

Effect of Oral, Interactive, and Audio–Visual Storytelling Methods on Emotional Development among Class 2 Students: A Quasi-Experimental Study

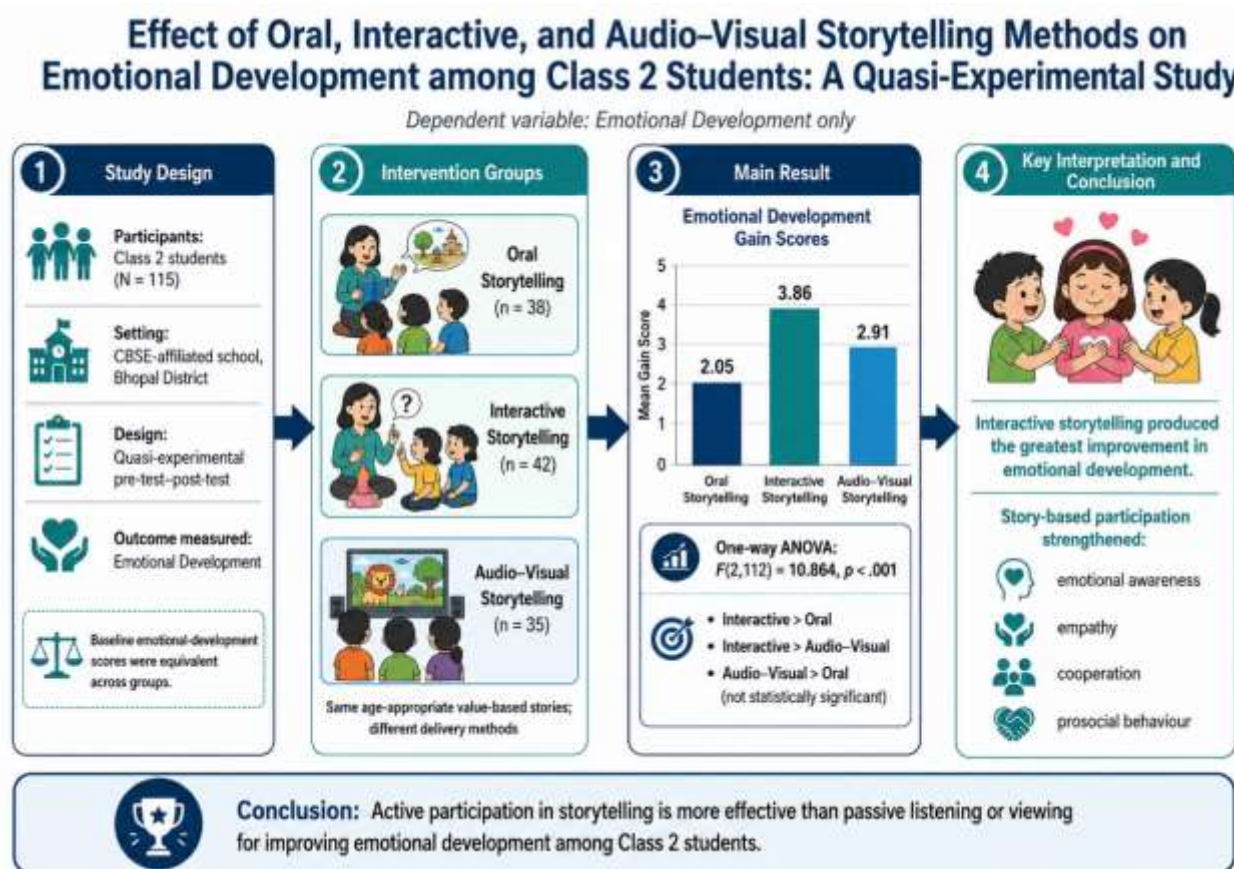
Ms. Amrita Motwani

Research Scholar, Education, Regional College of Education, Bhopal

Abstract:

Storytelling is widely recognised as a developmentally appropriate pedagogical practice in early primary education because it enables children to engage with emotions, relationships, choices, consequences, and social behaviour through narrative experience. The present quasi-experimental study examined the effect of three storytelling methods—oral, interactive, and audio–visual storytelling—on emotional development among Class 2 students. Emotional development was treated as the only dependent variable and was operationalised through improvement in emotional understanding, empathy, cooperation, emotional expression, and prosocial classroom behaviour. The study used a pre-test–post-test quasi-experimental design with three intact Class 2 groups from a CBSE-affiliated school in Bhopal District. The total analytical sample consisted of 115 students: Oral Storytelling group ($n = 38$), Interactive Storytelling group ($n = 42$), and Audio–Visual Storytelling group ($n = 35$). Emotional development gain scores were computed by subtracting pre-test emotional development scores from post-test emotional development scores. Data were analysed through descriptive statistics, one-way ANOVA, effect-size estimation, and Tukey HSD post hoc comparison. Results showed that storytelling method had a statistically significant effect on emotional development, $F(2,112) = 10.864$, $p < .001$. Interactive storytelling produced the highest emotional gain ($M = 3.86$), followed by audio–visual storytelling ($M = 2.91$) and oral storytelling ($M = 2.05$). The findings indicate that participatory storytelling is more effective than passive narrative exposure for enhancing emotional development among early primary learners. The study recommends structured interactive storytelling for foundational-stage classrooms.

Keywords: storytelling methods; emotional development; interactive storytelling; audio–visual storytelling; Class 2 students; quasi-experimental study



The above figure presents the graphical abstract of the study on the effect of storytelling methods on emotional development among Class 2 students.

1. Introduction

Emotional development is a central dimension of early primary education because young children enter classrooms not only as academic learners but also as developing social and emotional beings. At the Class 2 level, children are expected to cooperate with peers, respond to teacher guidance, manage frustration, participate in group tasks, recognise others' feelings, and express their own emotions in socially appropriate ways. These behaviours form the practical basis of classroom adjustment and learning readiness. Denham (2006) argued that social-emotional competence supports school readiness because children's emotion knowledge, regulation, and social problem-solving influence their ability to participate in learning situations. Malik and Marwaha (2025) similarly explained that social-emotional development involves the development of self, temperament, attachment, relationships, and interaction with others. Therefore, emotional development is not an additional or secondary aspect of schooling; it is a foundational requirement for meaningful participation in early learning.

The policy context of Indian education further strengthens the need to focus on emotional development through child-centred pedagogy. The National Education Policy 2020 emphasises holistic development, play-based learning, communication, and foundational competencies in the early years (Ministry of Education, Government of India, 2020). The National Curriculum Framework for the Foundational Stage also gives importance to play, conversation, stories, songs, movement, art, and culturally rooted learning experiences for children in the foundational age group (NCERT, 2022). These documents indicate that early primary pedagogy should not depend only on textbook recitation, copying, or teacher-led

explanation. Instead, it should use meaningful experiences that allow children to listen, speak, imagine, feel, discuss, and reflect. Storytelling is one such pedagogical method because it combines emotional content with language, imagination, moral reasoning, and social interaction.

Storytelling is especially relevant to emotional development because stories place children inside emotionally meaningful situations. A story presents characters who feel fear, happiness, sadness, jealousy, kindness, anger, courage, regret, or compassion. Through these characters, children can observe emotional situations at a safe distance. They can discuss why a character acted in a particular way, what consequences followed, and how another choice could have produced a different outcome. Pulimeno et al. (2020) argued that children's literature and storytelling can promote global development and wellbeing when integrated into school curricular activities. Similarly, Catala et al. (2023) found that guided storytelling activities supported emotion naming, involvement, goal completion, and emotion-recognition learning among kindergartners. These findings show that stories can function as structured emotional-learning situations when teachers guide children's interpretation of feelings, motives, and social consequences.

The method of storytelling, however, is likely to influence the depth of children's emotional engagement. Oral storytelling depends mainly on the teacher's narration, voice modulation, facial expression, and gestures. It can stimulate imagination and listening, but it may not always require children to express emotions or respond actively. Audio–visual storytelling uses images, animation, sound, and music to make characters and situations more concrete. It can make emotional expressions visible, but children may remain observers unless the teacher provides discussion and reflection. Interactive storytelling, in contrast, requires children to participate through prediction, questioning, dialogue, role-play, emotional labelling, peer response, and retelling. This participatory structure may create stronger opportunities for empathy, cooperation, and emotional expression.

Existing research supports the educational value of storytelling, but important gaps remain. Isbell et al. (2004) found that storytelling and story reading influenced oral language complexity and story comprehension among young children. Mol et al. (2008) showed that dialogic reading, which requires active child participation, added value to ordinary shared book reading. Rahiem (2021) argued that digital storytelling can support early childhood learning by combining narration with images, graphics, sound, and music. However, much of this research has focused on oral language, literacy, comprehension, or digital engagement. Emotional development has received comparatively less direct attention, especially in comparative classroom studies that examine oral, interactive, and audio–visual storytelling within the same design.

The specific problem addressed in the present study is the lack of clear comparative evidence on which storytelling method is most effective for emotional development among Class 2 students. Storytelling is commonly used in early-grade classrooms, but it is often treated as a recreational or enrichment activity rather than as a planned intervention for socio-emotional growth. The problem is not whether stories are useful in general; the more precise issue is whether different storytelling methods produce different levels of emotional development. Since oral, interactive, and audio–visual storytelling differ in teacher role, child participation, sensory input, and emotional discussion, they may not produce equal outcomes. This makes comparative analysis necessary.

The purpose of the study was to examine the effect of oral, interactive, and audio–visual storytelling methods on emotional development among Class 2 students. The main objective was to compare emotional development gain across three storytelling conditions. The research question was: Is there a significant difference in emotional development among Class 2 students exposed to oral, interactive, and

audio–visual storytelling methods? The null hypothesis stated that there is no significant effect of storytelling method on emotional development among Class 2 students. The alternative hypothesis stated that storytelling method has a significant effect on emotional development among Class 2 students.

The study is significant for early primary teachers, school leaders, curriculum designers, and policy planners. For teachers, it provides evidence on how storytelling can be planned as an emotional-development strategy rather than used only for enjoyment. For school leaders, it supports the inclusion of structured storytelling sessions in classroom routines. For curriculum designers, it links story-based pedagogy with the holistic-learning priorities of NEP 2020 and NCF-FS 2022. For educational researchers, it contributes comparative evidence from an Indian Class 2 classroom context. Most importantly, the study identifies interactive storytelling as a method that may help children practise empathy, cooperation, emotional expression, and prosocial behaviour through active narrative participation.

2. Literature Review

This literature review examines prior studies on storytelling, interactive narrative pedagogy, digital storytelling, and emotional development among young children. It is organised thematically to align with the objective of the present study. The first theme discusses storytelling as a context for emotional meaning-making. The second theme examines interactive storytelling and guided participation. The third theme reviews audio–visual and digital storytelling as multimodal pedagogy. The fourth theme connects storytelling with social-emotional development, school readiness, and wellbeing.

Storytelling has long been understood as a natural medium through which children interpret human actions, motives, relationships, and consequences. Bruner (1991) argued that narrative is a central mode of constructing reality because people organise experience through stories. This theoretical position is important for early primary education because children often understand social life more easily through concrete story events than through abstract moral instruction. When a story presents a character who lies, helps, shares, becomes angry, or forgives, the child is able to examine emotion and conduct through a meaningful example. In the context of the present study, this supports the assumption that storytelling can influence emotional development by giving children repeated opportunities to observe and discuss emotional situations.

Empirical research has also shown that storytelling can produce measurable learning effects. Isbell et al. (2004) compared storytelling and story reading among children aged three to five years. The study used the same 24 stories across two conditions and assessed children through language samples, retelling, and story-generation tasks. The findings showed that storytelling and story reading both supported young children's oral language and story comprehension. Although the primary focus of the study was language, its implication for emotional development is relevant. Children who understand story sequence, character intention, and plot consequence are better able to interpret emotions and discuss social behaviour. Thus, narrative comprehension provides a foundation for emotional interpretation.

Interactive story-based methods have received strong support because they shift children from passive listening to active meaning-making. Mol et al. (2008) conducted a meta-analysis on dialogic parent–child book reading and examined whether interactive reading added value beyond ordinary reading. The review showed that dialogic reading improved children's vocabulary outcomes by emphasising active participation, adult prompts, and child response. Although dialogic reading is not identical to interactive storytelling, both approaches share an important mechanism: children are invited to speak, predict, explain, and reflect. This interactional structure matters for emotional development because children need

opportunities to name feelings, explain motives, and consider alternative behaviours. Passive story exposure may introduce emotions, but interactive storytelling helps children practise emotional reasoning. Mol et al. (2009) further examined interactive book reading in early education and reported that interactive reading could stimulate oral language and print knowledge. This work is relevant to the present study because it supports the broader pedagogical claim that adult-guided narrative interaction is more powerful than simple exposure. In emotional-development terms, the teacher's role is not limited to narrating the story. The teacher becomes a mediator who asks children how a character felt, why a conflict occurred, whether a response was kind or harmful, and how the situation could be resolved. Such guided questioning transforms a story into an emotional-learning event. This aligns with the present study's expectation that interactive storytelling would produce stronger emotional development than oral or audio-visual storytelling.

The strongest direct support for storytelling as an emotional-development intervention comes from Catala et al. (2023). Their study on guided storytelling tables among kindergartners found that guidance supported emotion naming, children's involvement, goal completion, and learning gains in emotion recognition. The study is important because it did not treat emotional development as an assumed side effect; it measured emotional-learning outcomes directly. The findings suggest that children benefit when stories are presented with structured support and when adults guide attention toward emotional meaning. The present study extends this line of inquiry by comparing three storytelling methods among Class 2 students and by examining emotional development as the only dependent variable.

Recent work has also examined children's emotional reactions to story situations and their relationship with school readiness. Sofri et al. (2023) studied 150 kindergarten children and explored the association between children's emotional reactions during a story-reading situation and their school readiness skills. Teachers reported children's verbal abilities, approaches toward learning, and social skills. The study indicated that children's emotional responses to stories were connected with broader readiness-related behaviours. This finding is relevant because it shows that story situations are not emotionally neutral. Children respond to story content, and those responses may be linked with social and classroom functioning. In the present study, emotional development was similarly assessed through classroom-relevant behaviours such as empathy, cooperation, and emotional awareness.

Digital and audio-visual storytelling has expanded the possibilities of story-based pedagogy by adding images, animation, recorded narration, music, and sound effects. Rahiem (2021) examined digital storytelling in early childhood education and argued that digital storytelling combines traditional storytelling with digital images, graphics, music, and sound. The study found that digital storytelling can make learning more engaging and can support innovative teaching practices. Smeda et al. (2014) also reported that digital storytelling can create a constructivist learning environment in which students engage with stories through multimodal resources. These studies support the inclusion of audio-visual storytelling as a separate condition in the present study. However, they also suggest that digital tools are most useful when they are pedagogically guided rather than used as passive screen exposure.

Işıkoğlu and Güzen (2024) examined digital storytelling among kindergarteners and reported its promise for language and technology skills. Although that study focused more on language and technology, it remains relevant because digital stories can make characters, expressions, and emotional situations visible. Visual presentation may help children recognise facial expressions, body language, and situational cues. However, the present study assumes that visual support alone may not be sufficient for deeper emotional

development unless children are invited to discuss and respond. This distinction is central to the comparison between audio–visual storytelling and interactive storytelling.

The broader literature on social-emotional development supports the educational importance of the present study. Denham (2006) described social-emotional competence as a foundation for school readiness and emphasised emotional expressiveness, understanding of emotion, regulation, social problem solving, and relationship skills. Murano et al. (2020), in a meta-analysis of preschool social-emotional learning interventions, found that structured interventions produced positive effects on social and emotional learning outcomes. These studies indicate that emotional development can be improved through planned classroom practices. Storytelling is important because it can embed emotional learning within routine pedagogy rather than requiring a separate intervention programme.

Children's literature and storytelling have also been linked with wellbeing and holistic growth. Pulimeno et al. (2020) reviewed the pedagogical, didactic, and therapeutic dimensions of children's literature and concluded that children's literature and storytelling can promote students' global development and wellbeing when included in school curricula. This view is highly relevant to Indian foundational education because NEP 2020 and NCF-FS 2022 emphasise holistic development through play, stories, art, movement, and experience-based learning. Storytelling therefore has both empirical and policy relevance. It supports emotional learning while remaining practical for early primary teachers.

Overall, the reviewed literature indicates that stories help children interpret emotions, relationships, and social conduct; interactive narrative methods strengthen participation and reflection; digital storytelling provides multimodal engagement; and structured social-emotional learning can improve children's classroom functioning. Existing studies have established the value of storytelling, dialogic reading, digital storytelling, and social-emotional learning. However, limited evidence compares oral, interactive, and audio–visual storytelling methods within the same early primary classroom context while treating emotional development as the sole dependent variable. Many studies focus on language, literacy, comprehension, or digital engagement, while emotional development is often discussed indirectly. The present study addresses this gap by using a quasi-experimental design to compare emotional development gains across three storytelling methods. This gap is significant because it helps identify the most effective story-based pedagogy for strengthening empathy, cooperation, emotional awareness, and prosocial behaviour among Class 2 students.

3. Research Methodology

The study used a quantitative quasi-experimental pre-test–post-test design. This design was appropriate because intact Class 2 classroom groups were used, and individual random assignment was not feasible in the natural school setting. The independent variable was storytelling method, with three instructional conditions: oral storytelling, interactive storytelling, and audio–visual storytelling. The dependent variable was emotional development only. Emotional development was measured through classroom-relevant indicators such as emotional understanding, empathy, cooperation, emotional expression, and prosocial behaviour.

The study used one source of data: primary emotional-development assessment data collected from Class 2 students before and after the storytelling intervention. The intervention used age-appropriate value-based stories. The same broad story content was maintained across groups to reduce content-based variation. The difference among groups was the method of storytelling delivery. Emotional gain scores were

computed by subtracting pre-test emotional development scores from post-test emotional development scores. Higher gain scores indicated stronger improvement in emotional development.

Table 1. Methodological Scope and Data Source

Methodological Element	Description
Research approach	Quantitative
Research design	Quasi-experimental pre-test–post-test design
Data source	Primary classroom emotional-development assessment data
Study setting	CBSE-affiliated school, Bhopal District
Participants	Class 2 students
Total analytical sample	115 students
Group 1	Oral Storytelling, n = 38
Group 2	Interactive Storytelling, n = 42
Group 3	Audio–Visual Storytelling, n = 35
Independent variable	Storytelling method
Dependent variable	Emotional development
Intervention content	Age-appropriate value-based stories
Data collection stages	Pre-test, intervention, post-test
Score computation	Emotional gain = post-test score – pre-test score
Main statistical tool	SPSS-based quantitative analysis
Main inferential test	One-way ANOVA
Post hoc test	Tukey HSD
Significance level	.05

Note. The study was restricted to one dependent variable: emotional development.

The oral storytelling group received stories through teacher narration supported by voice modulation, facial expression, gestures, pauses, and limited questioning. The interactive storytelling group received stories through participatory narration that included prediction, role-play, dialogue completion, emotional labelling, questioning, peer discussion, and guided reflection. The audio–visual storytelling group received the same broad story content through visual and auditory presentation, such as animated or recorded story material, followed by basic teacher facilitation.

The pre-test measured students' initial emotional development before the intervention. The post-test measured emotional development after exposure to the assigned storytelling method. Emotional development gain was then analysed to compare the effectiveness of the three methods. Descriptive statistics were used to summarise group performance. One-way ANOVA was used to test whether emotional gain differed significantly across storytelling methods. Tukey HSD post hoc analysis was used to identify the specific group differences. Effect size was calculated to estimate the practical magnitude of the storytelling method effect.

Ethical care was maintained by using age-appropriate story material and classroom-based educational activities. No harmful or sensitive content was included. The study did not deny any student normal

classroom learning. The scope was delimited to Class 2 students in one school context; therefore, findings are most applicable to similar early primary settings.

4. Results and Analysis

The results are presented only for emotional development because emotional development was the sole dependent variable in the present research paper. The analysis includes baseline comparison, post-test comparison, emotional gain analysis, assumption checking, ANOVA, post hoc comparison, effect size, and hypothesis decision.

Table 2. Group-Wise Sample Distribution

Storytelling Method	N	Percentage
Oral Storytelling	38	33.04%
Interactive Storytelling	42	36.52%
Audio–Visual Storytelling	35	30.44%
Total	115	100.00%

Note. N = number of students included in the final matched pre-test–post-test emotional-development analysis.

The sample distribution shows that the three storytelling groups were reasonably balanced. The Interactive Storytelling group had the largest number of students ($n = 42$), followed by the Oral Storytelling group ($n = 38$) and the Audio–Visual Storytelling group ($n = 35$). The difference in group size was not large enough to prevent meaningful comparison through one-way ANOVA. Since the study used intact classroom groups, exact equality of group size was not expected. The distribution supports the quasi-experimental nature of the study, where natural class sections were used rather than individually randomised participants. The total sample of 115 students provided an adequate basis for comparing emotional-development gain across the three storytelling conditions.

Table 3. Emotional Development Pre-Test Descriptive Statistics by Group

Storytelling Method	N	Mean	Standard Deviation
Oral Storytelling	38	6.84	1.636
Interactive Storytelling	42	6.83	0.961
Audio–Visual Storytelling	35	6.83	1.124
Total	115	6.83	1.256

Note. Pre-test scores represent emotional-development levels before intervention.

The pre-test descriptive statistics show that the three groups started from nearly identical emotional-development levels. The Oral Storytelling group had a mean score of 6.84, while the Interactive and Audio–Visual groups both had mean scores of 6.83. This extremely small difference indicates that no group had a meaningful baseline advantage before the intervention. Such baseline similarity is important because the study aimed to compare gain after exposure to different storytelling methods. If one group had begun with a much higher emotional-development score, later differences could have reflected initial advantage rather than treatment effect. The pre-test pattern therefore strengthens the credibility of the subsequent comparison of emotional-development gains.

Table 4. Emotional Development Pre-Test Equivalence through One-Way ANOVA

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	0.003	2	0.002	0.001	.999
Within Groups	179.857	112	1.606		
Total	179.860	114			

Note. $p > .05$ indicates no statistically significant difference among groups at pre-test.

The pre-test ANOVA confirmed that the three groups were statistically equivalent before the storytelling intervention. The result was non-significant, $F(2,112) = 0.001$, $p = .999$. This means that emotional-development scores did not differ significantly among the Oral, Interactive, and Audio–Visual groups before treatment. This finding is methodologically important because it supports the internal validity of the quasi-experimental comparison. Since the groups were similar at baseline, differences in emotional gain after the intervention can be more reasonably linked to the storytelling method. The equivalence result also supports the use of gain scores as the main outcome indicator.

Table 5. Emotional Development Post-Test Descriptive Statistics by Group

Storytelling Method	N	Pre-Test Mean	Mean Gain	Estimated Post-Test Mean
Oral Storytelling	38	6.84	2.05	8.89
Interactive Storytelling	42	6.83	3.86	10.69
Audio–Visual Storytelling	35	6.83	2.91	9.74
Total	115	6.83	2.97	9.80

Note. Estimated post-test mean = pre-test mean + emotional gain mean.

The post-test pattern shows that all groups improved after storytelling exposure, but improvement was not equal across methods. The Interactive Storytelling group reached the highest estimated post-test mean of 10.69, followed by the Audio–Visual group at 9.74 and the Oral group at 8.89. Since the pre-test means were almost identical, the post-test hierarchy directly reflects differences in emotional gain. This result indicates that storytelling as a general practice supported emotional development, but the participatory method produced the strongest outcome. Interactive storytelling appears to have created more opportunities for children to identify emotions, enact situations, discuss characters' motives, and practise prosocial responses.

Table 6. Emotional Development Gain Score Descriptive Statistics

Storytelling Method	N	Mean Gain	Standard Deviation	Standard Error
Oral Storytelling	38	2.05	1.845	0.299
Interactive Storytelling	42	3.86	1.690	0.261

Audio–Visual Storytelling	35	2.91	1.652	0.279
Total	115	2.97	1.875	0.175

Note. Emotional gain = post-test emotional development score minus pre-test emotional development score.

The gain score table provides the central evidence of the study. Interactive storytelling produced the highest emotional-development gain ($M = 3.86$), followed by audio–visual storytelling ($M = 2.91$) and oral storytelling ($M = 2.05$). The gain hierarchy indicates that the method of storytelling influenced the amount of emotional growth. Oral storytelling produced positive change, suggesting that narrative exposure itself had value. Audio–visual storytelling produced stronger gain than oral storytelling, probably because visual and auditory cues made emotional situations more concrete. However, interactive storytelling produced the greatest gain because students were actively involved in role-play, dialogue, prediction, emotional interpretation, and peer discussion. This supports the pedagogical importance of participation.

Table 7. Confidence Intervals for Emotional Development Gain

Storytelling Method	Mean Gain	Standard Error	Approximate 95% Confidence Interval
Oral Storytelling	2.05	0.299	1.44–2.66
Interactive Storytelling	3.86	0.261	3.33–4.39
Audio–Visual Storytelling	2.91	0.279	2.34–3.48
Total	2.97	0.175	2.62–3.32

Note. Confidence intervals were estimated from the reported mean and standard error values.

The confidence intervals show that the Interactive Storytelling group had a clearly higher range of emotional gain than the Oral Storytelling group. The confidence interval for the Interactive group ranged from approximately 3.33 to 4.39, while the Oral group ranged from approximately 1.44 to 2.66. These intervals suggest that the difference between interactive and oral storytelling was not only statistically meaningful but also educationally important. The Audio–Visual group fell between the two, with a confidence interval of approximately 2.34 to 3.48. This reinforces the interpretation that audio–visual storytelling had moderate benefit, while interactive storytelling produced the strongest and most stable emotional-development improvement.

Table 8. Percentage Improvement in Emotional Development

Storytelling Method	Pre-Test Mean	Mean Gain	Percentage Improvement
Oral Storytelling	6.84	2.05	29.97%
Interactive Storytelling	6.83	3.86	56.52%
Audio–Visual Storytelling	6.83	2.91	42.61%

Total	6.83	2.97	43.48%
-------	------	------	--------

Note. Percentage improvement = mean gain divided by pre-test mean, multiplied by 100.

The percentage-improvement table provides a practical interpretation of the gain scores. Interactive storytelling produced an estimated 56.52% improvement over the baseline emotional-development mean. Audio–visual storytelling produced a 42.61% improvement, while oral storytelling produced a 29.97% improvement. These values help translate statistical findings into classroom meaning. The interactive method produced nearly double the percentage improvement of the oral method. This suggests that teacher-guided participation, role-play, emotional questioning, and peer interaction substantially increased the developmental value of storytelling. The audio–visual method also produced meaningful improvement, but it did not reach the level of interactive storytelling. This confirms that active participation is more powerful than observation alone.

Table 9. Homogeneity of Variance Assumption for Emotional Gain

Test	Variable	p-value	Decision
Levene's Test	Emotional Development Gain	.319	Assumption satisfied

Note. $p > .05$ indicates that group variances are not significantly different.

Before interpreting ANOVA, the assumption of homogeneity of variance was examined. Levene's test was non-significant, $p = .319$, indicating that the variances of emotional gain across the three storytelling groups were sufficiently similar. This means that the ANOVA assumption was satisfied and the group comparison could be interpreted with confidence. Homogeneity of variance is important because ANOVA assumes that variability within groups is not excessively unequal. Since the assumption was met, the significant ANOVA result reported in the next table can be treated as statistically valid within the limits of the quasi-experimental design. This strengthens the reliability of the conclusion that storytelling method affected emotional development.

Table 10. One-Way ANOVA for Emotional Development Gain

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	65.141	2	32.571	10.864	.000
Within Groups	335.780	112	2.998		
Total	400.922	114			

Note. $p = .000$ is reported by SPSS and should be interpreted as $p < .001$.

The one-way ANOVA showed a statistically significant difference in emotional-development gain among the three storytelling methods, $F(2,112) = 10.864$, $p < .001$. This result confirms that the difference in emotional gain was not due to random variation. Instead, the storytelling method had a significant effect on emotional development. Since the pre-test groups were statistically equivalent, the post-intervention difference can be interpreted as evidence of differential instructional effectiveness. The ANOVA result supports the rejection of the null hypothesis and acceptance of the alternative hypothesis. It confirms that oral, interactive, and audio–visual storytelling methods do not influence emotional development equally among Class 2 students.

Table 11. Effect Size for Emotional Development Gain

Effect Size Indicator	Value	Interpretation
Eta squared (η^2)	.162	Moderate to large educational effect
Omega squared (ω^2)	.146	Moderate practical effect
Cohen's f	.440	Medium to large effect

Note. Effect sizes were estimated from the ANOVA summary values.

The effect-size analysis shows that storytelling method had a meaningful practical influence on emotional development. Eta squared was approximately .162, indicating that about 16.2% of the variance in emotional-development gain was associated with storytelling method. Omega squared was approximately .146, providing a slightly more conservative estimate of effect. Cohen's f was approximately .440, which falls between medium and large magnitude. These values are important because statistical significance alone does not show educational importance. The effect-size results indicate that the difference among storytelling methods was not only statistically significant but also practically meaningful for early primary classroom pedagogy. Interactive storytelling therefore deserves attention as a high-impact emotional-development strategy.

Table 12. Tukey HSD Post Hoc Comparison for Emotional Development Gain

Comparison	Mean Difference	p-value	Interpretation
Oral vs Interactive	-1.805	.000	Significant
Oral vs Audio–Visual	-0.862	.090	Not significant
Interactive vs Audio–Visual	0.943	.050	Significant / borderline significant

Note. Negative value in Oral vs Interactive indicates that the Interactive group had a higher mean gain.

The Tukey HSD post hoc comparison identifies where the significant ANOVA difference occurred. Interactive storytelling produced significantly greater emotional gains than oral storytelling, with a mean difference of 1.805 points. Interactive storytelling also outperformed audio–visual storytelling at the .050 level, suggesting a significant or borderline significant advantage. The difference between oral and audio–visual storytelling was not statistically significant, although the audio–visual group had a higher mean gain. This pattern confirms that interactive storytelling was the most effective method for emotional development. The result suggests that active child involvement is more influential than narration alone or audio–visual presentation alone. Emotional learning appears to deepen when children discuss, enact, and interpret story situations.

Table 13. Hypothesis Testing Summary

Hypothesis	Statistical Test	Result	Decision
H ₀ : There is no significant effect of storytelling method on	One-way ANOVA	F(2,112) = 10.864, p < .001	Rejected

emotional development among Class 2 students.			
H ₁ : There is a significant effect of storytelling method on emotional development among Class 2 students.	One-way ANOVA and Tukey HSD	Interactive > Audio–Visual > Oral	Accepted

Note. The decision is based on the .05 level of significance.

The hypothesis-testing summary confirms the central finding of the study. The null hypothesis was rejected because the ANOVA showed a statistically significant difference in emotional-development gain across the three storytelling methods. The alternative hypothesis was accepted because storytelling method significantly influenced emotional development among Class 2 students. The descriptive and post hoc results further showed that interactive storytelling was the strongest method, followed by audio–visual storytelling and oral storytelling. This finding directly answers the research question. It demonstrates that emotional development among early primary learners can be enhanced more effectively when storytelling is participatory, dialogic, and experience-based rather than only oral or audio–visual.

5. Discussion and Policy Implications

The findings of the study demonstrate that storytelling method significantly affected emotional development among Class 2 students. Interactive storytelling produced the highest emotional-development gain, followed by audio–visual storytelling and oral storytelling. The ANOVA result, $F(2,112) = 10.864$, $p < .001$, confirmed that these differences were statistically significant. The estimated effect size also indicated practical importance, with storytelling method explaining approximately 16.2% of the variance in emotional gain. Therefore, the study establishes that the method of storytelling delivery matters when the educational objective is emotional development.

The superiority of interactive storytelling can be explained through its participatory structure. In interactive storytelling, children did not remain passive listeners. They predicted story events, responded to teacher questions, enacted roles, completed dialogues, identified emotions, discussed character choices, and reflected on consequences. These activities required children to enter the emotional world of the story. A child who plays the role of a frightened animal, a kind friend, a selfish character, or a helpful companion is not only hearing about emotion but also practising emotional perspective-taking. This active involvement appears to have strengthened empathy, cooperation, and emotional awareness more effectively than narration or viewing alone.

The findings align with Catala et al. (2023), who found that guided storytelling supported emotion naming, involvement, goal completion, and learning gains in emotion recognition among kindergartners. The present study extends that evidence to Class 2 students in an Indian school context and shows that guided participation is especially important. The result also supports Denham’s (2006) view that emotional understanding, regulation, and social problem-solving are important components of school readiness. Interactive storytelling appears to support these competencies because it gives children repeated opportunities to recognise emotions, discuss social behaviour, and practise appropriate responses.

The findings also connect with research on dialogic and interactive narrative practices. Mol et al. (2008) showed that active child participation added value to shared book reading. Although their study focused

on vocabulary, the underlying principle applies strongly to emotional development. Children learn more deeply when they are invited to respond, explain, and construct meaning. In the present study, interactive storytelling converted the story session into a social learning space. Teacher prompts, peer participation, role-play, and discussion created conditions in which children could express feelings and interpret others' emotions. This explains why interactive storytelling outperformed oral storytelling.

The moderate effectiveness of audio–visual storytelling also deserves attention. The Audio–Visual group gained more than the Oral group, although the difference was not statistically significant. This suggests that images, sound, animation, and visual representation can support emotional understanding by making story events more concrete. Rahiem (2021) and Smeda et al. (2014) argued that digital storytelling can increase engagement and support learning through multimodal presentation. In the present study, audio–visual storytelling likely helped children observe facial expressions, actions, and emotional consequences. However, it did not surpass interactive storytelling. This indicates that audio–visual resources should be used as supportive tools rather than substitutes for teacher-led interaction.

The oral storytelling group also showed positive emotional gain, which means that traditional narration remains educationally valuable. Oral storytelling gives children opportunities to listen, imagine, and follow characters' experiences. It also preserves the cultural value of teacher narration and oral tradition. However, its lower gain suggests that oral storytelling may be less effective when it remains mainly one-directional. The implication is not that oral storytelling should be removed, but that it should be strengthened through interactive scaffolding. Teachers can improve oral storytelling by adding questions, emotional vocabulary prompts, dramatization, and peer discussion.

The study has important theoretical implications. It supports the view that emotional development is socially mediated. Children do not develop emotional understanding only through exposure to moral messages. They develop it through interaction, modelling, discussion, enactment, and reflection. Storytelling becomes more powerful when the child is positioned as an active participant in meaning-making. This supports constructivist and socio-cultural interpretations of early learning, where development occurs through guided participation and social dialogue. Interactive storytelling works because it transforms the story from a delivered text into a shared emotional experience.

The policy implications are directly relevant to foundational education in India. NEP 2020 and NCF-FS 2022 emphasise holistic, experiential, play-based, and story-rich learning. The findings provide empirical support for these policy priorities. Schools should include structured storytelling in early primary timetables, not merely as a recreational activity but as an intentional socio-emotional learning practice. Curriculum planners should prepare story-based lesson frameworks that include emotional-development objectives, teacher prompts, role-play activities, peer interaction tasks, and reflective questions. Storytelling should be integrated into value education, language periods, circle time, and classroom behaviour development.

Teacher education programmes should also include training in interactive storytelling. Many teachers may already tell stories, but not all may know how to use stories to develop emotional competencies. Training should focus on how to ask emotion-focused questions, how to guide role-play, how to encourage shy children to participate, how to connect story events with classroom behaviour, and how to use audio–visual stories without making students passive viewers. Teachers should be trained to ask questions such as: “How did the character feel?”, “Why did the character become upset?”, “What could the character have done differently?”, and “What should classmates do when someone feels sad?”

The practical implications are clear for classroom use. Interactive storytelling can be implemented with minimal resources. A teacher can use voice, facial expression, gestures, picture cards, puppets, props, and simple role-play. The method does not require advanced technology. Audio–visual materials can be useful, but they should be followed by discussion and enactment. Story selection should prioritise narratives that include emotional conflict, friendship, cooperation, fairness, kindness, patience, and problem-solving. Panchatantra stories and other value-based stories are suitable because they present moral and emotional situations in concrete and memorable forms.

The study also has limitations. It was conducted with Class 2 students in one CBSE-affiliated school in Bhopal District. Therefore, the findings should be generalised cautiously to other grades, school boards, regions, and socio-cultural settings. The intervention was short-term, so the study does not establish whether emotional-development gains were sustained over time. Emotional development was measured through classroom-based assessment indicators, which may include teacher-observation limitations. The study also did not examine gender, socio-economic background, home storytelling practices, or prior exposure to digital media as moderating variables.

Future research should replicate the study with larger samples across government and private schools. Longitudinal studies should examine whether emotional gains remain after several months. Future researchers may also compare traditional folk stories, Panchatantra stories, contemporary picture books, moral stories, and child-created stories. Mixed-methods studies could include classroom observations, teacher interviews, student drawings, role-play recordings, and parent reports. Another useful direction would be to examine interactive audio–visual storytelling, where multimedia presentation is combined with active child participation. Such research would help refine storytelling pedagogy for diverse early primary classrooms.

6. Conclusion

The study concluded that storytelling method significantly affects emotional development among Class 2 students. Interactive storytelling produced the highest emotional-development gain, followed by audio–visual storytelling and oral storytelling. The result shows that storytelling is most effective for emotional development when children are active participants rather than passive listeners or viewers. The ANOVA result confirmed a statistically significant difference among the three storytelling methods, and the post hoc comparison showed that interactive storytelling produced significantly greater emotional gain than oral storytelling and also outperformed audio–visual storytelling at the borderline significance level.

The findings indicate that emotional development in early primary classrooms can be strengthened through structured narrative participation. Interactive storytelling supports emotional awareness, empathy, cooperation, emotional expression, and prosocial behaviour because it allows children to discuss feelings, enact roles, interpret motives, and reflect on consequences. Audio–visual storytelling provides moderate benefit by making emotional situations visible and engaging, while oral storytelling provides basic emotional exposure through narration and imagination. However, the strongest outcomes occur when storytelling includes dialogue, role-play, questioning, and guided reflection.

The study supports the integration of interactive storytelling into foundational-stage pedagogy. It aligns with the policy emphasis of NEP 2020 and NCF-FS 2022 on holistic, experiential, and story-based learning. Teachers should be encouraged to use stories not only for language enrichment or entertainment but also for planned emotional development. Story-based pedagogy can become a practical, culturally relevant, and evidence-supported method for developing emotional competence among young learners.

7. References

1. ASER Centre. (2025). Annual Status of Education Report (Rural) 2024: National findings. <http://asercentre.org/wp-content/uploads/2022/12/ASER-2024-National-findings.pdf>
2. Bruner, J. (1991). The narrative construction of reality. *Critical Inquiry*, 18(1), 1–21. <https://doi.org/10.1086/448619>
3. Catala, A., Gijlers, H., & Visser, I. (2023). Guidance in storytelling tables supports emotional development in kindergartners. *Multimedia Tools and Applications*, 82, 12907–12937. <https://doi.org/10.1007/s11042-022-14049-7>
4. Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do educators assess it? *Early Education and Development*, 17(1), 57–89. https://doi.org/10.1207/s15566935eed1701_4
5. Isbell, R., Sobol, J., Lindauer, L., & Lowrance, A. (2004). The effects of storytelling and story reading on the oral language complexity and story comprehension of young children. *Early Childhood Education Journal*, 32(3), 157–163. <https://doi.org/10.1023/B:ECEJ.0000048967.94189.a3>
6. Işıkoğlu, N., & Güzen, M. (2024). The promise of digital storytelling for kindergartners: Language and technology skills. *Early Child Development and Care*, 194(2), 195–207. <https://doi.org/10.1080/03004430.2023.2299389>
7. Malik, F., & Marwaha, R. (2025). Developmental stages of social emotional development in children. In StatPearls. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK534819/>
8. Ministry of Education, Government of India. (2020). National Education Policy 2020. http://static.pib.gov.in/WriteReadData/userfiles/NEP_Final_English_0.pdf
9. Mol, S. E., Bus, A. G., de Jong, M. T., & Smeets, D. J. H. (2008). Added value of dialogic parent-child book readings: A meta-analysis. *Early Education and Development*, 19(1), 7–26. <https://doi.org/10.1080/10409280701838603>
10. Mol, S. E., Bus, A. G., & de Jong, M. T. (2009). Interactive book reading in early education: A tool to stimulate print knowledge as well as oral language. *Review of Educational Research*, 79(2), 979–1007. <https://doi.org/10.3102/0034654309332561>
11. Murano, D., Sawyer, J. E., & Lipnevich, A. A. (2020). A meta-analytic review of preschool social and emotional learning interventions. *Review of Educational Research*, 90(2), 227–263. <https://doi.org/10.3102/0034654320914743>
12. National Council of Educational Research and Training. (2022). National Curriculum Framework for Foundational Stage 2022. http://cbseacademic.nic.in/web_material/Manuals/NCF-FS_2022.pdf
13. Pulimeno, M., Piscitelli, P., & Colazzo, S. (2020). Children's literature to promote students' global development and wellbeing. *Health Promotion Perspectives*, 10(1), 13–23. <https://doi.org/10.15171/hpp.2020.05>
14. Rahiem, M. D. H. (2021). Storytelling in early childhood education: Time to go digital. *International Journal of Child Care and Education Policy*, 15, Article 4. <https://doi.org/10.1186/s40723-021-00081-x>
15. Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st century classroom. *Theory Into Practice*, 47(3), 220–228. <https://doi.org/10.1080/00405840802153916>
16. Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: A comprehensive study. *Smart Learning Environments*, 1, Article 6. <https://doi.org/10.1186/s40561-014-0006-3>

17. Sofri, I., Czik, A., & Ziv, Y. (2023). Are you ready for a story? Kindergarten children's emotional competencies during a story-reading situation is associated with their readiness for school. *Education Sciences*, 13(12), Article 1169. <https://doi.org/10.3390/educsci13121169>