Dizzy Doom Kids: Annotated Bibliography

Certification Requirement 2 · Dizzy Doom Media, Inc. · Revised October 2026 · dizzydoomkids.com/research

This bibliography links six design decisions in Dizzy Doom Kids to peer-reviewed empirical research. Digital Promise's primer, "What Qualifies as Rigorous Research: Research-Based Design: ESSA Tier 4" (linked from the application page; viewed October 23, 2026: https://digitalpromise.box.com/s/gms2mm0by79wg4k9ammhn49qn2wpo3wt), asks that citations be empirical, draw on learning sciences research, be peer-reviewed, include a minimum N of 50 and be relevant, and that at least one bibliography citation be published in the last five years. Each source below is an empirical study or meta-analysis published in a peer-reviewed journal. Each entry notes the study population, the main relevant findings, its limits, and where the link to Dizzy Doom Kids is direct or indirect. None of these studies tested Dizzy Doom Kids. They inform the design; they do not show that the program produces the same results.

Verification note: Entries were checked against publisher, journal, ERIC or What Works Clearinghouse records. Each entry states its verification level. Full text was reviewed for Guthrie et al. (2004), Toste et al. (2020), van Bergen et al. (2021), Guo et al. (2020) and Murphy et al. (2009), and for the companion report to Graham and Hebert (2011). Anderson et al. (1988), Wong et al. (2017), Cipriano et al. (2023) and Durlak et al. (2011) rely on the published abstract and record.

Design decision 1: Lead with a story built to engage reluctant readers, paired with comprehension work

Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., Scafiddi, N. T., & Tonks, S. (2004). Increasing reading comprehension and engagement through Concept-Oriented Reading Instruction. *Journal of Educational Psychology, 96*(3), 403–423. https://doi.org/10.1037/0022-0663.96.3.403

Source type	Empirical, peer-reviewed. Two classroom intervention studies with class-level analyses. The What Works Clearinghouse (2010 practice guide review) rated it "meets WWC standards with reservations."
Participants	Third-grade students. Study 1: 361 students (148 CORI, 213 strategy instruction) in 19 classrooms across four schools in a small city in a mid-Atlantic US state; about 73–76% White and 22% African American; 18–22% eligible for free or reduced-price meals. Study 2: 524 students (191 CORI, 257 strategy instruction, 76 traditional instruction) in 24 classrooms; about 41–44% ethnic minority students in the CORI and strategy groups and about 10% in the traditional group. (Full text reviewed.)
Relevant findings	Study 1 compared CORI (comprehension strategy instruction combined with motivation supports) with strategy instruction alone. Study 2 added a traditional-instruction group. In both, CORI students scored higher on reading comprehension, reading motivation and strategy use.
Limitations	CORI is a full framework built around science topics, hands-on activities, choice and collaboration. It did not test serialized fiction or graphic novels. Grade 3 only. Study 1 took place in one small mid-Atlantic city; the article does not name Study 2's location.
DDK design decision	Pair an engaging story with structured comprehension work, rather than relying on interest alone.
Connection	Reasonable for the principle that motivation supports plus comprehension instruction outperform comprehension instruction alone. Indirect for the specific choice of a serialized sci-fi graphic novel, which this study did not examine.

Toste, J. R., Didion, L., Peng, P., Filderman, M. J., & McClelland, A. M. (2020). A meta-analytic review of the relations between motivation and reading achievement for K–12 students. *Review of Educational Research, 90*(3), 420–456. https://doi.org/10.3102/0034654320919352

Source type	Meta-analysis, peer-reviewed. 132 peer-reviewed articles, 185 independent samples, 1,154 correlations.
Participants	More than 690,000 K–12 students across 185 samples. The United States was the most common country of origin (55 of 132 articles, 41%). The longitudinal analysis drew on 8 studies. (Full text reviewed.)
Relevant findings	A significant, moderate positive relation between reading motivation and reading achievement (r = 0.22). Grade level did not significantly moderate the relation. Longitudinal analyses suggest a two-way relation, with earlier reading predicting later motivation more strongly than the reverse.
Limitations	Correlational. It does not show that raising motivation causes higher achievement. The directional finding rests on a small number of longitudinal studies. The stronger reading-to-motivation path suggests engagement should be paired with support for reading skill.
DDK design decision	Treat reading motivation as a target in its own right, alongside comprehension.
Connection	Reasonable for the claim that motivation and achievement are linked across K–12. Indirect for any claim that an engaging story will raise achievement.

Design decision 2: Increase how much students read

Anderson, R. C., Wilson, P. T., & Fielding, L. G. (1988). Growth in reading and how children spend their time outside of school. *Reading Research Quarterly, 23*(3), 285–303. https://doi.org/10.1598/RRQ.23.3.2

Source type	Empirical, peer-reviewed. Correlational study using daily activity logs.
Participants	155 fifth-grade students in the US, logging out-of-school activities for 8 to 26 weeks. Demographics not reported in the abstract.
Relevant findings	Of all out-of-school activities, time spent reading books was the best predictor of several reading achievement measures, including reading gains from second to fifth grade. Most children read little or not at all on most days.
Limitations	Correlational and from the 1980s. It measures reading outside school, not in-class reading. It does not show that increasing reading time causes growth.
DDK design decision	Build the story so students want to keep reading, including ahead of the class, and complete a whole book within the unit.
Connection	Reasonable for treating reading volume as a target. Teacher reports of students reading ahead are not yet a measured increase in reading volume; the pilots plan to measure it.

van Bergen, E., Vasalampi, K., & Torppa, M. (2021). How are practice and performance related? Development of reading from age 5 to 15. *Reading Research Quarterly, 56*(3), 415–434. https://doi.org/10.1002/rrq.309

Source type	Empirical, peer-reviewed. Longitudinal study with repeated measures.
Participants	200 children from the Jyväskylä Longitudinal Study of Dyslexia in central Finland, followed from age 5 to 15; 107 at high family risk for dyslexia and 93 at low risk. Print exposure was measured by parent questionnaire at ages 5, 7, 8, 9 and 13, with child self-report added at 13. (Full text reviewed.)
Relevant findings	Reading skill and reading for pleasure influenced each other over time. In the early school years, skill shaped how much children read more than the reverse. The effect of accumulated reading practice emerged in adolescence. Fluency, comprehension and print exposure each predicted reading comprehension at age 15.
Limitations	Correlational. Finnish sample learning a highly regular written language, deliberately enriched for family risk of dyslexia, so it is not representative of US classrooms. Print exposure is mainly parent-reported. Suggests volume may matter most after students move from learning to read to reading to learn.
DDK design decision	Prioritize voluntary reading volume for students past the early decoding stage.
Connection	Reasonable for older elementary and middle school readers. It also cautions that weak decoders may need skill support before volume pays off. Issue date 2021; first published online in 2020, so it is not relied on for the five-year rule.

Design decision 3: Integrate words and pictures (graphic novel format, text-message dialogue, mood emoticons)

Guo, D., Zhang, S., Wright, K. L., & McTigue, E. M. (2020). Do you get the picture? A meta-analysis of the effect of graphics on reading comprehension. *AERA Open, 6*(1). https://eric.ed.gov/?id=EJ1248499

Source type	Meta-analysis, peer-reviewed. 39 experimental studies published 1985–2018.
Participants	2,103 participants in 39 studies (1,053 experimental, 1,050 control): 11 studies with elementary students (grades 1–6), 7 with secondary students (grades 7–12) and 21 with adults. Samples included first-language readers and English learners. (Full text reviewed.)
Relevant findings	Graphics had a moderate positive effect on reading comprehension (g = 0.39), and the effect held across grade levels. Pictures, pictorial diagrams and flow diagrams did not differ significantly from one another. Benefits differed by type of comprehension assessment. In descriptive subgroup results, the effect was g = 0.27 for elementary studies, and g = 0.48 for the 8 studies using narrative text versus g = 0.37 for the 30 using informational text.
Limitations	More than half of the studies involved adults, and the authors note younger readers may need instructional scaffolding to benefit fully from graphics. Most studies used informational text with graphics added to explain content, not sequential comic panels. Subgroup results are descriptive, not tested comparisons.
DDK design decision	Pair every section of text with images that carry meaning.
Connection	Reasonable for the general claim that integrated text and images support comprehension. Indirect for graphic novels specifically.

Wong, S. W. L., Miao, H., Cheng, R. W., & Yip, M. C. W. (2017). Graphic novel comprehension among learners with differential cognitive styles and reading abilities. *Reading & Writing Quarterly, 33*(5), 412–427. https://doi.org/10.1080/10573569.2016.1216343

Source type	Empirical, peer-reviewed. Comparison of reading the same material as pure text or as a graphic novel.
Participants	188 Chinese-English bilingual undergraduates in Hong Kong, reading in English as a second language. (Abstract and record only; full text not reviewed.)
Relevant findings	Students scored higher on comprehension after reading graphic novels than pure text, regardless of cognitive style or prior English reading ability. Graphic novel readers also showed more interest in exploring the topic further.
Limitations	Adult second-language readers, not children reading in their first language. Findings may not transfer directly to students in grades 3–12.
DDK design decision	Use the graphic novel format itself as the reading text.
Connection	The most direct evidence here for graphic novels versus plain text, but indirect for the program's age range. The positive result across reading-ability levels is relevant to mixed-ability classrooms.

Design decision 4: Structured discussion that asks for evidence from the text

Murphy, P. K., Wilkinson, I. A. G., Soter, A. O., Hennessey, M. N., & Alexander, J. F. (2009). Examining the effects of classroom discussion on students' comprehension of text: A meta-analysis. *Journal of Educational Psychology, 101*(3), 740–764. https://doi.org/10.1037/a0015576

Source type	Meta-analysis, peer-reviewed, of empirical studies of classroom discussion approaches.
Participants	42 studies of nine discussion approaches. Students ranged from 5.5 to 17 years old (mean 10.4, most often age 11, about fifth grade); most studies involved grades 4–6. Study samples ranged from 5 to 720 students (mean about 84). (Full text reviewed.)
Relevant findings	Several discussion approaches increased student talk, reduced teacher talk and substantially improved text comprehension. Fewer approaches improved literal or inferential comprehension or critical thinking. Effects varied by study design, outcome measure and student academic ability, and the approaches appeared more potent for students of below-average ability than for average or above-average students.
Limitations	Effects depend on the specific approach, and Dizzy Doom Kids' discussion questions are not one of the approaches studied. About 70% of the studies were run by the approaches' own developers, 17 of the 42 were unpublished dissertations or theses, and effects were weaker in multiple-group designs and on standardized measures.
DDK design decision	Every lesson includes discussion questions that ask students to support answers with evidence from words, art and character expressions.
Connection	Reasonable for including structured discussion; the grade range closely matches the program's core use. Indirect for the specific question set.

Design decision 5: Write and create in response to reading

Graham, S., & Hebert, M. (2011). Writing to read: A meta-analysis of the impact of writing and writing instruction on reading. *Harvard Educational Review, 81*(4), 710–744. https://doi.org/10.17763/haer.81.4.t2k0m13756113566

Source type	Meta-analysis, peer-reviewed, of true and quasi-experimental studies.
Participants	The authors' companion 2010 Carnegie report of the same meta-analysis describes 61 studies of writing about text, spanning grades 2–12, with 81% involving students in grade 6 or above (overall effect on comprehension 0.40). Lower-achieving students also benefited (average effect 0.63 across 12 studies). (Full text of the 2010 report reviewed; the 2011 journal article's full text was not reviewed, and its counts may differ.)
Relevant findings	Writing about material students have read improved their comprehension of it. Teaching writing improved reading comprehension, fluency and word reading. Increasing how much students write improved reading comprehension.
Limitations	Covers writing, not drawing or comic creation. Most studies involved older students than the program's grades 3–5 core. In the companion report, effects for lower-achieving students depended on explicit instruction.
DDK design decision	Lessons include writing prompts and opportunities to respond to the reading, with drawing and comic creation as extensions.
Connection	Direct for writing about text. In the curriculum guide, the end-of-lesson writing prompt is an extension option, and a multi-lesson writing project runs from Lesson 7 to Lesson 16, so the dose of writing varies by classroom. Indirect for drawing and comic-making, which this research did not test.

Design decision 6: Build social and emotional learning into the reading lesson through character discussion

Cipriano, C., Strambler, M. J., Naples, L. H., Ha, C., Kirk, M., Wood, M., Sehgal, K., Zieher, A. K., Eveleigh, A., McCarthy, M., Funaro, M., Ponnock, A., Chow, J. C., & Durlak, J. (2023). The state of evidence for social and emotional learning: A contemporary meta-analysis of universal school-based SEL interventions. *Child Development, 94*(5), 1181–1204. https://doi.org/10.1111/cdev.13968

Source type	Meta-analysis, peer-reviewed. 424 studies of 252 discrete universal school-based SEL interventions.
Participants	575,361 students in kindergarten through grade 12, in 53 countries.
Relevant findings	Compared with controls, students in SEL programs showed improved skills, attitudes, behaviors, school climate and safety, peer relationships, school functioning and academic achievement.
Limitations	Dizzy Doom Kids is not a full SEL program. Findings are from the published abstract; moderator results were not reviewed.
DDK design decision	Classroom teachers lead discussion of characters' feelings, choices and inner conflicts during the reading lesson.
Connection	Reasonable for the value of school-based SEL. Having classroom teachers lead SEL discussion inside the reading lesson is our design choice, not a finding of this study. The Johns Hopkins evaluation observed SEL opportunities in DLOD lessons; it did not measure SEL growth. Published 2023, within the last five years.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Source type	Meta-analysis, peer-reviewed. 213 school-based universal SEL programs.
Participants	About 270,000 students from kindergarten through high school.
Relevant findings	Compared with controls, students showed gains in social and emotional skills, attitudes, behavior, and an 11-percentile-point gain in academic achievement. Programs delivered by school staff were effective.
Limitations	Programs reviewed were dedicated SEL programs, not literature lessons with SEL discussion.
DDK design decision	Same as above.
Connection	Reasonable for classroom-delivered SEL. Indirect for embedding SEL in a reading unit.

Background sources (not submitted as qualifying citations)

These sources are retained as theoretical or contextual background and are not relied upon as the required empirical citations.

Cohn, N. (2013). *The visual language of comics: Introduction to the structure and cognition of sequential images.* Bloomsbury.

Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator, 22*(1–2), 8–15.

Gambrell, L. B. (1996). Creating classroom cultures that foster reading motivation. *The Reading Teacher, 50*(1), 14–25.

Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 403–422). Lawrence Erlbaum Associates.

Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.

Paivio, A. (1986). *Mental representations: A dual coding approach.* Oxford University Press.

Wong, S. W. L., Li, W.-O., & Cheung, A. (2023). Graphic novel reading comprehension in Chinese children with developmental language disorder (DLD). *Reading and Writing, 36*(7), 1631–1649. https://doi.org/10.1007/s11145-022-10346-7 (Empirical study of 48 children; children with DLD and typical readers performed similarly on graphic novel comprehension.)

Young, C., & Rasinski, T. (2009). Implementing readers theatre as an approach to classroom fluency instruction. *The Reading Teacher, 63*(1), 4–13. https://doi.org/10.1598/RT.63.1.1

Qualitative study (Requirement 3): Gillon, N. R., Storey, N., Cook, M. A., & Ross, S. M. (2025). *Evaluation of the Digital Lizards of Doom Level 1 Curriculum.* Center for Research and Reform in Education, Johns Hopkins University. Submitted separately, in full.