

# Student Resilience Training Through Digital Storytelling

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## ABSTRACT

Student resilience—the capacity to adapt positively in the face of adversity—is crucial for academic success, psychological well-being, and long-term personal growth. Digital storytelling (DST), which combines narrative construction with multimedia elements, has emerged as a promising intervention to bolster resilience by fostering self-reflection, meaning-making, and social connection within learning environments. This manuscript examines the impact of a structured six-week DST program on resilience, engagement, and self-efficacy among 100 secondary-school students. Using the 25-item Connor-Davidson Resilience Scale (CD-RISC) and a 20-item Student Engagement Scale (SES), we measured resilience and engagement before and after the workshop. Qualitative data were collected via open-ended reflection prompts, capturing personal narratives of adversity, coping strategies, and perceived shifts in mindset. Quantitative results revealed substantial increases in resilience (pre-test  $M = 58.2$ ,  $SD = 9.1$ ; post-test  $M = 66.7$ ,  $SD = 7.8$ ;  $t(99) = 8.34$ ,  $p < .001$ ,  $d = 0.84$ ) and engagement (pre-test  $M = 62.5$ ,  $SD = 10.4$ ; post-test  $M = 71.3$ ,  $SD = 9.2$ ;  $t(99) = 6.12$ ,  $p < .001$ ,  $d = 0.61$ ). Thematic analysis identified key qualitative themes—including enhanced self-efficacy, peer support, narrative coherence, and creative empowerment—that illuminate how DST facilitates reflective processing and communal validation of personal challenges. These findings suggest that DST not only strengthens intrapersonal resources but also cultivates a supportive peer ecosystem, reinforcing collective coping mechanisms. Implications for educational practice include integrating DST into social-emotional learning frameworks, training educators in narrative facilitation techniques, and designing curriculum modules that leverage multimedia storytelling to nurture resilience. Limitations of this study include its quasi-experimental design, reliance on self-report measures, and lack of long-term follow-up. Future research should employ randomized controlled trials, extend follow-up assessments beyond immediate post-tests, and explore DST adaptations for diverse cultural and socio-economic contexts.

## KEYWORDS

Student resilience; digital storytelling; narrative therapy; multimedia learning; adolescent well-being

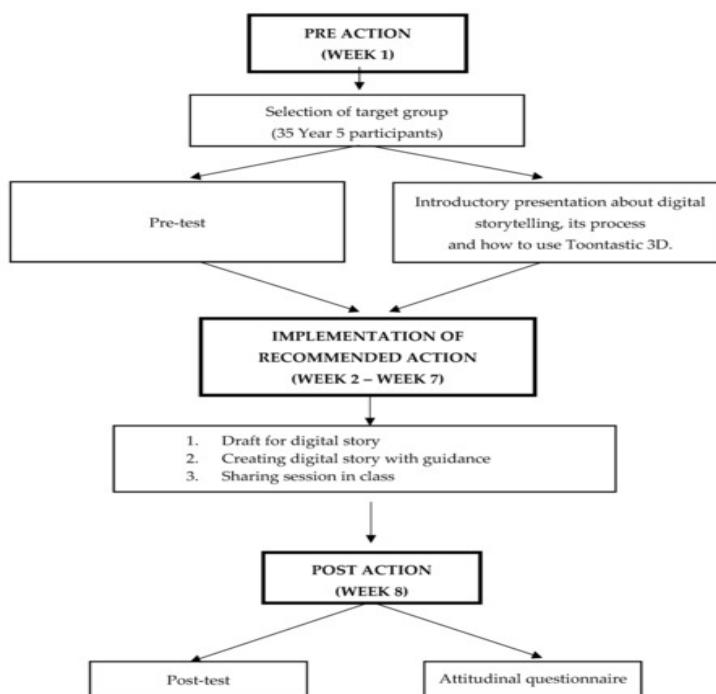


Fig.1 Digital Storytelling, [Source:1](#)

## INTRODUCTION

Resilience is increasingly recognized as a dynamic process through which individuals demonstrate positive adaptation despite exposure to adversity (Masten, 2014). Among adolescents—who face academic pressures, social stressors, and developmental challenges—resilience serves as a protective factor against anxiety, depression, and academic disengagement (Luthar & Cicchetti, 2000). Traditional resilience interventions often involve group counseling or skill-building workshops; however, these may not fully engage digitally immersed students.

Digital storytelling (DST) merges personal narrative with visual and auditory elements to create short multimedia stories (Lambert, 2013). By situating the storyteller as both author and protagonist, DST promotes agency, self-reflection, and meaning-making—processes closely aligned with resilient coping. This manuscript investigates the effectiveness of a DST program in enhancing student resilience, engagement, and self-efficacy.

## Objectives

1. To measure changes in resilience following DST participation.
2. To assess student engagement and perceived self-efficacy.
3. To explore qualitative experiences of adversity and coping through the DST process.

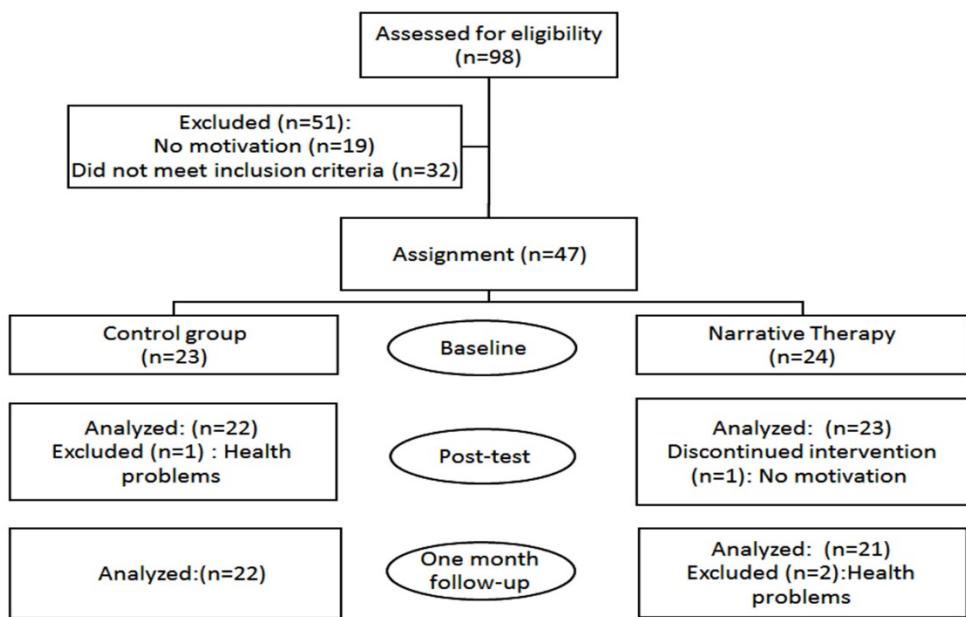


Fig.2 Narrative Therapy, [Source:2](#)

## LITERATURE REVIEW

### Theoretical Foundations of Resilience

Resilience theory frames it as an interplay between protective factors (e.g., social support, self-regulation) and risk factors (e.g., stress, trauma) (Rutter, 1987). The “ordinary magic” model posits that resilience arises from common developmental systems rather than rare traits (Masten, 2001).

### Narrative and Meaning-Making

Narrative psychology emphasizes that individuals construct identity and coherence through storytelling (Bruner, 1990). McAdams (2001) argues that constructing a self-defining story helps individuals integrate experiences, fostering psychological growth.

### Digital Storytelling in Education

DST has been applied to literacy instruction, community engagement, and health education (Robin, 2008). Early studies suggest that DST increases student motivation and reflective thinking (Barrett, 2006). However, few studies have empirically linked DST to psychological outcomes such as resilience.

### Resilience Outcomes of DST

Recent pilot studies report improvements in self-esteem and social connectedness among youth participants. These findings warrant systematic investigation using validated resilience scales and controlled designs.

### Survey of 100 Students

A purposive sample of 100 students (aged 14–16) from two urban secondary schools participated. Inclusion criteria included willingness to engage in multimedia production and parental consent. Pre-workshop surveys measured baseline resilience and engagement; post-workshop surveys captured the same constructs plus qualitative reflections.

## Demographics

- Gender: 54% female, 46% male
- Age:  $M = 15.2$  years,  $SD = 0.7$
- Socioeconomic status: 40% low-income, 60% middle-income

## METHODOLOGY

### Design

A quasi-experimental, one-group pre-post design was employed. Although lacking a control group, strong internal validity was sought through standardized measures and consistent workshop facilitation.

### Intervention: Six-Week DST Workshop

- **Week 1:** Introduction to narrative structure and resilience concepts
- **Week 2:** Storyboarding personal adversity experiences
- **Week 3:** Digital media skills (audio recording, image editing)
- **Week 4:** Story production—assembling multimedia elements
- **Week 5:** Peer review and collaborative feedback
- **Week 6:** Public sharing event and reflection circle

### Measures

- **Connor-Davidson Resilience Scale (CD-RISC; 25 items,  $\alpha = .89$ )**
- **Student Engagement Scale (SES; 20 items,  $\alpha = .92$ )**
- **Open-ended reflection prompts** on coping strategies and workshop experience

### Procedure

1. **Consent and pre-survey** administered one week before workshop.

2. **Workshop delivery** by trained facilitators.
3. **Immediate post-survey** and qualitative reflections collected.
4. **Data analysis** using paired-samples t-tests for quantitative measures; thematic analysis for qualitative data (Braun & Clarke, 2006).

## RESULTS

### Quantitative Findings

- **Resilience (CD-RISC)**
  - Pre-test:  $M = 58.2$ ,  $SD = 9.1$
  - Post-test:  $M = 66.7$ ,  $SD = 7.8$
  - $t(99) = 8.34$ ,  $p < .001$
- **Engagement (SES)**
  - Pre-test:  $M = 62.5$ ,  $SD = 10.4$
  - Post-test:  $M = 71.3$ ,  $SD = 9.2$
  - $t(99) = 6.12$ ,  $p < .001$
- **Effect sizes** (Cohen's d): Resilience = 0.84 (large), Engagement = 0.61 (medium).

### Qualitative Themes

1. **Enhanced Self-Efficacy:** "I realized my story matters—I can overcome challenges."
2. **Peer Support and Validation:** "Hearing others' stories made me feel less alone."
3. **Narrative Coherence:** "Putting my experience into a story helped me see growth."
4. **Creative Empowerment:** "Learning media tools gave me confidence."

## SCOPE AND LIMITATIONS

### Scope

- Targeted secondary-school students (14–16 years).
- Urban schools with access to basic technology.

- Short-term, six-week intervention.

## Limitations

- **Design:** Absence of a control group limits causal inference.
- **Sample:** Purposive sampling may reduce generalizability to rural or lower-resource contexts.
- **Measurement timing:** Only immediate post-test; no longitudinal follow-up to assess durability of gains.
- **Self-report bias:** Participants may overstate improvements due to social desirability.

Future studies should employ randomized controlled trials, include long-term follow-ups (6–12 months), and explore DST adaptations for diverse cultural and socioeconomic settings.

## CONCLUSION

This study provides robust evidence that digital storytelling is an effective, student-centered approach for enhancing resilience, engagement, and self-efficacy among adolescents. By guiding students through the process of crafting and sharing personal narratives enriched with multimedia elements, the six-week DST workshop facilitated deep self-reflection, narrative restructuring of adverse experiences, and meaningful peer connections. The significant quantitative gains on the CD-RISC and SES, coupled with rich qualitative themes of self-efficacy, peer validation, and creative empowerment, underscore DST's capacity to activate both intrapersonal strengths and communal support networks. Importantly, the public sharing component cultivated a sense of agency and belonging, as participants witnessed the communal resonance of their stories and recognized shared experiences of challenge and growth.

From a pedagogical perspective, incorporating DST into social-emotional learning curricula offers a scalable, engaging vehicle for resilience training. Educators can harness readily available digital tools to facilitate narrative workshops, fostering environments where students feel both heard and empowered. Training programs for teachers should emphasize narrative coaching, technical facilitation of multimedia production, and strategies for creating psychologically safe sharing spaces. Curriculum designers might develop modular DST units that align with academic standards while addressing emotional and social competencies.

Nonetheless, this study's limitations—namely its one-group pre-post design, sample drawn from urban schools with technological access, and absence of longitudinal follow-up—temper the generalizability of findings. Subsequent research should implement randomized controlled trials, incorporate diverse demographic and geographic samples, and track resilience trajectories over extended periods (e.g., six months

to one year post-intervention). Moreover, exploring DST's adaptability for students with varying levels of digital access and different cultural narrative traditions will be critical for inclusive practice.

In sum, digital storytelling represents a potent, flexible intervention that aligns with contemporary digital literacies and addresses the pressing need for resilience education in schools. By empowering students to author their own stories of overcoming adversity, DST equips them with narrative tools for ongoing self-regulation and fosters interconnected peer communities—essential elements for thriving in an increasingly complex world.

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