

**JYX**



JYVÄSKYLÄN YLIOPISTO  
UNIVERSITY OF JYVÄSKYLÄ

**This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.**

**Author(s):** Hautala, Jarkko; Karhunen, Roosa; Junntila, Enni; Ronimus, Miia; Young, Chase

**Title:** The Goal to Perform in Readers' Theater Motivates Boys Who Struggle With Reading

**Year:** 2024

**Version:** Published version

**Copyright:** © 2024 the Authors

**Rights:** CC BY 4.0

**Rights url:** <https://creativecommons.org/licenses/by/4.0/>

**Please cite the original version:**

Hautala, J., Karhunen, R., Junntila, E., Ronimus, M., & Young, C. (2024). The Goal to Perform in Readers' Theater Motivates Boys Who Struggle With Reading. *Journal of Research in Childhood Education*, Early online. <https://doi.org/10.1080/02568543.2023.2301092>

## The Goal to Perform in Readers' Theater Motivates Boys Who Struggle With Reading

Jarkko Hautala, Roosa Karhunen, Enni Junntila, Miia Ronimus & Chase Young

To cite this article: Jarkko Hautala, Roosa Karhunen, Enni Junntila, Miia Ronimus & Chase Young (25 Jan 2024): The Goal to Perform in Readers' Theater Motivates Boys Who Struggle With Reading, Journal of Research in Childhood Education, DOI: [10.1080/02568543.2023.2301092](https://doi.org/10.1080/02568543.2023.2301092)

To link to this article: <https://doi.org/10.1080/02568543.2023.2301092>



© 2024 The Author(s). Published with license by Taylor & Francis Group, LLC



Published online: 25 Jan 2024.



Submit your article to this journal [↗](#)



Article views: 664





View related articles [↗](#)



View Crossmark data [↗](#)

# The Goal to Perform in Readers' Theater Motivates Boys Who Struggle With Reading

Jarkko Hautala <sup>a,b</sup>, Roosa Karhunen<sup>a</sup>, Enni Junttila<sup>a,b</sup>, Miia Ronimus <sup>c</sup>, and Chase Young<sup>d</sup>

<sup>a</sup>Niilo Mäki Institute, Jyväskylä, Finland; <sup>b</sup>University of Jyväskylä, Jyväskylä, Finland; <sup>c</sup>University of Oulu, Oulu, Finland; <sup>d</sup>Sam Houston State University, Huntsville, Texas

## ABSTRACT

There is a global concern regarding boys' poor engagement in literacy activities. It is suggested that boys enjoy ways of learning that are active and have explicit goals. Readers' theater (RT) provides an active and collaborative means of practicing oral reading fluency, with a clear goal of performing for an audience at the end of training. In the context of an intervention study for struggling readers in grades 3 and 4 (9–10 years old), we investigated whether boys benefit more than girls from the goal to perform in readers' theater in terms of reading fluency development, engagement, and retrospective perception of their learning. We found that girls slightly outperformed boys in expressive reading and showed higher engagement in RT. Girls were also more interested in drama and more likely to participate in the study. However, boys showed a larger reduction in RT-related disaffection over time. In addition, boys in the goal-oriented program reported learning to act and immerse themselves in the text more often than boys in the practice-oriented RT. In contrast, girls reported learning these skills also in the practice-oriented RT. We conclude that the goal to perform in RT may be particularly helpful in engaging boys in RT.

## ARTICLE HISTORY

Received 2 January 2023  
Accepted 30 October 2023

## KEYWORDS

Intervention; middle childhood; mixed-methods; readers' theater; reading difficulties; reading fluency

There is global concern regarding boys' academic achievement. Boys tend to fall behind girls early on in several academic skills, including reading. As suggested by the results of the Progress in International Reading Literacy Study, girls outperform boys already in the 4th grade in most of the participating countries (Mullis et al., 2023). The reasons for the gender gap are believed to stem from the slower development of boys in verbal, executive, and self-regulation skills, presumably originating both from biology and cultural gender expectations (Eagly & Wood, 2013; McGeown & Warhurst, 2020). Research has shown that boys often find it difficult to conform to traditional classroom teaching – for example, in terms of sitting still and focused for long periods of time – but instead enjoy more behaviorally active ways of learning with clearly set goals (Beaman et al., 2006; Brozo et al., 2014; Deed & Campbell, 2007; Merisuo-Storm, 2006; for a review, see James, 2015). Readers' theater (RT) is an active form of practicing oral reading fluency with a shared goal of a dramatic performance before an audience (Rinehart, 2001). RT previously has been found to support boys' learning in particular (Young et al., 2020, 2021), as boys tend to appreciate an active way of learning (including aspects of fun, non-traditionality, and collaboration) and enjoy the dramatic performance that is part of RT. However, because Young et al. (2021) interviewed only boys, it is not known if there are differences in how girls and boys perceive learning during RT. In addition, it remains unclear as to which extent the goal-orientedness or the active nature of RT (Hautala et al., 2023) is responsible for the positive reception of RT among boys. To resolve these gaps and issues, we investigated the gender differences among dysfluent readers in learning and engagement during RT and in retrospective RT experiences.

**CONTACT** Jarkko Hautala  jarkko.v.hautala@nmi.fi  Niilo Mäki Institute, P.O. Box 29, Jyväskylä 40101, Finland

## Gender gap in reading fluency—Origins and possible solutions

Reading fluency means the ability to read text accurately and at an appropriate pace, with ease, appropriate expression, and prosody when reading aloud (Kuhn et al., 2010). Low reading fluency is the main manifestation of developmental dyslexia – a specific difficulty in learning to read, which is more prevalent in boys than girls (Yang et al., 2022). In Finland, the country of the present study, girls outperform boys by 0.62 SD in reading fluency at the end of comprehensive school (age 15–16 years, Torppa et al., 2018). The gender gap in reading ranks high in international comparison (OECD, 2019).

A major reason for the gender gap seems to be boys' less frequent reading (Jabbar & Warraich, 2022; Stutz et al., 2016), possibly because they enjoy and value reading less than girls (Marinak & Gambrell, 2010). Boys also tend to overestimate their reading skills (Merisuo-Storm & Aerila, 2018), which may make them less likely to invest in developing their reading skills. These gender differences may originate from differences in self-regulation as girls tend to have better self-regulation skills, such as effortful control (Else-Quest et al., 2006) and delay of gratification (Silverman, 2003), than boys. Self-regulation skills are essential for learning challenging skills that require long-term practice, such as reading fluency and comprehension.

In addition, gender differences have been found in achievement goals, which refer to beliefs and attitudes defining an individual's primary reason for engaging in academic activities (Ames, 1992). Evidence shows that boys are more likely than girls to adopt performance goals (Yu & McLellan, 2019), focusing on gaining positive judgments and avoiding negative judgments of competence (Dweck, 1986). In contrast, girls may be more likely to prioritize learning or mastery goals (Kenney-Benson et al., 2006) – that is, increasing their academic competence (Dweck, 1986). Mastery goals have been more consistently associated with positive school and learning-related affect and motivation than performance goals (see, e.g., Pekrun et al., 2009).

The gender gap in reading can be mitigated by various actions, including national-level educational policies (Marks, 2008), instructional approaches emphasizing language competencies (Hochweber & Vieluf, 2018), and integration of reading and other activities (Young et al., 2020). It also has been suggested that schools should more actively provide literacy instruction targeted to boys and help them find reading material that is of personal interest to them (e.g., Senn, 2012). However, much more research evidence for the effectiveness of this approach is required (Sokal, 2010).

The primary remedial method for improving low reading fluency is repeated oral reading (Samuels, 1979; see Reutzel et al., 2008). In repeated reading of the same text, the student receives an experience of reading more fluently, which generalizes to novel texts in the long run. In RT, repeated reading gives students a chance to read aloud fluently to others, which is believed to be a key aspect of RT (Rinehart, 2001). Repeated reading also has a clear goal, as the students read to learn their lines in the script. This is important, as specific goals are generally known to support learning and motivation (Locke & Latham, 2002). Given their lower reading motivation, such additional goals may be particularly important for boys.

## Research on readers' theater

RT was developed in the United States in the 1980s (see Rinehart, 2001). In its traditional form, RT is a whole-class activity consisting of weekly projects in which reading a script is practiced daily from Monday to Thursday and then performed on Friday. At the beginning of the week, groups are formed based on the students' script selection. As the week progresses, the students rehearse together to develop word recognition automaticity and eventually appropriate expression before the weekly performance. The next week, new scripts are offered as options, and the process repeats. In previous studies, this activity has lasted from a few months to the entire school year, leading to impressive gains in reading fluency relative to those in the control group (Keehn, 2003; Young & Rasinski, 2009, 2018). Additional benefits may include improved accuracy (Millin & Rinehart, 1999) and prosody or expression (Quezada, 2021; Young & Rasinski, 2009, 2018), as well

as increased overall reading ability (Garrett & O'Connor, 2010; Griffith & Rasinski, 2004). On the other hand, when the amount of oral reading training has been controlled for, RT has produced equal gains in reading skills relative to the control group (Black, 2016; Hautala et al., 2023; Jagger, 2008; Marshall, 2017; Smith, 2011). Therefore, RT appears as effective as traditional repeated reading practice. Notably, Keehn's (2003) study reported that the poorest readers in class developed the most, suggesting that RT is also highly applicable to special education (see also Hautala et al., 2023; Mraz et al., 2013).

The possible motivational benefits of RT have not been extensively studied. A few studies have reported no extra benefits for RT in general reading attitude or motivation (Marshall, 2017; Smith, 2011). On the other hand, the benefits of RT over traditional instruction have been observed in self-image as a reader (Merritt, 2015) and student engagement (Haughey, 2015; Hautala et al., 2023). In addition, anecdotal reports from RT studies suggest that students generally enjoy RT (Millin & Rinehart, 1999; Mraz et al., 2013; Rinehart, 2001). Although RT appears well received by students, more research is needed to understand how RT supports students' and especially boys' reading motivation.

Recently, we developed a new drama-oriented RT (hereafter drama-RT) program targeted at Finnish special education. The aim is to enrich the special education lessons (typically administered once or twice a week) with a highly rewarding form of reading practice, rather than to provide a highly intensive reading remediation. The program was designed to reflect the values and conceptions of learning of the Finnish National core curriculum for basic education (FNAE, 2016), which states that every child is valued as an individual and has the right to the support and encouragement that can best help them grow as a person. The goals for transversal competence (FNAE, 2016) include developing social skills and the ability to express oneself in versatile ways, including drama and movement, practicing performing, and encouraging creativity and use of imagination. Our program consisted of eight 90-minute sessions, allowing struggling readers to practice reading aloud and develop their unique styles of expression in a safe environment without the fear of being compared to more proficient readers. The program contains elements for supporting both mastery and performance orientations. To support mastery orientation, students are given continuous positive feedback that emphasizes effort instead of correct performance and collaboration is encouraged instead of competition. Students' perspectives are also taken into account, and their feelings are discussed in an accepting and warm atmosphere. On the other hand, the goal to perform the play for an audience at the end of the program may emphasize performance orientation, as the students are asked to demonstrate their skills to their classmates publicly.

To study the effectiveness of the drama-oriented RT program, we ran a large-scale randomized controlled trial (Hautala et al., 2023). In addition to the general effectiveness of the program, we investigated whether the goal to perform for others underlies RT's effectiveness in promoting student engagement, reading fluency, and motivation (Rinehart, 2001). We contrasted two different versions of the program: one with a goal to perform for an audience (RT Goal), and the other without such a goal (RT Practice). Both versions relied on the same materials. We found out that both versions of the program were able to help struggling readers in Grades 3 and 4 to catch up with their typically reading peers to some extent. In contrast, the RT Goal program additionally promoted student engagement and alleviated anxiety about oral reading in public. Also, the qualitative data collected during the RT lessons indicated that students enjoyed RT and acting in particular (Hautala et al., 2023). Thus, the goal to perform, rather than the non-traditional form of reading practice, is responsible for the motivational benefits.

Finally, one previous study explicitly attempted to reduce the gender gap in reading with RT (Young et al., 2021). The study found that RT was able to support boys' decoding skills more than those of girls, whereas no such benefit was found for vocabulary and reading comprehension measures. An inductive content analysis of interviews conducted only for boys identified a main theme that "boys liked the collaborative aspect of dramatic performance and believed it is a fun and non-traditional classroom activity. RT also helped their ability to sustain, strengthen, and develop their reader identities through comedy" (Young et al., 2021, p. 1). Thus, RT appears to be an instructional method that provides boys with an active, collaborative, and fun way to practice reading.

## The present study

To better understand how to support reading development and motivation among boys optimally, we conducted a reanalysis of the drama-RT intervention study with RT Goal and RT Practice programs, targeted at struggling readers in the 3rd and 4th grades (Hautala et al., 2023). This design enabled us to study the potentially differing influence a goal to perform may have on the learning and motivation of boys and girls. The data also allow us to extend our understanding of student perceptions of RT in the context of gender differences, given that Young et al. (2021) interviewed only boys.

Our first research question is: Do boys benefit from drama-RT more than girls in terms of learning and engagement? Previous studies with unselected samples have found that RT is instrumental in reducing the gender gap in reading skills (Young et al., 2020, 2021). It is unknown whether such differences in responsiveness can be observed with girls and boys who are struggling to read with no assumed gender difference in reading skills. Further, concerning motivational measures, boys are known to be less engaged readers than girls, even when reading skill is controlled (Marinak & Gambrell, 2010). Therefore, we expect boys to be initially less engaged in drama-RT than girls. However, given that boys are known to enjoy RT (Young et al., 2021), this gender difference may attenuate over time.

This brings us to our second research question: Is the goal to perform responsible for the possible benefits of drama-RT on learning and engagement among boys? To the best of our knowledge, there are no previous studies on this issue. There are several possible reasons why boys may benefit from clear goals. First, boys' self-regulation skills tend to develop slower than girls' (Else-Quest et al., 2006; Silverman, 2003), so boys may need clear goals to remain focused on the activity. Relative to girls, boys also adopt performance goals more commonly (Yu & McLellan, 2019) and there is also some evidence that learning environments emphasizing performance goals could be beneficial for boys (Midgley et al., 2001). Thus, we hypothesize that the opportunity to perform the play at the end of the program could be particularly engaging for boys, as it provides a clear rationale for the reading practice and gives the students a chance to demonstrate their reading and acting skills to others while also supporting mastery orientation. Meanwhile, the RT Practice program trains the same reading and drama skills as the RT Goal program but without a clear goal, which may be engaging enough for more mastery-oriented girls (Kenney-Benson et al., 2006).

Finally, we conducted a brief and highly structured interview both for boys and girls to understand how they perceive drama-RT with and without a goal. We were particularly interested in what the students believe they learned in drama-RT, what they remember best from the program, and whether there were gender differences in these evaluations. An earlier interview study (Young et al., 2021) found that boys liked the active way of learning and dramatic performance in RT, but girls were not interviewed. Again, the gender differences in goal orientations (Yu & McLellan, 2019) may be reflected in the interview answers as well. For example, boys may value the performance at the end of the program more than girls.

## Method

### Participants

We interviewed 90 (56 girls, 34 boys) out of 99 (9 students could not be reached) students who participated in an RT intervention (Hautala et al., 2023). Background information on the students is provided in Table 1 in the Results section. The mean age of the participants was 10.0 years ( $S.E. = 0.07$ ). The students were dysfluent readers from 10 schools, with a very low mean standardized reading fluency score ( $Z = -1.48$ ,  $SD = 0.70$ ) assessed using a word list (Häyrinen et al., 2013) and text reading tasks (e.g., First Steps, Lerkkanen et al., 2006). The students were randomly assigned either RT Practice ( $n = 46$ ) or RT Goal ( $n = 44$ ) interventions.

The students and their caregivers provided informed written consent prior to the study. Ethical approval for the research was obtained from the Ethical Committee of the University of Jyväskylä. The

**Table 1.** Background information on participants.

	Group	<i>n</i>	Age (years)	Fluency ( <i>Z</i> )	Parent questionnaire		
					Theater %	Reading %	Max educ.
RT Practice	Girls	28	10.00 (0.11)	-1.39 (0.14)	35.7 (0.09)	21.4 (0.08)	4.75 (0.23)
	Boys	18	9.83 (0.15)	-1.72 (0.14)	22.2 (0.10)	16.6 (0.09)	4.89 (0.23)
RT Goal	Girls	28	9.99 (0.12)	-1.57 (0.13)	38.4 (0.10)	37.0 (0.09)	4.93 (0.21)
	Boys	16	10.09 (0.14)	-1.22 (0.17)	12.5 (0.08)	6.2 (0.06)	4.94 (0.27)
	Total	90	9.98 (0.07)	-1.47 (0.72)	25.6 (0.05)	17.7 (0.05)	4.88 (0.12)

Theater % = Percentage of students whose parents report the student as being interested in theater. Reading % = Percentage of students whose parents report the student reading frequently in their leisure time. Max educ. = Parent's highest education level (1–7). Standard errors are provided in parentheses.

research was conducted according to the ethical principles for medical research involving human subjects set forth by the Declaration of Helsinki. In the beginning of the study, the parents filled out a background questionnaire, including questions regarding the parents' education level (1–7) and the child's interest in a) theater (yes/no) and b) reading (yes/no).

### Interventions

Both RT programs consisted of eight preplanned and documented 90-minute sessions held once a week in small groups of five students. The program focused on practicing a single play script (1,000 words/8 acts) entitled “Velhokisat” (Wizard Contest), which was written for the research project by drama teachers. The reading exercises in the program were designed around this script. All the groups had identical props provided by the researchers (wizard hats, magic wands, etc.). The story narrative and characters were studied in depth during the program. Each session involved a greeting circle, reading exercises, and ending routines. In the greeting circle, students shared their thoughts and feelings using emotion flash cards. The beginnings of the sessions often included warm-up exercises, such as moving around in the space as the play's characters. Reading exercises included exercises such as echo reading, where either the teacher or a student modeled reading and the rest would then read the same line in unison. Other reading exercises included reading the text in different emotional tones prompted by emotion flash cards or imagery and performing the text physically while the teacher or a student reads it aloud. The scenes were also discussed in depth. Ending routines consisted of a reflective drama exercise called “marking the moment” where students indicated one memorable moment from the session and gave feedback on the session using a smiley face scale. A drama contract (Neelands, 1984) was introduced during the first session to ensure a safe learning environment for everyone. A drama contract explains the type of drama work to be completed and the basic principles of group work (e.g., everyone is allowed to participate in their own way, all participation is voluntary, and the self is separated from the role and thereby protected during role-play) (Heyward, 2010).

University students with >25 ECTS (i.e., at least basic studies) in drama pedagogy were recruited as instructors for the small groups and to conduct the measurements at schools. The research assistants received extensive training and support from the research team. The training covered pedagogical and practical aspects of RT, the intervention programs and drama and reading activities, and other duties of research assistants, including confidentiality practices, research assessment tasks, and documentation of assessments and RT sessions. To analyze treatment fidelity, one session from each RT group was videotaped and rated by an observer on a scale from 1 to 5 regarding the quality of reading training (i.e., the students' ability to focus on reading and engage with reading assignments). According to fidelity analysis (Hautala et al., 2023), lesson times ranged from 55 to 91 min ( $M = 73$  min,  $SD = 10$  min), with active engagement in reading exercises ranging from 14 to 43 min ( $M = 25.7$  min,  $SD = 7.7$  min). The quality ratings of the reading instruction ranged from 2 to 5 ( $M = 3.8$ ,  $SD = 0.9$ ). The reading exercise time and quality ratings did not correlate with reading gains from T1 to T2 ( $|r|s \leq .273$ ,  $ps \geq .152$ ).



The RT Goal and Practice programs followed the same lesson structure for the first four sessions. From the fifth session onward, the RT Goal group started to prepare for the performance at the end of the program. The RT Practice students kept practicing the play without the goal of performing it for an audience. Still, they were given the opportunity to introduce the characters to an audience briefly. In this manner, both groups had an opportunity to perform for an audience. The RT Goal group performed the play by reading aloud their lines from the scripts and acting out as they had practiced. The performances were not evaluated in any way. One child withdrew from the performance due to being nervous.

Unfortunately, four out of 10 schools were closed due to the COVID-19 pandemic before the programs could be completed, thereby causing the interventions to end prematurely.

## **Measures**

The children attended individual assessment sessions pre- and post-intervention either at school or on the phone (at posttest). The assessment sessions were audio recorded.

### **Expressive reading skill**

Students' expressive reading skills were assessed by a 150-word text (parallel versions were used at pre and posttest), which the students were asked to read with the aim of making it sound interesting. Their reading time was measured and transformed into reading rate (words per minute, WPM). In addition, the number of phonetic errors, including self-corrections, was counted (see Hautala et al., 2023). Based on audio recordings, expressive reading was evaluated on subscales of stress, fluency, rate, and an additional emotional expression scale, with a rubric adapted from Zutell and Rasinski (1991). For example, the stress subscale consisted of five levels: 1) Consistent difficulties in assigning proper within-word stress. 2) Consistent difficulties in assigning sentence-level stress and pauses. 3) Mixed performance of assigning proper word and sentence stress. 4) Consistently proper assignment of word and sentence stress according to syntax and meaning; however, the voicing is clearly constrained. 5) Consistently expresses the syntax and meaning of the text with clear voicing. The interrater reliability values were  $\alpha = .93-.96$  at the pretest between three raters and  $\alpha = .88-.93$  at the posttest between two raters. The overall mean across the four subscales ( $\alpha = .89$ ) was used as an index of expressive reading skill in the statistical analysis.

### **Engagement**

Students' emotional engagement and disaffection were assessed by a paper-and-pencil questionnaire adapted from Pöysä et al. (2018). The questionnaire was administered twice, in the third and seventh lessons. The questionnaire included subscales of emotional engagement (three items,  $\alpha = .89$ , in T1; e.g., "I enjoy reader's theater") and disaffection (three items,  $\alpha = .80$ ; e.g., "Readers' theater is boring") on a five-point scale (1 = not at all true, 5 = very true). The mean score of each subscale was used in the analyses.

### **Students' structured interview**

The structured interview took place in the post-assessment session and included questions about leisure time reading (not reported in this study) and experiences of RT. The questions were Q1) What did you learn during RT? and Q2) What do you recall best from RT? If applicable, an additional question was asked: Q3) How do you feel about RT being cut short? The responses were transcribed from the audio recordings for content analysis.

### **Processing of interview data**

The verbal answers were subject to basic content analysis (Weber, 1990), enabling structured organization and qualitative data interpretation. The data coding process proceeded in the following manner:



First, a researcher read the interview responses several times to get a general understanding of the data. Then, preliminary categories that emerged from the data were identified. Thereafter, subcategories were identified within the main categories. These initial categories for each question were discussed in the research group, additional categories were added when required, and final categories were defined and agreed upon (see Tables 2–4 in the Results section). Further, coding guidelines with detailed code definitions, inclusion and exclusion criteria, and example responses for each category were prepared to ensure the reliability of coding and mutual exclusivity of categories. After that, the researcher and a research assistant independently classified the responses. The interrater agreement percentages were 90.0%, 94.4%, and 82.1% for Q1–3, respectively. Any remaining discrepancies in the classifications of the two coders were then discussed and resolved to reach an agreement of 100%. During the analysis process, it was noted that while most of the answers were brief and concise statements, such as “to read better” or “to act,” a substantial portion included some elaboration related to the child’s learning or personal experience. Therefore, the answers were additionally categorized into elaborate and non-elaborate ones, straightforwardly according to the answer length and amount of details, to enable a separate content analysis of the elaborate answers. This examination is discussed in the results section further below.

### **Mixed methods technique**

Following O’Cathain et al. (2010), the mixed methods technique was utilized for the categorized interview data. Accordingly, the results of one analysis (here, the content analysis) are used to guide the focus of further analyses (here, the statistical analyses). To find out what type of answers students gave to each question and in which categories there were trends for gender and RT program effects and their interaction, we first performed a descriptive analysis for the categorized interview data. This knowledge (i.e., a thread) was then used to group the categories into broader classes containing a sufficient number of cases for statistical analysis. It was also noticed that the students’ answers to the question “What did you learn in RT?” varied substantially in the degree of elaboration. These answers were subject to devoted content and statistical analysis.

### **Statistical analysis**

Statistical analysis was conducted using generalized linear mixed modeling techniques (SPSS), including a random intercept for participants. The analyses of oral reading skills and engagement included the main effect of time, group, gender, and the interactions of time  $\times$  group, time  $\times$  gender, and time  $\times$  group  $\times$  gender. The background and interview data analysis included factors of groups, gender, and the interaction between the two. Gamma distribution was set for the reading errors and positive engagement (for inverted values) analysis to meet model assumptions of normally distributed residuals. In contrast, normal distribution could be used for the remaining reading and engagement measures. Further, interview data were analyzed using binomial logistic regression. It was noticed that the models converged only when there was a substantial number of responses; therefore, a statistical analysis was only run for category groupings with a minimum of 30 responses. Robust estimation with Satterthwaite correction for  $p$ -values was used. Cohen’s  $d$  effect sizes (Cohen, 1992) were calculated by the Effect Size -shiny app (Ben-Shachar et al., 2020) based on statistical test results. The values are interpreted as small (0.1–0.4), medium (0.5–0.7), and large ( $>0.7$ ).

## **Results**

See Table 1 for background information on the study groups. According to the parent questionnaire, boys were marginally less interested in theater,  $F(1, 84) = 3.788, p = .055, d = 0.425$ , and in reading at leisure time,  $F(1, 85) = 3.370, p = .070, d = 0.398$ . Moreover, boys were also underrepresented in the

sample (38%), suggesting they were less eager to volunteer to participate in an RT study. These results provide some evidence for our hypothesis that boys are initially less interested in drama than girls. There was an interaction in reading fluency,  $F(1, 70) = 5.578, p = .021, d = 0.565$ , resulting from boys in the RT Goal group having somewhat higher reading fluency than boys in the RT Practice group. There were no age or parental education differences between the study groups.

### Oral reading skills

In terms of reading speed, only the main effect of Time,  $F(1, 4) = 56.405, p = .002, d = 0.83$ , was significant, with WPM increasing from 66.2 ( $SE = 1.78$ ) to 72.81 ( $SE = 1.79$ ). For reading errors, there was a main effect of Time,  $F(1, 49) = 14.528, p < .001, d = 0.43$ , with the number of errors decreasing from 19.3 ( $SE = 0.954$ ) to 16.2 ( $SE = 0.811$ ). In addition, the interaction between Time and Group approached significance,  $F(1, 49) = 3.370, p = .073, d = 0.21$ , due to the trend of reading errors reducing more in the RT Goal group than in the RT Practice group (Hautala et al., 2023).

In expressive reading ratings, Time was significant,  $F(1, 56) = 32.117, p < .001, d = 0.63$ , with scores increasing from 2.401 ( $SE = 0.082$ ) to 2.724 ( $SE = 0.083$ ). There was also a main effect of gender, as girls ( $M = 2.751, SE = 0.100$ ) outperformed boys ( $M = 2.373, SE = 0.117$ ),  $F(1, 74) = 6.028, p = .016, d = 0.51$ .

Thus, in this sample of struggling readers, the only gender difference in reading fluency appeared in expressive reading. As expected, the development of oral reading skills among students was the same, irrespective of gender or RT program.

### Engagement

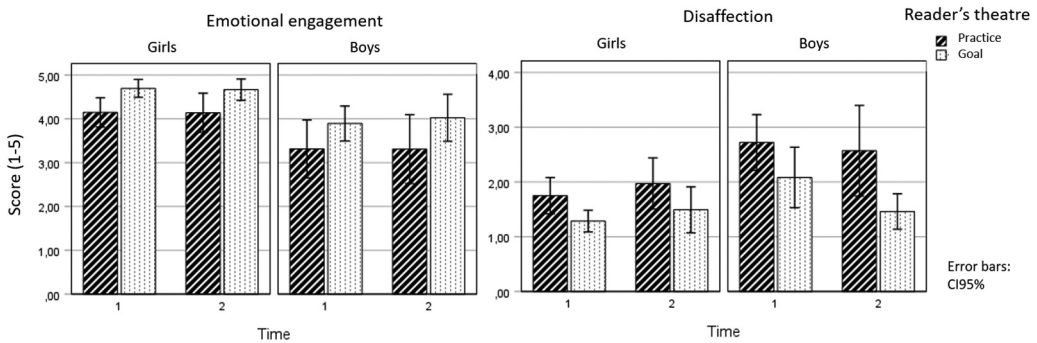
The means for emotional engagement and disaffection are presented in Figure 1. For emotional engagement, there were main effects of Gender,  $F(1, 53) = 19.856, p = .001, d = 0.50$ , with girls being more emotionally engaged than boys, and Group,  $F(1, 53) = 10.048, p = .003, d = 0.36$ , with emotional engagement being higher in RT Goal than RT Practice. For disaffection, there were significant main effects of Group,  $F(1, 39) = 13.53, p < .001, d = 0.43$ , Gender,  $F(1, 39) = 9.54, p = .004, d = 0.38$ , and interaction of Gender  $\times$  Time,  $F(1, 39) = 10.294, p = .003, d = 0.28$ . These results indicate that disaffection was higher in RT Practice and for boys and that the disaffection was reduced more in boys than girls over time. Together, the findings support our hypotheses that while girls are generally more engaged in RT, boys warm up to it slower and become more engaged over time.

### Q1: What did you learn in RT?

The observed frequencies and percentages are provided in Table 2. Sixty-seven students provided an answer that was classified into a single category, and 23 students gave an answer that was classified into two categories. A third (34%) of the students provided answers related to reading fluency – that is, they had perceived some development in their reading skill during the RT intervention. Another third of the students (31%) provided answers related to learning or development in acting, performing, or expressing oneself, and 9% provided answers related to expressive reading. Reading fluency-related answers reflect the main learning objective of the RT program (and the students were explicitly told this during the intervention). Acting-related answers also could be expected because the primary medium of reading practice was acting out the script. It should be noted that the children had completed an expressive reading test just before this interview, which may have affected their answers. In addition, 26% of students reported learning some other skills (categories unspecified, RT, collaboration skills, drama/script reading), and 26% said they did not know or remember what they had learned during RT.

**Table 2.** Answer probabilities to the question “What did you learn in RT?”

#	Category	n	RT Practice		RT Goal	
			Girls	Boys	Girls	Boys
1	Reading fluency	31	0.32	0.39	0.32	0.37
2	Reading comprehension	1	0.04	0	0	0
3	Learning (unspecified)	6	0.07	0.06	0.07	0.06
4	Expressive reading	8	0.11	0	0.07	0.19
5	Acting/Immersing	28	0.32	0.17	0.36	0.38
6	Readers’ theater	4	0.07	0	0.07	0
7	Collaboration skills	2	0	0	0.07	0
8	Drama/script reading	5	0.04	0.11	0.04	0.06
9	Plays	5	0.14	0	0.04	0
10	Do not know	23	0.18	0.44	0.25	0.19



**Figure 1.** Means of emotional engagement and disaffection during readers’ theater.

To identify trends – that is, threads (O’Cathain et al., 2010) – the influence of gender and RT group factors on answer probabilities was examined. The boys in the RT Practice group appeared to differ from those in the other study groups. They tended to give more answers in the categories “reading fluency,” “do not know,” and “drama/script reading,” but fewer answers in the “acting” and “expressive reading” categories.

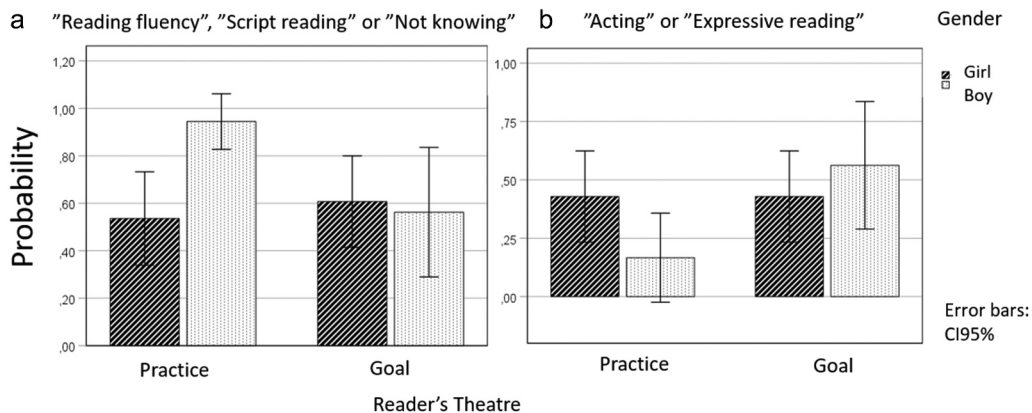
Statistical analysis confirmed these threads. In the probability of giving a “do not know,” “drama/script reading,” or “reading fluency” answer (58 cases), there was a significant interaction of gender and RT group,  $F(1, 86) = 5.144, p = .026, d = 0.49$ , while the main effects of gender,  $F(1, 86) = 3.909, p = .051, d = 0.43$ , and group,  $F(1, 86) = 3.262, p = .074, d = 0.39$ , were close to significance. Figure 2a shows that the boys in the RT Practice group had a heightened probability of giving answers on these categories.

In the probability of giving an “acting” or “expressive” reading answer (42 cases), there was a near-significant interaction between gender and RT group,  $F(1, 86) = 3.663, p = .059, d = 0.41$ , as well as a near-significant main effect of group,  $F(1, 86) = 3.663, p = .059, d = 0.41$ . In contrast, the main effect of gender was not significant,  $F(1, 86) = 0.647, p = .424, d = 0.17$ . Figure 2b shows that the RT Practice group boys had a lower probability of providing answers in these categories.

These results support our hypothesis that performing for an audience is more important to boys than girls when they consider what they learned during RT.

### Elaborate answers

In the probability of providing an elaborated answer ( $n = 35$ ; i.e., 39% of students), the effect of gender (27% of boys vs. 46% of girls) was almost significant,  $F(1, 86) = 3.43$ . Still, there was no effect of group (33% in RT Practice vs. 39% in RT Goal) or interaction of Group and Gender ( $ps = .626$ ). Twenty-four of the elaborations included a mention of skill learning, while 16 answers included a mention of



**Figure 2.** Probability of selected answer types to the question "What did you learn in readers' theater?"

affective experiences. Another important aspect was that most of the elaborate answers (74%) focused either on reading fluency (16 students) or drama learning (18 students).

Although most of the reading-related elaborations concerned becoming a more fluent reader, four students reported changes in how they read (e.g., one presumably hasty reader had realized that "*You do not need to be fast but careful in reading*"). Five students said that they gained more confidence in reading aloud. Importantly, six students changed their view on reading either on the level of activities ("*That reading can be practiced, for example, by acting and performing*") and/or emotions ("*Reading is not so annoying*" and "*I became more enthusiastic towards reading in there*").

Further, eight out of 15 acting-related elaborations mentioned learning new skills, such as adjusting verbal expressions, acting strategies, ability to immerse oneself in drama activities, creativity, or expression of emotion: "*How to properly immerse yourself in it. How to use different tones of voice,*" "*Different ways of what actors can do and how they can act with different minds. And that everyone can act.*" Seven of these students reported affective experiences, all concerned with confidence and the courage to act and perform – for example, "*That you do not need to be so scared when performing. And that it does not matter if you forget your lines.*"

Another finding was that reading-related elaborate answers focused more on skill acquisition, while acting-related elaborate answers included more variety and reports of changes in attitudes and emotions. It may be that acting and performing aroused so many other emotions and excitement that reading-related emotions were not emphasized in students' minds.

In summary, 74.5% of the students said they learned something during RT, with 44% saying they learned reading and 49% saying they learned acting or drama skills. In addition, 39% of the students (mostly girls), provided elaborate answers, from which two-thirds were concerned with skills and nearly half were concerned with internal experiences. These results demonstrate that learning in RT also involves individual aspects related to skills or internal experiences.

## **Q2: What do you remember best from RT?**

The most common answer to the second question (Table 3) was related to performing (30%). Acting (18%), reading (18%), enjoying RT (12%), the story (11%), games (10%), and friends (7%) were also frequently mentioned in the answers. Moreover, 9% of the students answered, "I don't know" or "nothing." Sixty-nine students provided an answer classified into a single category, and 21 students provided an answer spread across two to four categories. The

**Table 3.** Probability of answers to the question “What did you recall best from RT?”

		RT Practice			RT Goal	
		<i>n</i>	Girls	Boys	Girls	Boys
1	Performance	27	0.29	0.28	0.29	0.38
2	Excitement/anxiety	2	0	0.06	0.04	0
3	Feelings cards	3	0.04	0.06	0	0.06
4	Nice/Fun	11	0.14	0.17	0.14	0
5	Acting	16	0.21	0.06	0.25	0.13
6	Reading	16	0.18	0.22	0.07	0.31
7	Teaching & Learning	3	0.07	0	0.04	0
8	Friends	6	0.07	0	0.14	0
9	Plays	9	0.11	0.11	0.04	0.19
10	Story & Characters	10	0.04	0	0.25	0.13
11	Teacher	3	0.07	0	0.04	0
12	Relaxation	1	0.04	0	0	0
13	RT as a genre	1	0	0	0.04	0
14	Do not know	8	0.04	0.28	0.04	0.06

answers in the gender and RT program groups were highly scattered across answer categories. Students in the RT Goal group ( $M = 0.518, SE = 0.079$ ) more frequently provided answers on categories “performance” and “story” (37 cases) in comparison to students in the RT Practice group ( $M = 0.299, SE = 0.070$ ),  $F(1, 86) = 4.086, p = .046, d = 0.44$ . These categories were central learning areas of the RT Goal program. For the remainder of the observed trends, the number of cases (<30) was considered insufficient for statistical testing. Girls provided the answers “acting” and “friends” somewhat more likely than boys; in turn, boys answered “reading” somewhat more frequently than girls. Finally, there were a few interactions: Boys in the RT Goal group answered “reading” or “games” often and “nice/fun” less often. In addition, boys in the RT Practice group answered “not knowing” often. Overall, these results suggest that while the girls in this study focused more on internal experiences, the boys tended to reflect on their experiences more in terms of activities.

**Q3. How do you feel about RT being cut short?**

Among the 28 students who answered this question, 22 (79%) seemed dissatisfied about RT being cut short: 17 students said the cancellation aroused negative feelings (e.g., sad, annoying, stupid, disappointed), 14 students said they would have wanted to perform the play, and 7 said they would have wanted to continue RT (Table 4). These results indicate that the children would have wanted to complete the program. This is noteworthy because, according to the RT teacher diaries, stage fright was common among the students during the last lessons and before the performance.

**Table 4.** Frequency of answer categories to the question “How do you feel about RT being discontinued due to school closure?”

Category	Amount
Negative feeling	15
Would have wanted to perform	10
Would have wanted to continue/RT was fun	7
I don’t know/no answer	6
Weird/Funny	2
Neutral	2
Answer not related to RT	1
Positive feeling	1
Sum	44

## Discussion

It has been suggested that RT provides an active and fun means to practice oral reading, with a clear objective of performing, which may support engagement and learning particularly among boys (Young et al., 2021). We studied this possibility in the context of an RT intervention study targeted at struggling readers. First, we were able to find some support for the view that RT can support especially boys' engagement and learning. We found that girls were more interested and emotionally engaged in RT. In contrast, boys warmed up to it slower, as indicated by reduced disaffection to RT over time (i.e., increased engagement). Second, we obtained some support for the hypothesis that the goal to perform for an audience is particularly important to boys (Yu & McLellan, 2019): Relative to boys in RT Practice, boys in RT Goal were more likely to acknowledge that they learned acting and text immersion, whereas girls reported learning various skills equally in goal and practice-oriented forms of RT.

### Gender differences

Our main finding was that the RT Goal program had a more significant effect on boys' than girls' perceptions of learning in RT. While girls' interviews suggested that they had learned acting and text immersion equally in the practice and goal-oriented RT, the boys' data showed a trend for learning these skills mainly in the goal-oriented RT. Moreover, the boys in practice-oriented RT reported more likely having learned either fluency or script reading or not knowing what they had learned, relative to other study groups. In other words, the goal or the performance itself helped boys acknowledge their learning of drama skills in particular. This finding aligns with the finding that boys were specifically interested in theatrical performance in RT (Young et al., 2021). A clear and specific goal for the training and the chance to demonstrate their reading skills to other students also may have been particularly important to boys, who may have lower self-regulation skills than girls (Else-Quest et al., 2006; Silverman, 2003) and who may be more likely than girls to adopt performance goals (Yu & McLellan, 2019). In turn, girls' tendency to adopt mastery goal orientation may have helped them perceive also the RT Practice program as a meaningful learning opportunity. It should be noted that both RT Practice and Goal programs included elements of supporting mastery goal orientation by emphasizing effort instead of correct performance, student collaboration instead of competition, and by creating a conversational, accepting and warm atmosphere. We believe these are important pedagogical factors that support engagement irrespective of students' gender.

Further, the engagement measures provided some support for the hypothesis that RT may engage boys specifically, as their ratings of disaffection reduced more from the first to the second half of the RT program relative to the girls' ratings. This result appears to indicate that the active and playful nature of RT (Young et al., 2021), not only the performance goal, may gradually ease the boys' reservations toward working with drama and/or reading. Notably, the reduction in disaffection in boys was numerically larger in the RT Goal group than in the RT Practice group. This nonsignificant trend provides additional motivation to study further whether specific goals motivate boys to pursue literacy activities.

In previous studies (Young et al., 2020, 2021), RT has been found to support boys' reading skills (word decoding) more than girls. A previous study by Keehn (2003) showed that poorer readers benefit more than average readers from RT intervention, which may have contributed to Young et al. (2020, 2021) findings. However, in the present study of struggling readers, there was no clear gender gap in reading – girls outperformed boys only in expressive reading scores and by a small margin. It seems likely that boys with low reading skills were somewhat underrepresented in our sample. This interpretation is supported by the larger number of girls (56) compared to boys (34) in our study. Results of the parent questionnaire also indicated that girls were more interested in drama than boys and, according to the engagement questionnaire, more engaged in RT.



After these considerations, it is perhaps realistic to conclude that our drama-RT program was able to support the reading fluency of both girls and boys equally. Another question is whether more gender-tailored interventions could produce differential responses among girls and boys and in which educational context such programs would be desirable.

Taken together, the present results provide support for the view that boys' learning and engagement in literacy could be supported by more active and goal-oriented instructional methods relative to traditional classroom instruction (Bristol, 2015; James, 2015; Senn, 2012). However, more research is needed before definite conclusions can be made. Based on the present results, the study of gender differences in goal orientations and in the influence of goals appears to be a promising avenue for research that aims to understand and mitigate gender differences in learning and motivation. The present study and that of Young et al. (2021) both reveal that interviewing students who participate in experimental interventions can produce important new knowledge.

### **General findings**

An important goal for any instruction is to make students aware of their progress, which can be considered a prerequisite for improved self-efficacy and self-image as a learner. Such effects of RT have been previously reported mostly anecdotally (Millin & Rinehart, 1999; Mraz et al., 2013) or qualitatively (Young et al., 2021). In our data, 78% of the children considered learning something in RT, such as reading (52%) or drama skills (42%). Thus, in addition to promoting reading skills, RT seems to help students become aware of their progress even when learning gains are not explicitly modeled, as is done in traditional repeated reading instruction (Samuels, 1979).

The analysis of the more elaborate answers given by 39% of the students revealed how learning in RT extended beyond reading fluency and included aspects such as how to adopt roles and become immersed in the text; how to perceive reading, acting, or performing; and how to cope with the emotions involved in these activities. Thus, while being able to improve target skills at the group level, drama pedagogy also appears to nourish the participants' individual learning needs.

Finally, the goal to perform had a few general benefits both for girls and boys. As previously reported, the goal to perform supports the engagement of all students irrespective of their gender (Hautala et al., 2023). As a novel finding, the RT Goal program evoked more memories of "performance" and "story narrative and characters" relative to the RT Practice program. While the former type of memory may reflect the significant experience of performing, the latter may result from focusing on a specific character and its role within the story narrative in the goal-oriented RT (Emery, 1996). In other words, the goal may enable students to engage deeper in the drama work.

### **Pedagogical implications**

According to our results, student engagement may be supported by setting explicit goals for learning activities. These goals appear to help boys acknowledge and verbalize their learning particularly. If one thinks of learning in terms of completing real-life tasks, a lack of such opportunities in school may understandably feel frustrating. Such frustration toward school seems to be overrepresented among boys (Beaman et al., 2006; Brozo et al., 2014; Deed & Campbell, 2007; for a review, see James, 2015) and children with learning disabilities (Bender & Smith, 1990). Rewarding types of pedagogies for these students may include frequent opportunities for learning by doing to achieve specific goals, working on topics stemming from one's personal interests, and sharing and showing one's skills to others (Bristol, 2015).

We believe that RT provides an example of an active and goal-oriented pedagogy suitable for special education. It is particularly encouraging that also struggling readers can enjoy RT and perform enthusiastically for their classmates by reading aloud, given their overall higher level of anxiety related to reading aloud (Novita, 2016; see Hautala et al., 2023 for the present sample). This result can be considered an important success metric for the RT approach.



The goal to perform appears to be central in RT. There is a lack of research on what motivates people to perform; however, “needs to influence others, show one’s competence, and receive social acceptance” has been discussed in the literature (e.g., Wiemers & Wolf, 2015). It may even be that performing for others is a fundamental, possibly biologically wired (Wiemers & Wolf, 2015), motivation for humans. A common observation during the RT in this study was that numerous children slowly warmed up to the drama work and that stage fright was an aspect that the children discussed and worked through during the program. This was also supported by the finding that almost all students (79%) were disappointed if their performance was canceled due to school closure caused by the COVID-19 pandemic.

### **Limitations and future directions**

The generalizability of the present findings is limited for several reasons. First, the number of girls and boys in each intervention group was small. The interventions were also relatively short and of low intensity, thereby being incapable of inducing major changes in the dependent measures. Therefore, the finding that the learning motivation of boys could be supported by a goal to perform needs to be replicated by experimental studies with higher statistical power – both with larger group sizes and interventions with larger effect sizes. Moreover, the significant interaction effects involving the gender factor had medium or small effects. It must be noted that the gender differences in learning and motivation are generally small, and individual variability typically overrides gender differences (see, Reynolds et al., 2015).

Unfortunately, four out of 10 schools were closed due to the COVID-19 pandemic before the programs could be completed, thereby causing the interventions to end prematurely. The interruption of the intervention and especially the cancellation of the final performance may have led to the attenuation of RT intervention effects.

Overall, we believe our RT Goal program successfully addresses the diverse learning needs of struggling readers. However, further research with various methodologies, such as questionnaires, observational methods, and in-depth interviews, is required to document these possible individual benefits. Moreover, the fluency progression of the students during the program period may be enhanced further (Hautala et al., 2023). It is possible that RT with relatively easy texts is mainly suited to support students’ basic oral reading fluency and that more demanding texts or other types of instruction (e.g., reading books or reading aloud longer paragraphs) are required for further fluency improvement. In particular, following the repeated reading method (Samuels, 1979), students may benefit from additional opportunities for repeated oral reading practice (e.g., homework) and regular assessments of their oral reading fluency, which gives them explicit feedback on their progression. The efficiency of such a combination of drama RT and repeated reading methods could be evaluated in future studies.

### **Conclusions**

According to the present results, readers’ theater can specifically address the learning motivation of boys who struggle with reading in two ways. First, RT seems to reduce boys’ disengagement in the activity over time – perhaps by alleviating their initial reservations toward drama. Second, the goal to perform for an audience seems to help boys especially acknowledge their learning in drama – that is, acting and immersing themselves in the text. Overall, readers’ theater seems to be an effective method to engage boys who struggle with reading to practice oral reading fluency.

### **Acknowledgments**

The authors would like to thank all children, parents, teachers, students, and research assistants participating in the ReadDrama research project.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Funding

This research was supported by grants [319911, 352020, and 317030] to JH from the Academy of Finland.

## ORCID

Jarkko Hautala  <http://orcid.org/0000-0002-7402-6364>

Miia Ronimus  <http://orcid.org/0000-0003-3231-3442>

## References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*(3), 261–271. <https://doi.org/10.1037/0022-0663.84.3.261>
- Beaman, R., Wheldall, K., & Kemp, C. (2006). Differential teacher attention to boys and girls in the classroom. *Educational Review, 58*(3), 339–366. <https://doi.org/10.1080/00131910600748406>
- Ben-Shachar, M., Lüdtke, D., & Makowski, D. (2020). Effectsize: Estimation of effect size indices and standardized parameters. *Journal of Open Source Software, 5*(56), 1–7. <https://doi.org/10.21105/joss.02815>
- Bender, W. N., & Smith, J. K. (1990). Classroom behavior of children and adolescents with learning disabilities: A meta-analysis. *Journal of Learning Disabilities, 23*(5), 298–305. <https://doi.org/10.1177/002221949002300509>
- Black, L. A. (2016). *The effects of readers' theater on reading comprehension and fluency of fifth-grade students* (Publication No. n.p.: 3746796) [Doctoral dissertation, Walden University]. ProQuest Dissertations and Theses. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=3061&context=dissertations>
- Bristol, T. J. (2015). Teaching boys: Towards a theory of gender-relevant pedagogy. *Gender and Education, 27*(1), 53–68. <https://doi.org/10.1080/09540253.2014.986067>
- Brozo, W. G., Sulkunen, S., Shiel, G., Garbe, C., Pandian, A., & Valtin, R. (2014). Reading, gender, and engagement: Lessons from five PISA countries. *Journal of Adolescent & Adult Literacy, 57*(7), 584–593. <https://doi.org/10.1002/jaal.291>
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Deed, C., & Campbell, C. (2007). Boys acting differently: Choice, engagement and learning. *International Journal of Learning, 14*(2), 1–18. <https://doi.org/10.18848/1447-9494/CGP/v14i02/45228>
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*(10), 1040–1048. <https://doi.org/10.1037/0003-066X.41.10.1040>
- Eagly, A. H., & Wood, W. (2013). The nature–nurture debates: 25 years of challenges in understanding the psychology of gender. *Perspectives on Psychological Science, 8*(3), 340–357. <https://doi.org/10.1177/1745691613484767>
- Else-Quest, N. M., Hyde, J. S., Goldsmith, H. H., & Van Hulle, C. A. (2006). Gender differences in temperament: A meta-analysis. *Psychological Bulletin, 132*(1), 33–72. <https://doi.org/10.1037/0033-2909.132.1.33>
- Emery, D. W. (1996). Helping readers comprehend stories from the characters' perspectives. *The Reading Teacher, 49*, 534–541. <https://www.jstor.org/stable/20201661>
- FNAE. (2016). *National core curriculum for basic education 2014*. Finnish National Agency for Education. <https://www.oph.fi/en/education-and-qualifications/national-core-curriculum-basic-education>
- Garrett, T. D., & O'Connor, D. (2010). Readers' theater: "Hold on, let's read it again." *Teaching Exceptional Children, 43* (1), 6–13. <https://doi.org/10.1177/004005991004300101>
- Griffith, L. W., & Rasinski, T. V. (2004). A focus on fluency: How one teacher incorporated fluency with her reading curriculum. *The Reading Teacher, 58*(2), 126–137. <https://doi.org/10.1598/RT.58.2.1>
- Haughey, B. (2015). *The effects of readers theater on fluency and student engagement*. Northwest Missouri State University. <https://www.nwmissouri.edu/library/researchpapers/2015/Haughey,%20Brandy.pdf>
- Hautala, J., Ronimus, M., & Junntila, E. (2023). Readers' theater projects for special education: A randomized controlled study. *Scandinavian Journal of Educational Research, 67*(5), 663–678. <https://doi.org/10.1080/00313831.2022.2042846>
- Häyrynen, T., Serenius-Sirve, S., & Korkman, M. (2013). *Lukilasse 2: Lukemisen, kirjoittamisen ja laskemisen seulontatesti 1.–6. vuosiluokille* (Screening test for reading, writing and calculus for grades 1 to 6). Hogrefe.
- Heyward, P. (2010). Emotional engagement through drama: Strategies to assist learning through role-play. *International Journal of Teaching and Learning in Higher Education, 22*(2), 197–204. <https://files.eric.ed.gov/fulltext/EJ930153.pdf>
- Hochweber, J., & Vieluf, S. (2018). Gender differences in reading achievement and enjoyment of reading: The role of perceived teaching quality. *The Journal of Educational Research, 111*(3), 268–283. <https://doi.org/10.1080/00220671.2016.1253536>

- Jabbar, A., & Warraich, N. F. (2022). Gender differences in leisure reading habits: A systematic review of literature. *Global Knowledge, Memory & Communication*, 72(6/7), 572–592. <https://doi.org/10.1108/GKMC-12-2020-0200>
- Jagger, T. P. (2008). *The effect of readers' theatre on fifth graders' reading fluency and comprehension* (Publication No. 3297175) [Doctoral dissertation, Walden University]. ProQuest Dissertations and Theses. <https://www.proquest.com/openview/8e14b29277e0acfd4368fa76a4e079c/1?cbl=18750&pq-origsite=gscholar&parentSessionId=em9w0gRAkV6vxxHDkCW9myDiDwEyugZuLoyWR6shGUs%3D>
- James, A. N. (Ed.). (2015). *Teaching the male brain: How boys think, feel, and learn in school*. Corwin Press. <https://doi.org/10.4135/9781483393407>
- Keehn, S. (2003). The effect of instruction and practice through readers theatre on young readers' oral reading fluency. *Literacy Research and Instruction*, 42(4), 40–61. <https://doi.org/10.1080/19388070309558395>
- Kenney-Benson, G. A., Pomerantz, E. M., Ryan, A. M., & Patrick, H. (2006). Sex differences in math performance: The role of children's approach to schoolwork. *Developmental Psychology*, 42(1), 11–26. <https://doi.org/10.1037/0012-1649.42.1.11>
- Kuhn, M. R., Schwanenflugel, P. J., & Meisinger, E. B. (2010). Aligning theory and assessment of reading fluency: Automaticity, prosody, and definitions of fluency. *Reading Research Quarterly*, 45(2), 230–251. <https://doi.org/10.1598/RRQ.45.2.4>
- Lerkkanen, M.-K., Niemi, P., Poikkeus, A.-M., Poskiparta, M., Siekkinen, M., & Nurmi, J.-E. (2006). *The first steps study* [Unpublished data]. Department of Psychology and Department of Teacher Education, University of Jyväskylä.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Marinak, B. A., & Gambrell, L. B. (2010). Reading motivation: Exploring the elementary gender gap. *Literacy Research and Instruction*, 49(2), 129–141. <https://doi.org/10.1080/19388070902803795>
- Marks, G. N. (2008). Accounting for the gender gaps in student performance in reading and mathematics: Evidence from 31 countries. *Oxford Review of Education*, 34(1), 89–109. <https://doi.org/10.1080/03054980701565279>
- Marshall, H. B. (2017). *The effectiveness of readers' theatre on fluency, comprehension, and motivation on primary students* [Doctoral dissertation, Middle Tennessee State University]. JEWLScholar@MTSU Repository. <https://jewlscholar.mtsu.edu/server/api/core/bitstreams/91dc0a4d-002b-4727-a5d7-461fa1dd1ab4/content>
- McGeown, S. P., & Warhurst, A. (2020). Sex differences in education: Exploring children's gender identity. *Educational Psychology*, 40(1), 103–119. <https://doi.org/10.1080/01443410.2019.1640349>
- Merisuo-Storm, T., & Aerila, J. A. (2018). Boys' and girls' reading skills and attitudes during the first six school years. In P. O. García & P. B. Lind (Eds.), *Reading achievement and motivation in boys and girls* (pp. 157–181). Springer.
- Merisuo-Storm, T. (2006). Girls and boys like to read and write different texts. *Scandinavian Journal of Educational Research*, 50(2), 111–125. <https://doi.org/10.1080/00313830600576039>
- Merritt, J. E. (2015). *Using readers' theater to improve reading fluency in students with dyslexia*. Sam Houston State University. <https://www.proquest.com/openview/b41d6a0d456331a8cb45fdec4945f20a/1?pq-origsite=gscholar&cbl=18750>
- Midgley, C., Kaplan, A., & Middleton, M. (2001). Performance-approach goals: Good for what, for whom, under what circumstances, and at what cost? *Journal of Educational Psychology*, 93(1), 77–86. <https://doi.org/10.1037/0022-0663.93.1.77>
- Millin, S. K., & Rinehart, S. D. (1999). Some of the benefits of readers theater participation for second-grade title I students. *Literacy Research and Instruction*, 39(1), 71–88. <https://doi.org/10.1080/19388079909558312>
- Mraz, M., Nichols, W., Caldwell, S., Beisley, R., Sargent, S., & Rupley, W. (2013). Improving oral reading fluency through readers theatre. *Reading Horizons: A Journal of Literacy and Language Arts*, 52(2), 163–180. [https://scholarworks.wmich.edu/reading\\_horizons/vol52/iss2/5](https://scholarworks.wmich.edu/reading_horizons/vol52/iss2/5)
- Mullis, I. V. S., von Davier, M., Foy, P., Fishbein, B., Reynolds, K. A., & Wry, E. (2023). *PIRLS 2021 international results in reading*. Boston College, TIMSS & PIRLS International Study Center. <https://doi.org/10.6017/lse.tpisc.tr2103.kb5342>
- Neelands, J. (1984). *Making sense of drama: A guide to classroom practice*. Heinemann.
- Novita, S. (2016). Secondary symptoms of dyslexia: A comparison of self-esteem and anxiety profiles of children with and without dyslexia. *European Journal of Special Needs Education*, 31(2), 279–288. <https://doi.org/10.1080/08856257.2015.1125694>
- O'Cathain, A., Murphy, E., & Nicholl, J. (2010). Three techniques for integrating data in mixed methods studies. *BMJ*, 341(sep17 1), c4587. <https://doi.org/10.1136/bmj.c4587>
- OECD. (2019). *PISA 2018 Results (Volume I): What students know and can do*. PISA, OECD Publishing. <https://doi.org/10.1787/5f07c754-en>
- Pekrun, R., Elliot, A. J., & Maier, M. A. (2009). Achievement goals and achievement emotions: Testing a model of their joint relations with academic performance. *Journal of Educational Psychology*, 101(1), 115–135. <https://doi.org/10.1037/a0013383>
- Pöysä, S., Vasalampi, K., Muotka, J., Lerkkanen, M.-K., Poikkeus, A.-M., & Nurmi, J.-E. (2018). Variation in situation-specific engagement among lower secondary school students. *Learning and Instruction*, 53, 64–73. <https://doi.org/10.1016/j.learninstruc.2017.07.007>

- Quezada, N. F. (2021). Outcomes of a readers' theatre program on oral reading prosody: An exploratory study in different environments. *International Electronic Journal of Elementary Education*, 13(5), 577–588. <https://doi.org/10.26822/iejee.2021.213>
- Reutzel, D. R., Fawson, P. C., & Smith, J. A. (2008). Reconsidering silent sustained reading: An exploratory study of scaffolded silent reading. *The Journal of Educational Research*, 102(1), 37–50. <https://doi.org/10.3200/JOER.102.1.37-50>
- Reynolds, M. R., Scheiber, C., Hajovsky, D. B., Schwartz, B., & Kaufman, A. S. (2015). Gender differences in academic achievement: Is writing an exception to the gender similarities hypothesis? *The Journal of Genetic Psychology*, 176(4), 211–234. <https://doi.org/10.1080/00221325.2015.1036833>
- Rinehart, S. D. (2001). Establishing guidelines for using readers' theater with less-skilled readers. *Reading Horizons*, 42(2), 65–75. [https://scholarworks.wmich.edu/reading\\_horizons/vol42/iss2/1](https://scholarworks.wmich.edu/reading_horizons/vol42/iss2/1)
- Samuels, S. J. (1979). The method of repeated readings. *The Reading Teacher*, 32(4), 403–408. <https://www.jstor.org/stable/20194790>
- Senn, N. (2012). Effective approaches to motivate and engage reluctant boys in literacy. *The Reading Teacher*, 66(3), 211–220. <https://doi.org/10.1002/TRTR.01107>
- Silverman, I. W. (2003). Gender differences in delay of gratification: A meta-analysis. *Sex Roles*, 49(9), 451–463. <https://doi.org/10.1023/A:1025872421115>
- Smith, D. M. (2011). *Readers theatre: Its effectiveness in improving reading fluency, student motivation, and attitudes toward reading among second-grade students* (Publication No. 3483738) [Doctoral dissertation, Pennsylvania State University]. ProQuest Dissertations and Theses. <https://www.proquest.com/dissertations-theses/readers-theatre-effectiveness-improving-reading/docview/902152705/se-2>
- Sokal, L. (2010). Long-term effects of male reading tutors, choice of text and computer-based text on boys' reading achievement. *Language and Literacy*, 12(1), 116–127. <https://doi.org/10.20360/G27P42>
- Stutz, F., Schaffner, E., & Schiefele, U. (2016). Relations among reading motivation, reading amount, and reading comprehension in the early elementary grades. *Learning and Individual Differences*, 45, 101–113. <https://doi.org/10.1016/j.lindif.2015.11.022>
- Torppa, M., Eklund, K., Sulkunen, S., Niemi, P., & Ahonen, T. (2018). Why do boys and girls perform differently on PISA reading in Finland? The effects of reading fluency, achievement behavior, leisure reading, and homework activity. *Journal of Research in Reading*, 41(1), 122–139. <https://doi.org/10.1111/1467-9817.12103>
- Weber, R. P. (1990). *Basic content analysis* (No. 49). Sage.
- Wiemers, U. S., & Wolf, O. T. (2015). Public speaking in front of an unreceptive audience increases implicit power motivation and its endocrine arousal signature. *Hormones and Behavior*, 71, 69–74. <https://doi.org/10.1016/j.yhbeh.2015.04.007>
- Yang, L., Li, C., Li, X., Zhai, M., An, Q., Zhang, Y., Zhao, J., & Weng, X. (2022). Prevalence of developmental dyslexia in primary school children: A systematic review and meta-analysis. *Brain Sciences*, 12(2), 240. <https://doi.org/10.3390/brainsci12020240>
- Young, C., Durham, P., Rasinski, T. V., Godwin, A., & Miller, M. (2021). Closing the gender gap in reading with readers theater. *The Journal of Educational Research*, 114(5), 495–511. <https://doi.org/10.1080/00220671.2021.1986460>
- Young, C., Mohr, K. A., & Landreth, S. (2020). Improving boys' reading comprehension with readers theatre. *Journal of Research in Reading*, 43(3), 347–363. <https://doi.org/10.1111/1467-9817.12307>
- 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>
- Young, C., & Rasinski, T. (2018). Readers' theatre: Effects on word recognition automaticity and reading prosody. *Journal of Research in Reading*, 41(3), 475–485. <https://doi.org/10.1111/1467-9817.12120>
- Yu, J., & McLellan, R. (2019). Beyond academic achievement goals: The importance of social achievement goals in explaining gender differences in self-handicapping. *Learning and Individual Differences*, 69, 33–44. <https://doi.org/10.1016/j.lindif.2018.11.010>
- Zutell, J., & Rasinski, T. V. (1991). Training teachers to attend to their students' oral reading fluency. *Theory into Practice*, 30(3), 211–217. <https://doi.org/10.1080/00405849109543502>