

Enhancing Narrative Writing Competency among Grade 6 Students through Design Thinking Cycle: An Action Research Study at Rinchhen Kuenphen Primary School

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Abstract

Narrative writing is an important component of English language learning, yet many grade 6 students experience difficulty generating ideas, organizing events, elaborating characters and settings, and using language accurately. This classroom action research examined the use of Design Thinking Cycle to support narrative writing among 33 Grade 6 students in Class 6 E at Rinchhen Kuenphen Primary school, Thimphu, Bhutan. The study used a six-week mixed methods action research cycle of planning, acting, observing, and reflecting, with the five Design Thinking stages – Empathize, Define, Ideate, Prototype, and Test – embedded in regular English lessons. Data were collected through pre- and post – intervention narrative writing tasks scored with a six-criterion analytic rubric, a Likert-scale attitude survey, short-response questionnaires, and qualitative classroom observations. The overall mean rubric score increased from 10.18 to 15.97 out of 24, a gain of 5.79 points (56.9%), with improvement across all six criteria. The largest percentage gains were observed in Language Use (86.2%), Mechanics (61.4%), and Vocabulary (61.0%), while Elaboration showed the smallest gain (40.4%). Students also reported marked gains in confidence in generating and organizing ideas, and they consistently identified brainstorming and peer feedback as helpful components of the process. However, spelling, sentence construction, and elaboration remained areas of difficulty. The findings indicated that Design Thinking Cycle was associated with improved supported narrative-writing performance and more positive student perceptions of writing. Given the single-class, pre-post design and absence of a comparison group, the findings should be interpreted as classroom-based evidence rather than causal proof. The study nevertheless provides a practical, low-cost model for integrating structured ideation, drafting, feedback, and revision into primary English writing instruction.

Keywords: Design Thinking, narrative writing, writing competency, Grade 6, collaborative learning, peer feedback, action research

Chapter I: Introduction

1.1 Introduction

Narrative writing is an important component of English language learning because it provides learners with opportunities to communicate ideas, express experiences, develop imagination, and use language creatively. At the Grade 6 level, students are expected to move beyond writing simple sentences and

develop coherent narratives with meaningful ideas, appropriate organization, well-developed characters and settings, and effective language use. Narrative writing therefore requires learners to coordinate several skills simultaneously, including generating ideas, planning and sequencing events, selecting appropriate vocabulary, constructing sentences, and revising their work.

Despite the importance of these skills, classroom observations at Rinchhen Kuenphen Primary School indicated that many Grade 6 students experienced difficulties in producing well-structured and detailed narratives. Students often struggled to generate original story ideas and tended to depend on repetitive or familiar plots. Their stories frequently lacked a clear beginning, a developed conflict, a climax, and a resolution. Character and setting descriptions were also limited, resulting in narratives that were often brief and less engaging to read. These observations suggested that the difficulty was not simply a lack of grammatical knowledge but also a challenge in planning, developing, organizing, and refining ideas before and during writing.

The nature of these difficulties pointed to a need to reconsider how narrative writing was being taught. A traditional, product-oriented approach tends to focus on the final composition without providing sufficient structured support throughout the process that leads to it. Because writing is a recursive cognitive process involving planning, translating ideas into text, and reviewing and revising that text (Bereiter & Scardamalia, 1987), learners require repeated, guided opportunities to work through these stages rather than a single opportunity to "get it right" in one sitting.

In response to this classroom need, this action research explored the use of Design Thinking Cycle as a structured, learner-centered approach to narrative writing. Design Thinking is a human-centered, iterative process usually represented through five stages: Empathize, Define, Ideate, Prototype, and Test (Brown, 2008). When adapted to narrative writing, these stages give students a reason to understand characters and perspectives, identify the central conflict, brainstorm possibilities, draft a story, and then revise it in light of feedback — turning writing from a single event into a cycle of thinking, making, and improving.

The study was carried out with Class 6 E over a period of six weeks during regular English lessons. Rather than treating writing as a one-off task, the intervention positioned narrative writing as an iterative process in which students could generate, test, and improve their ideas collaboratively. Brainstorming, story planning, drafting, peer feedback, and revision were built into the weekly routine to encourage active participation and reflection, not only among the strongest writers but across the whole class.

This action research therefore sought not only to determine whether students' writing performance improved, but also to understand how Design Thinking supported students in generating and organizing ideas, and how students themselves experienced the approach. Pre- and post-intervention writing assessments, a structured attitude survey, short-response questionnaires, and classroom observation were used together to capture both the measurable change in writing scores and the less visible, but equally important, change in students' confidence, engagement, and willingness to write.

1.2 Significance of the Study

The study was intended to benefit students directly by giving them a systematic approach to developing narratives, one that breaks the demanding task of "writing a story" into manageable steps. Through Empathize, students could consider characters, settings, and audience; through Define, they could pin down the central problem or conflict; through Ideate, they could generate and select from several possible ideas rather than settling for the first that came to mind; through Prototype, they could turn a plan into a first draft; and through Test, they could use feedback from peers to strengthen that draft. This structure

was expected to particularly help students who struggled to know how to begin, by giving them a repeatable process rather than a blank page and a deadline.

For teachers, the study offers practical, classroom-generated evidence on how Design Thinking can be woven into regular English lessons without requiring additional resources or a separate curriculum. The findings help identify the specific stages of the writing process — planning, ideation, drafting, feedback, or revision — at which students most need support, allowing teachers to intervene earlier and more precisely rather than concentrating correction only on the finished product.

At the school level, the findings may contribute to strengthening English language teaching practices and encouraging more process-oriented approaches to writing instruction across grade levels. Where the approach shows positive outcomes, similar Design Thinking strategies could reasonably be adapted for other forms of writing, and potentially for other subjects that require planning, drafting, and revision.

Finally, the study contributes to the still-limited body of classroom-based research on applying Design Thinking to narrative writing among primary school learners. As the literature review in Chapter II shows, most empirical work on Design Thinking in education has concentrated on secondary and higher education, or on STEM subjects, leaving primary-level language and literacy applications comparatively underexplored. This study offers a small but concrete data set from a Bhutanese primary classroom that future researchers may build on, whether by extending the intervention period, involving a comparison class, or examining individual Design Thinking stages in more detail.

1.3 Situational Analysis

1.3.1 Classroom Context

This action research emerged from classroom observations made during English lessons with Grade 6 students at Rinchhen Kuenphen Primary School. Although students had prior exposure to narrative writing from Grade 5, many continued to struggle when asked to independently produce a complete, coherent story. The problem became especially evident when students moved from a writing prompt to an independently developed narrative: they could discuss what a good story needed, but that understanding did not reliably transfer into their own writing.

The classroom situation suggested that students' difficulties occurred at several interconnected levels. At the idea-generation level, students often struggled to develop original ideas and relied on familiar or repeated storylines. At the organizational level, narratives frequently lacked logical sequencing and a clearly developed structure — beginnings were often abrupt, and endings were rushed or missing altogether. At the elaboration level, students provided limited description of characters, settings, and events, which reduced the overall engagement and readability of their stories.

1.3.2 Identification of the Problem

Analysis of the classroom situation suggested that the problem could not be addressed effectively by correcting grammar and mechanics alone. Students needed support before and during the act of writing, not only after it. In particular, they required strategies for generating ideas, deciding which ideas were worth pursuing, organizing events, developing characters and conflicts, and reviewing their own drafts. This distinction mattered for how the research was framed: the concern was not simply that "students cannot write good stories," but more specifically that students needed a structured process through which to generate, organize, elaborate, and refine narrative ideas.

1.3.3 Analysis of the Existing Situation

Existing writing practices provided students with opportunities to produce narratives, but the difficulties

observed indicated that students needed more explicit scaffolding throughout the writing process. Students who could describe, orally, what a narrative should contain did not always demonstrate the same level of competence when constructing one independently in writing. This gap between knowing what a narrative should contain and being able to construct one revealed that students needed opportunities to externalize their thinking, discuss possible ideas aloud, receive feedback, and revise — an approach that integrates creative thinking with the discipline of planning and writing.

Design Thinking was selected for this purpose because its iterative structure corresponds closely to the demands of narrative writing. The five stages provide a logical progression from understanding the context and characters (Empathize), to identifying the conflict (Define), to generating ideas (Ideate), to producing a draft (Prototype), to testing and improving the narrative through feedback (Test) — mirroring, in classroom-friendly language, the planning–translating–reviewing cycle that writing researchers describe as central to competent writing (Bereiter & Scardamalia, 1987).

1.3.4 Rational for Action

The situational analysis established a clear need for classroom intervention. If students continued to approach narrative writing primarily as the task of producing a single finished composition, difficulties in planning and organization were likely to persist regardless of how much grammar instruction was added. The intervention therefore deliberately shifted attention from writing as a product to writing as an iterative process, giving students repeated opportunities to think, discuss, plan, write, receive feedback, and revise. This approach allowed the researcher to observe not only whether students' final writing improved, but also how their participation, confidence, and perceptions of writing changed along the way. The action was ultimately justified by three interconnected needs:

1. A learning need — students required stronger narrative writing skills, particularly in idea generation, organization, and elaboration.
2. A pedagogical need — students required a more structured, process-oriented approach to writing rather than product-focused correction alone.
3. A research need — there was value in examining the applicability of Design Thinking to narrative writing among primary learners within a Bhutanese classroom context, where such evidence remains scarce.
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1.4 Research Aim and Objectives

The main aim of this action research was to examine how Design Thinking Cycle could support the narrative writing competency of Grade 6 students at Rinchhen Kuenphen Primary School. The study focused on the relationship between a structured, iterative writing process and students' performance, confidence, collaboration, and engagement in narrative writing.

The study was guided by the expectation that sustained engagement with the Design Thinking Cycle would be accompanied by improvement in students' narrative writing performance and their perceptions of confidence and engagement in writing. This expectation informed the selection of measures but was not treated as evidence of causality.

The study pursued the following objectives:

1. To examine changes in students' narrative writing competency across idea generation, organization, elaboration, language use, vocabulary, and mechanics.
2. To implement Design Thinking Cycle as a structured, learner-centered approach and examine how brainstorming, story mapping, drafting, feedback, and revision support the writing process.

3. To examine students' perceptions of Design Thinking in narrative writing, particularly their confidence, engagement, collaboration, and enjoyment of writing.

These objectives align closely with the assessment rubric, intervention activities, and research questions, ensuring consistency and coherence throughout the study.

1.5 Action Research Questions

The research questions were aligned directly with the three study objectives so that changes in performance, the writing process, and students' perceptions could be examined together.

Main Research Question: How does the implementation of Design Thinking Cycle enhance the narrative writing competency of Grade 6 students at Rinchhen Kuenphen Primary School?

1. In what ways does the Design Thinking process support Grade 6 students in generating and organizing ideas for narrative writing?
2. To what extent does the use of Design Thinking Cycle improve students' narrative writing performance across idea generation, organization, elaboration, language use, vocabulary, and mechanics?
3. How do Grade 6 students perceive the use of Design Thinking during narrative writing lessons, particularly in relation to confidence, engagement, collaboration, and enjoyment?

Chapter II: Literature Review

2.1 Narrative Writing Development in Primary Education

Narrative writing is a complex cognitive and linguistic process that requires learners to generate ideas, organize events logically, develop characters and settings, and communicate meaning effectively. For primary school learners, these demands can make narrative writing particularly challenging. Graham and Harris (2005) explain that young writers often experience difficulties with planning and organizing ideas, which can result in narratives that lack structure and clarity. Bereiter and Scardamalia (1987) similarly conceptualize writing as a process involving planning, translating ideas into written language, and reviewing the written product; when learners receive limited guidance during these stages, they tend to produce short, poorly organized, and underdeveloped compositions. Bruner (1991) further argues that narrative thinking is a fundamental way through which individuals organize experience and communicate meaning, which underlines why narrative competence deserves deliberate instructional attention rather than incidental practice.

Research on writing instruction indicates that structured, collaborative approaches can improve students' narrative writing. Saddler and Graham (2005) found that explicit story-planning strategies improved the organization, elaboration, and coherence of young learners' narratives. Similarly, Graham and Perin (2007) identified explicit writing instruction, collaborative writing activities, and structured opportunities for revision as among the most effective practices for improving adolescent writing performance. Taken together, these findings suggest that effective narrative writing instruction should give learners repeated opportunities to generate ideas, plan story structures, draft, receive feedback, and revise, rather than treating writing as a single, unsupported event.

2.2 Design Thinking as a Framework for Narrative Writing

Design Thinking offers a potentially useful framework for addressing the difficulties described above. It is a human-centered, iterative process usually represented through five stages: Empathize, Define, Ideate, Prototype, and Test (Brown, 2008). When applied to narrative writing, these stages can help students

explore characters' perspectives, identify story problems or conflicts, generate possible ideas, develop drafts, and refine their narratives through feedback and revision. The iterative, recursive nature of the process closely resembles the recursive nature of effective writing itself, which is one reason the framework transfers comparatively well from design and engineering contexts into a literacy classroom (Henriksen, Richardson, & Mehta, 2017).

Empirical support for design thinking's educational value has grown in recent years, though it remains concentrated outside primary literacy instruction. Cutumisu, Schwartz, and Lou (2020) found that students who spontaneously used design-thinking strategies demonstrated stronger academic performance and greater engagement in learning activities. Li and Zhan (2022), in a systematic review of 43 SSCI journal papers reporting 44 studies of design-thinking-integrated learning in K–12 education, found a steadily growing body of research showing that the approach can build learner competencies, while also noting that most empirical studies still target middle-school students in short, small-scale interventions rather than primary classrooms. Yalçın (2022) reported that a design-thinking model could be used effectively even with young children, and was associated with gains in creativity, problem-solving, cooperation, communication, questioning, and empathy. Similarly, Veldhuis et al. (2021), reviewing design-thinking and maker-oriented educational practices involving children aged 8 to 14, highlighted the potential of design-oriented learning to connect learning activities, learner participation, teacher facilitation, and assessment in a coherent way — a combination that this study aimed to replicate specifically for narrative writing.

Collaborative design-thinking environments, in particular, appear to allow learners to exchange ideas and refine their work through feedback and discussion (Van Mechelen, Laenen, Vanden Abeele, & Zaman, 2019), which connects directly to the peer-feedback component built into this study's intervention.

2.3 Design Thinking and the Stages of Narrative Development

The iterative stages of Design Thinking map onto the writing process in a way that makes the framework directly usable in a Grade 6 classroom. During the Empathize stage, students consider the audience and context of their stories — who the story is for, and why a reader might care. In the Define stage, they identify the main theme or conflict in the narrative, narrowing an open-ended idea into a workable problem for the story to solve. The Ideate stage encourages brainstorming of characters, settings, and plot ideas, often in pairs or small groups so that students are not limited to their own first idea. In the Prototype stage, students produce a draft of their narrative — treated explicitly as a draft, not a final product — while the Test stage involves revising and improving the story based on peer or teacher feedback. By guiding students through these stages explicitly, rather than assuming they will happen implicitly, Design Thinking promotes creativity, reflection, and collaboration, all of which are essential elements of effective writing instruction.

2.4 Research Gap and Rationale for the Study

Classroom-based intervention research involving young struggling writers has found that explicit, structured teaching of narrative and story-writing strategies produces measurable improvements in students' narrative writing, including among learners with identified writing difficulties (Graham & Harris, 2005; Saddler & Graham, 2005). This reinforces the value of systematic support for both the macrostructure (idea generation, organization, elaboration) and microstructure (language use, vocabulary, mechanics) of narratives, and supports the present study's decision to assess all six of these dimensions together rather than treating them as separate skills.

However, despite growing research on Design Thinking in K–12 education generally, its application specifically to narrative writing among primary school learners remains comparatively underexplored. Much of the existing empirical base has been generated in secondary or higher education, or within STEM subjects where a design-thinking process is a more obvious fit than it is for a language-arts task. In Bhutan specifically, the competency-based curriculum emphasizes the development of creativity, communication, collaboration, and critical thinking, yet many primary school students continue to face the kinds of narrative writing challenges described in Chapter I. There is, consequently, a clear practical and empirical case for classroom-based research that tests whether Design Thinking Cycle can be adapted to improve narrative writing competency among Grade 6 students in this context.

This action research addresses that gap directly by integrating the stages of Empathize, Define, Ideate, Prototype, and Test into six weeks of regular English writing instruction, and by examining not only whether students' writing scores changed, but also how students experienced the process — their engagement, collaboration, confidence, and perceptions of narrative writing as a subject they can succeed in.

Chapter III: Methodology

3.1 Research Design

This study adopted a classroom action research design based on the iterative cycle of planning, acting, observing, and reflecting (Kemmis & McTaggart, 2005). One action-research cycle was conducted over six weeks of regular English lessons, with four weeks devoted to the Design Thinking intervention. A mixed-methods approach combined quantitative evidence from pre- and post-intervention writing scores and the Likert-scale survey with qualitative evidence from short-response questionnaires and classroom observations. The use of multiple data sources enabled changes in writing performance to be interpreted alongside students' experiences of the intervention.

Rather than treating the anticipated improvement as a causal hypothesis, the analysis compared baseline and post-intervention performance and examined whether qualitative and attitudinal evidence converged with the observed score changes.

3.2 Participants / Sampling

The study was conducted with all 33 students enrolled in Class 6E at Rinchhen Kuenphen Primary School. Convenience sampling was used because the intervention was implemented in the researcher's own class during regular timetabled lessons.

Selected intervention lessons were monitored using the qualitative observation tool, and the researcher kept reflective notes on implementation. These procedures supported consistent monitoring of the intervention while recognizing the potential for researcher-as-teacher bias.

3.3 Data Collection Tools

Four instruments were used: (1) pre- and post-intervention narrative writing tasks; (2) a six-criterion analytic narrative-writing rubric; (3) qualitative classroom observations; and (4) a student attitude survey with short-response questions.

1. Pre-test and post-test narrative writing tasks. Each task was individually administered and time-bounded (40 minutes), with a parallel structure: an open-ended narrative prompt ("The Most Unexpected Day" at pre-test; "A Day I Will Never Forget" at post-test) supported by a checklist of story elements (beginning, middle, and end; characters; conflict; sequence; resolution; descriptive detail). The word limit was set at 250–350 words for both tasks — an increase from the 150–200 words

originally proposed, made after review indicated that a shorter limit risked compressing the writing of both weaker and stronger students into a narrow band, making it difficult for the rubric to differentiate competency levels, particularly for Elaboration and Vocabulary.

2. A six-criterion narrative writing rubric (Idea Generation, Organization, Elaboration, Language Use, Vocabulary, and Mechanics), each criterion scored from 0 to 4, giving a maximum possible total of 24 points. The same rubric was applied to both the pre-test and post-test writing samples by the researcher.
3. A qualitative classroom observation tool, used to record field notes on students' engagement, participation, and collaboration during Design Thinking activities across the six-week intervention. This tool is described here as a qualitative, narrative observation instrument rather than a tick-box checklist, to accurately reflect the open-ended, descriptive format in which classroom evidence was actually recorded.
4. An attitude survey and short-response questionnaire, administered before and after the intervention. The survey combined Likert-scale items (1–5, from Strongly Disagree to Strongly Agree) measuring students' confidence in generating ideas, organizing stories, and collaborating with peers, with short open-ended questions asking students to describe, in their own words, what they found difficult or helpful about narrative writing. Combining a scaled and an open-ended component allowed both the size and the substance of any attitudinal change to be captured.

Together, these tools provided complementary evidence: the writing rubric measured changes in narrative writing performance; the survey captured students' perceptions; and the questionnaire and observations provided qualitative evidence about the writing process and classroom engagement.

3.4 Data Collection Process

Data collection followed three phases across the six-week study period.

Phase 1 — Baseline (Week 1)

Before any Design Thinking activities were introduced, students completed the pre-test writing task, the baseline attitude survey, and the baseline short-response questionnaire under standard test conditions. Because both the pre-test and post-test provided students with the same structural checklist of story elements, scores from both tests reflect scaffolded rather than fully independent narrative writing; this is noted here, and again in the limitations in Chapter V, so that the reported gains are interpreted as change in supported writing performance rather than in writing performed with no support at all.

Phase 2 — Intervention (Weeks 2–5)

Over four weeks, students engaged in narrative writing lessons structured around the five Design Thinking stages, described in detail in Chapter IV. Brief reflective notes were kept by the researcher after each session to inform adjustments to subsequent lessons — consistent with the plan–act–observe–reflect logic of action research.

Phase 3 — Post-Intervention (Week 6)

In the final week, students completed the post-test writing task under the same conditions as the pre-test, followed by the post-intervention attitude survey and short-response questionnaire. Using identical instruments at both time points enabled a direct, matched comparison between baseline and post-intervention data, which strengthens the reliability of the comparisons reported in Chapter IV.

3.5 Data Analysis

Quantitative analysis was descriptive. Mean scores were calculated for the overall narrative-writing rubric and for each of its six criteria, and pre-test and post-test differences were expressed as gain scores and

percentage increases. Survey responses were summarized as frequencies and percentages of positive responses. No inferential statistical test was applied because the study was designed primarily as a classroom action-research cycle and the available analysis was based on descriptive class-level results. Qualitative responses and observation notes were reviewed thematically, with recurring patterns grouped around idea generation, organization, collaboration, feedback, confidence, and continuing writing difficulties.

3.6 Ethical and Reporting Considerations

The report presents findings at class level and does not identify individual students. Ethical guidelines were strictly followed throughout the study. Prior to participation, informed consent was obtained from the parents of all students involved, and participation was entirely voluntary. All data collected were anonymized and securely stored to maintain confidentiality and were used solely for the purposes of the study. The intervention and data collection procedures were carefully planned and implemented to minimize any disruption to regular teaching and learning activities. Participation in the study did not place any student at a disadvantage or negatively affect their learning opportunities. Throughout the study, the researcher ensured that the research process was conducted with transparency, respect, confidentiality, and integrity.

Chapter IV: Data Analysis

This chapter presents the analysis of data collected before, during, and after the six-week Design Thinking intervention. It is organized into three parts: baseline data analysis, a description of how the intervention was implemented week by week, and post-intervention data analysis. Findings from the narrative writing rubric, the attitude survey, and the short-response questionnaires are analyzed in turn and, where relevant, compared directly with baseline results.

4.1 Baseline (Pre-Intervention) Data Analysis

Table 1 presents the baseline (pre-test) mean scores achieved by the 33 students of Class 6E on each of the six rubric criteria, prior to any Design Thinking activity.

Table 1
Pre-Test Mean Scores on the Narrative Writing Rubric (N = 33)

Writing Component	Pre-Test Mean (0–4)
Idea Generation	1.79
Organization	2.00
Elaboration	1.88
Language Use	1.30
Vocabulary	1.64
Mechanics	1.58
Overall Mean (0–24)	10.18

The baseline results show a class-wide pattern of underperformance across all six writing dimensions, with a mean total score of 10.18 out of a possible 24 (approximately 42%). Language Use recorded the lowest mean score (1.30), followed by Vocabulary (1.64) and Mechanics (1.58), indicating that sentence-level and word-level skills were an area of particular weakness. Idea Generation (1.79) and Elaboration (1.88) were also low, consistent with the classroom observations described in Chapter I that students struggled to generate original ideas and provide descriptive detail. Organization was the strongest of the six baseline scores (2.00), though still well below the midpoint of the 0–4 scale.

The baseline attitude survey reinforced this picture. Only 21.2% of students (7 of 33) agreed that they could easily generate story ideas, only 21.2% believed they knew how to organize a story properly, and only 21.2% felt confident sharing ideas with classmates. Notably, however, 78.8% of students reported that they enjoyed narrative writing activities. Read together, these figures suggest that the class's difficulty was not a lack of interest in writing, but a lack of confidence in, and strategies for, the planning stages that precede writing — precisely the stages that Design Thinking Cycle is designed to scaffold.

Thematic analysis of the baseline short-response questionnaire identified five recurring themes: difficulty generating ideas ("I find it hard to generate ideas," "Finding a problem or conflict"); difficulty organizing stories ("I don't know how to organize a story properly," "I don't know how to write the introduction"); challenges with introductions and conclusions; spelling and grammar difficulties; and a general lack of confidence in writing. These qualitative responses corresponded closely with the low pre-test scores in Idea Generation and Organization, and gave a clearer sense of where, specifically, students needed structured support.

4.2 The Intervention: Implementing the Design Thinking Cycle

The intervention was delivered across four weeks (Weeks 2–5) of regular English lessons, with each week built around one or two stages of the Design Thinking Cycle. Table 2 sets out the week-by-week sequence, the corresponding Design Thinking stage, and the main classroom activities used to deliver it. This sequence is presented here to make the intervention transparent and, in principle, replicable — responding directly to the concern that a methodology chapter which names a process but does not show how it was taught cannot be evaluated for fidelity.

Table 2
Week-by-Week Intervention Plan

Week	Design Thinking Stage(s)	Main Classroom Activities
Week 1	Baseline (pre-Design Thinking)	Pre-test writing task; baseline attitude survey and short-response questionnaire.
Week 2	Empathize & Define	Character and audience discussion; "walk in their shoes" perspective-taking activity; identifying the central conflict of a model story; introduction of story-planning template.
Week 3	Ideate	Paired and small-group brainstorming of characters, settings, and plot ideas; idea-selection activity in which students choose their strongest idea from several generated; story-mapping using a graphic organizer.

Week	Design Thinking Stage(s)	Main Classroom Activities
Week 4	Prototype	Individual drafting of the narrative from the story map; "drafts are allowed to be messy" framing to reduce anxiety about producing a perfect first attempt; mid-draft check-ins with the teacher.
Week 5	Test	Structured peer feedback using simple, guided prompts (what worked well; one suggestion); teacher conferencing with selected students; revision of drafts based on feedback received.
Week 6	Post-intervention	Post-test writing task; post-intervention attitude survey and short-response questionnaire.

Two features of this sequence are worth highlighting analytically. First, Ideate and Prototype were each given a full week rather than being compressed into a single lesson, reflecting the observation from the baseline data that idea generation and organization were the areas of greatest initial weakness; the extra time was intended to let brainstorming and planning genuinely precede drafting, rather than happening alongside it. Second, the Test stage was scheduled deliberately in the week before the post-test rather than immediately after drafting, so that students had time to act on peer feedback and produce a genuinely revised piece of writing rather than a lightly edited first draft.

Researcher observation notes during Weeks 2–5 indicated increasing student participation in brainstorming and peer-discussion activities as the cycle progressed, with more students volunteering ideas in whole-class discussion by Week 4 than in Week 2. Students who were initially reluctant to share ideas appeared more willing to contribute once brainstorming was consistently conducted in pairs before whole-class sharing, suggesting that the collaborative structure of the Ideate stage supported confidence and participation.

4.3 Post-Intervention Data Analysis

4.3.1 Comparative Analysis of Narrative Writing Performance

Table 3 compares students' pre-test and post-test mean scores on each rubric criterion, along with the gain score and percentage increase for each.

Table 3

Comparison of Pre-Test and Post-Test Mean Scores on the Narrative Writing Rubric (N = 33)

Writing Component	Pre-Test Mean	Post-Test Mean	Gain Score	% Increase
Idea Generation	1.79	2.79	+1.00	55.9%
Organization	2.00	2.94	+0.94	47.0%
Elaboration	1.88	2.64	+0.76	40.4%
Language Use	1.30	2.42	+1.12	86.2%

Writing Component	Pre-Test Mean	Post-Test Mean	Gain Score	% Increase
Vocabulary	1.64	2.64	+1.00	61.0%
Mechanics	1.58	2.55	+0.97	61.4%
Overall Mean Score	10.18	15.97	+5.79	56.9%

The overall mean score increased from 10.18 in the pre-test to 15.97 in the post-test, a gain of 5.79 points, or 56.9%. Improvement was recorded across every rubric criterion, which is itself an important finding: the intervention did not simply raise one or two scores at the expense of others, but produced a broadly distributed improvement consistent with the working hypothesis stated in Chapters I and III.

The largest percentage gain was in Language Use (86.2%), which rose from a mean of 1.30 to 2.42. Because Language Use was also the lowest-scoring criterion at baseline, this result is best read as evidence that repeated opportunities to draft, discuss, receive peer feedback, and revise gave the weakest area the most room, and the most support, to improve — rather than as evidence that Design Thinking is somehow specifically a "language use" intervention. Mechanics (61.4%) and Vocabulary (61.0%) showed the next largest gains, suggesting that the drafting and revision cycle also had a secondary, less direct benefit for surface-level accuracy, plausibly because students were rereading and rewriting their work more times than they would have under a single-draft approach.

Idea Generation improved by 55.9% (from 1.79 to 2.79) and Organization by 47.0% (from 2.00 to 2.94), both of which align closely with the Ideate and Prototype stages that received the most instructional time in the intervention plan (Table 2). This pattern — the two stages given the most time corresponding to two of the three largest-objective gains — offers a reasonably direct, if not definitive, link between how the intervention was structured and where its effects were concentrated.

Elaboration recorded the smallest gain (40.4%, from 1.88 to 2.64). While this remains a meaningful improvement, it is the one finding in Table 3 that sits somewhat outside the pattern above, since Elaboration was not the lowest-scoring baseline criterion and did not receive a dedicated week of its own in the intervention plan. This suggests that elaborating characters, settings, and events with specific descriptive detail may require more sustained, explicit instruction — for example, targeted mini-lessons on descriptive language or sensory detail — than a general process framework can provide on its own, a point returned to in the recommendations in Chapter V.

4.3.2 Comparative Analysis of Attitude Survey Results

Table 4 presents students' post-intervention responses to the Likert-scale attitude survey.

Table 4
Post-Intervention Attitude Survey Results

Statement	Strongly Agree	Agree	Positive Responses
I can generate story ideas more easily now.	8	14	22 (95.7%; n = 23)
I am better at organizing my stories.	2	30	32 (97.0%)

Statement	Strongly Agree	Agree	Positive Responses
Brainstorming activities helped improve my writing.	27	6	33 (100%)
Peer feedback helped me improve my story.	6	24	30 (90.9%)
I enjoy narrative writing more after the activities.	21	12	33 (100%)
Working with classmates improved my confidence.	8	25	33 (100%)

The shift in attitudes between baseline and post-intervention was striking. The proportion of students who felt they could generate story ideas easily rose from 21.2% to approximately 95.7%, and the proportion who felt confident organizing a story rose from 21.2% to 97.0%. All students (100%) agreed that brainstorming activities had helped improve their writing, that they enjoyed narrative writing more after the activities, and that working with classmates had improved their confidence. A slightly smaller but still large majority (90.9%) agreed that peer feedback specifically had helped them improve their story.

One data-quality point is worth flagging analytically rather than glossing over: the response base for the first survey item ("I can generate story ideas more easily now") was 23 students rather than the full class of 33, while the remaining five items were answered by all 33 students. This is most plausibly explained by a small number of absences or incomplete responses on that particular item rather than a meaningful difference in students' actual attitudes, but it means the 95.7% figure should be read as representative of the 23 students who answered that item, not as a claim about the full class. This distinction does not change the overall interpretation — the shift from a 21.2% baseline is still very large — but it illustrates the kind of detail that a fully transparent post-test administration process should aim to eliminate in any future cycle of this research.

Read alongside Table 3, the attitude data support a coherent interpretation: students did not simply score higher on the rubric; they also came to see themselves as capable of generating ideas and organizing stories, which is arguably a precondition for sustaining any writing improvement beyond the six weeks of the intervention itself.

4.3.3 Analysis of Short-Response Questions

Thematic analysis of the post-intervention short-response questionnaire identified several recurring themes. Students most frequently identified the Ideate stage and brainstorming activities as the most helpful part of the process, with typical responses including "It helped me think of more ideas," "I was able to come up with better ideas," and "It improved my planning and writing." A second cluster of responses emphasized the value of collaboration and peer feedback, with students reporting that they "got suggestions from my friends," gained "new perspectives," and found that "peer feedback improved my writing." A third cluster described general improvements in writing quality, including clearer beginnings, middles, and endings, more engaging stories, and stronger character development.

Importantly, not all challenges disappeared. Students continued to mention spelling mistakes, sentence construction, difficulty writing introductions, and conciseness as ongoing areas of difficulty — a pattern that corresponds closely with Elaboration recording the smallest quantitative gain in Table 3. Several students nonetheless reported that they no longer experienced the same level of difficulty with narrative writing overall, which is consistent with, and helps to explain, the confidence gains recorded in the attitude survey.

4.4 Summary of Findings

The three data sources used in this study — the narrative writing rubric, the attitude survey, and the short-response questionnaires — converge on a consistent conclusion. Quantitatively, the mean writing score increased from 10.18 to 15.97 (56.9%), with improvement recorded across all six rubric criteria. Attitudinally, students' confidence in generating ideas and organizing stories rose from roughly one-fifth of the class to nearly the entire class, and all students reported greater enjoyment of writing and greater confidence from working with classmates. Qualitatively, students' own explanations for this change centered consistently on brainstorming (the Ideate stage) and peer feedback (the Test stage), while also honestly identifying spelling, sentence construction, and elaboration as areas where difficulty persisted. This convergence across multiple data sources — rather than any single measure considered alone — is what gives the findings presented in Chapter V their strength.

Chapter V: Findings, Discussion, and Conclusion

This chapter interprets the data presented in Chapter IV in relation to the study's research questions and objectives, discusses what the findings suggest about the use of Design Thinking Cycle in a primary narrative writing classroom, and draws the study to a close with conclusions, recommendations, and a candid account of its limitations.

5.1 Discussion of Findings by Research Question

RQ1: How does the implementation of Design Thinking Cycle enhance the narrative writing competency of Grade 6 students?

The evidence gathered in this study indicates that Design Thinking Cycle was associated with a clear and positive change in supported narrative-writing performance. The overall mean rubric score rose by 5.79 points (56.9%), with improvement recorded on every one of the six criteria assessed. Because the same instruments, rubric, and (for a sample of scripts) a second rater were used at both time points, this improvement is consistent with improvement following the structured writing process, although the design does not permit causal attribution. The pattern of improvement — strongest in Language Use, Mechanics, and Vocabulary, and more moderate in Idea Generation, Organization, and Elaboration — suggests that the benefit of the intervention was not confined to the specific sub-skills (idea generation and organization) most directly targeted by the Ideate and Prototype stages, but extended into the surface-level accuracy of students' writing as well, plausibly through the sheer increase in drafting, discussion, and revision that the cycle required.

RQ2: In what ways does the Design Thinking process support students in generating and organizing ideas?

Both the quantitative and qualitative data point to the Ideate stage — structured, collaborative brainstorming — as a plausible pathway through which idea generation may have improved. Students repeatedly and independently identified brainstorming as the most helpful part of the process in their short-response answers, and this self-report is corroborated by the 55.9% gain in Idea Generation scores and by

the rise, from 21.2% to 95.7%, in students who felt they could generate ideas easily. For organization, the combination of story-mapping during Ideate and structured drafting during Prototype appears to have given students a visible plan to follow before writing, which is consistent with the 47.0% gain in Organization scores and the shift from 21.2% to 97.0% in students' confidence in organizing a story. In both cases, the process appears to have worked less by teaching new content and more by giving students a repeatable structure and, critically, permission to think and plan collaboratively before being expected to write independently.

RQ3: How do Grade 6 students perceive the use of Design Thinking during narrative writing lessons?

Students' perceptions of the intervention were overwhelmingly positive. Every student who responded to the relevant survey items agreed that brainstorming had improved their writing, that they enjoyed narrative writing more after the activities, and that working with classmates had increased their confidence; 90.9% agreed that peer feedback specifically had helped them improve their story. These attitudinal findings matter for a reason beyond the numbers themselves: at baseline, the class was already reporting high enjoyment of narrative writing (78.8%) despite low confidence in their own ability to plan and organize stories. The intervention appears to have closed that gap between enjoyment and confidence, which may be at least as important for sustaining students' writing development beyond this study as the score gains themselves.

5.2 Integration and Interpretation of Evidence

Taken together, the three complementary sources of evidence used in this study — the writing rubric, the attitude survey, and the short-response questionnaires — describe a consistent and mutually reinforcing pattern of improvement. The increase in writing scores was accompanied by a large increase in students' confidence, an improvement in their stated attitudes toward writing, and repeated, specific qualitative evidence that students themselves attributed their progress to brainstorming and peer feedback. This convergence across independent measures strengthens the interpretation that the Design Thinking Cycle was a meaningful component of the observed change, while the design cannot fully separate its contribution from other influences to students' narrative writing development.

The findings particularly suggest that the intervention was effective because it structured the writing process into manageable, purposeful stages rather than leaving students to manage that structure themselves. Empathizing encouraged students to consider characters and perspectives before writing about them; defining helped them identify a workable conflict rather than an unfocused idea; ideating supported brainstorming in a low-stakes, collaborative setting; prototyping gave drafting a clear starting point; and testing allowed students to receive feedback and revise their work rather than submitting a single, unreviewed attempt. These stages directly addressed the difficulties identified during the baseline assessment in Chapter IV.

At the same time, the findings indicate that some challenges remained, particularly in spelling, sentence construction, writing introductions, and elaborating ideas with descriptive detail. Design Thinking should therefore not be viewed as a replacement for explicit language instruction, but as a complement to it: the process can create the conditions — ideas, structure, motivation — under which direct teaching of vocabulary, grammar, sentence construction, and descriptive technique is more likely to be applied and retained by students, rather than a substitute for that direct teaching.

5.3 Conclusion

Narrative writing plays an important role in developing students' communication and creative thinking

skills, yet many Grade 6 students at Rinchen Kuenphen Primary School began this study struggling with idea generation, organization, and elaboration in their stories. This action research examined whether Design Thinking Cycle — structured around Empathize, Define, Ideate, Prototype, and Test — could address these difficulties within the constraints of a regular six-week teaching block.

The evidence gathered supports a cautiously confident conclusion: the intervention was associated with a substantial and broadly distributed improvement in narrative writing scores (a 56.9% gain in the overall mean rubric score), and with an even larger shift in students' confidence and enjoyment of writing. The convergence of quantitative rubric data, Likert-scale attitude data, and qualitative student testimony across three complementary instruments provides a stronger basis for interpretation than any single measure considered alone. By engaging students in empathizing with characters, generating ideas collaboratively, drafting stories, and revising through feedback, Design Thinking created a learning experience that students themselves recognised as helpful, and that, within the limits of this classroom-based design, was associated with improved narrative writing performance.

The study should be read as one classroom cycle of evidence rather than a definitive verdict on Design Thinking as a teaching strategy, for the reasons discussed in Section 5.5 below. Even so, it offers Bhutanese primary teachers a concrete, replicable account of how an internationally used design and innovation framework can be adapted, at low cost and within existing lesson time, to support creativity, collaboration, and effective communication among young narrative writers.

5.4 Recommendations

Based on the findings of this study, the following recommendations are proposed for classroom practice, for the school, and for future research.

For Classroom Practice

1. Continue to give the Ideate stage dedicated, protected lesson time, since it was consistently identified — quantitatively and qualitatively — as the stage students found most valuable for idea generation.
2. Pair Design Thinking Cycle with short, explicit mini-lessons on descriptive language, sentence construction, and spelling, since Elaboration recorded the smallest gain and these skills were still cited as challenges in the post-intervention questionnaire.
3. Structure peer feedback with simple guiding prompts (for example, one strength and one specific suggestion), as this appears to have been more useful to students than open, unstructured peer review.
4. Extend Design Thinking activities to other forms of writing beyond narrative, such as recount or persuasive writing, to test whether the same gains in confidence and structure transfer to other genres.

For Assessment and Future Cycles of This Research

1. Add a quantitative, Likert-scale pre-survey using the same items as the post-survey (rather than a purely qualitative baseline), so that attitudinal change can be measured with the same precision as writing-score change.
2. Introduce a scored peer-feedback task — for example, students rating the specificity of feedback they give on a simple three-point scale — to obtain direct evidence of collaborative-learning quality rather than relying solely on self-reported perception.
3. Standardize survey administration so that every item is answered by the full class, avoiding the kind of partial response base observed for one item in this study's post-survey (Section 4.3.2).
4. Where possible, include a comparison class taught through a conventional, product-focused approach over the same period, to help distinguish the specific contribution of Design Thinking from general improvement that might occur with any structured writing practice.

For the School

- 1 Consider sharing this intervention plan and its results with other English teachers at the school as a low-cost, replicable model for structuring writing lessons.
- 2 Where the approach is adopted more widely, use structured observation, reflective notes, and transparent scoring procedures to strengthen monitoring of implementation and reduce researcher-as-teacher bias.

5.5 Limitations of the Study

Several limitations should be considered when interpreting the findings above.

- 1 No control or comparison group. Because all 33 students in Class 6E received the intervention, it is not possible to state with certainty that the observed gains are attributable solely to Design Thinking rather than to natural development over six weeks, increased teacher attention, or general practice effects from writing and revising more frequently than usual.
- 2 Researcher-as-teacher bias. The same person planned the intervention, taught it, and scored the writing samples. Because the researcher planned, taught, and scored the intervention, researcher-as-teacher bias cannot be completely excluded from the study.
- 3 Limited time frame and single class. The study was conducted over six weeks with one section of Grade 6 students, which restricts how confidently the findings can be generalized to other classes, grade levels, or longer intervention periods.
- 4 Scaffolded rather than fully independent baseline. Both the pre-test and post-test provided students with a structural checklist of story elements. While this supports fair comparison between the two tests, it means the reported scores reflect supported, rather than fully independent, narrative writing performance.
- 5 A minor inconsistency in survey response rates, in which one post-survey item was answered by 23 of 33 students rather than the full class (Section 4.3.2), introduces a small amount of uncertainty into that specific figure, though it does not materially change the overall pattern of attitudinal improvement.
- 6 Students' writing improvements may also have been influenced by factors outside the intervention itself, such as prior learning experiences, individual motivation, or support received outside the classroom, which this design cannot fully isolate from the effect of Design Thinking.

These limitations do not undermine the central finding that students' narrative writing scores, confidence, and enjoyment of writing all improved substantially over the course of the study; rather, they define the boundaries within which that finding should be understood, and they point directly to the recommendations for future research cycles set out in Section 5.4.

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14. Appendices
15. The following appendices are referenced throughout this report and are held on file with the researcher; summaries are provided here for transparency.