2026 ASEE ANNUAL CONFERENCE June 21–24, 2026 | Charlotte Convention Center, NC
Host Sponsor UNC Charlotte
ASEE AMERICAN SOCIETY FOR ENGINEERING EDUCATION
Paper ID #50642

Diverse Learning Tools for Neurodiverse Learners: The Effectiveness of Comics and Videos and Engagement Patterns in STEM Education

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Abstract — As STEM fields increasingly recognize the importance of diversity for innovation and problem-solving, a growing interest develops in the creation of pedagogical approaches that appeal to the distinctive cognitive strengths of neurodiverse learners. Academic institutions have an important responsibility to ensure that all students have equal access to resources and to make classroom content accessible and engaging for students with a variety of learning preferences. One way to achieve this equitability is by integrating different learning tools, such as comics with instructional content, into the classroom. Neurodiverse students may especially benefit from these visual-based learning tools. These tools help reduce cognitive load and improve comprehension.

This investigation utilized a mixed-method approach with 19 neurodiverse college students to compare the effectiveness of three content formats (video, comic, and article) in teaching STEM concepts. Student responses revealed significant differences in effectiveness ratings between content types ($p < 0.05$), with video content receiving the highest average effectiveness rating (8.05 on a scale from 1-10), followed by comics (7.42 on a scale from 1-10), and articles receiving a significantly lower average rating (6.39 on a scale from 1-10). While participants reported relatively balanced preferences when identifying which single format helped them understand the most (Article n=5, Comic n=6, Video n=7), an important pattern emerged for motivational factors: 68.4 percent of participants identified comics as the most engaging format and 57.8 percent selected comics as the most enjoyable tool to use.

These findings demonstrate that while multiple formats can facilitate learning, comics and videos provide particular benefits for neurodiverse students. As the visual and sequential aspects of the learning tool's format appeal to the neurodiverse population, engagement and enjoyability both increase. The results also demonstrated that students were more engaged with multimodal learning tools, an important predictor of student success. Implementing format diversity in STEM education is not as accommodation for struggling students, but as fundamental practice for equitable, high-quality education.

Index Terms — Pedagogy, engineering education, comics, neurodiversity, autism, ADHD, STEM, visual-learning.

I. Introduction

Scientific and technological advancements have driven societal changes over the past century. As the challenges facing our world become more complex, science, technology, engineering, and mathematics (STEM) related fields increasingly recognize that fostering diversity is essential for continued growth in these fields. Neurodiversity provides an underutilized reservoir of unique

cognitive strengths and alternative thinking patterns that can enhance STEM fields' capacity for developing new solutions.

A. Diversity Producing Stronger Solutions

Various studies have identified the benefits of increasing diversity in work settings. The Boston Consulting Group conducted a study which analyzed 1,700 companies all over the world, revealing that organizations with above-average diversity in their leadership teams generated significantly more revenue from innovation. Specifically, these companies reported that nearly half (45 percent) of their revenue came from new products, services, and features launched within the last three years [1]. Similarly, various studies have found that diverse research teams are better equipped to solve complex scientific challenges and produce higher-quality work, in part by counteracting groupthink and introducing fresh perspectives into the problem-solving processes [2]-[4].

Recently, this commitment to diversity has expanded beyond visible demographic characteristics, creating conversations about neurodiversity. As companies seek to optimize their potential, supporting neurodiverse individuals, including those with autism, ADHD, dyslexia, and other neurological differences, is fast becoming a vital dimension of professional diversity and inclusion initiatives.

A study on neurodiversity and creativity found that pairs of participants with different neurotypes were less likely to copy each other's work than pairs with the same neurotype [5]. This finding indicates that neurodiverse teams can foster greater innovation, as a greater number and diversity of generated solutions is often associated with a higher likelihood of high-quality ideas in brainstorming and creative problem-solving research [6]. A similar study with autistic–non-autistic programming dyads found that mixed-neurotype partners adopted distinct but effective collaborative patterns, suggesting that neurodiverse teams approach complex tasks differently rather than less competently [7]. These results align with broader research on cognitive diversity in teams, which shows that groups comprising varied thinking styles engage in richer information exchange and generate more creative solutions when adequately supported. Furthermore, emerging work on ADHD and creative cognition links some neurodivergent profiles to enhanced divergent thinking and conceptual expansion, reinforcing the idea that including neurodiverse professionals can systematically expand the ideational search space in innovation-focused settings [8]-[9].

B. Academic Institution’s Responsibility

It is the responsibility of academic institutions to provide resources for students with inclusive pedagogy. This need is particularly vital in STEM education, whose rigorous curriculum with abstract concepts can pose barriers to student success. Research in undergraduate STEM shows that traditional, highly abstract curricula can create barriers to persistence, particularly for

students from marginalized backgrounds, and that inclusive instructional practices are needed to address these inequities [10]. Educational institutions must provide accessible learning materials that accommodate various cognitive processing capacities and learning styles to foster diversity and inclusion in STEM fields.

C. Comics as Educational Tools Proposition for Neurodiverse Individuals

Research conducted in the Science the World research group has proven that comics are a valid pedagogical tool for enhancing STEM education outcomes. One study specifically involved the teaching of fugacity, a challenging and complex thermodynamic concept, through comic-based learning materials. Supplementing traditional lectures with visual narrative tools led to significant improvements in both conceptual comprehension and student confidence. The improvements in student confidence are particularly noteworthy; they suggest comics address not only cognitive barriers but also support the emotional aspects of academic achievement. [11].

Neurodiverse individuals may be particularly well suited for visual pedagogy tools. Numerous studies have found that many neurodiverse learners, including those with autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD), often benefit from structured, visual supports that reduce ambiguity and enhance comprehension [12]-[14]. These learning formats help reduce cognitive load for neurodiverse individuals [15]. By doing so, visual formats are particularly appealing to help provide equitable access to content for individuals who may struggle in traditional classroom settings.

A study done in a school for individuals with autism evaluated the use of comics as a supplemental tool to help students with autism develop stronger social skills. The findings showed that a majority of students and families found comic books effective for enhancing vocabulary acquisition, reading comprehension, symbolic understanding, and multimedia literacy [16]. Karatosun et al. argue that comics, which integrates sequential images with brief text, can convey complex and emotionally rich narratives in a visually accessible format that does not require long or dense reading. This accessibility makes them particularly suitable for detail-oriented autistic students who rely on visual structure and consistency to remain engaged [17].

This idea that visual aids are important supplemental tools aligns with research looking at videos as an aid. Research which investigated video modeling found that videos can serve to be an effective tool for teaching and supporting a variety of skills in autistic children. This carries into adulthood as similar findings have shown that video modeling can effectively teach autistic adults' social skills [18]. More broadly, these visual tools can be understood through the lens of multimedia learning theory. Mayer's cognitive theory of multimedia learning posits that learners process information more effectively when it is presented through both visual and verbal channels simultaneously, as this dual-channel processing reduces cognitive overload and supports deeper encoding [19]. Both comics and videos leverage this principle by combining visual and textual or auditory information, yet they do so in different ways. Video delivers

content dynamically, integrating narration, movement, and visual demonstration in real time. However, this dynamic presentation introduces what researchers have termed the transient information effect because video content progresses at a fixed pace, learners who need additional processing time may miss critical information or experience increased cognitive load [20]. Comics, by contrast, present multimodal content in a static, self-paced format. Learners control the speed of their engagement entirely, can linger on complex panels, revisit earlier content without navigating a timeline, and process visual and textual information simultaneously without the pressure of forward-moving narration. This self-paced quality may be particularly advantageous for neurodiverse learners, who often benefit from additional processing time and the ability to regulate their own information intake [15]. As such, comics and video may serve complementary roles rather than competing roles in inclusive STEM pedagogy, each offering distinct cognitive advantages depending on the learner's needs. While these visual learning tools have been proven effective for neurodiverse individuals, the availability of these tools for academic-based content is low, especially as individuals age.

These studies collectively raise important questions regarding the learning processes of neurodiverse students in STEM disciplines and the potential applications of visual narrative tools in higher education. While these tools are used effectively with younger audiences, there has been a failure to investigate potential impact with older student populations, especially in investigating academic content as compared to social skills. This research examines how college-aged neurodiverse students enrolled in STEM programs engage with comics-based pedagogical approaches and whether these tools enhance their academic outcomes.

II. Methodology

A. Research Design

This study employed a mixed-methods approach to investigate how neurodivergent college students interact with and learn from different educational tools when studying STEM concepts. The research specifically focused on the concept of scientific uncertainty as the learning topic. This topic is prevalent throughout many different STEM fields and can be understood at various levels.

B. Participants

Participants were recruited from undergraduate programs through campus flyers at Northeastern University and email invitations to various other institutions as well as social media outreach. The inclusion criteria specified that participants must be at least 18 years old and self-identify as neurodivergent. All participants received a gift card as compensation for their time spent participating in the study.

A total of 19 neurodivergent students participated in the study. Demographic information collected included year in college and major. All participants were studying STEM related fields, and the average year of study was 2.21. Additionally, participant race/ethnicity was self-reported

via a survey which showed that 84.2 percent of participants selected Black or African Decent, 10.5 percent selected Black or African Decent and at least one other ethnicity, and 5.3 percent selected white.

C. Ethical Considerations

All research procedures were reviewed and approved by Northeastern Department of Human Research. The IRB # 25-01-57 was deemed exempt, category #2ii; Revised Common Rule 45CFR46.104(d)(2)(ii). Participants provided informed consent before any data collection occurred. To ensure privacy and confidentiality, all identifying information was separated from research data, and participants were assigned random three-digit codes. All data was stored securely on Northeastern's OneDrive with access restricted to the research team.

D. Materials

Three distinct learning tools were developed to teach the concept of scientific uncertainty:

1. A visual comic-based explanation of uncertainty in scientific measurement.
2. A 3-minute YouTube video presentation on uncertainty in scientific measurement.
3. A text-based Wikipedia article snippet (around 460 words) on the concept of uncertainty in scientific measurement.

All of these materials were presented to participants in a randomized order to control sequence effects. The participants were given unlimited time to view each item before receiving the next tool.

E. Accessibility

To ensure content equivalence across the three learning tools, all materials were designed to address the same core concept of uncertainty in scientific measurement at a comparable level of depth. Each tool covered the same key principles, definitions, and examples, differing only in the modality of presentation. The concept of uncertainty was chosen given its relevance across many STEM fields to prevent bias. All three materials (comic, video, and article) were reviewed by research staff for conceptual scope and content equivalence before participant exposure.

Several accessibility considerations informed the design of each learning tool. The comic was rendered in black and white, eliminating potential barriers related to color vision deficiencies and ensuring high visual contrast between text and illustrations. The comic was distributed in a digital format, allowing participants to zoom in on panels and text as needed to accommodate individual visual preferences. The video was paced deliberately to allow participants adequate time to process both narration and on-screen content, and featured large, clearly legible text and visuals. As a YouTube-hosted video, participants retained the ability to pause, rewind, and replay sections at their discretion. The article was presented as a PDF document formatted in 12-point Times New Roman with black text, a widely used and highly legible typeface, and participants

could similarly zoom in as needed. Across all three formats, participants were given unlimited time to engage with each tool, enabling self-paced learning and reducing time-related pressure that may disproportionately affect neurodiverse learners. These design choices reflect an intentional effort to minimize extraneous barriers to comprehension and to ensure that differences in participant responses reflected genuine format preferences rather than accessibility limitations.

F. Procedure

The research procedure consisted of several sequential components:

1) Initial Assessment

Participants completed a pre-exposure survey that assessed demographic information prior to study enrollment. This was done to ensure that all participants were enrolled in college and self-identified as neurodiverse.

2) Learning Style Assessment

Enrolled participants completed the Felder-Soloman Index of Learning Styles questionnaire to provide a standardized assessment of their learning preferences [22]-[23]. Participants then reported their own results to research staff through a survey.

3) Exposure to Learning Materials

To begin each session, a few standard questions were asked regarding each individual's study habits and experience with learning in general. Participants were also asked to evaluate and identify their understanding of the concept of uncertainty in scientific measurement. Next, each participant was presented with three different learning tools in their assigned randomized order. After engaging with each tool, participants answered questions about:

- The effectiveness of the tool (rated on a 1-10 scale)
- How engaging they found the material
- Their updated understanding of uncertainty self-evaluation
- Ways which they thought the tools could be improved.

III. Results and Discussion

A. Learning Style Distribution and Preferences

When participants self-identified their primary learning preferences, the distribution revealed a predominantly visual learning population. A majority of participants, 68.4 percent, self-identified as Visual learners, consistent with educational research suggesting most neurodiverse individuals favor visual processing [21]. The remaining 31.6 percent of individuals identified as verbal learners. More specifically, half of this group preferred written learning tools (reading or writing)

and the other half preferred auditory learning. This distribution highlights the diversity of learning preferences even within a relatively small sample.

Beyond self-identification, the Felder-Soloman Index of Learning Styles was used to quantitatively assess learning preferences across multiple dimensions. The Visual-Verbal dimension measures whether learners prefer visual representations such as diagrams, pictures, demonstrations, or verbal explanations such as written and spoken words. Results score from -11 (strongly verbal) to +11 (strongly visual). The participant population demonstrated a clear visual orientation among participants ($M = 4.47 \pm 5.82$), with 73.7 percent of participants (n=14) showing positive scores indicating visual preference, while 26.3 percent (n=5) showed verbal preference.

Another strong trend was observed in the Felder-Soloman results. The Sequential-Global dimension assesses how learners process information; sequential learners process information linearly, step-by-step, while global learners grasp the big picture first and then connect the details. On a scale from -11 (strongly global) to +11 (strongly sequential), participants showed moderate sequential orientation ($M = 2.47 \pm 4.97$), with 57.9 percent (n=11) demonstrating sequential preference. This is particularly helpful as comics themselves represent a sequential instructional tool, with information communicated in a series of sequential panels.

B. Overall Content Format Effectiveness

A repeated measures ANOVA revealed significant differences in effectiveness ratings between content types ($F(2, 36) = 3.59$, $p < 0.05$, $\eta^2 = 0.166$). Video content received the highest effectiveness ratings ($M = 8.05$, $SD = 1.29$, 95% CI [7.43, 8.67]), followed by Comic content ($M = 7.42$, $SD = 1.49$, 95% CI [6.70, 8.14]), with Article content receiving significantly lower ratings ($M = 6.39$, $SD = 2.06$, 95% CI [5.40, 7.38]). Post-hoc comparisons demonstrated that Video was significantly more effective than Article content ($p < 0.05$, $d = 0.99$), while Comic content showed marginally significant superiority over Articles ($d = 0.60$). Notably, Video and Comic formats performed similarly well, with no significant difference between these visual-enhanced approaches ($d = 0.44$). C. Prior Understanding Level and Content Format Effectiveness

To examine whether baseline knowledge influences content format effectiveness, participants were categorized into three groups based on their prior understanding of the target concept: High Understanding (n=6), Medium Understanding (n=8), and Low Understanding (n=5). Despite theoretical expectations that prior knowledge would significantly influence content format preferences, statistical analysis revealed no significant differences between understanding level groups across the three content formats. On a scale from 1 to 10, where 10 is the most effective and 1 is the least effective, the High Understanding Group (n=6) ratings were as follows: Comic ($M = 7.67$, $SD = 1.21$, 95% CI [6.41, 8.93]), Article ($M = 6.17$, $SD = 1.60$, 95% CI [4.50, 7.84]), Video ($M = 8.50$, $SD = 0.55$, 95% CI [7.93, 9.07]). The Medium Understanding Group (n=8) ratings were as follows: Comic ($M = 7.88$, $SD = 1.55$, 95% CI [6.68, 9.07]), Article ($M = 5.50$,

SD = 1.77, 95% CI [4.15, 6.85]), Video (M = 7.88, SD = 1.13, 95% CI [7.03, 8.72]). The Low Understanding Group (n=5) ratings were as follows: Comic (M = 6.40, SD = 2.41, 95% CI [3.41, 9.39]), Article (M = 7.20, SD = 1.64, 95% CI [5.16, 9.24]), Video (M = 8.80, SD = 0.84, 95% CI [7.76, 9.84]). These results suggest no correlation between prior understanding level and format effectiveness. The absence of significant differences from previous understanding groups is a significant result. Rather than a failure to prove a significant relationship, these findings show that successful learning formats can transcend knowledge-level barriers. The lack of statistical differences between understanding groups supports an important takeaway: effective content formats work well regardless of students' prior knowledge level. This pattern suggests that well-designed visual and multimodal content can serve learners effectively regardless of their baseline knowledge.

These findings have important practical implications for educators. Teachers can utilize visual and multimodal instruction without concern that the processes will systematically advantage or disadvantage students based on what they already know. While individualized instruction often requires elaborate assessment and planning, these findings suggest that a few high-quality formats (video and comics in particular) are potential solutions to help students across the knowledge continuum. Educators can therefore select these formats with confidence that they will serve diverse learners without underserving individuals with a particular knowledge background. This strategy both reduces the logistical burden on teachers and guarantees educational efficacy, an important consideration for scalable educational improvement.

D. Student Study Tool Preferences

Participant responses to questions about format effectiveness revealed patterns that parallel the quantitative findings and align with broader study preferences. When directly asked which format they learned the most from, participants demonstrated relatively equal tendencies: Article (n=5), Comic (n=6), and Video (n=7), suggesting that learning pathways vary extensively among individuals. No learning tool demonstrated superior effectiveness for comprehension.

These diverse preferences aligned with responses to open-ended questions about study tools used outside the experiment. Lecture notes (n=13) and YouTube videos (n=11) emerged as the most popular study resources, followed by lecture recordings (n=8) and textbooks (n=8). Additional tools included diagrams (n=5), flashcards (n=3), writing (n=1), and tutor materials (n=1). When asked about the most helpful in-class learning techniques, Visual/Diagrams (n=8) was identified most frequently, followed by Real Life Examples (n=4) and Taking Notes (n=4). These patterns suggest that while students utilize both traditional text-based materials (lecture notes, textbooks) and multimedia resources (videos, recordings) outside of class, visual and interactive approaches are particularly valued for in-class comprehension, supporting the premise that multimodal learning tools enhance educational effectiveness

E. Engagement and Enjoyment

Though participants described diverse pathways to understanding in all three formats, they consistently agreed on visual storytelling (comics) for engagement and enjoyment. This pattern demonstrates that even when students can achieve understanding in multiple formats, their intrinsic motivation and sustained interest are consistently reciprocated by visually engaging, narrative-driven content.

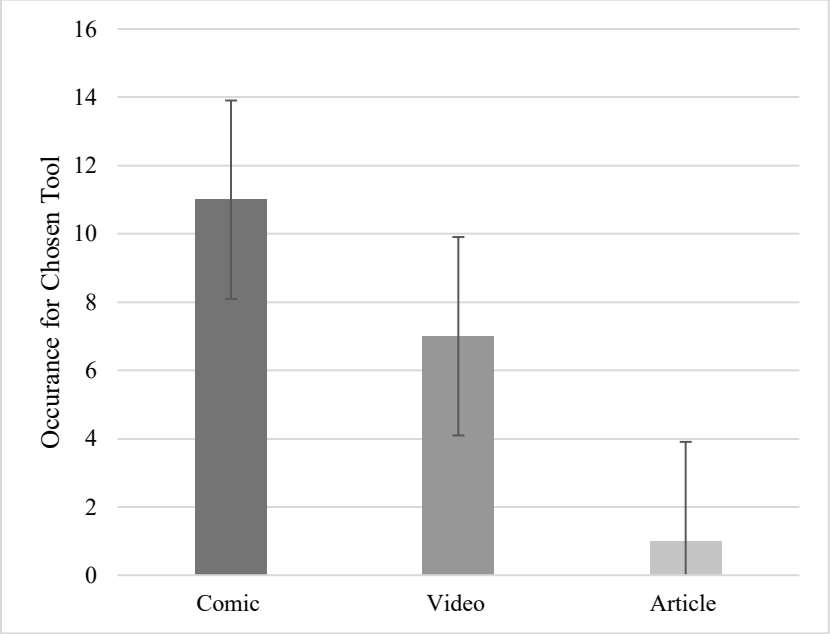

Fig. 1. A bar chart comparing how often various learning tools were selected when participants were asked which learning tool they enjoyed the most.

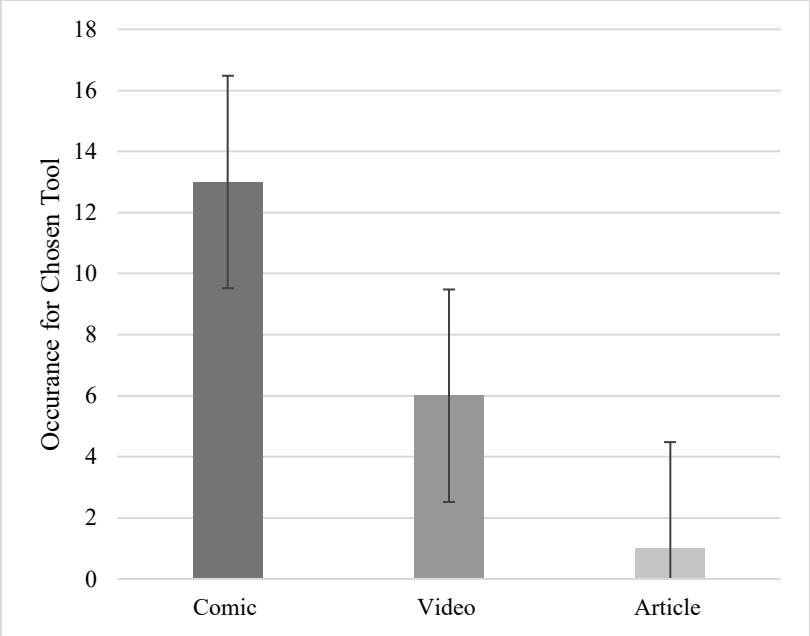

Fig. 2. A bar chart comparing how often various learning tools were selected when participants were asked which learning tool was most engaging.

This is particularly significant given evidence that students who find their learning enjoyable and engaging tend to show higher motivation and, in turn, stronger academic performance [24]-[26]. Beyond immediate learning outcomes, engagement and enjoyment have cascading effects on student retention and persistence. Students who are actively engaged in their coursework are more likely to remain enrolled in their programs and complete their degrees in a timely manner [27]. For neurodiverse students specifically, who often face additional barriers to academic success and experience higher attrition rates than their neurotypical peers [28]-[29], finding content formats that sustain both engagement and comprehension becomes critical. When students genuinely enjoy their learning materials, they are more likely to invest time in studying, seek out additional resources, and persist through challenging concepts, all factors that contribute to successful degree completion and reduced time to graduation [30]-[31].

F. Study Tool Changes and Concerns from Participants

As a conclusion to participant sessions, participants were asked if they were to change anything about any of the learning tools to make the tools more helpful, what would they do. The feedback revealed both satisfaction with existing formats and specific improvement opportunities. While 26.3 percent of participants indicated no changes were necessary, suggesting general acceptance of the tool designs, an equal proportion (26.3 percent) identified the comic's text density as problematic, recommending fewer words per panel to reduce cognitive load. Additionally, 15.8 percent of participants discussed adding color to the comic,

and 15.8 percent proposed incorporating multimodal elements (visuals or audio) into the article to enhance engagement.

G. Multimodal Formatting

It is noteworthy to mention that learning tools, such as comics, involve multiple teaching approaches since they offer both visual and textual content. The absence of significant correlations between Visual-Verbal orientation and visual content formats (comics and videos) likely reflects this multimodal nature of these materials, which can simultaneously accommodate both visual and verbal processing preferences.

The consistently high ratings of video material by all categories of learning styles (Visual: M=8.10, Reading/Writing: M=6.67, Auditory: M=8.33) position video as a significantly strong teaching aid. Similarly, comic modes presented broad accessibility while demonstrating particular strength among visual learners, suggesting that such tools may be applied by multiple learners without sacrificing quality to any particular group.

The student self-report study tool preferences align with experimental findings of strong preference for visual and multimodal tools (diagrams, videos, visual aids) compared to textual ones alone. This convergent data between controlled measurement and naturalistic preference more compellingly advocates for instructional diversity.

These findings can be further contextualized within multimedia learning theory. According to Mayer's cognitive theory of multimedia learning, instruction that combines visual and verbal information facilitates deeper processing than either channel alone [19]. The present results support this framework: both video and comics, which integrate visual and textual or auditory content, received significantly higher effectiveness ratings than the text-only article. However, the distinct performance profiles of video and comics suggest that the specific modality of multimedia presentation matters. Video scored highest on perceived effectiveness, likely due to its ability to combine narration, dynamic visuals, and demonstration in a way that reduces the effort required from the learner. Comics, meanwhile, dominated in engagement (68.4%) and enjoyment (57.8%), which may reflect the cognitive benefits of their static, self-paced format. Unlike video, where content progresses regardless of learner readiness, comics allow individuals to control the speed of information intake, revisit panels freely, and process visual and textual elements simultaneously without time pressure. For neurodiverse learners who may require additional processing time or who benefit from predictable, structured formats, this learner-controlled pacing may foster greater comfort and sustained attention. These complementary strengths suggest that video and comics are not interchangeable tools but rather serve different dimensions of the learning experience. Video for efficient knowledge delivery and comics for sustained motivational engagement. Offering both within a course provides a more complete support system for diverse learners than either format alone.

H. Practical Implications

It is important to consider the diverse classroom setting which these learning tools would be implemented in. The 78.9 percent of the group which said they had visual processing components to their learning style (pure visual or combined visual styles) aligns with educational research on the predominance of visual learning styles among neurodiverse individuals. But the 21.1 percent who had auditory or reading/writing (verbal) inclinations represents a sizable minority whose needs would be served inefficiently by an exclusively visual approach.

By offering multiple format options, instructors can prevent systematic disadvantaging of students whose education history or processing style is not compatible with teacher-centered, text-based instruction. This approach supports learning by reducing dependence on single cognitive modes of processing as a prerequisite for accessibility to material.

I. Future Directions

Building on these findings, several promising directions emerge for expanding this research. While this study demonstrates clear preference patterns among neurodiverse learners, future work with larger sample sizes could reveal additional nuances in how different neurodiverse profiles engage with various content formats. This study establishes that neurodiverse students have strong preferences for visual narrative tools; the next critical step is to investigate whether these preferences translate to measurable learning outcomes through longitudinal studies tracking academic performance metrics. Future research should complement self-report measures with objective outcome measures, such as pre- and post-exposure knowledge assessments or short transfer tasks, to evaluate whether format preferences correspond to measurable differences in comprehension. Pairing objective measures with self-report data would allow researchers to determine whether the formats that students find most engaging also produce the strongest learning gains in a more objective dimension. Additionally, examining whether comics-based pedagogy affects student retention rates and time to graduation would provide valuable insights into long-term academic success for neurodiverse STEM students. Finally, extending this research to K-12 settings could determine whether academic-focused comics are effective across different developmental stages, addressing a gap in current literature that primarily examines social skills applications in younger populations.

IV. Conclusion

This study highlights the educational responsibility to offer diverse learning tools. Large differences in content format engagement, combined with clear differences in learning style preference and strong evidence from student-preferred responses, indicate that instructional diversity is required to attain educational equity and effectiveness.

Rather than searching for the best single one-size-fits-all teaching approach, instructors must embrace format variety as a fundamental part of inclusive instruction. Video and comic presentation formats are particularly promising learning tools which help diverse learners at high levels of effectiveness. The traditional text-based learning style effects on learning performance means that typical article-oriented instruction systematically punishes visual processors, while multimodal teaching approaches can help multiple learners well.

Of particular note, comics were reported as the most enjoyable and engaging format by the neurodiverse participants; a finding that carries significant weight given the established relationship between engagement and academic success. While participants demonstrated they could achieve understanding across all three formats, their consistent preference for comics in terms of enjoyment and engagement is incredibly important for informing pedagogical approaches. When students are actively engaged with course content, they invest more time in studying, persist through difficult concepts, and are more likely to complete their degrees in a timely manner. For neurodiverse students, who face disproportionate barriers to academic success and experience higher attrition rates than their neurotypical peers, comics offer a dual benefit: they facilitate both comprehension and genuine enjoyment, addressing multiple dimensions of the retention challenge simultaneously. Comics therefore become a particularly powerful tool for building the sustained motivation neurodiverse students need for academic success.

Academic institutions need to prioritize developing and implementing diverse teaching formats, not as an accommodation for struggling students, but as part of high-quality, equitable education for all. Practices of inclusive education don't just open doors to neurodiverse students; it also helps increase cognitive diversity in STEM, which many fields need. When neurodiverse minds are meaningfully involved in STEM education, the impact goes far beyond the individual as diversity helps drive technological advancement which society as a whole benefits from.

V. Acknowledgements

We thank the 19 neurodiverse participants who shared their time and experiences, making this research possible. We thank Northeastern for institutional support and IRB approval.

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