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The Effects of Reading and Language Intervention on Literacy Skills in Children in a Remote Community: An Exploratory

Randomized Controlled Trial

Appendices

Appendix 1 Components of Intervention

| Reading | Procedures |
|-------------------------|---|
| Easy book reading | The tutor offers the child two new easy books to choose from |
| 2-3 min. | The tutor encourages the child to pick and read one of the books |
| | The child reads the book |
| | The tutor encourages reading fluency by reading part of the text with the child or modelling intonation |
| | The tutor praises the child for their reading efforts |
| Instructional book | The tutor encourages the child to read a new book at the instructional level |
| reading - 5 min. | The child reads the book while the tutor takes a Running Record |
| | The tutor encourages the child to re- read and self-correct their own reading |
| | The tutor helps the child to re-read hard words by sounding them out or giving visual /auditory cues |
| Sight word practice | The tutor engages the child in activities to practice sight word reading |
| reading - 3 min. | The tutor encourages and supports the child to recognize words as quick as possible |
| | The tutor keeps a record of the words that the child can recognize with ease or have difficulty with |
| Letters, phonological | The tutor engages the child in activities to promote letter knowledge |
| awareness and sound- | The tutor engages the child in activities to manipulate syllables or phonemes (e.g., blending) |
| letter linkage practice | The tutor helps the child to sound out letters, blend letters to make words or write letters for sounds |
| - 5 min | The tutor emphasizes the links between graphemes and phonemes |
| | The tutor introduces a new book by talking about the title, author and/or plot |
| Introduction of a new | The tutor reads the book aloud to the child |
| instructional book | The tutor facilitates the children's participation by asking questions or making comments |
| 5 min. | The tutor fills out a planning sheet to record the activities and the next instructional book |

| Language | Procedures | | | |
|---------------------|---|--|--|--|
| Active Listening | The tutor reads aloud the book to the children | | | |
| Lesson A only | The tutor activates the children's background knowledge on the book | | | |
| 4-5 min. | The tutor asks questions or makes comments to facilitate the children's participation during the reading | | | |
| Revision Lessons B | The tutor recaps the story | | | |
| and C only | The tutor reviews the story elements using the story pictures or icons | | | |
| 4 - 5 min. | The tutor reviews the meaning of the words taught in the previous lesson | | | |
| | The tutor helps to recall word meaning, use words in sentences, and provide related or alternative meanings | | | |
| Vocabulary Teaching | The tutor introduces the new words linking the meaning to the book - Lesson A and B only | | | |
| 12 min. | The tutor reviews 5 word meaning discussing the word picture or the context of the book – Lesson C only | | | |
| | The tutor gives a definition and supports the children's understanding of words (e.g., book context) | | | |
| | The tutor engages the children in activities to practice the meanings of the words | | | |
| | The tutor facilitates discussion about the word meanings | | | |
| | The tutor asks questions for the children to apply the word meaning across new contexts | | | |
| | The tutor encourages and supports the children to use the word in new sentences | | | |
| | The tutor helps the children in gaining deep word knowledge by creating word webs or using related words | | | |
| Narrative Teaching | The tutor summarizes the story using the narrative picture cards and emphasizing the story elements | | | |
| 12 min. | The tutor promotes discussion by asking the children literal and inferential questions about the story | | | |
| | The tutor supports children by offering examples of responses | | | |
| | The tutor promotes and supports discussion around the story elements | | | |
| | The tutor models retelling | | | |
| | The tutor prompts the children to retell the story and helps them by showing story pictures or icons | | | |
| | The tutor helps the children to self- monitor their own story retell | | | |
| | The tutor helps the children to improve the retell by using words to connect ideas and including story | | | |
| | elements | | | |
| | The tutor encourages and supports the children to create alternative story elements (e.g., problems, | | | |
| | attempts) | | | |
| Plenary 2 min. | The tutor recaps the meaning of the words using the vocabulary cards, pictures, and/or the context in the | | | |
| | book | | | |
| | The tutor recaps the story elements using the story pictures or icons | | | |
| | The tutor suggests how the children can apply what they learned in other contexts or activities | | | |

| Reciprocal | Procedures |
|--------------|--|
| Introduction | The tutor introduces the book by talking about the title, author and plot, |
| 7 min. | The tutor reminds children what the book was about and where they left off last session |
| | The tutor activates children's knowledge by asking about pictures in the book or what they |
| | remember/anticipate |
| | The tutor asks questions or makes comments to facilitate the children's participation before reading |
| | The tutor prompts the children to choose a coloured smiling face from the book to take turns at being the leader |
| | The tutor explains the role of the leader |
| | The tutor asks the children to briefly explain the leader's role to check they understand what to do |
| | The tutor states the session purpose which is to understand and use four reading strategies |
| Predicting | The tutor models how to read a page using the strategies and promoting the discussion |
| Questioning | The tutor helps the children to take turns at being the leader |
| Clarifying | The leader makes a prediction about the page and explains it |
| Summarizing | The tutor helps the leader to make the prediction and/or to explain the reasons for their prediction |
| 20 min. | The tutor supports the discussions by asking others to explain whether they agree with the prediction and why |
| | The leader asks the relevant question as shown in the book |
| | The tutor helps the leader to answer the question |
| | The tutor supports the discussion by asking others to explain whether or not they agree with answers and why |
| | The leader clarifies meaning of unknown words by looking at pictures or dictionary and re-reading |
| | The tutor encourages the leader to talk about the meaning of the unknown word |
| | The tutor supports the discussion by asking participants to explain synonyms or possible meanings of a |
| | target |
| | The leader summarizes two main facts/ideas from one paragraph |
| | The tutor helps the leader to talk and explain their own ideas |
| Plenary | The tutor facilitates discussions by asking others to explain whether they agree with the main ideas and |
| 3 minutes | why |
| | The tutor recaps the story or topic in the book |
| | The tutor recaps the four reading strategies |
| | The tutor suggests how the children can apply what they learned in other contexts or activities |

Appendix 2 Consort Checklist (NB, page numbers refer to full manuscript)



CONSORT~2010~checklist~of~information~to~include~when~reporting~a~random ised~trial*

| Section/Topic | Item No | Checklist item | Reported on page No |
|------------------------|------------|---|---------------------|
| Title and abstract | | | |
| | 1a | Identification as a randomised trial in the title | 1 |
| | 1b | Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts) | Journal format |
| Introduction | | | |
| Background and | 2a | Scientific background and explanation of rationale | 3-4 |
| objectives | 2b | Specific objectives or hypotheses | 4,9 |
| Methods | | | |
| Trial design | 3a | Description of trial design (such as parallel, factorial) including allocation ratio | 8-10 |
| | 3b | Important changes to methods after trial commencement (such as eligibility criteria), with reasons | 9, 12-13, 16 |
| Participants | 4a | Eligibility criteria for participants | 9 |
| | 4b | Settings and locations where the data were collected | 8 |
| nterventions | 5 | The interventions for each group with sufficient details to allow replication, including how and when they were actually administered | 10-19, appendi |
| Outcomes | 6a | Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed | 10-19 |
| | 6b | Any changes to trial outcomes after the trial commenced, with reasons | NA |
| Sample size | 7a | How sample size was determined | 9 |
| | 7b | When applicable, explanation of any interim analyses and stopping guidelines | 9 |
| Randomisation: | | | |
| Sequence | 8a | Method used to generate the random allocation sequence | 9-10 |
| generation | 8b | Type of randomisation; details of any restriction (such as blocking and block size) | 9-10 |
| Allocation concealment | 9 | Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned | |
| mechanism | | | 9-10 |
| Implementation | 10 | Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions | 9 |
| Blinding | 11a | If done, who was blinded after assignment to interventions (for example, participants, care providers, those | 11, 46, 47 |

CONSORT 2010 checklist

| | | assessing outcomes) and how | |
|---|-----|---|------------------------|
| | 11b | If relevant, description of the similarity of interventions | 3, 5-9 |
| Statistical methods | 12a | Statistical methods used to compare groups for primary and secondary outcomes | 22-23 |
| | 12b | Methods for additional analyses, such as subgroup analyses and adjusted analyses | 2-23 |
| Results | | | |
| Participant flow (a diagram is strongly | 13a | For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome | Figure 2 |
| recommended) | 13b | For each group, losses and exclusions after randomisation, together with reasons | Figure 2 |
| Recruitment | 14a | Dates defining the periods of recruitment and follow-up | 17 |
| | 14b | Why the trial ended or was stopped | 17 |
| Baseline data | 15 | A table showing baseline demographic and clinical characteristics for each group | 45 |
| Numbers analysed | 16 | For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups | 9, Figure 2 |
| Outcomes and estimation | 17a | For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval) | 24-25 |
| | 17b | For binary outcomes, presentation of both absolute and relative effect sizes is recommended | NA |
| Ancillary analyses | 18 | Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory | 25-27 |
| Harms | 19 | All important harms or unintended effects in each group (for specific guidance see CONSORT for harms) | NA |
| Discussion | | | |
| Limitations | 20 | Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses | 31-32, Figure 4 |
| Generalisability | 21 | Generalisability (external validity, applicability) of the trial findings | 26-32 |
| Interpretation | 22 | Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence | 26-32 |
| Other information | | | |
| Registration | 23 | Registration number and name of trial registry | NA |
| Protocol | 24 | Where the full trial protocol can be accessed, if available | $\overline{\text{NA}}$ |
| Funding | 25 | Sources of funding and other support (such as supply of drugs), role of funders | Acknowledgements |

^{*}We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

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