction.
2. **Technical Support:** Institutionalizing standardized content validation and reliability checks (utilizing expert reviews and Cronbach's Alpha) to ensure precise tracking of student metrics.
3. **Resource Optimization:** Utilizing reading materials, localized lesson exemplars, and student reflection journals as core instructional toolkits.
4. **Monitoring & Evaluation:** Ensuring systematic pre-intervention and post-intervention evaluations using a modified 5-domain Emotional Intelligence Self-Assessment questionnaire.
5. **Stakeholder Collaboration:** Actively involving school heads, guidance

coordinators, and parents to reinforce positive social-emotional behavioral habits outside the classroom.

Technical Description: The Five-Element Strategy

At the heart of the innovation is a structured, group-based "affective-cognitive integration loop" that guides students through standard reading lessons while intentionally reinforcing social-emotional skills. It is operationalized through five integrated phases:

- **Motivation:** Activities that activate self-awareness and self-motivation, prompting students to relate personal emotions and experiences to the text.
- **Understanding the Text:** Guided reading, vocabulary building, and analysis designed to build critical thinking and self-regulation.
- **Lifelong Learning:** Reflective, collaborative, and peer-based group tasks (e.g., situational roleplays) focused on self-management, personal accountability, and resilience.
- **Affective Assessment:** Differentiated writing tasks that give students a secure opportunity to recognize, communicate, process, and manage complex internal emotions.
- **Output Presentation:** Performance-based activities (e.g., song composition, creating music videos, or slogans) engineered to enhance relationship-building, interpersonal communication, and mutual social skills.

III. Key Results and Impact Status

The intervention transitioned the target student cohort from uneven emotional literacy profiles to demonstrably stronger balanced performance across all domains, as evidenced by the descriptive pretest-posttest results:

Performance Indicator	Baseline (Pretest Mean)	Post-Intervention (Posttest Mean)	Remarks
Self-Awareness	3.47 (Average)	3.90 (Average)	Incremental Growth
Self-Regulation	3.20 (Average)	3.85 (Average)	Incremental Growth

Performance Indicator	Baseline (Pretest Mean)	Post-Intervention (Posttest Mean)	Remarks
Self-Motivation	4.10 (High)	4.30 (High)	Maintained & Enhanced
Social Awareness	2.85 (Low)	3.25 (Average)	Significant Turnaround
Social Skills	3.10 (Average)	4.05 (High)	Exceeded Expectations
Total Average Profile	3.34	3.87	Overall Incremental Rise

Evidence of Impact: The quantitative data proves that the M.U.L.A.O. Learning Plan successfully corrected the school's lowest-performing baseline category: **Social Awareness** shifted from a **Low SEL rating (2.85)** to a functional **Average SEL rating (3.25)**. This indicates that purposeful integration of empathy and perspective-taking exercises successfully counteracted the isolating effects of community displacements and localized violence.

Furthermore, **Social Skills** jumped significantly to a **High category (4.05)**, showing that the cooperative and output-based mechanics successfully lowered interpersonal barriers for non-traditional or working students. The qualitative logs confirmed that despite community disruptions (such as typhoons and earthquakes during the execution cycle), the structured emotional roadmap gave students the vital tools to transition personal anxiety into constructive professional efficacy and intrinsic motivation.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the M.U.L.A.O. Learning Plan is a highly effective, practical, and context-responsive mechanism for enhancing classroom-based Social-Emotional Literacy. The steady rise across all 5 core metrics demonstrates that non-traditional and highly vulnerable learners thrive when emotional support

frameworks are systematically embedded within their academic timelines. The intervention fulfills the critical professional mandates required by national educational acts, ensuring a healthy bridge between cognitive language acquisition and holistic student well-being.

Recommendations

- **Sustain and Expand:** Adopt the M.U.L.A.O. structure across other high school grade levels, fine-tuning the reading material to match the age-appropriate social-emotional needs of varied cohorts.
- **Institutionalization:** Formally incorporate the M.U.L.A.O. framework inside the School Improvement Plan (SIP) and ensure continuous resource

language intervention hours and Catch-up Fridays, removing any extra scheduling burdens from working evening students.

- **Environmental Disruption Anxiety:** Managed through the integrated use of localized *Reflection Journals* and *Affective Assessments*, allowing educators to provide a psychologically secure outlet when natural calamities (e.g., typhoons) affected regular community stability.
- **Instructional Variation:** Standardized via specialized Learning Action Cell (LAC) sessions and standard observation protocols to guarantee that all teachers execute the 5 core framework elements uniformly.

V. Risks and S

milestones through



- **Socio-Economic & Time Constraints:** Mitigated by embedding all structured SEL routines cleanly within existing



Study 46

Project Title: Improving Assessment Administrative Efficiency and Learners' Outcomes Through the Implementation of Web-Based Online Examinations

Authors: Arles M. Iligan, Junette G. Abapo, and Lorlaine R. Dacanay | SDO-Talisay City

I. Innovation Overview

Lawaan National High School (LNHS) identified a crucial opportunity to modernize its traditional assessment infrastructure. Every quarter, teachers faced a mundane, tedious, and time-consuming routine of printing exams, checking papers, manually entering scores into Form XIV, and conducting repetitive item analyses. To maximize instructional time for planning lessons and to better prepare students for the digital interfaces used in national and international assessments, LNHS introduced web-based online examinations. This process and technological innovation acts as an automated assessment system, replacing paper-and-pen bottlenecks with immediate feedback and data generation. This proactive framework significantly minimized the school's administrative workload and enhanced student digital literacy, moving the institution toward modern 21st-century basic education standards.

II. Innovation Description

The process and technological innovation is anchored in an automated testing infrastructure designed to bridge the digital divide and streamline the entire quarterly

assessment lifecycle. To integrate seamlessly with school protocols, the framework focuses on five major structural pillars:

1. **Personnel Capacity:** Enhancing teachers' digital literacy, keyboard skills, and technical competence through test encoding and database management.
2. **Technical Support:** Replacing paper dependencies with an integrated software stack consisting of an Apache web server, MySQL backend, PHP, and HTML/CSS frontend.
3. **Resource Optimization:** Eliminating institutional costs associated with purchasing bond paper and ink reproduction by using digital exam suites.
4. **Monitoring & Evaluation:** Shuffling test items and choices dynamically while tracking submission statuses to protect the integrity of the exams.
5. **Reporting & Feedback:** Utilizing automated learner dashboards to

immediately display test scores, track competencies, and feed data directly into institutional reports.

Technical Description: The Web-Based Exam Stack

The core of the system is a dynamic front-end/back-end system optimized using CodeIgniter, JavaScript, Bootstrap, and AdminLTE templates. This environment is implemented across three core operational phases:

- **System Question Bank:** A secure repository where teachers encode, adjust, and update test items to build continuous testing pools.
- **Skip or Doubt Facility:** A user interface feature that tags unanswered questions blue, allowing students to skip and easily return to items later.
- **Random Item Generator:** An automated algorithmic process that shuffles exam items and choices to minimize academic dishonesty.
- **Automated Results Engine:** A central framework that instantly grades papers upon submission and logs individual responses into the database.

III. Key Results and Impact Status

The introduction of the web-based examination platform transitioned the school away from slow, paper-based tracking, as highlighted by the following Monitoring and Evaluation (M&E) indicators:

Performance Indicator	Baseline (Traditional)	Post-Intervention (Web-Based)	Impact Status
Material & Paper Expenses	High dependency on quarterly bond paper procurement and ink	Zero printing expenses; digital test delivery via computer lab equipment.	Resource Optimized

Performance Indicator	Baseline (Traditional)	Post-Intervention (Web-Based)	Impact Status
Score Processing & Feedback	Delayed feedback; manual checking, score recording, and tedious item analysis.	Instant grading; immediate score visibility with automated data availability.	Accelerated Efficiency
Student Integration & Morale	High test anxiety; manual checking vulnerable to recording errors.	$n = 27$ out of 30 students explicitly voted to continue the setup; improved computer literacy.	Inclusive Growth

Evidence of Impact: The processed qualitative data shows that the system achieved an initial institutional efficiency rating of 3.5 out of 5 from the faculty. The platform transformed student study habits by creating an independent testing environment where cheating was minimized via item shuffling. Ninety percent of the interviewed student body ($n = 27$) demanded the permanent continuation of the platform due to the convenience of the computerized lab environment and the elimination of delayed test feedback. Concurrently, teachers observed a massive drop in repetitive administrative tasks, allowing them to shift their focus toward lesson preparation.

IV. Conclusions and Recommendations

Conclusion

The study concludes that the web-based online examination framework is an exceptionally viable tool for improving administrative workflows and raising learner engagement. The shift from paper-and-pencil formats to automated systems proves that heavy administrative burdens can be mitigated

through targeted school level software applications. While it successfully answers modern 21st-century learning needs, its total long-term success is closely tied to systematic hardware and network upgrades.

Recommendations

- **System Upgrades:** Configure the platform to save consolidated test results directly into Excel formats instead of standard PDFs to make sorting by name, section, and gender easier for electronic class records.
- **Technical Refinements:** Resolve device-related malfunctions, fix blurry imagery uploads, correct specialized math equations/symbols, and improve software constraints to prevent window-switching.
- **Assessment Scheduling:** Avoid overloading students by scheduling up to eight subjects in a single testing day; spread exam windows out to protect student focus.
- **Lab Management & Proctoring:** Install physical computer separators, re-introduce dedicated exam facilitators, manage room odors, and require students to keep personal belongings away from desks.

V. Risk Management and Sustainability Plan

To protect the efficiency gains achieved by this intervention, several proactive risk management strategies have been put in place:

- **Device and Login Malfunctions:** Addressed by pre-registering Learner Reference Numbers (LRNs), verifying hardware peripheral functions before tests, and providing student account troubleshooting guides.
- **Academic Cheating (Window Switching):** Mitigated by programming automatic platform logouts when external tabs are opened, utilizing specialized network constraints, and enforcing active room tracking.
- **System Accessibility Constraints:** Handled by engineering external server access channels so that teachers can safely pull consolidated data sheets outside of the physical computer laboratory.

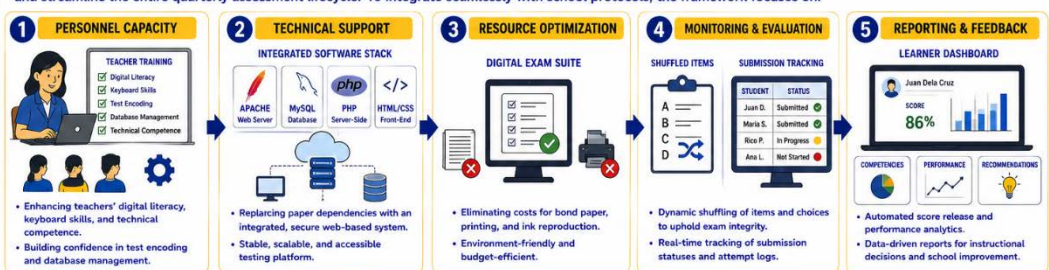
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PROJECT TITLE: IMPROVING ASSESSMENT ADMINISTRATIVE EFFICIENCY AND LEARNERS' OUTCOMES THROUGH THE IMPLEMENTATION OF WEB-BASED ONLINE EXAMINATIONS

INNOVATION DESCRIPTION

The process and technological innovation is anchored in an automated testing infrastructure designed to bridge the digital divide and streamline the entire quarterly assessment lifecycle. To integrate seamlessly with school protocols, the framework focuses on:



TECHNICAL DESCRIPTION: THE WEB-BASED EXAM STACK

The core of the system is a dynamic front-end/back-end system optimized using CodeIgniter, JavaScript, Bootstrap, and Admin LTE templates. This environment is implemented across three core operational phases:



Study 47



Project Title: Designing and Implementing a Microsoft 365-Based Linao Information Management System (LIMS): An ADDIE Model

Authors: Eliza H. Naraja, Vincent A. Ochea, Charmine Faith G. Ledesma | SDO-Talisay City

I. Innovation Overview

Linao Elementary School (LES) recognized a valuable opportunity to modernize its administrative and instructional workflows to meet the expanding demands of digital education. While educators showed immense dedication, the school identified that manual data processing, fragmented communication, and uneven resource access created operational inefficiencies that burdened teachers and restricted student engagement. To eliminate these technical hurdles and support the Department of Education's (DepEd) thrust for ICT integration, LES introduced the Microsoft 365-based Linao Information Management System (LIMS). Developed using the structured ADDIE (Analysis, Design, Development, Implementation, and Evaluation) framework, this process and platform innovation transitions the school away from isolated paper-based methods into a single cloud-based operations hub. This proactive ecosystem empowers teachers with automated tracking, offers parents and students accessible communication, and establishes a secure,

future-ready infrastructure that guarantees digital continuity.

II. Innovation Description

The platform innovation is anchored in a systematic development cycle designed to dismantle technical obstacles identified during initial stakeholder gap mapping. To ensure seamless operational integration and institutional sustainability, the LIMS platform focuses on:

1. **System Integration:** Embedding cloud components (SharePoint, Teams, Forms, and Power Automate) into a single dashboard.
2. **Personnel Capacity:** Delivering practical, collaborative training to upskill teachers in navigating digital classrooms.
3. **Data Security & Authorization:** Utilizing custom authentication

- profiles (Student, Teacher, Admin portals) protected by encrypted protocols.
- 4. **Monitoring & Evaluation:** Applying user analytics and system diagnostics to assess real-time engagement and platform access.
 - 5. **Stakeholder Collaboration:** Ensuring clear feedback pathways among school leaders, teachers, students, and parents.

Technical Description: *The Five-Phase ADDIE Implementation*

At the center of this innovation is an iterative development and feedback loop operationalized across five core deployment stages:

- **Analysis:** Evaluating baseline technical readiness, device availability (56.7% student access), and home connectivity constraints.
- **Design:** Mapping the architecture for specialized sub-portals catering to automated attendance, digital assignment drops, and a unified gradebook.
- **Development:** Structuring the custom Microsoft 365 environment, configuring automated data flows, and verifying compliance with the Data Privacy Act.
- **Implementation:** Deploying focused, hands-on Learning Action Cell (LAC) writeshops for staff alongside localized

- student pilot rollouts.
- **Evaluation:** Collecting user metrics, satisfaction surveys, and administrative feedback to refine subsequent platform updates.

III. Key Results and Impact Status

The introduction of the platform successfully shifted the school from fractured manual workflows to data-driven operations, as verified by implementation metrics:

Performance Indicator	Baseline (Pre-Intervention)	Post-Intervention (Pilot Testing)	Impact Status
Data & Document Access	Fragmented manual methods; heavy paper reliance	Centralized digital distribution via SharePoint & Teams	Streamlined Efficiency
Core Operational Systems	Independent tracking; delayed reporting	Synchronized Gradebook, Submissions, and Attendance portals	Automated Workflows
ICT Infrastructure Use	Varied, irregular usage; 35.3% occasional usage rate	Daily active operational integration by 52.9% of staff	Sustained Digital Culture

Evidence of Impact: The system analytics and evaluation responses confirmed that the LIMS effectively dropped administrative boundaries, moving the staff toward an agile digital model where 64.7% of users achieved rapid operational fluency. Quantitative student indicators demonstrated that 76.7% of pilot participants reported an increase in learning efficiency, while 73.3% navigated the platform to manage assignments easily. Furthermore, qualitative data extracted from administrator reviews noted that centralized file sharing and real-time communication tools served as the most critical factors in reducing paper consumption and administrative turnaround.

By establishing this digital highway, teachers successfully mapped classroom administration directly to DepEd's long-term ICT governance mandates.

IV. Conclusions and Recommendations

Conclusion

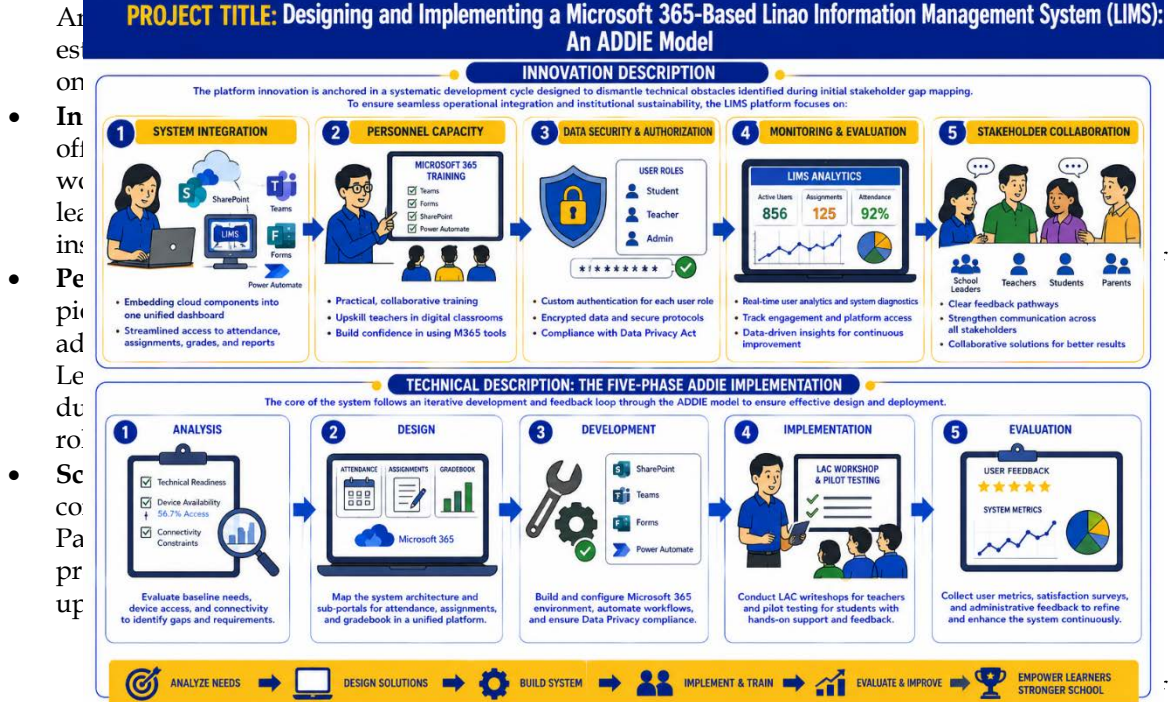
The project demonstrates that a Microsoft 365-based LIMS structured around the ADDIE framework provides a viable, secure, and low-overhead method for enhancing organizational efficiency. The positive shift across pilot metrics shows that operational delays stem from a lack of integrated digital systems rather than staff resistance. The framework effectively connects DepEd policy mandates with day-to-day public school realities, meeting professional standards for both institutional modernization and standard classroom records management.

laboratory sessions and local data caches to navigate home internet deficits.

- **Technical Knowledge Gaps:** Countered by providing short, hands-on, high-impact training workshops (under 2 hours per week) directly aligned with identified user needs.
- **System Adaptation Resistance:** Resolved through early peer-led collaborative troubleshooting desks, shifting the target group from feeling anxious about technology to recognizing clear productivity gains.

Recommendations

- **Institutionalization:** Formally integrate the LIMS platform into the School Improvement Plan (SIP) and



V. Risk Management and Sustainability Plan

To protect operational performance over time, the project mitigates unexpected vulnerabilities through specific strategies:

- **Connectivity Disruptions:** Addressed by establishing shared computer

Zhang, D., & Nunamaker, J. F. (2020). Powering education with digital tools: A comprehensive review. *Journal of Systems Management and Education*.



About the Compendium

Siete SURI: *The Regional Research and Innovation Compendium of DepEd Region VII – Central Visayas* serves as the premier platform for *Scholarly Undertakings on Research and Innovation*, advancing and strengthening the culture of inquiry, reflection, and transformation in basic education.

Rooted in the Cebuano word “suri” (to examine or analyze) and the regional identity of “Siete” (Region VII), the compendium embodies the region’s enduring commitment to its mantra: “*Kay sa Siete, Una ang Bata Pirme.*”

Siete SURI offers a structured avenue for educators and personnel-from schools to the regional office-to scan educational realities, understand learner contexts, research needs-based interventions, and innovate inclusive, scalable solutions.

Aligned with national and regional education reform frameworks such as the **QBEDP 2025-2035’s 5-Point Reform Agenda**, the **Basic Education Research Agenda (BERA)**, and the **SMILE Strategic Thrust** under the **REDP**, Siete SURI contributes to the region’s aspiration to nurture innovation and culture of excellence through research (**NICER**) and to position DepEd Region VII as a dynamic hub for **evidence-informed, child-centered education reforms**.

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