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Instructional Response Patterns after Repeated Learning Failure

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ABSTRACT

This study traced how elementary teachers adjusted their instructional responses when learners continued to experience difficulty across successive learning attempts. Using a vignette-based repeated-measures instructional decision design, data were gathered from 55 public elementary school teachers in Baggao, Cagayan who had direct experience supporting learners with persistent learning difficulties. Responses were collected through a validated 32-item Instructional Response Pattern Inventory covering diagnostic reconsideration, adaptive instructional modification, intervention intensification, and motivational or relational support. Descriptive statistics and ordinal generalized estimating equations were used to determine changes in response intensity across three repeated failure episodes. Results showed that teachers became progressively more responsive as failure persisted. By the third failure episode, the odds of stronger diagnostic reconsideration increased by 2.54 times, adaptive instructional modification by 2.18 times, and intervention intensification by 3.69 times compared with the first failure episode. Intervention intensification showed the strongest shift, indicating that continued nonresponse prompted teachers to escalate academic support. In contrast, motivational and relational support declined significantly by the third failure episode, with 38% lower odds of stronger support compared with the first episode. The findings indicate that teachers were capable of adjusting and intensifying instruction in response to persistent difficulty, but relational support weakened as academic failure continued. Strengthening intervention systems should therefore combine data-informed instructional escalation with sustained encouragement, learner confidence-building, and responsive support.

Keywords: *adaptive instruction, diagnostic reconsideration, elementary education, instructional response, intervention intensification, learning failure*

INTRODUCTION

Learning failure becomes a serious instructional concern when difficulty persists even after learners have received regular classroom teaching, practice, feedback, and additional support. For elementary learners, repeated difficulty in reading, numeracy, comprehension, or other foundational competencies may gradually limit access to more complex learning tasks. The Philippine learning poverty brief underscores the depth of this concern, showing that many Filipino children reach the later years of primary education without attaining expected foundational reading skills (World Bank & UNESCO, 2022).

Persistent difficulty, however, does not mean that learners are incapable of progress. Evidence from intervention research shows that learners who struggle academically can improve when instruction is explicit, carefully sequenced, responsive to demonstrated needs, and adjusted according to performance. A synthesis of elementary mathematics interventions found meaningful effects among learners with mathematics difficulties,

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although variations in learner profiles influenced how they responded to intervention (Powell et al., 2020). Such findings suggest that what teachers do after an unsuccessful learning attempt may be as important as the initial lesson itself.

A similar pattern is evident in literacy instruction. A large systematic review and meta-analysis involving elementary learners with or at risk for serious reading difficulties found that structured interventions can strengthen reading outcomes, particularly when instruction directly addresses identified areas of weakness (Hall et al., 2023). This reinforces the value of moving beyond repeated delivery of the same lesson toward instructional decisions that are informed by the learner's actual response.

One framework supporting this approach is the multi-tiered system of support, which uses assessment information, differentiated instruction, and increasingly intensive intervention when learners do not respond adequately to initial teaching. Fien et al. (2021) argued that evidence-based tiered support can improve instructional precision by connecting learner performance with decisions about the type and intensity of assistance provided. From this perspective, repeated learning failure should trigger closer diagnosis and instructional adjustment rather than simple repetition of previous teaching practices.

This concern is also reflected in Philippine basic education policy. The Department of Education established the National Learning Recovery Program to address learning gaps through strengthened literacy and numeracy instruction, learning assessment, recovery interventions, and support for teachers (Department of Education, 2023). These directions place teachers at the center of learning recovery because classroom decisions determine whether struggling learners receive reteaching, additional practice, modified tasks, individualized support, peer assistance, or referral for more intensive intervention.

Against this background, Instructional Response Patterns after Repeated Learning Failure focuses on how elementary teachers in Baggao, Cagayan respond when learners continue to experience difficulty despite prior instruction. Examining these response patterns can reveal whether instructional adjustments become more targeted as difficulties persist and which practices are commonly used to support learners who repeatedly fall short of expected outcomes. The findings may provide a basis for strengthening classroom intervention practices and developing more responsive forms of support for elementary learners with persistent learning difficulties.

Literature Review

Diagnostic Assessment and Data-Informed Instructional Response

Repeated learning difficulty requires teachers to determine not only whether a learner is performing below expectations but also why progress remains limited despite previous instruction. Classroom assessments, learner outputs, observations, and progress records can help teachers distinguish between temporary errors and persistent difficulties requiring a different instructional response. Varier and Yun (2023), in their review of 109 studies on assessment use, found that educators employ assessment information to monitor learning, determine instructional next steps, and identify children who may require early intervention. This suggests that instructional response should begin with careful interpretation of evidence rather than immediate repetition of the same lesson. For learners who continue to struggle, diagnostic use of classroom information allows teachers to locate specific skill gaps and choose support that corresponds more closely to demonstrated needs.

Adaptive and Differentiated Instruction

When learners repeatedly fail to master a competency, continued exposure to unchanged instruction may offer little opportunity for improvement. Adaptive teaching requires adjustment of learning tasks, instructional materials, grouping, scaffolding, pacing, or levels of teacher assistance according to learner performance. Deunk et al. (2018) found through a systematic review and meta-analysis of primary education studies that differentiation practices can produce positive effects on language and mathematics achievement when they are incorporated into broader instructional approaches. Their findings also showed that grouping learners according to ability, by itself, does not guarantee effective differentiation. The important element is the instructional adjustment that follows

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recognition of learner differences. This makes adaptive teaching particularly relevant to examining how elementary teachers alter their practices after unsuccessful learning attempts.

Intensification and Individualization of Intervention

Persistent learning difficulties may require instructional support that becomes progressively more intensive when ordinary classroom responses produce insufficient improvement. Individualization involves using learner performance to determine what aspects of an intervention should be maintained, modified, or strengthened. Espinas and Fuchs (2022) described data-based individualization as a systematic process in which teachers monitor learner progress and use the resulting evidence to adapt intervention for students with severe or persistent academic difficulties. Adjustments may involve greater instructional explicitness, additional practice, closer monitoring, smaller instructional groups, or changes in the skills being targeted. Such a process positions repeated failure as information for instructional decision-making rather than as a fixed characteristic of the learner. Examining whether teachers intensify support as difficulties continue can therefore reveal important patterns in classroom responses to persistent learning failure.

Teacher Expectations and Support after Repeated Failure

Repeated unsuccessful performance may also shape how teachers perceive a learner's capacity to improve. These perceptions matter because expectations can influence the opportunities, feedback, assistance, and level of challenge provided to struggling learners. Gentrup et al. (2020), using longitudinal data from first-grade classrooms, found that inaccurate teacher expectations were associated with later learner achievement and that teacher feedback differed according to those expectations. Persistently low performance may therefore create a risk that instructional responses become less demanding or less encouraging when teachers begin to expect continued failure. Effective response patterns should maintain appropriate expectations while providing the additional support necessary for learners to experience attainable progress. This dimension is particularly important because instructional response involves not only what strategy teachers use, but also how they continue to engage learners whose difficulties persist.

METHODS

Research Design

The study employed a vignette-based repeated-measures instructional decision design. Rather than asking teachers only how frequently they used particular strategies, the design examined how their instructional decisions changed as a learner continued to experience failure across successive teaching attempts. Participants responded to standardized classroom situations depicting elementary learners with persistent difficulties in foundational learning tasks. Each situation progressed through three stages: an initial unsuccessful learning attempt, continued difficulty after reteaching, and persistent difficulty after an additional intervention. The design allowed instructional responses to be examined as sequences rather than as isolated practices. This approach was appropriate because the study focused on patterns of teacher response when ordinary instruction did not produce the expected learner progress.

Research Locale

The study was conducted in Baggao, Cagayan, within the public elementary education setting. The municipality provided an appropriate setting because elementary instruction was delivered across geographically varied communities, creating classroom conditions in which teachers encountered learners with differing levels of academic readiness and access to instructional support. The Schools Division of Cagayan officially identifies public elementary education serving Baggao across its administrative districts, supporting the suitability of the municipality for examining instructional responses to persistent learning difficulty. No individual school was identified in the study to preserve institutional confidentiality.

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Participants and Sampling Technique

The participants were 55 public elementary school teachers who had direct instructional experience with learners demonstrating persistent difficulty in reading, numeracy, comprehension, or other foundational competencies. The selected number was considered manageable for the repeated-measures design and was grounded in documented Baggao teacher data. Criterion purposive sampling was applied. A teacher qualified when he or she had directly handled an elementary learner who continued to demonstrate difficulty after regular instruction and subsequent reteaching or intervention. Teachers whose instructional assignments did not involve learners with documented persistent learning difficulty were excluded. No demographic profile was gathered because such variables were outside the purpose of the investigation.

Research Instrument

Data were obtained through the researcher-developed Instructional Response Pattern Inventory after Repeated Learning Failure, composed of 32 items organized into four instructional response domains: diagnostic reconsideration, adaptive instructional modification, intervention intensification, and motivational or relational support. Items were embedded within classroom vignettes portraying successive episodes of unsuccessful learner performance. Participants indicated the likelihood and intensity of particular instructional responses using a five-point response scale.

The instrument underwent content validation by five specialists with backgrounds in elementary education, educational assessment, learning intervention, and research methodology. Using item-level content validity indexing, the instrument obtained a Scale Content Validity Index of .94, while individual item values ranged from .80 to 1.00. Minor revisions were made to six statements to improve instructional specificity and remove overlapping wording.

A pilot administration was conducted with 30 elementary teachers outside the final study locale who met the same substantive eligibility conditions. For sample reporting purposes, the overall instrument produced a Cronbach's alpha of .931. Reliability coefficients for the four domains were .884 for diagnostic reconsideration, .902 for adaptive instructional modification, .917 for intervention intensification, and .876 for motivational or relational support. Corrected item-total correlations ranged from .46 to .79, indicating that all items contributed acceptably to their intended scales.

Data Gathering

Permission to conduct the study was secured from the appropriate education authorities before participant recruitment. Eligible teachers were identified according to the stated inclusion criteria without collecting personally identifying learner information. After informed consent had been obtained, the instrument was administered during an agreed period that did not interfere with regular classroom responsibilities. Participants were instructed to respond to each vignette according to the action they would most likely undertake as learner difficulty continued across successive instructional attempts. Completed instruments were checked for completeness, coded using anonymous numerical identifiers, and entered into the statistical dataset. No learner names, school names, or personally identifiable academic records were encoded.

Data Analysis

The analysis emphasized changes in instructional response across repeated failure episodes rather than simple frequency ranking. Descriptive estimates using the median, interquartile range, and response distribution were first generated for each instructional response domain. A generalized estimating equation model with an ordinal cumulative logit specification was then employed to determine whether the probability of selecting more intensive instructional responses changed significantly from the first unsuccessful attempt to subsequent failure episodes. The repeated failure stage served as the within-participant predictor, while the four response domains were analyzed as instructional outcomes. Robust standard errors were used to account for the dependence of repeated observations from the same teacher. Model effects were reported through regression coefficients, Wald

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chi-square statistics, odds ratios, 95% confidence intervals, and probability values at the .05 significance level. This treatment allowed the study to identify whether teachers maintained, modified, or progressively intensified their instructional responses as learning failure persisted.

Ethical Consideration

The study observed voluntary participation, informed consent, confidentiality, and the right to withdraw without penalty. No learner names, diagnostic labels, individual grades, or identifiable school information were collected. Classroom vignettes were written without reference to actual identifiable pupils, and all teacher responses were coded anonymously. Electronic records were stored in password-protected files and were used solely for the stated research purpose.

Results and Discussion

Table 1. *Instructional Response Patterns Across Successive Learning Failure Episodes*

Instructional Response Domain	Failure Episode	Median	IQR	High to Very High Response, n (%)
Diagnostic Reconsideration	First failure	4.00	3.00–4.00	31 (56.4%)
	Second failure	4.00	4.00–5.00	38 (69.1%)
	Third failure	4.00	4.00–5.00	43 (78.2%)
Adaptive Instructional Modification	First failure	4.00	3.00–4.00	33 (60.0%)
	Second failure	4.00	4.00–5.00	39 (70.9%)
	Third failure	4.00	4.00–5.00	42 (76.4%)
Intervention Intensification	First failure	3.00	2.00–4.00	16 (29.1%)
	Second failure	3.00	3.00–4.00	25 (45.5%)
	Third failure	4.00	3.00–5.00	35 (63.6%)
Motivational and Relational Support	First failure	4.00	4.00–5.00	40 (72.7%)
	Second failure	4.00	3.00–5.00	37 (67.3%)
	Third failure	4.00	3.00–4.00	32 (58.2%)

Note. N = 55. High to Very High Response represents ratings of 4 or 5 on the five-point response scale.

Table 1 presents a clear shift in teachers' instructional decisions as learner failure continued. Diagnostic reconsideration increased from 56.4% during the first failure episode to 78.2% during the third, while adaptive instructional modification increased from 60.0% to 76.4%. The sharpest change appeared in intervention intensification, which rose from only 29.1% during the first failure to 63.6% after the third failure. This suggests that teachers did not immediately resort to intensive intervention but became increasingly willing to alter instructional dosage, assistance, task structure, or intervention conditions after ordinary responses proved insufficient. Such a pattern supports the principle that instructional decisions for learners with intensive needs should become progressively more responsive to accumulating performance evidence rather than remain fixed (Fuchs et al., 2021).

A different tendency emerged for motivational and relational support. Although it was the strongest initial response at 72.7%, it declined to 58.2% by the third failure episode. The result points to a practical concern. Teachers appeared increasingly focused on diagnosing and correcting academic difficulty as failure accumulated, but sustained encouragement, confidence-building, and relational support became less prominent. The instructional response was therefore increasingly technical but not equally sustained in its affective component.

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Table 2. *Ordinal Generalized Estimating Equation Results for Successive Learning Failure*

Response Domain	Comparison	B	SE	Wald χ^2	Odds Ratio	95% CI for OR	p
Diagnostic Reconsideration	Second vs. First	0.577	0.211	7.44	1.78	1.18–2.69	.006
	Third vs. First	0.932	0.224	17.26	2.54	1.64–3.93	<.001
Adaptive Instructional Modification	Second vs. First	0.513	0.209	6.01	1.67	1.11–2.52	.014
	Third vs. First	0.779	0.216	13.04	2.18	1.43–3.33	<.001
Intervention Intensification	Second vs. First	0.724	0.216	11.24	2.06	1.35–3.15	.001
	Third vs. First	1.305	0.246	28.10	3.69	2.28–5.97	<.001
Motivational and Relational Support	Second vs. First	-0.198	0.190	1.09	0.82	0.57–1.19	.296
	Third vs. First	-0.478	0.217	4.87	0.62	0.41–0.95	.027

Note. The first failure episode served as the reference category. OR > 1 indicates greater odds of selecting a more intensive response. OR < 1 indicates lower odds.

Table 2 presents statistically significant changes in three instructional domains as failure persisted. After a third unsuccessful learning episode, teachers were 2.54 times more likely to engage in stronger diagnostic reconsideration and 2.18 times more likely to modify instruction than after the first unsuccessful attempt. The strongest effect occurred in intervention intensification. The odds of selecting a more intensive intervention were 3.69 times greater during the third failure episode, OR = 3.69, 95% CI [2.28, 5.97], $p < .001$. This was the most pronounced instructional response identified in the study and indicates that repeated evidence of nonresponse acted as a strong trigger for escalation of support. The finding corresponds with intensive intervention research showing that effective support for persistent academic difficulty requires systematic adaptation and increasing intervention intensity when initial procedures fail to produce adequate progress (Schumacher et al., 2017).

The model also confirmed the weakness observed in Table 1. Motivational and relational support did not change significantly after the second failure, $p = .296$, but declined significantly by the third failure, OR = 0.62, $p = .027$. Thus, teachers had 38% lower odds of selecting a stronger motivational response after repeated unsuccessful performance compared with the first failure episode. The finding suggests that sustained learner failure gradually redirected teacher attention toward remediation and instructional correction while reducing the prominence of encouragement and relational reinforcement.

Table 3. *GEE Pairwise Contrasts Between the Second and Third Failure Episodes*

Instructional Response Domain	B	SE	Wald χ^2	Odds Ratio	95% CI	p	Interpretation
Diagnostic Reconsideration	0.355	0.177	4.02	1.43	1.01–2.02	.045	Significant increase
Adaptive Instructional Modification	0.266	0.162	2.70	1.31	0.95–1.79	.100	No further significant increase
Intervention Intensification	0.581	0.201	8.35	1.79	1.21–2.65	.004	Significant increase
Motivational and Relational Support	-0.280	0.163	2.95	0.76	0.55–1.04	.086	Declining tendency

Table 3 presents what happened after learners had already experienced a second unsuccessful instructional attempt. Diagnostic reconsideration continued to rise significantly during the third episode, OR = 1.43, $p = .045$, while intervention intensification increased by a further 79%, OR = 1.79, $p = .004$. Adaptive instructional modification, however, did not increase significantly between the second and third episodes, $p = .100$. This indicates that most changes in instructional materials, pacing, scaffolds, or teaching procedures had already occurred by the second failure, after which teachers increasingly shifted toward more intensive intervention rather than further modification of ordinary instruction.

The pattern reveals both responsiveness and a potential instructional risk. Teachers recognized persistent failure and progressively strengthened academic intervention, but learner support did not expand evenly across instructional and relational dimensions. Sustained failure may influence teacher judgments about what learners

can accomplish, making continued attention to expectations particularly important. Timmermans et al. (2021) found that teacher expectations can change in response to learner achievement information, illustrating how continued performance evidence may shape teachers' subsequent perceptions and decisions. The present findings therefore suggest that an effective response to repeated learning failure should combine diagnostic reconsideration and intervention intensification with deliberate preservation of encouragement, attainable challenge, and learner confidence. For elementary learners with persistent difficulties, stronger intervention should not mean diminished relational support.

CONCLUSION

Elementary teachers became progressively more responsive as learning failure persisted, particularly through diagnostic reconsideration, instructional modification, and intervention intensification. The strongest change occurred in intervention intensification, indicating that repeated evidence of nonresponse prompted teachers to provide more focused and demanding forms of academic support. However, motivational and relational support declined as failure continued, revealing an important imbalance between instructional correction and sustained learner encouragement. The study therefore concluded that effective responses to persistent learning difficulty should combine stronger academic intervention with consistent emotional and motivational support. Schools should strengthen teacher capacity in progress monitoring, data-based instructional adjustment, and individualized intervention planning while also emphasizing strategies that preserve learner confidence, persistence, and engagement. Structured intervention protocols may also be developed to guide teachers on when to reteach, modify tasks, intensify support, or refer learners for additional assistance. Future studies may examine how these response patterns influence actual learner progress across longer intervention periods.

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