Measuring Reading Engagement

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Background

• There is growing interest in the concept of reading engagement and increasing clarity about what reading engagement is (Lee et al., 2021).

• Absence of surveys/scales to measure reading engagement, compared to reading motivation (e.g., MRQ, MRP-R etc).

• Recent systematic review (Lee et al., 2021) identified four dimensions of engagement: behavioural, cognitive, affective and social.

Behavioural engagement

- Children’s reading behaviours: how frequently and for how long children read, and the breadth of their reading activities.
- The amount of time children read outside of school contributes to growth in their reading skills and comprehension (Mol & Bus, 2011; van Bergen et al., 2020), with fiction book reading being particularly important for reading development (Torppa et al., 2019).
Cognitive engagement

- Children’s level of cognitive effort while reading and implementation of strategies to support comprehension (e.g., decoding, rereading)
- Cognitive engagement has been shown to mediate the relationship between children’s reading motivation and their reading comprehension (Miyamoto et al., 2019).
Affective engagement

• The quality, type and depth of emotions children experience while reading.

• Affective engagement also includes immersing oneself in a book, relating personal experiences to text content, using ones’ imagination, and empathizing with characters (Eekhof et al., 2022; Kuzmičová & Cremin, 2021; Vezzali et al., 2015).

• Indeed, book reading provides an opportunity for children to relax, laugh, explore new worlds, escape reality, support wellbeing, and/or spend time with fictional friends (McGeown & Wilkinson, 2021).
Social engagement

• Children’s participation in different reading activities with others, for example, book-talk, reading together, recommending, sharing books, etc.
• Providing inclusive opportunities for these social practices is key to creating communities of readers within a school (Cremin et al., 2014).
• Social reading activities can also result in deeper reading and understanding of a book, and opportunities to learn from others (Taboada Barber & Klauda, 2020).
Reading motivation, engagement and outcomes

**Intrinsic reading motivation**

- Behavioural engagement: Frequency and duration of reading and text types read
- Cognitive engagement: Cognitive effort/implement strategies to improve comprehension
- Affective engagement: Emotions experienced during reading, quality of connection with text
- Social engagement: Sharing and discussing books with others

**Reading and language skills, knowledge, social cognition, empathy, identity development, perspective taking, wellbeing...**

Lee et al., 2021; Mar et al., 2006; 2009; McGeown et al., 2020; McGeown & Wilkinson, 2021; Miyamoto et al., 2019; Schiefele et al., 2012; Taboada et al., 2009; Toste et al., 2020, Vezzali et al., 2012; 2015.
Development of the Reading Engagement Scale

Input from researchers:
• Four dimensions and focus on volitional reading

Input from teachers/professionals:
• Eight teachers/professionals: Relevance of the dimensions from educators’ perspectives, scale parameters (e.g., age range, fiction and/or non-fiction, home and school based reading), specific feedback on all survey and interview items.

Input from children:
• Cognitive interviewing with five US children aged 8-11, and piloting with 4 schools (1 Scotland, 1 England, 2 US). Revisions made.
# Reading Engagement Scale: Example Items

24 item scale, 6 items for 4 dimensions:

1. How often do you read fiction and non-fiction books in your own time each week?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>1-2 days</th>
<th>3-4 days</th>
<th>5-7 days</th>
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</thead>
<tbody>
<tr>
<td>Fiction</td>
<td></td>
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<tr>
<td>Non-fiction</td>
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</table>

Now we’d like you to think about what you do when you read. Please tick the box that best describes you.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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</thead>
<tbody>
<tr>
<td>If a book becomes difficult, I re-read to increase my understanding</td>
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<tr>
<td>When I read books, I think a lot about what I am reading</td>
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Now we’d like you to think about how you feel when you read books and why you choose to read different books. Please tick the box that best describes you.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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</thead>
<tbody>
<tr>
<td>I feel happy when I read books</td>
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<tr>
<td>I feel relaxed when I read books</td>
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Finally, we’d like to learn about how much you share reading with others. Others can include your friends, teacher, classmates or family. Tick the box that best describes you.

<table>
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<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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<tbody>
<tr>
<td>I talk about books with others</td>
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<td></td>
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<tr>
<td>I enjoy discussing books with others</td>
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Validation of the Reading Engagement Scale

Participants

• In total, 443 children (231 boys: 52%) from four UK schools (3 England, 1 Scotland) aged 8 – 11 completed the reading engagement scale, a reading motivation measure (Motivation to Read Profile – Revised, Malloy et al., 2013), and provided demographic information.

• In addition, 200 children completed a standardised reading assessment (New Group Reading Test).

Analysis was preregistered and can be accessed here: https://osf.io/7dy3a
Results

• Cronbach’s alpha values ranged from $\alpha = .611$ to social $\alpha = .786$

• Positive correlations with motivation (MRP-R) and reading skill

• Negative correlations with age, mirroring findings with motivation
Intended Use

• Intended for both researcher and teacher use.

• Guide for teachers provides scale in full with scoring guide + open question and follow up reflection / discussion with individual pupils, small groups or a whole class.

One teacher remarked that previously she had thought of reading engagement as an:

“... on/off switch and they are either engaged or they aren’t. Realizing that there are multiple factors gives me a lot to think about, which can be daunting, for sure. But at the same time, it also gives me a lot to work with. Now, if I’m struggling to get one of my students engaged in what we’re reading, I can try to tackle it a few different ways.”
Thank you for listening

A huge thanks to the teachers and professionals from LALco and to all the teachers and children involved in the piloting and cognitive interviews

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Twitter: @DrSarahMcG / @UoELiteracyLab

Website: https://blogs.ed.ac.uk/literacylab/
## Results

<table>
<thead>
<tr>
<th></th>
<th>Behavioural Engagement</th>
<th>Behavioural fiction</th>
<th>Behavioural non-fiction</th>
<th>Affective Engagement</th>
<th>Cognitive Engagement</th>
<th>Social Engagement</th>
<th>Motivation</th>
<th>Age</th>
<th>Skill</th>
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</thead>
<tbody>
<tr>
<td>Behavioural Engagement</td>
<td></td>
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<td></td>
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<tr>
<td>Behaviour (fiction)</td>
<td>.704**</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Behaviour (nonfiction)</td>
<td>.784**</td>
<td>.110*</td>
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<tr>
<td>Affective Engagement</td>
<td>.452**</td>
<td>.499**</td>
<td>.182**</td>
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<tr>
<td>Cognitive Engagement</td>
<td>.397**</td>
<td>.339**</td>
<td>.243**</td>
<td>.586**</td>
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<td></td>
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<tr>
<td>Social Engagement</td>
<td>.354**</td>
<td>.286**</td>
<td>.226**</td>
<td>.547**</td>
<td>.514**</td>
<td></td>
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<tr>
<td>Motivation (value)</td>
<td>.429**</td>
<td>.467**</td>
<td>.198**</td>
<td>.700**</td>
<td>.528**</td>
<td>.520**</td>
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<tr>
<td>Age</td>
<td>-1.188**</td>
<td>-0.081</td>
<td>-0.204**</td>
<td>-0.195**</td>
<td>-0.132*</td>
<td>-0.199**</td>
<td>-0.193**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading skill</td>
<td>.249**</td>
<td>.338**</td>
<td>.062</td>
<td>.221**</td>
<td>.194**</td>
<td>.126</td>
<td>.200**</td>
<td>.080 **</td>
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