

University of Dundee

Reading and literacy interventions for improving reading and motivation in adolescence

Webber, Charlotte; Wilkinson, Katherine; Duncan, Lynne G.; McGeown, Sarah

DOI:
[10.31219/osf.io/4mxvt](https://doi.org/10.31219/osf.io/4mxvt)

Publication date:
2021

Licence:
CC BY

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Webber, C., Wilkinson, K., Duncan, L. G., & McGeown, S. (2021). *Reading and literacy interventions for improving reading and motivation in adolescence: a narrative review*. Open Science Framework (OSF). <https://doi.org/10.31219/osf.io/4mxvt>

General rights

Copyright and moral rights for the publications made accessible in Discovery Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from Discovery Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

**READING AND LITERACY INTERVENTIONS MEASURING READING
MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW**

Title Page

**Reading and Literacy Interventions for Improving Reading and Motivation in
Adolescence: A Narrative Review**

Authors & Affiliations

Charlotte Webber^{1*}, Katherine Wilkinson², Dr Lynne G. Duncan³ & Dr Sarah McGeown¹

¹ Moray House School of Education and Sport, University of Edinburgh, Edinburgh, U.K.

² Scottish Book Trust, Edinburgh, U.K.

³ Psychology, University of Dundee, Dundee, U.K.

*Correspondence:

Charlotte Webber

c.webber-1@sms.ed.ac.uk

Word count: 6909

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Main text file

Reading and Literacy Interventions for Improving Reading and Motivation in Adolescence: A Narrative Review

Abstract:

Reading interventions measuring motivational outcomes in adolescence vary in terms of their theoretical frameworks, methodological approaches and findings. However, a review of these is not currently available. Drawing on narrative review principles, this article synthesises academic and grey literature to outline the breadth and scope of interventions which have measured changes in adolescents' reading motivation and reflects upon those interventions identified. Key characteristics from the existing literature include a strong focus on struggling readers and skills-based goals. Outcomes of reading interventions measuring motivational effects among adolescents are mixed, and often not explicitly grounded in theory. There is also a notable absence of research taking account of the opinions and experiences of adolescents. There is need for much deeper exploration of "what works" for motivating adolescents to read; this should be based in established theory and centre the experiences of adolescents themselves.

Keywords: adolescence, reading, literacy, motivation, intervention

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

(1) Introduction

The effects of motivation on reading behaviour and achievement are of great interest to the fields of literacy research and education. Reading motivation has been linked to reading achievement (Toste et al 2020) and engagement in different reading activities, particularly book reading (McGeown et al., 2015). Adolescence represents a particularly vulnerable period for reading motivation (e.g., Allred & Cena, 2020; Clark, 2019; Nootens et al. 2019; McKenna et al. 2012). Despite this, research which explores the reasons for the decline in reading motivation in adolescence and which evaluates the efficacy of interventions which support motivational outcomes remains scarce (Conradi et al., 2014).

Reading motivation is multidimensional and complex (Schiefele et al 2012; Toste et al. 2020) and reflects “the drive to read resulting from a comprehensive set of an individual’s beliefs about, attitudes toward, and goals for reading” (Conradi et al., 2014, p154). Cognate constructs such as attitude, interest, value, self-efficacy, self-concept and goals have also been operationalised in studies of reading motivation (Conradi et al., 2014; Jang et al. 2015), meaning synthesising findings and discerning appropriate strategies for supporting reading motivation is challenging for educators and researchers alike (Conradi et al. 2014; Schiefele et al., 2012; Jang et al. 2015). Furthermore, there also appears to be a lack of consensus regarding an appropriate theoretical model (Conradi et al., 2014; McTigue et al. 2019) and a number of frameworks have been applied in explorations of reading motivation, for example self-determination theory (Deci & Ryan, 1980) the reading engagement model (Guthrie & Wigfield, 2000), expectancy value theory (Eccles, 1983), the reading attitude acquisition model (McKenna, 1994) and social-cognitive theory (Bandura, 1977b). This contributes further to the conceptual complexity of the research base. Finally, existing interventions supporting reading

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

motivation in adolescence have utilised a variety of different methodological approaches. Some employ school-wide changes, some utilise targeted strategies for particular groups and others use manipulations of current classroom practices. Evaluation techniques are also varied, from randomised controlled trials (e.g., Cantrell et al. 2016) and experimental manipulations (e.g., Guthrie & Klauda, 2014) to anecdotal reports (e.g., Scottish Book Trust, 2020) and case studies from educators (e.g., Francois, 2013). This variation, although producing diverse contributions towards the research base, is challenging to navigate, for both researchers and practitioners.

The aim of this review is to synthesise existing literature which has explored the use of reading interventions for supporting motivation (and cognate concepts) in adolescents (12 – 16 years-old), to identify gaps in empirical knowledge and to provide suggestions for future research and practice. Given the variety of publication type, methodological approach, quality and impact of available literature and the inclusion of non-academic publications (e.g., teacher case studies, reports from charities), a narrative review (NR) format has been selected as most appropriate. NRs are very common in medical literature (Baethge et al., 2019; Bastian et al. 2010), but examples of NRs used within educational research are also evident (e.g., Jezembek & Murphy, 2013; Zucker et al. 2009). NRs summarise a literature base in a way which allows greater flexibility in terms of selection criteria, thematic inclusion and exploration of specific research questions than a systematic review approach (Baethge, et al. 2019). This is especially relevant within the current field, as much of the available publications exist as grey literature. As it is beyond the scope of a single review to comprehensively evaluate the effectiveness of every trialled reading intervention, the NR approach aims to provide an overview of, and reflection upon, the type and breadth of interventions that have been trialled thus far. It is hoped that this reflection will be of use to educators reflecting on approaches to support reading motivation in their own classrooms and to researchers exploring gaps in the existing literature.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

We referred to the SANRA scale (Baethge et al. 2019) throughout to inform the NR process.

For further reading on the NR format, see Bastian et al. (2010); Baethge et al. (2019)

(1.1) Aims

1. To summarise the breadth and type of reading and literacy interventions which have been targeted specifically at adolescents (12–16 years-old) and explicitly measured reading motivation as an outcome.
2. To identify gaps in existing knowledge and provide suggestions for future directions.

(2) Methods

The Method section of this review is split into two complementary sections, (2.1) systematic database search; and (2.2) discovery of additional texts. These additional texts represent mainly *grey literature* which was not found through systematic database and meta-analysis searches, but which was discovered through reference list and internet searches.

(2.1) Systematic Database Search

SANRA guidance (Baethge et al., 2019), states that “a convincing narrative review will be transparent about the sources of information in which the text is based” (p.4). Therefore, the list of selection criteria developed for the current narrative review is included here.

(2.1.1) Inclusion Criteria

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

- Explicit focus on reading and/or literacy interventions
- Explicit measurement of the impact of interventions on reading motivation and/or its subcomponents (e.g., self-efficacy) and/or reading engagement (e.g., strategy use)
- Participant populations aged 12 – 16 years old
- Quantitative and/or qualitative data

(2.1.2) Exclusion Criteria

- Non-intervention studies
- Single participant studies
- Studies that did not measure motivation (or subcomponents) directly or which *only* measured comprehension/performance measures
- Studies focussing on improving motivation for other academic subjects (e.g., science) or for learning more generally
- Studies focussing on second language or EFL learning
- Studies exclusively using teachers as participants
- Studies published before 1990

(2.2) Database Searches

A literature search was performed based on the above inclusion and exclusion criteria. The search utilised three databases: SCOPUS, the Education Resources Information Centre (ERIC) and the What Works Clearinghouse (WWC). Additionally, reference list searches of 4 relevant meta-analyses (McBreen & Savage, 2020; Unrau et al. 2017; Lazowski & Hulleman, 2016; and Okkinga et al. 2018) were conducted. Some additional texts were also gathered through

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

manual search in reference lists from retrieved articles in order to deepen our understanding of particular approaches. A total of 1,032 texts were retrieved; 42 were selected for inclusion. A detailed explanation of search procedures can be found in the *Supplementary Information* section.

(2.3) Discovery of Additional Texts

In order to gather public-domain resources that are likely to be accessible to educators and which have the potential to be used in schools, an internet search for programme syntheses and reviews was conducted. Included documents are those that describe existing programmes and provide summaries of their key features. It is hoped that the publications included here will provide an overview of the types of interventions that have been implemented by non-university affiliated teams; readers may know of similar programmes developed and evaluated by other organisations which have not been included here.

(3) Findings

In order to summarise the breadth of reading interventions identified, and for this NR to be navigable by both researchers and educators, interventions have been categorised by type. The intention is to enable those who are interested in particular methods of implementation to easily locate the information related to these. The following categories of intervention were identified: (1) book clubs; (2) whole-school approaches; (3) technology-supported interventions; (4) performance and theatre; and (5) reading and literacy skills interventions. Not all the publications retrieved could be included within the scope of this NR, and indeed, some interventions that are included could span more than one category. It was also beyond

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

the scope of this review to evaluate the efficacy of each intervention; we hope the review will provide an overview of existing interventions and refer readers to relevant publications should they wish to learn more about the reported approaches.

(3.1) Book Clubs

Book clubs can be conceptually understood as “small collaborative groups whose purpose is to enhance literacy and personal and social growth” (Polleck, 2010; p.51). Of the retrieved literature, publications which have evaluated the use of book clubs for promoting reading motivation in adolescents show mixed results, focussing on different motivational constructs and operating within different contexts. For example, in the U.S., Whittingham and Huffman (2009) report that attending a book club once a week for one semester increased reading attitude in Middle School (11 – 13 years old) students (n=60), particularly for those with the most negative attitudes towards reading prior to participating. Tijms et al. (2018) reported that a 7-week book club intervention with students (n=50) aged 12 – 14 years-old from urban, low SES communities in the Netherlands also produced significant increases in reading attitude alongside improvements in reading comprehension and social-emotional competencies. However, they did not find significant improvements in their reading motivation or academic attitude constructs. Graphic novel book club participation has also been reported to have a positive effect on reading value and reading self-efficacy in U.S. struggling readers (n=4) aged 13 – 14-years-old (Gavigan, 2010). Furthermore, anecdotal reports by Harmon and Wood (2001) suggest that their *Talking About Books (TAB)* book club approach supported struggling U.S. Middle school (11 – 13 years old) readers to “acquire some measure of satisfaction, accomplishment, and self-esteem” (p.55) and increase the participation of students who were “typically passive and detached from the classroom context”.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

These studies indicate positive effects of book clubs on motivation-related outcomes, particularly reading attitude, value and self-efficacy. However, there is still a need to develop greater understanding of the underlying mechanisms of book club success so as to inform best practice. Different book clubs will differ significantly in terms of group composition and characteristics, quality of discussion, text type, meeting frequency and environment. These variations are likely to affect book club efficacy in different ways for different individuals, for example, depending on interest in – or connection with – selected texts. Allowing students autonomy over their choice of text appeared beneficial for increasing engagement (Gavigan, 2010; Whittingham & Huffman; 2009), as did supporting students to identify as readers (Gavigan, 2010). Structured support for trying new texts may also be beneficial (Harmon & Wood, 2001). Although existing research does not always situate book clubs within a theoretical framework, social theories of reading motivation and engagement (e.g., Guthrie & Wigfield, 2000; Guthrie et al. 1995) can perhaps best be applied to the book club experience. As a result, greater exploration of how the social interactions between group members shapes book club outcomes would be of interest to developing a theoretical basis for their application. Within experimental work, comparisons of different book club features, formats and platforms (e.g., online versus in-person; synchronous versus asynchronous) would also be of interest.

(3.2) Whole-school approaches

Whole-school approaches aim to create an environment that is conducive to supporting reading motivation among classes of students. For example, in an ethnographic study of one U.S. Secondary school (11 – 18 years old), where students were displaying above-average reading comprehension scores, Francois (2013) reported the construction of a metaphorical

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

‘crawl space’ – a safe, protected environment – which had contributed to a sense of community and individual agency with regard to reading. Students were encouraged to select their own books, form connections with teachers and other students through reading, recommend books to one another, read in public spaces and encourage one another to read (both explicitly and through peer modelling). School corridors were decorated with fliers about books, authors came to visit the school and students took regular trips to the library. Although acknowledging that it is difficult to form generalisations from single-site case studies, the author suggests that situating reading within a social model is key and emphasises a multidimensional approach which understands reading as a social activity.

Similar examples of whole school approaches in the U.K. are the *First Minister’s Reading Challenge (FMRC)* (Scottish Book Trust) and *Bookbuzz* (BookTrust). *FMRC* aims to support schools to develop a ‘reading culture’ by promoting the importance of reading for pleasure and by embedding this across the curriculum (e.g., incorporating weekly *Drop Everything and Read* sessions, opening a mini-library with the help of students). In 2020, 82% of participating Secondary schools felt that *FMRC* helped encourage students (11 – 16 years old) to read for pleasure, and 75% felt it helped them understand the value of doing so (Research Scotland, 2020). Similarly, in the most recent evaluation of *Bookbuzz* (2014/15), Year 7 and 8 (11 – 13 years old) students stated that *Bookbuzz* had encouraged them to try different types of books (60%) and supported them to enjoy reading more (61%) and feel more confident about reading (48%) (BookTrust, 2015). A key feature of *Bookbuzz* is the gifting of a free book from the *Bookbuzz* shortlist; many students reported this to be key to their enjoyment of the programme.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

The implementation of whole school approaches means that interventions may be interwoven with other aspects of teaching, so establishing the unique contribution of an intervention may be challenging. However, it also illustrates that a flexible approach tailored to different schools can be used – especially when this effort is coordinated across the curriculum and attends to students’ particular needs. Support from school leadership teams, investment in the professional development of school staff, provision of resources (e.g., books), space (e.g., comfortable places to read) and time (within the school day) are all important to ensure the benefits of interventions to support adolescent reading and reading motivation are realised (Authors, in press).

(3.3) Technology-supported interventions

The growing availability of technology-supported reading resources has brought with it the possibility for digital materials to be used to support adolescents’ reading and reading motivation. Literature search procured a number of publications examining the efficacy of technology-supported interventions in the classroom. For example, in a U.S.-based exploration of how Nook e-readers affect student (15 – 17-years-old) attitudes towards reading, Dierking (2015) found that using e-readers for sustained silent reading was particularly beneficial for self-identifying “reluctant readers”. In the U.K., a report by the National Literacy Trust (Picton & Clark, 2015) indicated that enjoyment of reading and perceptions of reading as ‘cool’ increased following e-book intervention programmes in students aged 8 – 16 years old (n=34,910; although according to the report the majority of survey respondents were 11 – 13 years old). Notably, this report provides a synthesis of studies related to children’s screen reading behaviour, enjoyment and skills from secondary sources and findings from the National Literacy Trust’s annual literacy survey 2012 – the specific implementation techniques

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

of each e-book intervention are not reported, so it is not clear which aspects of each e-book-related intervention might have contributed towards improvements in reading enjoyment.

Other technology-supported resources have received some interest in terms of addressing reading motivation in adolescents. In the U.S., video peer-modelling, in which participants (n=48) read online texts with embedded videos featuring other adolescents asking questions about the text has also been trialled (Tsikalas, 2012), but did not lead to increases in motivation. Other digital approaches have been used by Gunter and Kenny (2012) in their *UB the Director* programme (part of *Digital Booktalk*; see also Gunter and Kenny, 2008) which supported reluctant readers (n=48) to produce narrative videos for a class-assigned book. The approach was reported to “chang[e] opinions and misconceptions about reading” (p.156) however, the underlying mechanism as to how this might come about remains unclear. Greater insights into the aspects that adolescents – particularly reluctant readers – would find engaging and useful from technology-supported interventions would prove useful in developing resources to meet their needs. Furthermore, it should be remembered that variation in digital skills may pose a barrier to some students (see Sefton-Green et al. 2009) and educators, and care should be taken to ensure technology-supported programmes are suitably tailored to the needs and skills of individuals. Finally, access to technology varies considerably and this should also be borne in mind to ensure technology-supported resources to support reading and reading motivation do not magnify existing inequalities.

(3.4) Performance and theatre

Interventions which focus on building high levels of engagement with texts include those centred around performance and theatre, which focus on bringing texts (e.g., books,

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

plays, poetry) to life, with readers often embodying the characters within texts. The database search resulted in the discovery of a number of performance/drama/theatre interventions which measured adolescents' reading motivation. For example, a U.S. dissertation by Wittington (2012) examined the effect of a reading fluency and prosody intervention on reading attitude in struggling and unmotivated 6th – 8th Grade (11 – 14 years old) readers. The intervention incorporated performance reading to engage students with texts and support the development of fluency skills. Texts were selected from *Reader's Theater* scripts and consisted of famous speeches, poetry and other “highly motivating materials” (p.4). Following the programme, over one third of students reported a more positive attitude towards reading than at pre-test. Teachers also indicated that students appeared more engaged when they were given a choice over the material they read. Richardson (2014) also reported that a 6-week *Reader's Theater* intervention fostered increases in reading motivation and attitude in 9th and 10th (14 – 16 years old) Grade students (n=24) reading below the expected standard for their age and that active involvement through performance made reading more enjoyable and allowed students to become comfortable engaging with reading activities.

These interventions represent a unique approach to encouraging reading motivation. When considering approaches to supporting reading motivation, it is sometimes easy to become narrowly focussed on the act of book reading and neglect intersecting practices that may also contribute to fostering motivation for literacy activities. Although the methods of implementation of the performance and theatre interventions above are not clear and would require further exploration, these reports provide useful think-pieces for conceptualising holistic literacy engagement.

(3.5) Reading and literacy skills interventions

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

In a recent meta-analytic review, reading skill has been found to be moderately associated with reading motivation (Toste et al. 2020), with evidence of a bi-directional relationship between the two; yet early reading skill is found to be a stronger predictor of later motivation than motivation is of reading skills. When conducting the literature search for this NR, it became clear the majority of existing reading interventions with adolescents have focussed on reading skills, particularly for struggling readers. Due to space limitations, not all of the skills-based interventions retrieved from literature search can be included here. Those selected have been chosen to demonstrate the broad range of approaches that have been used to support adolescents' reading and reading motivation. Furthermore, interventions with a stronger focus on motivation as an outcome measure are included.

One of the most well evaluated skills-focussed interventions which has a specific focus on motivation is Concept Orientated Reading Instruction (CORI) (Wigfield, Mason-Singh & Guthrie, 2014). Within the CORI framework, literacy engagement is conceptualised as “the interplay of motivation, conceptual knowledge, strategies, and social interaction during literacy activities” (Wigfield, 2004; p.ix). The programme merges the theoretical underpinnings of reading comprehension and motivation (intrinsic motivation, perceived autonomy, self-efficacy, collaboration and mastery goal pursuit), with experience from teachers, reading specialists and educational psychologists. Key motivational features include fostering situational interest, encouraging student choice and curiosity, ensuring success, providing a wide variety of interesting texts and materials, providing opportunities for hands-on activities, encouraging students to strive towards knowledge goals and enabling students to collaborate (Guthrie, McRae & Klada, 2007; Guthrie & Klada, 2014). CORI has been evaluated extensively and a substantial number of studies addressing attainment outcomes have been

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

conducted; an exhaustive list of these is not included here. With regards to motivational outcomes, Guthrie and Klauda (2014) have found U.S. 7th Grade (12 – 13 years old) students receiving the CORI curriculum to show greater increases in text comprehension, intrinsic motivation, reading value, perceived competence and positive engagement than those receiving traditional instruction.

A U.K.-based skills-focussed curriculum intervention, Literacy for Life (LfL), uses reading, writing and oral skills resources (e.g., reading aloud and the *Premier League Reading Stars* programme) alongside professional development for teachers to promote reading for pleasure. LfL schools have considerable freedom around which elements they include in their programmes. Morris et al. (2021) adopted a quasi-experimental approach to compare outcomes in five secondary schools using the LfL programme with “the strongest comparators available” (p.7), although details of these control interventions were not provided. The LfL programme had a small *negative* impact on students reading enjoyment: enjoyment for reading declined slightly across the three-year intervention. To understand this, the authors note that the programme contained a large variation of components, each of which were *assumed* to be beneficial (not always with supporting evidence), and that schools were able to adapt the programme however they wished, leading to large variation in implementation. There was also no clear theory of change for the programme. The authors suggest that “clearer, more focused (and possibly fewer) aims and intended outcomes” (p.13), as well as clarity on the theoretical assumptions and causal mechanisms supporting specific elements would have been of benefit.

A number of other skill-based interventions measuring motivation as an outcome were discovered from the literature search. For example, the *READ180* programme uses a structured instructional model and combines whole-group, small-group and technology-integrated

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

reading instruction, including activities such as vocabulary instruction, reading strategy modelling, read-aloud sessions, guided reading instruction and reading skills development. The programme has a strong focus on reading skills outcomes and much of the evaluation reflects this, however, a few U.S. studies have measured motivation in their evaluation. For example, alongside performance outcomes, Swanlund et al. (2012) reported year-long implementation of *READ180* as related to an increased “desire to read” (p.54), more positive perceptions about their own reading ability and greater strategy application in 6th – 9th Grade (11 – 15 years old) students. Melekoglu (2011) found that for struggling readers without reading disabilities (aged 9 – 17 years old), reading self-concept increased significantly following an 18-week *READ180* intervention. Another U.S. skills-based programme, *Voyager Passport Reading Journeys (PRJ)*, provides explicit vocabulary and comprehension instruction, independent and small group work, access to video segments and online interactive lessons, opportunities for extended discussion and a supply of Lexile-levelled books (based on topics of “real-world areas of interest” [Vaden-Kiernan et al. 2012; p.18]). Implementation with 6th and 7th Grade (11 – 13 years old) students had a significant effect on reading achievement, but not on reading motivation in comparison with a control condition (Vaden-Kiernan et al., 2012). Given the variety of instructional practices included within the *READ180* and *PRJ* curriculums, it is hard to disentangle which element(s) were specifically related to the observed outcomes and how individual students might have responded to each.

Another example of a skills-based intervention is *The Learning Strategies Curriculum (LSC)*. The *LSC* is grounded in theory related to self-regulated learning and generalisation (Schumaker & Deshler, 1992, 2006) and provides targeted intervention for struggling readers. The literature search retrieved a number of reports examining the efficacy of the *LSC* for improving reading skill, strategy use and reading motivation in struggling readers (U.S. Grades

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

6 and 9) across four years (Cantrell et al. 2011; 2013; 2014; 2016). Significant increases in self-reported motivation and cognitive strategy use were reported for 6th (11 – 12 years old) and 9th (14 – 15 years old) Grade students enrolled on the *LSC* (Cantrell et al. 2011). On motivation measure subscales, increases in reading self-efficacy, intrinsic motivation (interest, curiosity and perceptions of importance) and extrinsic motivation (grades and competition with peers), but not for social motivation (Cantrell et al. 2013), were found for the *LSC* group. Interestingly, improvements in cognitive strategy use and motivation did not translate into improve reading performance. Evaluation of the *Kentucky Cognitive Literacy Model* (Cantrell, et al. 2012) reported similar findings – no significant effects on reading achievement despite significant impacts on students' (14 – 15 years old) self-efficacy for strategy use and on reading motivation. The authors suggest that this may be due to the fact that although the relationship between reading engagement and performance is likely to be reciprocal (e.g., Morgan & Fuchs, 2007; Toste et al 2020), changes may not occur simultaneously; improvements in performance may take longer to emerge.

Another skills-focussed intervention widely used across age groups and reading skill levels is *Accelerated Reader (Renaissance Learning; Siddiqui et al. 2015)*. Accelerated Reader (AR) utilises Reading Practice Quizzes (RPQs) assessing text comprehension as a means to encourage reading practice, foster text engagement and develop reading skills. There is a considerable research base evaluating AR (Siddiqui et al. 2015). However, much of the research appears to focus on increasing skills-based outcomes such as text comprehension and reading fluency (WWC, 2008), particularly in younger age groups (e.g., Nunnery et al. 2006). However, some research has explored the efficacy of the programme for supporting motivational outcomes in adolescents. In the U.S., Huang (2012) reports that for their sample of 6th – 8th Grade (11 – 14 years old) students, the AR programme created feelings of being

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

pressured to read texts. Indeed, in other evaluations of AR, feelings of being “forced to read” by the programme were associated with self-reported decreases in motivation to do so (Thompson et al., 2008; p.555). Huang (2012) also reports that AR created feelings of competition between peers to get the highest RPQ scores. The authors note that the AR approach may support extrinsic (external) motivation to the detriment of intrinsic (internal) motivation, a position supported by previous evaluations on the programme (e.g., Thompson et al. 2008; Biggers, 2001). That said, findings from a large-scale study conducted by the National Literacy Trust in the UK (Clark & Cunningham, 2016) comparing pupils (age 8 – 18) who used AR (n = 9,551) in school with those who did not (n = 15,312) found that significantly more pupils who use AR report positive reading attitudes and more frequent reading activity, compared to those who do not. Different results from studies of AR may reflect different methodological approaches (e.g., qualitative vs quantitative research) or differences in the implementation or messaging associated with AR.

Finally, Farkas and Jang (2019) evaluated the efficacy of their English Language Arts curriculum, which was developed by their research team and was based in social constructivism and cognitive theory. The intervention aimed to support reading comprehension and motivation in 8th Grade (13 – 14 years old) students across a 12-week period. The curriculum included specific reading instruction, motivational and self-directed learning (e.g., metacognitive development), text-based collaborative learning, ongoing assessment and classroom coaching for teachers. Reading motivation increased significantly for students in the intervention group from pre- to post-test, however, motivation scores were unavailable for the control group; the authors are unable to conclude whether the increase in reading motivation was related to the intervention curriculum in particular. The authors note that providing students with a wide range of texts, allowing them to select their own reading materials and facilitating collaborative

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

discussion around them may provide benefits for their reading motivation and support them to become “engaged learners” (p.317). They conclude that students may benefit most from reading interventions when their teachers are familiar with the theory underpinning them.

4. Discussion

(4.1) The current state of the research concerning adolescent reading interventions which examine effects on reading motivation

(4.1.1) The theoretical underpinnings of many interventions are unclear or unspecified

As noted by Conradi et al. (2014), it is unlikely that a single theory could encompass all aspects of reading motivation. Despite this however, much of the literature reviewed for this NR still does not make explicit reference to a particular motivational theory or model even when measuring motivation as an outcome, consistent with earlier findings (Conradi et al. 2014). Interventions which did make reference to specific theory cited Bandura’s (2008) Observational Learning Theory (Dierking, 2015); Vygotsky’s (1978) social development theory (Richardson, 2014; Farkas & Jang, 2019); Guthrie’s (2001) motivational, cognitive and behavioural theories of engagement (Guthrie & Klauda, 2014); and Schumaker & Deshler’s (1992) self-regulated learning and generalisation (Cantrell et al. 2011; 2013; 2014; 2016). Others made more vague reference to underlying theories e.g., social theories of literacy (Francois, 2013; Cantrell et al. 2012; Farkas & Jang, 2019) and motivation (Whittington & Huffman, 2012), interest-driven engagement (Dierking, 2015), cognitive theory (Farkas & Jang, 2019) and strategic processing (Cantrell et al. 2012). Some studies appeared to have no basis in a particular theory or model. For example, Vaden-Kiernan et al. (2012) do not reference

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

any theoretical basis for the development of the PRJ programme, only that its potential effectiveness is “based on a small number of quasi-experimental studies” (p.3). Furthermore, Morris et al. (2021) note the lack of a theory of change for the LfL programme as a potential explanation for its lack of effectiveness. The lack of clear or unified underlying theory of reading motivation change in adolescence provides a challenge for intervention implementation. Indeed, Unrau and Quirk (2017) note that “[t]he existence of an array of theories and models of motivation for reading and reading engagement has contributed to a significant degree of perplexity for practitioners and researchers applying and investigating these constructs” (p.260). This indicates that greater clarity in terms of the underlying theory or models for interventions would be useful at both research and educator level.

(4.1.2) There is inconsistency in how motivation is conceptualised and measured

As outlined earlier, reading motivation is multidimensional and complex (Conradi et al., 2014; Schiefele et al 2012; Toste et al. 2020) and clear and consistent use of terminology is often absent in reading motivation research (Schiefele et al., 2012; Jang et al. 2015). Indeed, in the literature retrieved for this review, outcome measures related to motivational components included reading attitude (e.g., Whittington & Huffman, 2001), reading self-efficacy (e.g., Gavigan, 2010), reading value (e.g., Guthrie and Klauda, 2014), reading self-concept (e.g., Melekoglu, 2011), intrinsic motivation (e.g., Guthrie and Klauda, 2014) and extrinsic motivation (e.g., Cantrell et al. 2011). Some literature, particularly that using qualitative approaches, often did not specifically measure motivation outcomes, but made reference to associated factors e.g., having more positive perceptions about their reading ability or perceiving reading as ‘cool’. Furthermore, much motivation research fails to consider socio-cultural ways of knowing or to acknowledge the influence of culture, class, gender and

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

privilege which may influence reading motivation (Willis, 2002). Indeed, the role that culture and different ways of knowing play in influencing reading motivation and engagement is not well explored in the literature. It is therefore important to establish at the outset of any new intervention, which motivation factor(s) are intended to be targeted, how these relate to sociocultural contexts and how theoretical knowledge can be utilised to ensure the programme is effective.

(4.1.3) The majority of interventions focus on struggling readers

Reading motivation and reading skill are reciprocally related (Toste et al. 2020) and raising the reading skills of students scoring significantly below the level expected for their age is, of course, a priority. However, there seems to exist relatively little intervention research which seeks to support reading motivation in students with literacy skills at or above the expected standard for their age but who don't have (or aspire to have) a regular reading practice (notable exceptions are Gunter & Kenny, 2012 and the whole-school approaches which necessarily include students across reading levels). This is possibly due to the fact that much funding is focussed on improving attainment; if reading attainment is already satisfactory, resources may be directed elsewhere to support students with other attainment-based needs. This represents a significant gap in research for supporting reading motivation in adolescence; skilled, reluctant readers could be an interesting focus for future study as it is likely that their low motivation to read is not a result of deficits in reading skill. More research focussing on this group is needed to understand the reasons for low reading motivation which are not associated with skill level (McGeown et al., 2020) and address them accordingly.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

(4.1.4) The majority of interventions which have a motivation component position this as complementary to a skill- and/or attainment-based outcome

Narrative reading is associated not only with academic performance (e.g., Krashen, 2004; Clark & Douglas 2011; Mol & Bus 2011), but with a range of non-academic outcomes including empathy (Mar et al. 2009), social skills (Mar et al. 2006; Mar & Oatley 2008), theory of mind (Kidd & Castano, 2013), personal development (Howard, 2011), and other healthy behaviours (Mak & Fancourt, 2020). Reading can also provide a source of comfort during times of heightened stress or anxiety (Wilkinson, 2020). Despite this, many reading interventions for adolescents position motivation as a complementary outcome to a more primary goal of improving reading skills and/or attainment (though there are some notable exceptions e.g., Cockcroft & Atkinson, 2017). For students struggling with particular aspects of their literacy, e.g., fluency, decoding or vocabulary, such interventions may be doubly beneficial in that they allow for the possibility of a combined effect on both attainment and motivation. However, for students not identified as ‘struggling’ (i.e., those who produce assessment performances at or above the expected level for their age), the need to improve reading and literacy skills is less pertinent. Furthermore, it is unclear whether repetition of skills instruction where students are already proficient may even diminish their interest and motivation to read.

The primary focus on attainment outcomes over and above motivational ones which is evident in the existing literature is in itself interesting. There are a number of potential reasons why this might be the case. Firstly, an increasing emphasis on exam performance in the secondary years may necessitate that schools focus on raising students’ reading skills, rather than on less explicitly test-related outcomes such as motivation. Secondly, the risks associated with having not yet achieved adequate literacy skills are greater as students’ come closer to the

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

end of their formal education; with the result that raising attainment is prioritised ahead of encouraging reading motivation. Finally, promoting reading motivation in and of itself may not be viewed (by students, their parents, teachers, researchers, funders and/or society) as a priority in adolescence. Although there are many educators, researchers and organisations who do champion reading for pleasure, such a focus is not always evident. Perhaps more work needs to be directed towards communicating the benefits of reading motivation for academic, non-academic and life-long outcomes.

(4.1.5) Interventions have been conducted almost exclusively within school environments

Almost all of the interventions outlined above, and the explorations of their efficacy, have been conducted within schools. There are a number of reasons why this is likely to be the case. First, school is the environment within which adolescents spend the majority of their time and where it is most likely that systematic interventions could logistically take place. Second, teachers are often looking for ways to support their students' learning and are therefore likely to be open to trialling new programmes. They are also likely to be the most adept at discerning the particular texts, environments and strategies that are most likely to support their students. It is also possible that interventions supporting reading align with the perceived responsibilities of schools and teachers and that schools are perceived as the 'right' (or only) vectors of change for reading-related outcomes. However, it is important to understand adolescents not simply as students whose experiences exist only within the classroom; they have lives outside of school which feed into their attitudes, goals and motivations. Perhaps focussing efforts only within school misses other opportunities to inspire adolescents in environments which may be more meaningful to them. Indeed, confining the project of inspiring reading motivation to the classroom might situate it as a purely academic pursuit, one which adolescents may seek to

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

distance themselves from once the school day ends. Supporting reading motivation in the home, amongst peers and in communities and situating it as a lifelong practice imbedded within a locus of broader literacy experiences (Aukerman & Chambers Schuldt, 2021) may be beneficial in producing positive change (e.g., Merga & Moon, 2016).

(4.2) Propositions for the future of research and practice in the field of adolescent reading motivation

(4.2.1) Adopt a flexible and multifaceted approach

Systematic motivation interventions and programmes have, in many instances, provided promising results with regard to adolescent reading motivation, particularly with regard to supporting reading attitude, value and self-efficacy. Those which appear to have been most successful tend to adopt a multifaceted, holistic approach, utilising a variety of strategies and resources to engage and inspire students (e.g, Francois, 2013). Cultivating a reading culture – both within and outside of school – where students have the opportunity to frequently and flexibly interact with reading materials, role models and resources, especially where this is relevant to the needs of the individual, may prove beneficial. Indeed, Gilson et al. (2018) have suggested that systematic motivational supports, where multiple facets of motivation are embedded throughout interventions, may be most effective in promoting motivation for reading. Notably however, it seems important that we are not trying to do ‘too much’ with a single intervention and that each element should have a theoretical and/or research backing (Morris et al. 2021). Experimental work, particularly that which is guided by the specific needs of individual schools, groups and students, will be useful in developing an understanding of which elements of a multifaceted approach are likely to be most effective. It is also important

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

to remember that each adolescent is unique and will face their own barriers and motivators. Cultivating approaches which acknowledge and welcome cultural differences, and which have are flexible to the different and changing needs of each student, are more likely to be successful in motivating and empowering students as literate beings (Ladson-Billings, 1992).

(4.2.2) Link research and practice

Experimental research is invaluable for evaluating interventions designed to tackle the decline in reading motivation in adolescence and for reaching an understanding of both *how* and *why* a particular intervention works (or does not). However, there is the potential for research to operate within a very different sphere to that of practice. Institutionally-affiliated research usually requires rigorous experimental manipulation and/or data gathering procedures, utilises standardised testing materials, usually – though not always (Conradi et al. 2014) – provides a theoretical basis for the intervention, and is externally reviewed for scientific integrity before publication. Notably, these publications may be inaccessible to educators due to pay-wall restrictions, meaning that information about approaches found to be robust in producing motivation effects may not actually reach the individuals who can implement them. Alternatively, reports produced by educators often utilise more informal data collection techniques and are often open-source. Whereas experimental manipulations necessarily have a high level of control over the environment within which the experiment is conducted, student populations are highly dynamic and each classroom (and indeed, each student) is likely to be unique in their response to an intervention; educators possess the skills and percipience to recognise the strategies that engage and inspire their students – and those which do not – and to tailor their approaches accordingly. Furthermore, individual differences exist in terms of school budgets and access to resources and the enthusiasm and capacity of

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

individual educators to implement interventions. Therefore, the synthesis of both types of experience is clearly needed to gain a more complete understanding of the practices and principles that can support adolescent reading motivation, and how these can be implemented flexibly – in accordance with the resources of schools and educators – while maintaining their efficacy. Collaborative projects (e.g., co-funded postgraduate research programmes, integrated research hubs and think tanks and co-created theories, frameworks and practice guidelines) may go some way to ensuring that the knowledge gained from each approach can be synthesised and its value maximised.

(4.2.3) Centre the experiences, attitudes, values and opinions of adolescents

The interventions reviewed here have been implemented by a range of actors including academic research teams, educators and charitable organisations. However, no studies were found where adolescents themselves took part in the development or implementation of an intervention. Although some studies asked for participants' reflections on particular interventions as part of data collection (e.g., Huang, 2012), none worked alongside students to develop or evaluate interventions. Some projects (e.g., *FMRC*) have sought feedback from student and staff participants to help contribute towards the development of the programme for future years, but this approach has not been applied systematically. In the context of adolescent reading motivation, Merga & Moon (2016) notes that few studies "have allowed the students to articulate their own views based on their own experience" (p.134) and that "we risk obscuring the reality of students' own understandings of their motivations to read by extrapolating theory from studies rigidly designed and dictated by preconceived notions of adolescent literacy" (p.134). Allowing adolescents to articulate their own views with regard to their reading experiences is essential to allow them greater determination over the research

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

outcomes. According to Cockroft & Atkinson (2017) gaining an understanding of the “contextual complexity” (p.55) of literacy learning for adolescents can only be achieved by listening to student views about the purpose and value of reading. Future work should focus on collaborating with adolescents – for example, using participatory or co-production methodologies – so that their opinions and experiences can be truly heard.

(4.3) Conclusion

Principles and practices for promoting reading motivation in adolescence still require much exploration. Investigations which have been made so far, both in academic and grey literature, have shown promising yet mixed results. More work is required to develop a shared understanding of the underlying theory associated with supporting reading motivation in adolescence and how this can be implemented; future work should centre the voices of adolescents themselves as well as connecting research with practice in order to move closer towards finding solutions which can promote a lifelong love of reading.

Declaration of interest statement

The authors report there are no competing interests to declare.

Funding details

This work was supported by the ESRC and managed by the SGSSS under Grant ES/P000681/1.

References

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Allred, J. B., & Cena, M. E. (2020). Reading motivation in high school: Instructional shifts in student choice and class time. *Journal of Adolescent & Adult Literacy*, 64(1), 27-35.

Alvermann, D. E., Hagood, M. C., Heron-Hruby, A., Hughes, P., Williams, K. B., & Yoon, J. C. (2007). Telling themselves who they are: What one out-of-school time study revealed about underachieving readers. *Reading Psychology*, 28(1), 31-50.

Andreassen, R., & Bråten, I. (2010). Examining the prediction of reading comprehension on different multiple choice tests. *Journal of Research in Reading*, 33,263–283

Aukerman, M., & Chambers Schuldt, L. (2021). What Matters Most? Toward a Robust and Socially Just Science of Reading. *Reading Research Quarterly*, 56, S85-S103.

Authors (in press).

Ayyub, B. J. M. (2011). Developing a Guided Reading and Multi Literacy Programme for the Academically-Challenged Students. *Procedia-Social and Behavioral Sciences*, 30, 1281-1285.

Baethge, C., Goldbeck-Wood, S., & Mertens, S. (2019). SANRA—a scale for the quality assessment of narrative review articles. *Research integrity and peer review*, 4(1), 1-7.

Bandura, A. (2008). Observational learning. *The international encyclopedia of communication*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Bastian, H., Glasziou, P., & Chalmers, I. (2010). Seventy-five trials and eleven systematic reviews a day: how will we ever keep up?. *PLoS medicine*, 7(9), e1000326.

Berry, T., Eddy, R. M., Fleischer, D., Asgarian, M., & Malek, Y. (2007). *The Effects of Prentice Hall Literature*. Claremont, CA: Claremont Graduate University.

Biggers, D. (2001). The argument against accelerated reader. *Journal of Adolescent & Adult Literacy*, 45(1), 72.

Cantrell, S. C., Almasi, J. F., Carter, J. C., & Rintamaa, M. (2011). *Striving Readers Final Evaluation Report: Danville, Kentucky*. Collaborative Center for Literacy Development.

Cantrell, S. C., Carter, J. C., & Rintamaa, M. (2012). *Striving Readers Cohort II Evaluation Report: Kentucky*. Collaborative Center for Literacy Development.

Cantrell, S. C., Almasi, J. F., Carter, J. C., & Rintamaa, M. (2013). Reading intervention in middle and high schools: Implementation fidelity, teacher efficacy, and student achievement. *Reading Psychology*, 34(1), 26-58.

Cantrell, S. C., Almasi, J. F., Rintamaa, M., Carter, J. C., Pennington, J., & Buckman, D. M. (2014). The impact of supplemental instruction on low-achieving adolescents' reading engagement. *The Journal of Educational Research*, 107(1), 36-58.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Cantrell, S. C., Almasi, J. F., Rintamaa, M., & Carter, J. C. (2016). Supplemental reading strategy instruction for adolescents: A randomized trial and follow-up study. *The Journal of Educational Research, 109*(1), 7-26.

Cantrell, S. C., Carter, J. C., & Rintamaa, M. (2012). Striving Readers Cohort II Evaluation Report: Kentucky. *Collaborative Center for Literacy Development*.

Clark, C. (2019). Children and young people's reading in 2017/18. Findings from our annual literacy survey. https://cdn.literacytrust.org.uk/media/documents/Reading_trends_in_2017-18.pdf

Clark, C., & Cunningham, A. (2016). Reading Enjoyment, Behaviour and Attitudes in Pupils Who Use Accelerated Reader. National Literacy Trust Research Report.

Clark, C., & Douglas, J. (2011). Young People's Reading and Writing: An In-Depth Study Focusing on Enjoyment, Behaviour, Attitudes and Attainment. *National Literacy Trust*.

Clark, C., & Rumbold, K. (2006). Reading for Pleasure: A Research Overview. *National Literacy Trust*.

Cockroft, C., & Atkinson, C. (2017). 'I just find it boring': Findings from an affective adolescent reading intervention. *Support for Learning, 32*(1), 41-59.

Conradi, K., Jang, B. G., & McKenna, M. C. (2014). Motivation terminology in reading research: A conceptual review. *Educational psychology review, 26*(1), 127-164.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Cosentino, C. L. (2017). *The Effects of Self-Regulation Strategies on Reading Comprehension, Motivation for Learning, and Self-Efficacy with Struggling Readers* (Doctoral dissertation, Western Connecticut State University).

Cox, K. E., & Guthrie, J. T. (2001). Motivational and cognitive contributions to students' amount of reading. *Contemporary educational psychology*, 26(1), 116-131.

Cuevas, J. A., Russell, R. L., & Irving, M. A. (2012). An examination of the effect of customized reading modules on diverse secondary students' reading comprehension and motivation. *Educational Technology Research and Development*, 60(3), 445-467.

Deci, E. L., & Ryan, R. M. (1980). Self-determination theory: When mind mediates behavior. *The Journal of mind and Behavior*, 33-43.

Donker, A. S., De Boer, H., Kostons, D., Van Ewijk, C. D., & van der Werf, M. P. (2014). Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review*, 11, 1-26.

Dierking, R. (2015). Using nooks to hook reluctant readers. *Journal of Adolescent & Adult Literacy*, 58(5), 407-416.

Eccles, J. (1983). Expectancies, values and academic behaviors. *Achievement and achievement motives*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Elbro, C. & Buch-Iversen, I. (2013). Activation of background knowledge for inference making: Effects on reading comprehension. *Scientific Studies of Reading*, 17(6), 435–452.

<https://doi.org/10.1080/10888438.2013.774005>.

Elliott, V., Nelson-Addy, L., Chantiluke, R., & Countney, M. (2021) Lit in Colour: Diversity in Literature in English Schools Research Report, <https://litincolour.penguin.co.uk/> (accessed July 2021)

Farkas, W. A., & Jang, B. G. (2019). Designing, implementing, and evaluating a school-based literacy program for adolescent learners with reading difficulties: A mixed-methods study. *Reading & Writing Quarterly*, 35(4), 305-321.

Fielding, M. (2004). Transformative approaches to student voice: Theoretical underpinnings, recalcitrant realities. *British educational research journal*, 30(2), 295-311.

Francois, C. (2013). Reading in the crawl space: A study of an urban school's literacy-focused community of practice. *Teachers College Record*, 115(5), 1-35.

Gatti Evaluation Inc. (2010). Pearson SuccessMaker math efficacy study: 2009–10 final report. *Pittsburgh, PA: Gatti Evaluation Inc.*

Gavigan, K. W. (2010). Examining struggling male adolescent readers' responses to graphic novels: A multiple case study of four, eighth-grade males in a graphic novel book club. The University of North Carolina at Greensboro.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Gilson, C. M., Beach, K. D., & Cleaver, S. L. (2018). Reading motivation of adolescent struggling readers receiving general education support. *Reading & Writing Quarterly*, 34(6), 505-522.

Gunter, G., & Kenny, R. (2008). Digital booktalk: Digital media for reluctant readers. *Contemporary Issues in Technology and Teacher Education*, 8(1), 84-99.

Gunter, G. A., & Kenny, R. F. (2012). UB the director: Utilizing digital book trailers to engage gifted and twice-exceptional students in reading. *Gifted Education International*, 28(2), 146-160.

Guthrie, J.T. (2001). Contexts for engagement and motivation in reading. *Reading Online*, 4(8).

Guthrie, J. T., & Klauda, S. L. (2014). Effects of classroom practices on reading comprehension, engagement, and motivations for adolescents. *Reading research quarterly*, 49(4), 387-416.

Guthrie, J. T., Klauda, S. L. (2016). Engagement and motivational processes in reading. In Afflerbach, P. (Ed.), *Handbook of individual differences in reading: Reader, text, and context* (pp. 41–53). Routledge.

Guthrie, J. T., McRae, A., & Klauda, S. L. (2007). Contributions of concept-oriented reading instruction to knowledge about interventions for motivations in reading. *Educational Psychologist*, 42(4), 237-250.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Guthrie, J. T., Schafer, W., Wang, Y. Y., & Afflerbach, P. (1995). Relationships of instruction to amount of reading: An exploration of social, cognitive, and instructional connections. *Reading research quarterly*, 8-25.

Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (2004). Scaffolding for motivation and engagement in reading. *Motivating reading comprehension: Concept-oriented reading instruction*, 55-86.

Harmon, J., & Wood, K. D. (2001). The TAB book club approach: Talking (T) about (A) books (B) in content area classrooms. *Middle School Journal*, 32(3), 51-56.

Howard, V. (2011). The importance of pleasure reading in the lives of young teens: Self-identification, self-construction and self-awareness. *Journal of Librarianship and Information Science*, 43(1), 46-55.

Huang, S. (2012). A mixed method study of the effectiveness of the Accelerated Reader program on middle school students' reading achievement and motivation. *Reading Horizons: A Journal of Literacy and Language Arts*, 51(3), 5.

Jang, B. G., Conradi, K., McKenna, M. C., & Jones, J. S. (2015). Motivation: Approaching an elusive concept through the factors that shape it. *The Reading Teacher*, 69(2), 239-247.

Jerzembek, G., & Murphy, S. (2013). A narrative review of problem-based learning with school-aged children: implementation and outcomes. *Educational Review*, 65(2), 206-218.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Kidd, D. C., & Castano, E. (2013). Reading literary fiction improves theory of mind. *Science*, 342, 377–380. doi:10.1126/science.1239918

Krashen, S. D. (2004). *The power of reading: Insights from the research: Insights from the research*. ABC-CLIO.

Ladson-Billings, G. (1992). Liberatory consequences of literacy: A case of culturally relevant instruction for African American students. *The Journal of Negro Education*, 61(3), 378-391.

Lau, K. L., & Chan, D. W. (2003). Reading strategy use and motivation among Chinese good and poor readers in Hong Kong. *Journal of Research in Reading*, 26(2), 177-190.

Lau, K. L., & Chan, D. W. (2007). The effects of cognitive strategy instruction on Chinese reading comprehension among Hong Kong low achieving students. *Reading and Writing*, 20(8), 833-857.

Lazowski, R. A., & Hulleman, C. S. (2016). Motivation interventions in education: A meta-analytic review. *Review of Educational research*, 86(2), 602-640.

Lesaux, N. K., Harris, J. R., & Sloane, P. (2012). Adolescents' motivation in the context of an academic vocabulary intervention in urban middle school classrooms. *Journal of Adolescent & Adult Literacy*, 56(3), 231-240.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Littlefield, A. R. (2011). *The Relations among Summarizing Instruction, Support for Student Choice, Reading Engagement and Expository Text Comprehension*. ProQuest LLC. 789 East Eisenhower Parkway, PO Box

Mak, H. W., & Fancourt, D. (2020). Reading for pleasure in childhood and adolescent healthy behaviours: Longitudinal associations using the Millennium Cohort Study. *Preventive medicine, 130*, 105889.

Mar, R. A., Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. *Perspectives on Psychological Science, 3*, 173–192

Mar, R. A., Oatley, K., Hirsh, J., Dela Paz, J., & Peterson, J. B. (2006). Bookworms versus nerds: Exposure to fiction versus non-fiction, divergent associations with social ability, and the simulation of fictional social worlds. *Journal of research in personality, 40*(5), 694-712.

Mar, R. A., Oatley, K., & Peterson, J. B. (2009). Exploring the link between reading fiction and empathy: Ruling out individual differences and examining outcomes.

Martínez, R., Aricak, O., & Jewell, J. (2008). Influence of reading attitude on reading achievement: a test of the temporal-interaction model. *Psychology in the Schools, 45*, 1010–1023. doi:10.1002/pits

McBreen, M., & Savage, R. (2020). The impact of motivational reading instruction on the reading achievement and motivation of students: A systematic review and meta-analysis. *Educational Psychology Review, 1-39*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

McGeown, S. P., Norgate, R., & Warhurst, A. (2012). Exploring intrinsic and extrinsic reading motivation among very good and very poor readers. *Educational Research, 54*(3), 309-322.

McGeown, S. P., Duncan, L. G., Griffiths, Y. M., & Stothard, S. E. (2015). Exploring the relationship between adolescent's reading skills, reading motivation and reading habits. *Reading and writing, 28*(4), 545-569.

McGeown, S., Bonsall, J., Andries, V., Howarth, D., & Wilkinson, K. (2020). Understanding reading motivation across different text types: qualitative insights from children. *Journal of Research in Reading, 43*(4), 597-608.

McKenna, M. C. (1994). Toward a model of reading attitude acquisition. *Fostering the love of reading: The affective domain in reading education, 18-40*.

McKenna, M. C., Conradi, K., Lawrence, C., Jang, B. G., & Meyer, J. P. (2012). Reading attitudes of middle school students: Results of a US survey. *Reading research quarterly, 47*(3), 283-306.

McQuillan, J. (1996). The effects of incentives on reading. *Literacy Research and Instruction, 36*(2), 111-125.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

McTigue, E. M., Solheim, O. J., Walgermo, B., Frijters, J., & Foldnes, N. (2019). How can we determine students' motivation for reading before formal instruction? Results from a self-beliefs and interest scale validation. *Early Childhood Research Quarterly, 48*, 122-133.

Melekoglu, M. A. (2011). Impact of motivation to read on reading gains for struggling readers with and without learning disabilities. *Learning Disability Quarterly, 34*(4), 248-261.

Merga, M. K., & Moon, B. (2016). The impact of social influences on high school students' recreational reading. *The High School Journal, 99*(2), 122-140.

Mol, S. E., & Bus, A. G. (2011). To read or not to read: a meta-analysis of print exposure from infancy to early adulthood. *Psychological bulletin, 137*(2), 267.

Morgan, P. L., & Fuchs, D. (2007). Is there a bidirectional relationship between children's reading skills and reading motivation?. *Exceptional children, 73*(2), 165-183.

Morris, R., See, B. H., Gorard, S., & Siddiqui, N. (2021). Literacy for life: evaluating the National Literacy Trust's bespoke programme for schools. *Educational Studies, 1-19*.

Ng, C. H. C., Bartlett, B., Chester, I., & Kersland, S. (2013). Improving reading performance for economically disadvantaged students: Combining strategy instruction and motivational support. *Reading Psychology, 34*(3), 257-300.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Nootens, P., Morin, M. F., Alamargot, D., Gonçalves, C., Venet, M., & Labrecque, A. M.

(2019). Differences in attitudes toward reading: A survey of pupils in grades 5 to 8. *Frontiers in psychology, 9*, 2773.

Nunnery, J., S. Ross, and A. McDonald. 2006. "A Randomized Experimental Evaluation of the Impact of Accelerated Reader/Reading Renaissance Implementation on Reading Achievement in Grades 3 to 6." *Journal of Education for Students Placed at Risk* 11 (1): 1–18. [10.1207/s15327671espr1101_1](https://doi.org/10.1207/s15327671espr1101_1)

Okkinga, M., van Steensel, R., van Gelderen, A. J., van Schooten, E., Slegers, P. J., & Arends, L. R. (2018). Effectiveness of reading-strategy interventions in whole classrooms: A meta-analysis.

Pabion, C. (2015). Premier League Reading STARS 2013/14. Evaluation Report. National Literacy Trust.

Picton, I., & Clark, C. (2015). The Impact of Ebooks on the Reading Motivation and Reading Skills of Children and Young People: A Study of Schools Using RM Books. Final Report. *National Literacy Trust*.

Polleck, J. N. (2010). Creating transformational spaces: High school book clubs with inner-city adolescent females. *The high school journal, 50-68*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Quirk, M., Schwanenflugel, P. J., & Webb, M.-Y. (2009). A short-term longitudinal study of the relationship between motivation to read and reading fluency skill in second grade. *Journal of Literacy Research*, 41, 196–227. doi:10.1080/10862960902908467

Research Scotland (2020) Evaluation of the First Minister’s Reading Challenge: Final

Report. <https://www.readingchallenge.scot/sites/default/files/2021-02/First%20Minister%27s%20Reading%20Challenge%20Evaluation%202020.pdf>

(accessed: 19-05-21)

Richardson, E. M. (2014). Motivating struggling adolescent readers to read: An action research study (Doctoral dissertation, Capella University).

Ricketts, J., Lervåg, A., Dawson, N., Taylor, L. A., & Hulme, C. (2020). Reading and oral vocabulary development in early adolescence. *Scientific Studies of Reading*, 24(5), 380-396.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.

Schaffner, E., & Schiefele, U. (2007). The effect of experimental manipulation of student motivation on the situational representation of text. *Learning and Instruction*, 17(6), 755-772.

Schiefele, U., Schaffner, E., Möller, J., & Wigfield, A. (2012). Dimensions of reading motivation and their relation to reading behavior and competence. *Reading research quarterly*, 47(4), 427-463.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Schiller, E., Wei, X., Thayer, S., Blackorby, J., Javitz, H., & Williamson, C. (2012). A Randomized Controlled Trial of the Impact of the Fusion Reading Intervention on Reading Achievement and Motivation for Adolescent Struggling Readers. SRI International.

Schumaker, J. B., & Deshler, D. D. (2006). Teaching adolescents to be strategic learners. *Teaching adolescents with disabilities: Accessing the general education curriculum*, 121-156.

Schunk, D. H., & Zimmerman, B. J. (Eds.). (2012). Motivation and self-regulated learning: Theory, research, and applications. Routledge. <https://doi.org/10.4324/9780203831076>

Scottish Book Trust (2020) Evaluation for the First Minister's Reading Challenge: Case Studies. <https://www.readingchallenge.scot/sites/default/files/2021-02/Evaluation%20Case%20Studies%202020.pdf> (accessed: 19-05-21)

Scottish Book Trust (2021) Introducing Live Literature School Residencies 20 – 21. <https://www.scottishbooktrust.com/writing-and-authors/live-literature/school-residencies/introducing-live-literature-school-residencies> (accessed 24-05-21)

See, B. H., Morris, R., Gorard, S., Siddiqui, N., Easterbrook, M., Nieuwenhuis, M., Fox, K., Harris, P., & Banerjee, R. (2021). A conceptual replication study of a self-affirmation intervention to improve the academic achievement of low-income pupils in England. *Educational Research and Evaluation*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Sefton-Green, J., Nixon, H., & Erstad, O. (2009). Reviewing approaches and perspectives on “digital literacy”. *Pedagogies: An International Journal*, 4(2), 107-125.

Siddiqui, N., Gorard, S., & See, B. H. (2016). Accelerated Reader as a literacy catch-up intervention during primary to secondary school transition phase. *Educational Review*, 68(2), 139-154.

Streblow, L., Schiefele, U., & Riedel, S. (2012). Review of the revised training to promote reading skills and motivation to read (LEKOLEMO) for secondary level I. *Journal for Developmental Psychology and Educational Psychology* .

Swanlund, A., Dahlke, K., Tucker, N., Kleidon, B., Kregor, J., Davidson-Gibbs, D., & Hallberg, K. (2012). *Striving Readers: Impact Study and Project Evaluation Report--* Wisconsin Department of Public Instruction (with Milwaukee Public Schools). American Institutes for Research.

Taboada Barber, A. M., Buehl, M. M., Kidd, J. K., Sturtevant, E. G., Nuland, L. R., & Beck, J. (2015). Reading engagement in social studies: exploring the role of a social studies literacy intervention on reading comprehension, reading self-efficacy, and engagement in middle school students with different language backgrounds. *Reading Psychology*, 36, 31–85.

Tijms, J., Stoop, M. A., & Polleck, J. N. (2018). Bibliotherapeutic book club intervention to promote reading skills and social–emotional competencies in low SES community-based high schools: A randomised controlled trial. *Journal of Research in Reading*, 41(3), 525-545.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Thompson, G., Madhuri, M., & Taylor, D. (2008). How the Accelerated Reader program can become counterproductive for high school students. *Journal of Adolescent & Adult Literacy*, 51(7), 550-560.

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.

Tralli, R., Colombo, B., Deshler, D. D., & Schumaker, J. B. (1996). The strategies intervention model: A model for supported inclusion at the secondary level. *Remedial and Special Education*, 17(4), 204-216.

Tsikalas, K. E. (2012). Effects of video-based peer modeling on the question asking, reading motivation and text comprehension of struggling adolescent readers.

Unrau, N. J., & Quirk, M. (2014) Reading Motivation and Reading Engagement: Clarifying Commingled Conceptions. *Reading Psychology*, 35:3, 260-284

Unrau, N. J., Rueda, R., Son, E., Polanin, J. R., Lundeen, R. J., & Muraszewski, A. K. (2017). Can reading self-efficacy be modified? A meta-analysis of the impact of interventions on reading self-efficacy. *Review of Educational Research*, 88(2), 167–204.

Vaden-Kiernan, M., Caverly, S., Bell, N., Sullivan, K., Fong, C., Atwood, E. & Jones, D. H. (2012). Louisiana Striving Readers: Final Evaluation Report. *SEDL*.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Vygotsky, L. S. (1978). Socio-cultural theory. *Mind in society*, 6, 52-58.

Waleff, M. L. (2010). The relationship between mastery orientation goals, student self-efficacy for reading and reading achievement in intermediate level learners in a rural school district. Walden University.

What Works Clearinghouse (2018). Reporting Guide for Study Authors: Group Design Studies. https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc_gd_guide_022218.pdf

Whittingham, J. L., & Huffman, S. (2009). The effects of book clubs on the reading attitudes of middle school students. *Reading Improvement*, 46(3), 130-137.

Whittington, M. (2012). Motivating adolescent readers: A middle school reading fluency and prosody intervention. Trevecca Nazarene University.

Wigfield, A. (2004). *Motivating reading comprehension: Concept-oriented reading instruction*. Routledge.

Wigfield, A., & Guthrie, J. T. (2000). Engagement and motivation in reading. *Handbook of reading research*, 3, 403-422.

Wigfield, A., Mason-Singh, A., Ho, A. N., & Guthrie, J. T. (2014). Intervening to improve children's reading motivation and comprehension: Concept-oriented reading instruction. In *Motivational interventions*. Emerald Group Publishing Limited.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Wilkinson, K. (2020) Reading in Scotland: Reading over lockdown. Scottish Book Trust. 1-39.

<https://www.scottishbooktrust.com/uploads/store/mediaupload/3552/file/Reading%20in%20Scotland%20-%20reading%20under%20lockdown%20FINAL.pdf> (accessed 17-05-21)

What Works Clearing House (2008) Accelerated Reader: WWC Intervention Report. IES.

<http://ies.ed.gov/ncee/wwc/interventionreport.aspx?sid=12>.

Zetocha, S. L. (2017). Small group book clubs for urban adolescent girls of color: A school counseling intervention. Award Winners. 8.

<https://scholarworks.gvsu.edu/coeawardwinners/8>

Zucker, T. A., Moody, A. K., & McKenna, M. C. (2009). The effects of electronic books on pre-kindergarten-to-grade 5 students' literacy and language outcomes: A research synthesis. *Journal of educational computing research*, 40(1), 47-87.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Supplementary Information:

(1) Database search

(1.a.) SCOPUS

An initial search of peer-reviewed publications in SCOPUS was conducted. Set 1 search terms ‘reading’ OR ‘books’ were paired with set 2 ‘intervention’ OR ‘training’ OR ‘programme’, set 3 ‘motivation’ OR ‘interest’ OR ‘interest’ OR ‘attitude’ OR ‘engagement’ OR ‘self-efficacy’, and set 4 ‘teenage’ OR ‘adolescent’ OR ‘secondary’ AND ‘school’ OR ‘high’ AND ‘school’. This yielded 487 results: 412 were excluded due to being deemed not-relevant based on abstract inspection, 25 did not implement an intervention programme, 4 included participants who were outside the age inclusion criteria for the current review, 17 did not measure motivation change explicitly, 5 used teachers as the participants, 5 involved participants who were second language learners, 4 were book chapters and 2 provided an intervention which was not related to reading. Following these exclusions, 14 publications, 2 of which were a meta-analyses (McBreen & Savage, 200; and Okkinga et al. 2018), remained (Ayyub, 2011; Cantrell et al. 2014; Cuevas et al. 2012; Farkas & Jang, 2019; Francois, 2013; Huang et al. 2012, Guthrie & Klauda, 2014; McQuillan, 1996; Melekoglu, 2017; Morris et al. 2021; See et al. 2021; and Streblow et al. 2012) which were considered for this review.

(1.b.) Education Resources Information Center (ERIC)

In order to capture resources published outside of academic journals (e.g., research reports, programme evaluations, policy documents), a search of the ERIC database was conducted.

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

Search terms entered were ‘reading’ and ‘intervention’ and ‘motivation’ and ‘adolescent’, yielding 76 results. 19 of these were excluded due to lack of relevance to the current review, a further 18 did not detail any intervention, 1 included participants who were outside the age inclusion criteria for the current review, 1 included participants with learning disabilities, 13 did not measure motivation explicitly, 1 used teachers as the participants, 1 involved participants who were second language learners, 4 were book chapters and 2 were published before 1990. Following these exclusions, 17 documents remained (Cantrell et al. 2013; Alvermann et al. 2007; Cantrell et al. 2011; Cantrell et al. 2016; Cantrell et al. 2012; Dierking, 2015; Gavigan, 2010; Gilson et al. 2018; Lesaux et al. 2012; Littlefield, 2011; Pabion, 2015; Richardson, 2014; Schiller et al. 2012; Tsikalas, 2012; Vaden-Kiernan et al. 2012; and Whittington; 2012).

(1.c.) What Works Clearinghouse

The Institute of Education Sciences (IES) What Works Clearinghouse (WWC) is a source of scientifically evaluated education programmes, products, practices and policies and synthesises research adhering to a rigorous set of standards (WWC, 2018). The site contains over 10,000 studies for which it provides summaries, reviews and practice guides. A search of the site was conducted in order to capture programmes or products which have not had evaluations published in academic journals. Search terms restricted results to “literacy” interventions implemented with students from grades 7 (11 – 12 years old) to 11 (16 – 17 years old). This returned 23 programmes, with 72 associated research reports. Of these, 14 used participant samples outside of age inclusion criteria, 23 were not about reading, 29 did not measure reading motivation, 1 studied second language learners, 1 which was duplicated in a previous search and 1 was published before 1990. Following these exclusions, 3 programmes

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

remained: READ 180 (Swanlund et al. 2012), Prentice Hall/Pearson Literature programme (Berry et al. 2007) and SuccessMaker® (Gatti Evaluations Inc. 2011).

(2) Meta-Analyses Searches

Following database searches, secondary searches of the reference lists from previous meta-analysis papers (identified from SCOPUS and ERIC searches) on interventions for promoting reading motivation were conducted. Citations matching the aforementioned inclusion criteria were identified for review.

(2.a.) McBreen, M., & Savage, R. (2020). The Impact of Motivational Reading Instruction on the Reading Achievement and Motivation of Students: a Systematic Review and Meta-Analysis.

This paper describes a systematic review and meta-analysis approaches to explore the impact of motivational reading interventions on reading achievement and motivation in school-age (5 – 18 years old) students. Papers included detail motivational reading interventions which measure both achievement and motivation outcomes. Although the interventions themselves – the input – had to have a motivational component in order to be included in the review, not all included a measure of motivation as an outcome variable. In this sense, it was the motivational nature of the intervention that was of interest, rather than motivation-based outcomes. The reference list contains 72 citations: 16 were excluded due to lack of relevance to the current review (e.g., relevant exclusively to meta-analysis procedure or to motivational or learning theory), 6 did not detail any intervention, 38 included participants who were outside the age inclusion criteria for the current review, 3 used participant groups with learning disabilities, 4

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

did not measure motivation explicitly and 2 were duplicated from a previous database search. Following these exclusions, 10 papers remained, of which 2 were meta-analyses (Unrau et al. 2017; and Guthrie et al. 2007). The remaining 3 papers (Taboada Barber et al. 2015; Cosentino, 2017; and Schaffner & Schiefele, 2007) were considered for this review

(2.b.) Unrau, N. J., Rueda, R., Son, E., Polanin, J. R., Lundeen, R. J., & Muraszewski, A. K. (2017). Can reading self-efficacy be modified? A meta-analysis of the impact of interventions on reading self-efficacy.

This paper describes a meta-analysis of 30 reading self-efficacy interventions conducted with elementary- to college-age students. The reference list contained 53 citations: 26 were excluded due to lack of relevance to the current review, 7 did not detail any intervention, 8 included participants who were outside the age inclusion criteria for the current review, 1 used participants with learning disabilities, 1 did not measure motivation explicitly, 4 were books or book chapters, 1 was published before 1990, 3 did not have a reading focus and 1 was duplicated from a previous database search. Following these exclusions, 1 paper remained which was a meta-analysis (Lazowski & Hulleman, 2016).

(2.c.) Lazowski, R. A., & Hulleman, C. S. (2016). Motivation interventions in education: A meta-analytic review. Review of Educational research, 86(2), 602-640.

This paper provides a meta-analysis and summary of intervention studies grounded in motivational theory. As well as literacy interventions, the scope of studies included in this paper included those implementing interventions outside of reading and literacy (e.g., mathematics, science, sport, self-confidence, possible selves etc.). The reference list contained

READING AND LITERACY INTERVENTIONS MEASURING READING MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW

171 citations, of which 71 were deemed not relevant based on abstract inspection, 14 did not detail an explicit intervention programme, 14 were based on participant pools outwith inclusion criteria, 2 did not include a motivation measure, 2 used teachers as participants, 11 were books or book chapters, 55 detailed interventions not about reading and 1 conference abstract which had been withdrawn since publication of the review. The 1 study which met all the inclusion criteria (Schaffner & Schiefele, 2007) had already been found in a previous search.

(2.d.) Okkinga, M., van Steensel, R., van Gelderen, A. J., van Schooten, E., Slegers, P. J., & Arends, L. R. (2018). Effectiveness of reading-strategy interventions in whole classrooms: A meta-analysis.

This paper provides a meta-analysis of whole class reading strategy instruction experiments. The reference list included 101 citations. 12 were excluded due to lack of relevance to the current review, 18 did not experimentally evaluate an intervention, 26 used participant pools outside of the age inclusion criteria, 22 did not implement a measure of reading motivation, 5 used teachers as participants, 1 focussed on second language learners, 8 were books or book chapters, 1 was pre-1990 and 3 were duplicates from previous searches (Cantrell et al. 2016; Guthrie & Klauda, 2014; and Guthrie et al. 2007). The remaining references included 1 meta-analysis of studies on learning strategy instruction with a focus on improving self-regulated learning (Donker et al. 2014), which did not fulfil inclusion criteria to warrant further exploration, and 3 intervention studies (Elbro & Buch-Iversen, 2013; Lau & Chan, 2007; and Ng et al. 2013) which were considered for the review.

**READING AND LITERACY INTERVENTIONS MEASURING READING
MOTIVATION OUTCOMES IN ADOLESCENCE: A NARRATIVE REVIEW**