Early Grade Reading and Mathematics Initiative (RAMP)

The Decodable Levelled Reading Books Study Report

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List of Abbreviations

EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
ETC	Supervision and Educational Training Managing Directorate
FCDO	United Kingdom Foreign, Commonwealth, and Development Office
G1	grade 1
G2	grade 2
G3	grade 3
IRR	inter-rater reliability
K2	kindergarten 2
KG	kindergarten
MOE	Ministry of Education
RAMP	USAID Early Grade Reading and Mathematics Initiative Extension
RTI	RTI International
TOWRE	Test of Word Reading Efficiency
USAID	United States Agency for International Development

INTRODUCTION AND CONTEXT

The Reading and Mathematics Program (RAMP) is a USAID-funded program designed to implement large-scale, innovative, early grade reading and mathematics programming aimed at benefitting children in government primary schools in Jordan, the initiative aims at improving the reading and mathematics foundational skills for all early grades students in government primary schools in Jordan.

In 2019, RAMP conducted the end line survey that showed that despite a general improvement in students' national level, low-performing students didn't improve as others (the number of students with zero scores in reading was not decreasing; children in refugee camps also had poorer results). This was leaving too many children behind, and prevented a quicker progression toward our "all children reading" national goal (Early Grade Reading and Mathematics Initiative Endline Survey Report, 2019), the survey recommended increasing the reading materials at the schools that help the struggled readers and emergent readers to better decode the words and acquire the speed needed to reach to a fluent reader which depends on decoding text that includes phonics and phonemical awareness.

As a response to the end-line survey results RAMP analyzed the Arabic reading textbooks and found that the struggling readers don't have the opportunity to practice phonic skills as these skills are introduced only in grade 1, therefore, the struggling readers in grade 2 will not be able to practice foundational skills and this will leave those struggling readers behind in their fluency and comprehension skills. In general, early grades Jordanian schools are not much equipped with extra reading materials, usually, teachers will rely on reading textbooks in instructing and teaching reading skills to students, and as (Beck and Juel, 1995) mentioned it is important to provide emergent readers with more resources to read to reach to the automaticity in reading.

Both phonic skills and reading fluency are necessary for students to better comprehend what is read and, consequently, to become more skilled readers. It is necessary to provide children with many opportunities to practice their reading strategies, this should happen not just through

the passages in the textbook but rather through different resources that help students to improve their fluency and comprehension skills.

The aim of this study, therefore, is to equip more reading materials in classrooms and study the impact of these materials on the reading of struggling and emergent readers in comparison to other classrooms that are not equipped with the same materials, these materials are decodable levelled reading books, and to control the fidelity of implementation, schools that have senior teachers program are chosen.

LITERATURE REVIEW
What is the definition of decodable and levelled books, are they the same?

<u>Decodable reading books</u>

Decodable reading books are considered instructional texts that are designed according to a specific phonics teaching sequence to provide students with more opportunities to decode words. (Pogorzelski, 2021). The texts are sequenced to incorporate words that are consistent with the letter-sound relationships that have been taught to the new reader.

Decodable reading books are designed to provide opportunities for struggling readers (students) to be exposed of varying degrees of decodable words by applying the needed phonological skills on a set of well-designed and systemized progression of taught skills (Cheatham, J. P., & Allor, J. H., 2012) ; (Buckingham, 2018). These books focus on the repetition of taught phonics patterns to build orthographic knowledge, which in return will build the students' capacity in decoding skills and to be able to read words with accuracy and speed.

The primary focus of decodable books is phonics, therefore comprehension and vocabulary don't have that much emphasis in the structure of decodable books. However, since decodable books is built gradually starting syllables and then basic words to reach to sentences, then the complexity of decodable books increase and at this stage, the decodable reading book will have more of the characteristics of a levelled reading book.

Many researchers provide critics of decodable reading books, some of these critics refer to the limited numbers of provided vocabularies, no narrative or story that will attract the attention of students and may cause less engagement from students (Menon,S; Heibert, E, 2005).

Many researches argues to which percentage the texts are considered to be decodable, although there is no common agreement among researches on the percentage, (Cheatham, J. P. & Allor, J. H., 2012) identified two characteristics of decodable texts, first: contain words that have letter-sound combinations that were previously introduced to students, and second: contain many phonetically regular words.

Levelled reading books

Levelled reading books are decodable instructional books developed and designed according to defined criteria (Fountas, I. C., Pinnell, G. S., 2013). These books contain repeated texts in the context of the age-appropriate book topics, the sophisticating in books increases as the student progresses.

Levelled reading books in contrast to decodable books have the structure of stories which make students more engaged and help to develop their comprehension skills and vocabulary as well. However, these books are built in a way that there are many repeated words within the sentences and paragraphs, which will help students build their fluency skills. However, many researchers provide critics of levelled reading books, as the structure of these books focuses on simple and short sentences with repeated words, therefore the students will not be exposed to complex texts and different varieties of books (Chard, D., Pikulski, J. & Templeton, S, 2000).

The books used in this study have both the characteristics of decodable and levelled books as they contain brief stories of short, decodable words with few high-frequency words, and are an example of materials developed specifically for beginning readers to practice phonic skills using meaningful text, besides these books are gradual in difficulty as they start with letters and correspondence letter sound with repeated words to short texts with few high-frequency words.

What do researches inform about the impact of decodable levelled books?

Decodable started to attract the attention of educators in the 80s as a one-off effective learning tool to be used within the classroom. For example, (Mesmer, 2010) argues that decodable book will help to achieve 3 primary purposes for teachers at the school: (1) it helps emergent readers identify words (2) helps practice decoding strategies and phonics, and (3) these books highlight the relationship of letters and sounds which will help students in their journey of reading, as they start to recognize the sound of the letter in a given word.

(Stanovich, 1986) in his study on individual differences in the acquisition of literacy found evidence that struggling readers and students who were behind their peers in early grades rarely became strong readers. However, children who learn phonics and other foundational reading skills early in their schooling continue to improve their reading skills and have more academic success. Mastering reading skills are very important as these skills can predict the success of students in their academic career.

(Adams, M.J., Poorman, B., Lundberg, I., & Beeler, T., 1998); (Chard, D., Pikulski, J. & Templeton, S, 2000) in their researches supported the importance of acquiring solid phonemic awareness skills on becoming fast readers, emergent readers should have the ability to recognize the relationship between the phonemes (the minimal units of speech) and the letter symbol to read the word. It is very important for students to read words with automaticity (speed and accuracy) to be able to comprehend the texts as comprehension is the ultimate goal of learning to read.

Many researchers support that decoding skills can predict comprehension skills, for example, (Deno, S.L. & Markell, M.A., 1997); (Beck, I. & Juel, C. , 1995); (Fuchs, L.S. & Deno, S.L, 1992); (Stanovich, 1990); (Vellutino, F.R. & Scanlon, D.M, 1998) found those beginning readers who can decode words quickly have higher reading comprehension abilities, as they can understand the meaning of a given text and put fewer efforts in decoding words and sounds which will enable them to process the written information. Moreover, (Torgesen, J.K. & Mathes, P.G., 2000) found that decoding skills play a critical role in acquiring effective reading skills, students who are better at reading letters and letters sounds and decoding words and sounds are more likely to have better reading skills. This finding concurs with (Perfetti, 1985) who found that struggling

students miss the foundational skills of decoding which include phonics and reading letter sounds and therefore don't comprehend the reading texts.

(The national reading (Panel, 2000) agreed on the importance of decoding skills and the relationship between the letter and its sound as one of the foundational skills that are necessary for reading with automaticity, even though decoding using printed words is a time-consuming way but it is an important process for emergent readers to read and process written language. On the other hand the Panel conducted a meta-analysis that examined the effect of using decodable books and the students' age, this meta-analysis explored two age groups, the first group were kindergarten and first grade students and the second group composed from grade 2 students to grade six. The results showed that both groups benefited from the exposure to phonics, however the impact of acquiring phonics and decoding skills was higher on first group, the study concluded that decodable books have more impact on younger readers or emergent readers.

(Gunn, B., Biglan, A. & Smolkowski, K, 2000) in their study found that students who received supplementary resources and systematic instruction in phonemic awareness, letter-sound correspondences, and daily practice reading decodable text were more skilled in decoding words than children who did not receive supplementary material and systematic instruction focused on these skills. This study also found that the students' decoding skills significantly predicted their oral reading fluency scores, and both decoding and oral reading fluency scores predicted better reading comprehension scores.

Most of the research on decodable and levelled books was implemented on a very low scale which resulted in controversial results and recommendations, however, most research show significant results on students' performance in decoding which is essential for reading skills. (Menon,S; Heibert, E, 2005) found in their study on first graders students that those students who were exposed to decodable texts outperformed their peers after 15 weeks of implementation.

Many researchers examine the impact of using decodable books on struggling and emergent readers, the researchers highlighted the effect of using these books on building neuronal pathways, and these pathways are formed by repeating the word that will be stored in the brain as a well-known word that will not require effort from the reader to decode (Mesmer, 2010).

To summarize, decodable books and decodable levelled bools play a significant role in developing reading foundational skills, in particular, phonemical awareness and decoding skills, there is a good body of research that supports the benefit of decodable books on emergent and beginning readers to acquire fluency in reading that will have an impact on comprehension and understanding the text, as (Gough, P. & Tunmer, W, 1986) mentioned that comprehension is a product of decoding skills multiplied by language understanding:

$$\text{Comprehension} = \text{Decoding} * \text{language understanding}$$

The above equation confirms the importance of decoding skills on comprehension and argues that the low performance of students' comprehension is due to the lack of decoding skills. In Jordan, the spoken language is the same instructing language, therefore students don't have issues in understanding the spoken language but when it comes to read, most of students face difficulties in achieving the benchmark which is 46 correct words per-minute and then because the lack the basic skills in decoding which prevent students from reading with automaticity. This research will study the impact of using decodable levelled books on struggling and emergent readers on their reading performance which includes fluency and accuracy besides examining the reading habits after implementing the decodable levelled books.

1. RESEARCH QUESTIONS

The decodable levelled reading books study, co-developed by the RAMP team and Jordan's MoE, aims to understand if adding more reading materials that follow a defined phonics routine will have any impact on the reading proficiency of struggling and emergent readers in comparison to other classrooms that are not equipped with the same materials. Below are the specific sub-questions pertaining to the tools of TOWRE, and the relevant teacher and students interview questions.

TOWRE tools:

1. Does the use of decodable books alongside explicit phonics instruction and fluency strategies improve the overall fluency rate and skills of struggling and emergent readers?

To answer this question, the following three sub-questions must be addressed:

- Does the use of decodable books influence improving the reading skills of emergent readers using the "TOWRE" tool when comparing the control and experimental groups?
- Does the use of decodable books influence improving the reading skills of struggling readers using the "TOWRE" tool when comparing the control and experimental groups?

Student interview:

2. How can the use of decodable books impact the reading habits of children?

Teacher interview:

3. What do teachers say about these books?

2. RESEARCH DESIGN

The study follows mixed methods as the study examines both qualitative and quantitative. With this approach, the quantitative approach is collected through examining the number of corrected words or syllables per minute which is called the test of word reading efficiency (TOWRE) between the control and experimental groups, the TOWRE was implemented and recorded twice as a pre-test at the beginning of the school year and post-test at the end of the school year to record the progress between the control and experimental groups.

TOWRE targeted all Grade 1 and 2 students as they are emergent readers, while for Grade 3 only struggling readers are targeted. The qualitative data collected through the questionnaires; however, the design of the questionnaire will be an "embedded design" as the questionnaire collected both quantitative and qualitative data from both teachers and students.

Decodable levelled books distributed to 220 schools in the 3 regions in Jordan, the schools were selected deliberately as they have senior teachers (school-based coaches and this will help in better control of the study and in the fidelity of the implementation), and some of these schools are from the lower performing schools. The targeted classes are grades 1, 2, and grade 3. Each class

in the 220 schools received 3 sets of decodable levelled bools, each set contained 80 books in total 240 books. 55 of these schools selected to conduct the study on and to be considered the experimental group, and another 55 schools were selected from the same geographical areas to control the socio-economic factor to be the control group.

Teachers in the experimental group exposed to a training program that is consisted of two days with 5 hours per day, the topics covered in the training were: orientation about decodable levelled books, and the importance of these books for struggling and emergent readers and in acquiring the foundational skills in decoding, the training included instructional strategies in using these decodable books, these strategies are methods to be used before, during and after reading by teachers, all of the training was in form of hands-on training which means the participated teachers were involved in tasks that require from them to analyze the decodable books, and to design lessons plans and different scenarios on how to use these books in their classrooms. This training program was conducted by the MOE supervisors to senior teachers in the experimental groups who in turn trained all the teachers in the targeted experimental group.

At the beginning of the school year, a diagnostic assessment was implemented on both groups the treatment and control groups for 3rd grades to determine the struggling students, usually and according to the Jordan ministry of education the low 25% of students in each class will be considered to be the struggling students, and as the average size of Jordanian public school is 40 students, therefore 10 students from each grade 3 classes will be considered to be struggling readers. And for the purpose of this study, all 1st and 2nd grades will be considered to be emergent readers.

To answer the research questions, all students in treatment and control groups exposed to the TOWRE tool at the beginning of the school year, the results documented using the automates application. The result determined as the pre-test and at the end of the school year (32 weeks) the same tool (TOWRE) was used on the same group of students and considered to be the post-test.

The dependent variable in this study is the reading performance of students which is defined for the purpose of this study as the number of corrected words and syllables that early grades students can read per minute, while the independent variables will be the decodable books and the explicit phonics instruction.

2.1 Methods of Data Collection

The methods of data collection were through observing and assessing students and through teacher and student questionnaires, the tools used in data collection were:

1. Test of Word Reading Efficiency (TOWRE): Pre and post-test using this tool that is an individually administered standardized measure of word reading fluency for decodable invented words (Phonemic Decoding Efficiency) and reading words in a text in which the number of words accurately identified in one minute is recorded. This test measures the progress in the efficiency of phonemic decoding and word reading skills during the early grades. This tool was administered at the beginning of the study as a pre-test and at the end of the study as a post-test by MoE assessors. The assessors had to record the name of 3rd-grade struggling students and 1st and 2nd grades emergent students and explain clearly to students that their results on this test will not be recorded on their school performance. The test was prepared jointly with experts from the Ministry of Education, to ensure adding the correspondent invented words and syllables to taught letters.

2. Questionnaire for teachers: the questionnaire consisted of qualitative and quantitative questions, besides demographic data such the sex, years of experience, and the qualification. The questions were open and closed questions and tried to dig deeper into the instructional practices of teachers and attitudes towards struggling and emergent students and the implementation of the decodable levelled book. The questionnaire was administered one-to-one to avoid the influence of others.

3. Interview with students: the interview consisted of demographic questions, besides closed and open questions. This interview tried to explore the students changing habits towards reading as the decodable levelled books had impact in motivating struggling readers to be better readers and how that affected their self-esteem that impacted their attitudes towards reading. The interview administered one-to-one to avoid the influence of others.

The research is a cross sectional study that involve studying the population at the same period, despite the many critics of this kind of research that it will not allow the researchers to have the

relation of cause-and-effect variables, however, the mixed-approach study allows to come up with reliable data and triangulate the obtained results from different resources. All research tools were automated, an application was used to collect data.

All research tools were automated, an application was used to collect data using the prodigy system, this software is offline that help in collecting timed tools and reduce the effort and time required to capture students and participants' responses on different tools, and eliminate any errors due to manual data collection.

2.2 Assessor Training

The RAMP team worked with MoE to assign a technical committee responsible for implementing the study. The technical committee consisted of senior officers from the Planning and Educational Research Directorate and the Supervision and Educational Training Managing Directorate (ETC) and the Curriculum and Textbooks directorate.

RAMP worked with the technical committee to assign assessors. In all, 22 assessors were identified from the 3 regions, and 2 MoE officials worked in quality assurance and were responsible for conducting several observations to check on the quality of data collection by the 22 assessors. Annex II has a list of attended supervisors and assessors. The assessor training was conducted for 2 days between November 22–23, 2022; the training agenda is provided in Annex III, and another refreshment training for one day conducted before collecting the post-test data on May 17, 2023.

The training was hands-on training that aimed to provide the assessors with an introduction to the study and an overview of the tools and their responsibilities, followed by activities to practice the tools using videos. The standard operating procedure document was distributed to assessors to provide clear expectations for school visits (see Annex IV). Half of the second training day was devoted to field visits to one school to pilot the tools and the procedures, and the second half of the day was to implement the inter-rater-reliability (IRR) assessment to measure the assessors' agreement on the instruments.

2.3 Data Agreement

The RAMP team conducted IRR testing during the training to ensure the agreement of assessors and the consistency of data across the assessors. The IRR was conducted on the last day

and recorded on video. Assessors were asked to use the different tools, for which the RAMP team had identified the ideal inputs. The average agreement between assessors was calculated at 92%, a good result (Table 1 shows the percentage of agreement among assessors on study tools).

Table 1.   Assessor Agreement on Decodable levelled Book Instruments

Assessor Number	Agreement
Assessor 1	94%
Assessor 2	92%
Assessor 3	95%
Assessor 4	94%
Assessor 5	92%
Assessor 6	94%
Assessor 7	92%
Assessor 8	94%
Assessor 9	92%
Assessor 10	95%
Assessor 11	93%
Assessor 12	92%
Assessor 13	95%
Assessor 14	96%
Assessor 15	91%
Assessor 16	92%
Assessor 17	93%
Assessor 18	93%
Assessor 19	92%
Assessor 20	95%
Assessor 21	92%
Assessor 22	92%

During data collection, the RAMP team monitored the process through field visits to different regions and schools.

2.4 Data Collection

Assessors collected data for 2 weeks from May 22 through June 2, 2022. Data were collected using an automated application, and assessors synchronized the data every day. Data were then monitored by the RAMP team and cleaned and analyzed by MoE senior statisticians.

3.   RESULTS

3.1 Does the use of decodable books alongside explicit phonics instruction and fluency strategies improve the overall fluency rate and skills of struggling and emergent readers?

- To answer this question, we need to answer the following sub-question: Does the use of decodable books influence improving the reading skills of emergent readers (grade 1 and 2) using the "TOWRE" tool when comparing the control and experimental groups?

1. First grade:

To answer this question, the mean and standard deviations of the scores of the study sample from the second grade of both the experimental and control groups were calculated on the instrument of reading the pre-and post-syllables, these results were as in the following table (2):

Table (2) mean and standard deviations of the marks of the control and experimental groups of the first grade on syllables reading tool

Group	Number of students	Pre-test		Post-test	
		Mean	Standard Deviation	Mean	Standard Deviation
experimental	421	11.26	10.04	25.01	17.99
control	463	9.61	9.83	21.02	17.00

It is noted from Table (2) that the mean of the performance of students from the first grade on the pre-test in the experimental group was (11.26), with an approximate standard deviation of (10), as for the control group, the mean of the performance of students on the pre-test was (9.61), with an approximate standard deviation of (9.8), as for the post-test, the mean of the performance of first grade students in the experimental group was (25.01), with an approximate standard deviation of (18), while the control group the mean of the performance of students on the post-test was (21.02), with a standard deviation of (17).

Apparent differences are observed between the means of the post-test of the experimental and control groups, and for the purpose of verifying the significance of the difference at the level of significance (α =0.05) the analysis of covariance (ANCOVA) was used following table (3) presents the results of this test.

Table (3): The results of the covariance analysis (ANCOVA) for comparing the averages of the study sample of the first grade on the post- test

The variable Dependent Variable	Source of variability Source	Total squares Type III Sum of Squares	Degrees of freedom df	Average squares Mean Square	Value) F(	Level of significance Sig.
Syllables reading test POST_L2_read_letter_score	**The pre- test** PRE_L2_read_letter_score	143774.379	1	143774.379	1008.542	***0 .0**
	The collection School Sorting	764.060	1	764.060	5.360	**.021***
	The mistake Error	125592.423	881	142.557		
	Total Total	737261.000	884			
	The corrected Corrected Total	272885.298	883			

*D is statistically significant level α =0.05

The square of the correlation coefficient =0.54 (the square of the adjusted correlation coefficient = 0.539)

It is noted from table (3) above that there is a statistically significant difference at the level of significance) α= 0.05 between the means of the experimental and control study groups of the first grade in the post syllables reading test, the value of (F) was (5.360), which is statistically significant as the level of significance was (.021) which is less than (.05) and this difference is in favor of the experimental group.

The result of this question shows that there is a clear and statistically significant difference at the level of α= 0.05 in the improvement of reading skills among emergent readers of first graders, where there was a difference between the mean scores of the experimental group and the control group on the syllables reading tool in the post-test, and this effect can be attributed to decodable levelled books.

2. Second grade:

To answer this question, the mean and standard deviations of the scores of the study sample from the second grade of both the experimental and control groups were calculated on the instrument of the pre-and post-syllables, these results were as in the following table (4):

Table (4) mean and standard deviations of the marks of the control and experimental groups of the second grade on syllables reading tool

Group	Number of students	Pre-test		Post-test	
		Mean	Standard Deviation	Mean	Standard Deviation
experimental	417	30.32	19.33	38.65	21.322
control	465	28.54	20.09	36.23	22.707

It is noted from table (4) that the mean of the performance of students from the second grade on the pre-test in the experimental group was (30.32), with an approximate standard deviation of (19.3), as for the control group, the mean of the performance of students on the pre-test was also (28.54), with an approximate standard deviation of (20.1), as for the post-test, the mean of the performance of second grade students in the experimental group was (38.65), with an approximate standard deviation of (21.3), while the control group the mean of the performance of students on the post-test was (36.23), with a standard deviation of (22.71).

Apparent differences are observed between the means of the post-test of the experimental and control groups, and for the purpose of verifying the significance of the difference at the level of significance ($\alpha = 0.05$) the analysis of covariance (ANCOVA) was used, the following table (5) presents the results of this test.

Table (5): The results of the covariance analysis (ANCOVA) for comparing the averages of the study sample of the first grade on the post- test

The variable Dependent Variable	Source of variability Source	Total squares Type III Sum of Squares	Degrees of freedom df	Average squares Mean Square	Value) F(	Level of significance Sig.
Syllables reading test POST_L2_read_letter_ score	**The pre- test** PRE_L2_read_letter_score	282027.859	1	282027.859	1694.160	**0.00***
	The collection School Sorting	142.388	1	142.388	0.855	**0.355**
	The mistake Error	146327.638	879	166.471		

	Total Total	1661794.0 00	882			
	The corrected Corrected Total	429643.02 9	881			

*D is statistically significant level α =0.05

The square of the correlation coefficient =0.659 (the square of the adjusted correlation coefficient = 0.659)

It is noted from table (5) above that there is no statistically significant difference at the level of significance α= 0.05 between the means of the experimental and control study groups of the second grade in the post syllables reading test, the value of (F) was (0.855), which is not statistically significant, as the level of significance was (.355) which is larger than (.05).

The result of this question shows that there is no clear and statistically significant difference at the level of α= 0.05 in the improvement of reading skills among emergent readers of second graders.

Third grade:

- Does the use of decodable books influence improving the reading skills of struggling readers (grade 3) using the "TOWRE" tool when comparing the control and experimental groups?

To answer this question, the mean and standard deviations of the scores of the study sample from the third grade of both the experimental and control groups were calculated on the instrument of reading the pre-and post-syllables, these results were as in the following table (6):

Table (6) mean and standard deviations of the marks of the control and experimental groups of the second grade on syllables reading tool

Tool	Group	Number of students	Pre-test		Post-test	
			Mean	Standard Deviation	Mean	Standard Deviation
Invented word	experimental	381	5.50	7.63	7.85	10.33
	control	384	4.68	7.28	7.27	10.46
Oral reading passage	experimental	381	11.86	12.46	16.94	13.36
	control	384	10.54	13.13	14.59	14.68

It is noted from table (6) that the mean of the performance of students from the third grade on the pre-test of the experimental group in the invented word reading tool was (5.5), with an approximate standard deviation of (7.6), as for the control group, the mean of the performance of students on the pre-test was (4.68), with an approximate standard deviation of (7.28), as for the post-test, the mean of the performance of third grade students of the experimental group of the invented word reading tool was (7.85), with an approximate standard deviation of (10.3), while the control group the mean of the performance of students on the post-test was (7.27), with a standard deviation of (10.46). Moreover, it is noted from table (6) that the mean of the performance of students from the third grade on the pre-test of the experimental group of the oral reading passage tool was (11.86), with an approximate standard deviation of (12.46), as for the control group, the mean of the performance of students on the pre-test was (10.54), with an approximate standard deviation of (13.13), as for the post-test, the mean of the performance of third grade students in the experimental group of the oral reading passage tool was (16.94), with an approximate standard deviation of (13.36), while the control group the mean of the performance of students on the post-test was (14.59), with a standard deviation of (14.68).

To verify the significance of the differences of the experimental and control groups on the invented words tool at the level of significance (α =0.05), the analysis of covariance (ANCOVA) was used, the following table (7) presents the results of this test.

Table (7): The results of the covariance analysis (ANCOVA) for comparing the averages of the study sample of the third grade on the post- test

The variable Dependent Variable	Source of variability Source	Total squares Type III Sum of Squares	Degrees of freedom df	Average squares Mean Square	Value (F)	Level of significance Sig.
Invented words POST invented word _score	**The pre- test** PRE _invented words_ score	54060.537	1	54060.537	1451.815	***000.**
	The collection School Sorting	22.729	1	22.729	0.610	**0.435**
	The mistake Error	28374.233	762	37.237		
	Total Total	126155.000	765			
	The corrected Corrected Total	82498.999	764			

*D is statistically significant level α =0.05

The square of the correlation coefficient =0.656 (the square of the adjusted correlation coefficient = 0.655)

It is noted from table (7) above that there is no statistically significant difference at the level of significance α= 0.05 between the means of the experimental and control study groups of the third grade in the post invented word test, the value of (F) was (0.610), which is not statistically significant, as the level of significance was (0.435) which is larger than (.05).

The result of this question shows that there is no clear and statistically significant difference at the level of α= 0.05 in the improvement of reading skills among struggled readers of third graders, where there was no difference between the average scores of the experimental group and the control group on the invented word test in the post-test.

As for the oral reading passage, to verify the significance of the differences of the experimental and control groups at the level of significance (α =0.05), the analysis of covariance (ANCOVA) was used, the following table (8) presents the results of this test.

Table (8): The results of the covariance analysis (ANCOVA) for comparing the averages of the study sample of the third on the post- test

The variable Dependent Variable	Source of variability Source	Total squares Type III Sum of Squares	Degrees of freedom df	Average squares Mean Square	Value (F)	Level of significance Sig.
Oral reading passage POST oral reading _score	The pre- test PRE_L2_read_letter_score	105931.834	1	105931.834	1818.882	.000*
	The collection School Sorting	246.601	1	246.601	4.234	.040
	The mistake Error	44378.942	762	58.240		
	Total Total	341335.000	765			
	The corrected Corrected Total	151370.261	764			

*D is statistically significant level α =0.05

The square of the correlation coefficient =0.707 (the square of the adjusted correlation coefficient = 0.706)

It is noted from table (8) above that there is a statistically significant difference at the level of significance) α= 0.05 between the averages of the experimental and control study groups of the third grade in the oral reading passage test, the value of (F) was (4.234), which is statistically significant, as the level of significance was (.040) which is less than (.05) and this difference is due in favor of the experimental group, where the mean of their performance on the post-test of syllables reading test was (25.01), which is higher than the mean of the control group performance, which was (21.02).

The result of this question shows that there is a clear and statistically significant difference at the level of α= 0.05 in the improvement of reading skills among struggling readers of third graders, where there was a difference between the average scores of the experimental group and the control group on the oral reading passage tool in the post-test, and this effect can be attributed to decodable levelled books.

3.2 How can the use of decodable books impact the reading habits of children?

Assessors interviewed 275 students from the experimental group, 94 students from the first grade, 94 students in the second grade and 87 students from the third grade, the analysis of the interview (see Appendix I for the instrument) showed the following:

To answer the question of how many classes per week the teachers used the decodable books, 52.7% of students reported that teachers used the books twice or more per week as shown in figure 1:

Figure 1.   Shows the Percentage of Students' Responses on using decodable books two classes or more per week by teachers
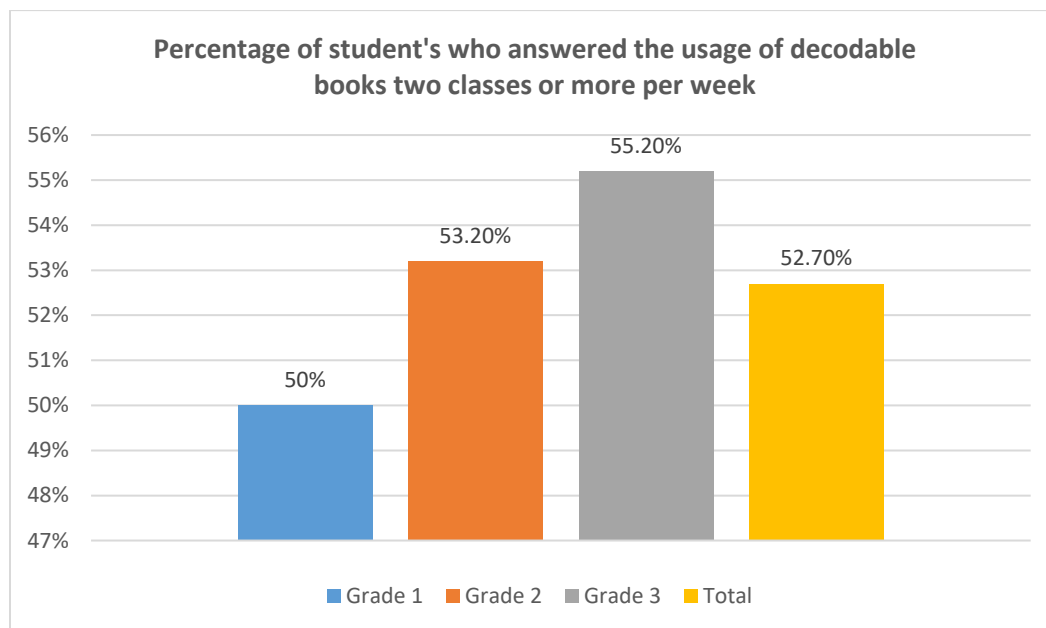
95.3% of students answered that they started to love reading after using the decodable levelled books, and 52.7% answered that teachers used the decodable levelled books in 2 classes or more per week, as seen in figure (2).

Figure 2.   **Shows the Percentage of who loved reading after using decodable levelled books**

Percentage of student's who loved reading after using decodable levelled books
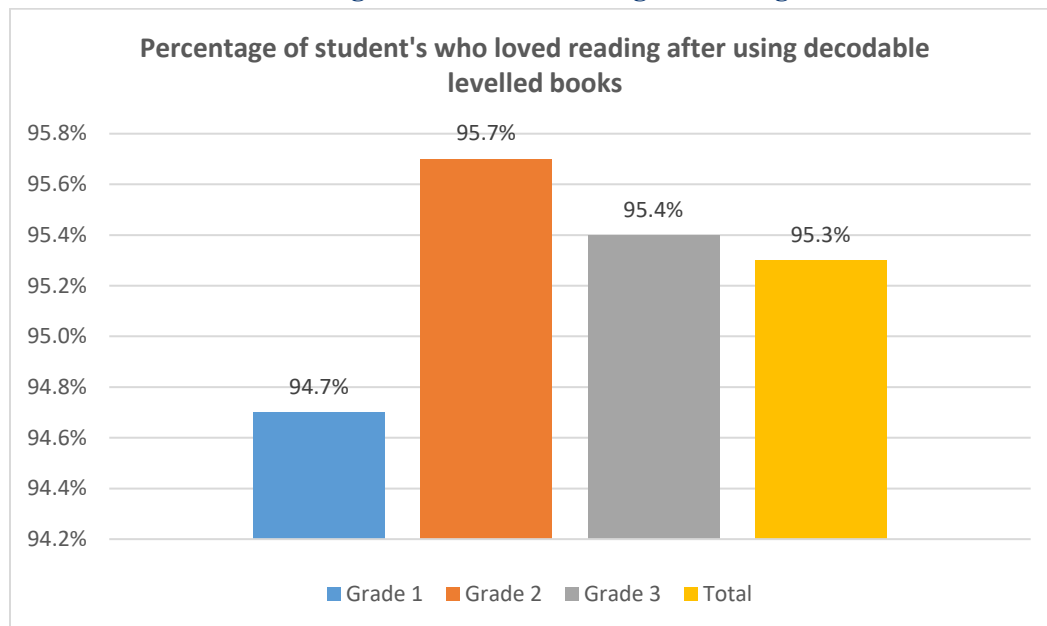
It was noted from the students' answers that 40.7% faced challenges in reading the decodable books, while 50.9% reported that they faced some challenges in understanding words and sentence in the books as seen in figures 3 and 4:

Figure 3.   **Shows the Percentage of students who faced challenges in reading decodable levelled books**

Percentage of student's who faced challenges in reading decodable levelled books
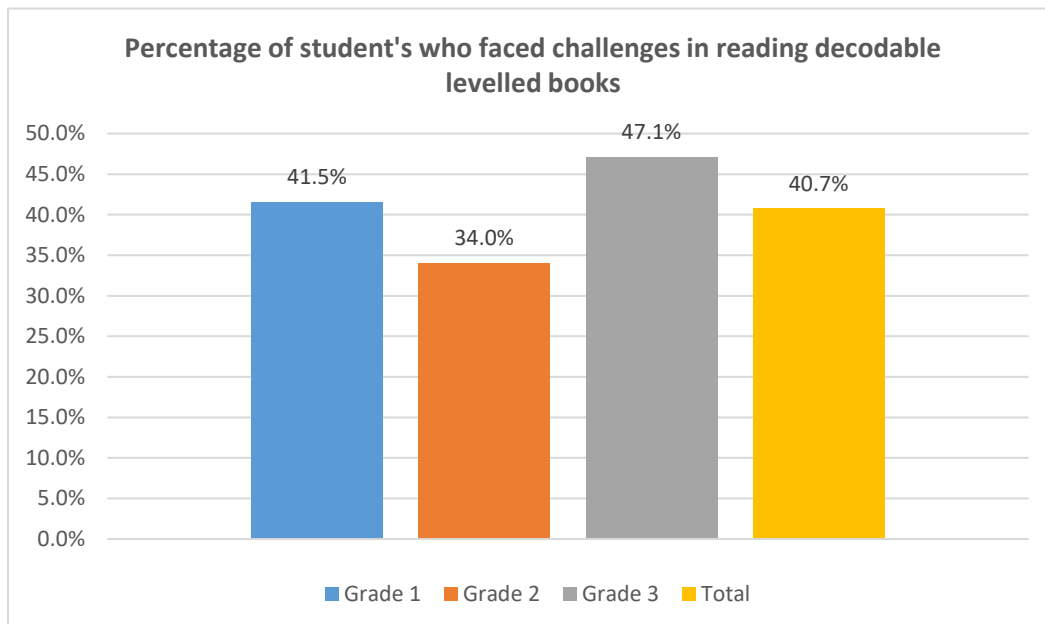
Figure 4. **Shows the Percentage of students who faced challenges in understanding words in the decodable levelled books**
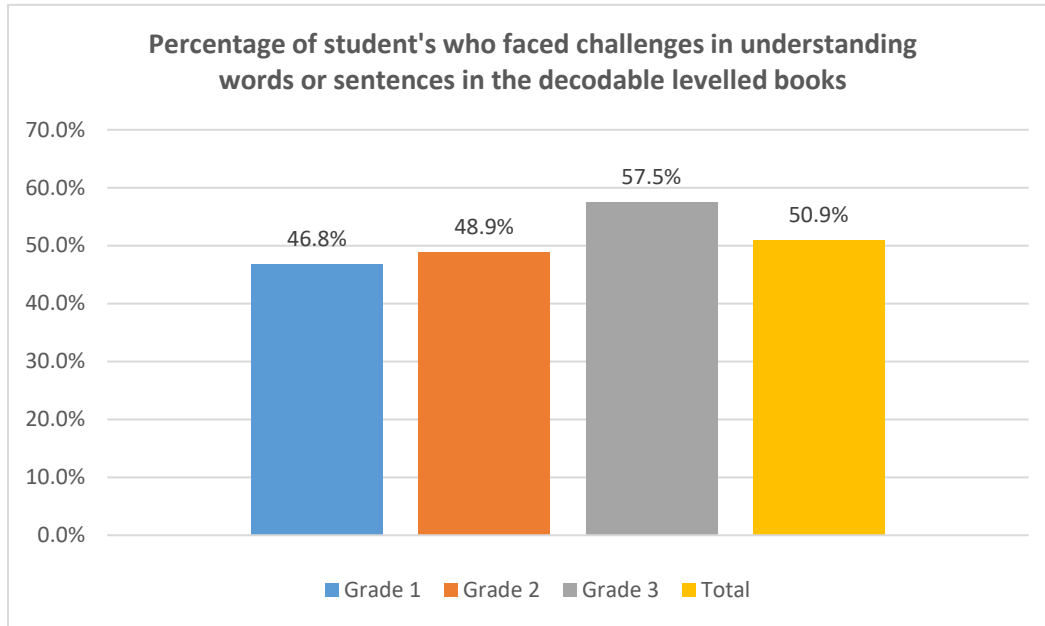
The students in the interview were asked about how many minutes you read every day, and it was noted from the answers that half of students read less than 15 minutes per day, and figure (5) shows the percentages of time spend on reading:

Figure 5.   Shows the Percentage of time spend on reading per day by students

Percentage of time spend on reading per day by students

I don't read unless enforced: 8.4%
Less than 15 minutes: 42.2%
15-30 minutes: 24.4%
30 -60 minutes: 17.5%
more than one hour: 7.6%
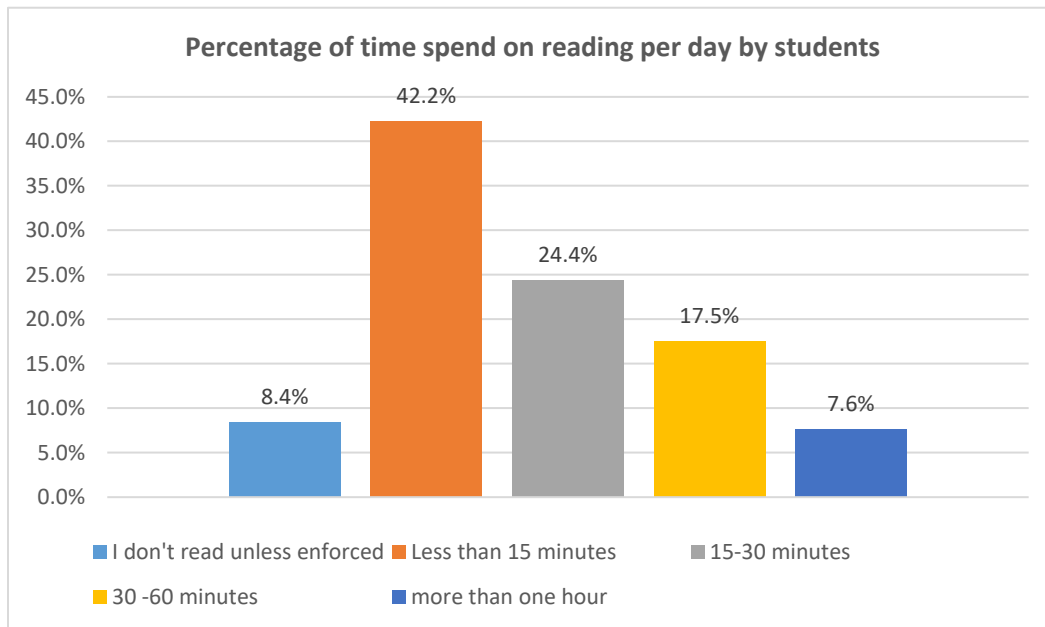
When asking students about what encourage you to read, 36.4% of the students answered the motivation from my school or teacher, and 21.8% answered the encouragement or obligation made by parents. figure (6) summarizes students answers:

Figure 6.   Shows the Percentage of students' answers on what encourage them to read

Percentage of students' encouragement for reading
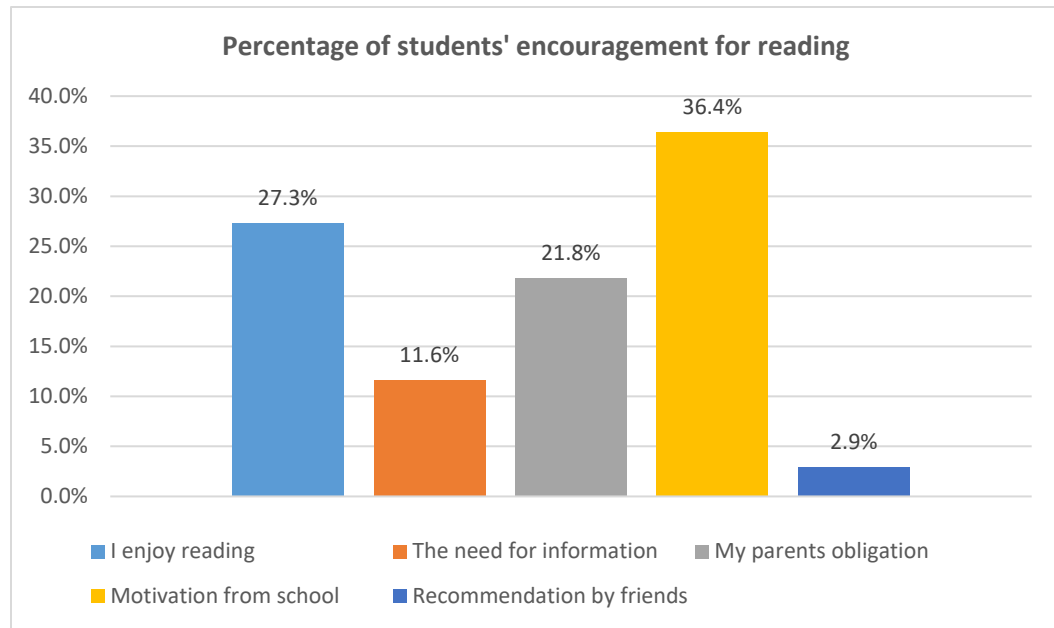
3.3 What do teachers say about these books?

Assessors interviewed 160 teachers from the experimental group, 51 teachers of grade 1, 57 grade 2 teachers, and 52 grade 3 teachers, the analysis of the interview (see Appendix I for the instrument) showed the following:

When asking teachers if they recommend to extent the usage of decodable levelled books to all schools in Jordan, 73.9% answered they would highly recommend generalizing the decodable books to all schools in Jordan, only 6.4% of teachers answered never. Figure (7) summarizes the teachers' answers on this question:

Figure 7. **Shows the Percentage of teachers' answers on extending the decodable levelled books to other schools**

Percentage of teachers' answers on generalizing the decodable books to all schools

A lot: 73.9%
To some extent: 17.8%
A little: 3.8%
Never: 6.4%
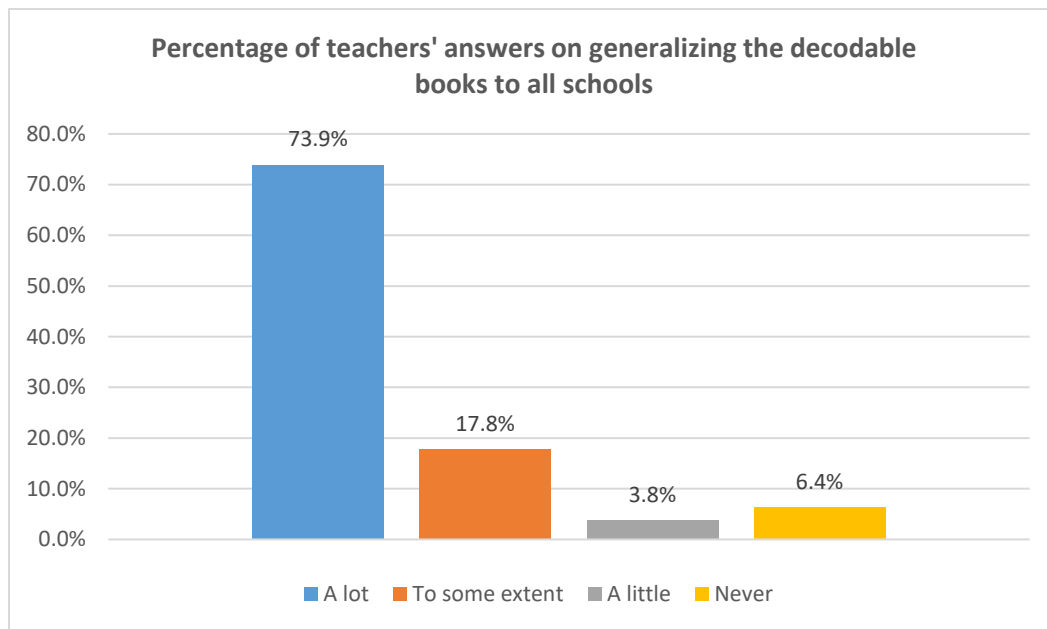
4. DISCUSSION

This study aimed at determining the impact of decodable levelled on improving the reading of struggling and emergent readers in comparison to other classrooms that are not equipped with the same materials, this study and its recommendations could guide MoE in adding decodable levelled books for emergent students and struggling readers.

Decodable levelled books started to attract the attention of educators in the 80s as a one-off effective learning tool to be used within the classroom. For example, Mesmer (2010) argues that decodable book will help to achieve 3 primary purposes for teachers at the school: (1) it helps emergent readers identify words (2) helps practice decoding strategies and phonics, and (3) these books highlight the relationship of letters and sounds which will help students in their journey of reading, as they start to recognize the sound of the letter in each word.

The findings of this study support many studies that emergent readers benefit from decodable books as using these books will help in building neuronal pathways through the repeated syllables and words, and these pathways will be stored in the brain as a well-known word that will not require effort from the reader to decode. In this study grade 1 students in experimental group outperformed grade 1 students in the control group and the differences were statistically significance. Despite that the differences in reading the syllables test between experimental and control groups in grade 2 weren't statistically significant, but the mean of performance of grade 2 in the experimental group outperformed the students in the control group. It was noted from teachers' answers on the interview that the instructional practices for grade 1 teachers contained fluency strategies as 56% reported using one or two fluency strategies while 49.1% of grade 2 teachers reported using one or two fluency strategies which supports that decodable levelled books should be introduced with structural phonics routines.

Another reason that can be attributed to why grade 1 students benefited more than grade 2 is what was reported in the teachers interviews about decodable levelled books training, as 66% of grade 1 teachers reported attending the training of decodable books while 56.1% of grade 2

attending the training, and this may influence implementing the decodable books at classroom alongside with an explicit phonics routine.

The findings of this study show that struggling student in grade 3 benefited from implementing the decodable books, as there were statistically significant differences between the experimental and control groups for the favour of the experimental group, and this support many research findings that it is necessary to provide struggling readers and students in general with many opportunities to practice their reading skills.

On the other hand, it was noted that students don't spend enough time on reading as half of students read less than 15 minutes daily, while the recommended time for beginner readers should be at least 20 minutes per day. It was noted too that school has a great influence in encouraging students to read besides the parents influence, less than 3% of students reported that they have read because of friends recommendation which can show that the culture of reading isn't well established among early grades students, and school and parents have to encourage students to read more.

5. CONCLUSION

This research on decodable levelled books aimed at gathering data and evidence using different instruments that include TOWRE instruments, teachers and students interviews, the TOWRE instruments were used as pre and post-test. The study was undertaken to inform decisions that can be made by Jordan MoE officials on providing decodable books to all schools by getting evidence on the impact of these resources on students' reading proficiency.

The results show that while there is evidence that using these books had an impact on reading proficiency for emergent and struggled readers, however using these books should be alongside with and explicit phonics routine and a follow up mechanism that ensure the fidelity of implementation of these books.

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APPENDIX I: DECODABLE LEVELLED BOOKS INSTRUMENTS

أداة تقييم مهارات القراءة لدراسة أثر الكتب القرائية المتدرجة: نموذج تعليمات المقيّم 2022

تعليمات عامة

من المهم أن تضفي جوًّا من المرح على الطفل الذي سيخضع للتقييم كأن تبدأ معه بمحادثة بسيطة حول مواضيع تهمه (انظر المثال أدناه).أشعره بأن هذا التقييم هو تقريبًا بمثابة لعبة سيستمتع بها، وليس بالمهمة الصعبة. تأكد من تسجيل اسم الطالب بجانب الرقم المُعطى له حسب نموذج (1) في الدراسة، يُفضّل أن يتم التقييم في الحصص الثلاثة الأولى من اليوم الدراسي.

من المهم جدًّا أن تقرأ محتوى المربعات **فقط**، بصوت عالٍ وبوضوحٍ وتمهّل.

> **صباح الخير. اسمي_____ أسكن في_____ . أريد أن أتكلم معك عن نفسي، لدي .... من الأطفال، عمرهم ....؛ عندي في البيت......., الرياضة التي أمارسها ....، إلخ.]**
>
> **1. أخبرني عن نفسك وعن هواياتك؟ [انتظر الجواب؛ إذا كان الطالب غير متحمس للكلام، وجّه إليه السؤال رقم 2. إذا تكلم بارتياح، انتقل لفقرة الموافقة الشفهية.]**
> **2. ما اللعبة التي تحبها؟**

الموافقة الشفهية

> **اسمح لي أن أقول لك لماذا أنا معك اليوم. أنا أعمل في وزارة التربية والتعليم، وأحاول أن أفهم كيف يتعلم الأطفال القراءة. لقد تم اختيارك للقيام بهذا الاختبار بشكل عشوائي.**
>
> **أحبّذ أن تتعاون معي في هذه العملية. ولكن إذا لم ترد المشاركة، فلك ذلك.**
>
> **سنلعب لعبة القراءة؛ إذ سأطلب منك أن تقرأ بعض الحروف (اذكرها لطلبة الصفين الأول والثاني) وبعض الكلمات وقصة قصيرة بصوت عالٍ (اذكرها لطلبة الصف الثالث).**
>
> **سأستعمل ساعة أو مؤقِّتًا لأحسب الوقت الذي تحتاجه في القراءة.**
>
> **هذا ليس امتحانًا، وليس له أي تأثير على علاماتك المدرسية.**
>
> **سأسألك بعض الأسئلة الأخرى عن عائلتك.**
>
> **لن أكتب اسمك على ورقة الاختبار. لن يرى أي أحد إجاباتك عليها.**
>
> **مرة أخرى، أنت غير ملزم بالمشاركة إذا لم تكن ترغب في ذلك، وإذا بدأنا ولم ترد الإجابة عن أي سؤال، فلا مشكلة في ذلك.**
>
> **هل لديك سؤال؟هل أنت مستعد؟**

إذا حصلت على الموافقة الشفهية للطفل ضع علامة (×)في هذا المربع ☐نعم

(إذا لم تحصل على الموافقة، اشكر الطفل وانتقل إلى الذي يليه واستعمل نفس الاستمارة)

1.تاريخ التقييم **مثال:**15 تشرين الثاني 2022= 15-11-2022	اليوم:___ الشهر:___ السنة:___
2. المحافظة:	
3. مديرية التربية والتعليم:	
4. اسم المدرسة:	
5. الرقم الوطني للمدرسة:	
6. فترة دوام الطفل	○ فترة واحدة ○ فترة صباحية

○ فترة مسائية	
	7.اسم المقِّيم:
	8.رمز المقيم: (ذاتي)
○ الأول (1) ○ الثاني (2) ○ الثالث (3)	9. الصف:
	10. الشعبة:
	11. رقم الطفل:
الشهر:___ السنة: ___	12. تاريخ ميلاد الطفل:
○ ذكر ○ أنثى	13. جنس الطفل:
_____ : _____ ☐صباحاً (اختر واحدة منها) ☐مساءً	14.وقت البدء بالاختبار:

● هذه ورقة تضم مقاطعَ، اقرأ قدر ما تستطيع منها (اقرأ المقطع).

مثلا، نقرأ هذا المقطع [أشر إلى المقطع " را"]

✋ **بعد مرور 60 ثانية، ستقول 'توقف'.**

● و الآن لنقم بهذا التمرين: اقرأ هذا المقطع [وأشر إلى المقطع " أُعْ"]:

● ✓: جيد، نقرأ هذا المقطع هكذا " أُعْ "

● ✗: نقرأ هذا المقطع" أُعْ "

● لنجرب مثالاً آخر: اقرأ لي هذا المقطع [أشر إلى المقطع سِى]:

● ✓: أحسنت، نقرأ هذا المقطع هو "سِى"

● ✗: نقرأ هذا المقطع هكذا "سِى"

➲ إذا تردد الطفل في قراءة كلمة لمدة تزيد على 3 ثوانٍ. أشر للمقطع التالي وقل: **"لنكمل من فضلك".**

● هل فهمت المطلوب منك؟

عندما أقول لك "لنبدأ"، اقرأ المقطع بدقة وبأسرع وقت ممكن. سنبدأ من هنا ونكمل بهذه الطريقة [أشر إلى المقطع الأول في السطر الأول، وتتبع معه بإصبعك على المقاطع الموجودة في السطر الأول بأكمله]. **هل أنت مستعد؟ لنبدأ.**

✋ قاعدة التوقف المبكّر: إذا وضعت علامة (/) على جميع الإجابات في السطر الأول لأنها خاطئة ولم يصحح الطفل أي خطأ من أخطائه، قل **"شكرا"** وأوقف التمرين. ضع علامة (×) في المربع الموجود في أسفل الصفحة وانتقل للتمرين الذي يليه.

☞ ضع **بوضوح** علامة (/) على أي خطأ يرتكبه الطفل.

☞ في حالة قيام الطفل بتصحيح نفسه، ضع دائرة ◯ حول علامة (/) التي وضعتها مسبقا له

☞ ضع العلامة (]) على آخر كلمة قرأها الطفل

	10	9	8	7	6	5	4	3	2	1
(10)	عِنْ	لَثْ	دا	طو	بِ	را	ق	جا	ها	فِ
(20)	مِحْ	دَ	ئِـ	كَثْ	مِنْ	نْ"	ةٍ	دي	ن	دا
(30)	مي	فو	تى	ِ	وَقْ	زِ	بِ	جِبْ	صَوْ	ظْ
(40)	حَا	لى	رِ	ذا	رو	دًا	ةِ	تِ	ض	هِمْ
(50)	ظَ	إ	ةَ	ذي	حو	جا	كو	دي	مَ	يَحْ
(60)	رَسْ	رَ	قَبْ	قو	ر	قَ	كُ	الْ	ءُ	"ه
(70)	عُصْ	صَوْ	مُ	أنْ	سُ	ـهَ	ألْ	حَثْ	ض	رُ
(80)	ظو	يَنْ	ـهِ	خَ	غُ	دَ	رى	طَ	قا	خى
(90)	أ	غَيْ	عِنْ	كِنْ	مَزْ	ثُ	زِ	مَنْ	بَغْ	عا

	(100)	تَنْ	رَخْ	با	أَج	هَقْ	في	حا	كو	عا	دَزْ

✍ الوقت المتبقي من وقت التمرين (عدد الثواني):

✍ ضع علامة (×) في هذا المربع ☐ في حالة أوقفت هذا الجزء من التقييم لأن الطفل لم يقرأ أيًّا من المقاطع في السطر الأول بشكل صحيح.

✋

بعد مرور 60 ثانية، ستقول 'توقف'.

🖐 هذه بعض الكلمات المخترعة. اقرأ بشكل صحيح أكبر عدد ممكن منها. لا تقرأ حرفا بحرف بل اقرأ الكلمة بالكامل. مثلاً هذه الكلمة المخترعة هي "الفَلاَّطُ".

🖐 الآن اقرأ الكلمة التالية: [أشر إلى كلمة شلاَميذُ]:

🖐✔:أحسنت، " شلاَميذُ"

↻

إذا تردد الطفل في قراءة كلمة لمدة تزيد على 3 ثوانٍ. أشر للكلمة التالية وقل: **"لنكمل من فضلك"**.

🖐✘: " شلاَميذُ " بشكل صحيح، قل: **هذه الكلمة المخترعة هي "شَلاَمِيذُ"**

🖐 لنجرب الآن كلمة أخرى: اقرأ هذه الكلمة [أشر إلى كلمة "ناسِبَ"]:

🖐✔: جيد جداً، "ناسِبَ"

🖐✘: هذه الكلمة المخترعة هي "ناسِبَ"

✋

قاعدة التوقف المبكّر:
إذا وضعت علامة (/) على جميع الأجوبة في السطر الأول لأنها خاطئة ولم يصحح الطفل أي خطأ من أخطائه، قل **"شكرا"** وأوقف التمرين. ضع علامة (×) في المربع الموجود في أسفل الصفحة وانتقل للتمرين الذي يليه.

عندما أقول لك "ابدأ"، اقرأ الكلمات بدقة وبأسرع وقت ممكن. سنبدأ من هنا ونكمل بهذه الطريقة [أشر إلى الكلمة الأولى في السطر الأول، وتتبع معه بإصبعك الكلمات في السطر الأول بأكمله.]

هل أنت مستعد؟ لنبدأ.

✍ضع **بوضوح** علامة (/) على أي خطأ يرتكبه الطفل.

✍في حالة قيام الطفل بتصحيح نفسه، ضع دائرة ◯حول علامة (/) التي وضعتها مسبقا له.

✍ضع العلامة (]) على آخر كلمة قرأها الطفل.

	5	4	3	2	1
(5)	تَخُمُ	أمْشَنُ	رَعيفةُ	تاري	ظاسَ
(10)	مَحْبُ	سَبْدالُ	صالبُ	دافَ	ذَفْ
(15)	جيها	صالِدُ	قِماسي	قاطٍ	رَيْلُمُ
(20)	بُجى	تِماجي	قَبيرُ	أظي	تَشْبرونَ
(25)	أَحّي	شاوَ	ماصي	سُدَافَا	قَدْحُنْ
(30)	يَمْضُ	سَعيمَةُ	ذَلى	أشبُّ	هابَذَ
(35)	خابَةُ	ثُوْلَ	مِيهِ	عاصِلُ	شَمَدَ

(40)	أفا	بِلْخُ	أغي	سَلْعَبُ	سَمْجِلُ
(45)	سَمْهُ	خَمْبَ	جُدْءُ	قَبِسَهُ	خَناءً
(50)	سَحْتَ	فِغْ	غَيْسَمُ	نَبُرَ	أَقِّي

🖝 الوقت المتبقي من وقت التمرين (عدد الثواني):

🖝 ضع علامة (×) في هذا المربع ☐ في حالة أوقفت هذا الجزء من التقييم لأن الطفل لم يقرأ أيًّا من الكلمات في السطر الأول بشكل صحيح.

✋ هذه قصة قصيرة، ركز جيدًا واقرأها مع الحركات وبشكل صحيح وبصوتٍ عالٍ وبالسرعة ممكنة. هل فهمت المطلوب منك؟ حين أقول لك "لنبدأ"، ابدأ بالقراءة مع الحركات، لا تنسَ. مستعد؟ لنبدأ.

🕐   60 ثانية

✋   بعد مرور **60 ثانية**، ستقول **'توقف'**.

🔄   حين يتردد الطفل لمدة تزيد على 3 ثوانٍ في قراءة الكلمة. أشر إلى الكلمة التالية وقل: **"لنكمل من فضلك"**

✋   قاعدة التوقف المبكِّر : إذا وضعت علامة (/) على جميع الكلمات في السطر الأول على أنها خطأ ولم يصحح الطفل أي خطأ من أخطائه، قل **"شكرًا"** وأوقف التمرين. ضع علامة (×) في المربع الموجود في أسفل الصفحة وانتقل إلى التمرين الذي يليه.

✍ ضع **بوضوح** علامة (/) على أي خطأ يرتكبه الطفل أثناء القراءة. ضع العلامة (]) على آخر كلمة قرأها الطفل.

ديمَةَ طالِبَةٌ في الصَّفِّ الثَّالِثِ، تُحِبُّ قِراءَةَ الْكُتُبِ وكِتابَةَ القِصَصِ.	10			
ذَهَبَتْ ديمَةَ مَعَ زَميلَتِها فَرَحَ إلى مَكْتَبَةِ الْمَدْرَسَةِ.	18			
قَرَأَتْ فَرَحُ كِتابًا عَنِ الْفَضاءِ، وَاخْتارَتْ ديمَةُ قِصَّةً عَنِ الطُّيورِ.	28			
سَأَلَتْ فَرَحُ: لِماذا تُحِبّينَ قِراءَةَ القِصَصِ؟	34			
أجابَتْ ديمَةُ بِثِقَةٍ: أَحْلُمُ أَنْ أَصْبِحَ كاتِبَةً لِلْأَطْفالِ.	42			

✍ الوقت المتبقي من وقت التمرين (عدد الثواني):	
✍ ضع علامة (×) في هذا المربع ☐ في حال أوقفت هذا الجزء من التقييم لأن الطفل لم يقرأ أي كلمة في السطر الأول بشكل صحيح.	

APPENDIX II: THE LIST OF ATTENDED SUPERVISORS AND ASSESSORS

كلمة المرور	اسم المستخدم	الاسم	الإدارة	الرقم
ramp	user01	رغد سرحان غيث	المناهج والكتب المدرسية	1
ramp	user02	نجوى عبد الله إسماعيل الدقس	التخطيط والبحث التربوي	2
ramp	user03	ياسر علي محمد العتوم	التخطيط والبحث التربوي	3
ramp	user04	أفنان محمد حامد المومني	التخطيط والبحث التربوي	4
ramp	user05	ردينة سليم سلامة الهروط	التخطيط والبحث التربوي	5
ramp	user06	غادة محمد العكول	التخطيط والبحث التربوي	6
ramp	user07	أحمد حسن صالح القواسمه	التخطيط والبحث التربوي	7
ramp	user08	هالة حسن محمد كنعان	التخطيط والبحث التربوي	8
ramp	user09	عبد الحافظ محمد عواد الحوارات	التخطيط والبحث التربوي	9
ramp	user10	محمد صالح شنيور	التخطيط والبحث التربوي	10
ramp	user11	خالد محمد النعامي	التخطيط والبحث التربوي	11
ramp	user12	محمد راتب عباس	التخطيط والبحث التربوي	12
ramp	user13	نجاح أحمد أبو عجمية	التخطيط والبحث التربوي	13
ramp	user14	ربيع محمود العمري	التخطيط والبحث التربوي	14
ramp	user15	مهدي الصمادي	الإشراف والتدريب التربوي	15
ramp	user16	محمد الوقفي	الإشراف والتدريب التربوي	16
ramp	user17	بشار المطيريين	الإشراف والتدريب التربوي	17
ramp	user18	إبراهيم المومني	الإشراف والتدريب التربوي	18
ramp	user19	سناء المجالي	الإشراف والتدريب التربوي	19
ramp	user20	أسماء المصري	الإشراف والتدريب التربوي	20
ramp	user21	أسامة أبو الغنم	الإشراف والتدريب التربوي	21
ramp	user22	جيهان عريفج	الإشراف والتدريب التربوي	22
ramp	user23	محمد السلامات	الإشراف والتدريب التربوي	23
ramp	user24	خالد النعيمات	اللجنة الإشرافية	24
ramp	user25	حسين الشوملي	اللجنة الإشرافية	25

APPENDIX III: TRAINING AGENDA

دراسة أثر الكتب القرائية المتدرجة (Decodable books study)
تدريب المقيمين
الثلاثاء - الأربعاء الموافق 21 – 2022/11/22
9 صباحًا – 3 عصرًا في مدرسة الأميرة عالية بنت الحسين

المدة	الفقرة
اليوم الأول	
المدة	الفقرة
60 دقيقة	توضيح أهداف الدراسة
90 دقيقة	شرح الأدوات
30 دقيقة	**استراحة**
90 دقيقة	تطبيق عملي على الأدوات والعينة
30 دقيقة	شرح الـ SOPs
60 دقيقة	تحضير اليوم الثاني من التدريب وتنزيل الأداة
الختام	

المدة	الفقرة
اليوم الثاني	
المدة	الفقرة
150 دقيقة	التدرب على الأدوات في المدرسة
30 دقيقة	**استراحة**
30 دقيقة	مناقشة التطبيق في المدرسة
40 دقيقة	التدرب على تطبيق الأدوات
30 دقيقة	الاختبار الأول (IRR1)
20 دقيقة	مناقشة الاختبار
60 دقيقة	توزيع الفرق
الختام	

APPENDIX IV: STANDARD OPERATING PROCEDURE
مسؤوليات ودور مُقيِّم الكتب القرائية المتدرجة ــ قائمة بِما يَجْدُر فعله

1 قبل زيارة المدرسة

☰

1.1 تواصل مع المدرسة للتأكد من أنهم على عِلْم مسبق بزيارتك .... ☰

1.2 تأكد من أن جميع المعدات والمواد اللازمة متوفِّرة لديك .... ☰

1.3 تأكَّد من شحن الجهاز اللوحي. .... ☰

1.4 تأكَّد من أن لديك النسخة الأخيرة من التطبيق. .... ☐

2 في المدرسة

☐

احضر إلى المدرسة باكِرًا.

2.1 عرّف عن نفسك لمديرة المدرسة والمعلمين .... ☐

2.2 قم بتحديد وتجهيز المكان الذي سيُجْرَى فيه التقييم .... ☐

2.3 اخْتَرِ العينة على النحو الآتي:

- اكتب أسماء شعب الصفين الأول والثاني على ورق وضعها في كيس أو سلة. .... ☐

- اختر من الكيس أو السلة ورقة وحدّد مع المدير الشعبة التي ستختار منها الطلبة. .... ☐

- حدد طلبة المجموعة العلاجية من الصف الثالث.................... ☐

- اطلب من طلبة الصفين الأول والثاني الوقوف بطابور من الأطول إلى الأقصر. .... ☐

- حدّد طول فترة العينة. .... ☐

- اختر الأطفال حسب طول الفترة. .... ☐

2.4 ابدأ بإجراء الاختبار مع كل طالب .... ☐

2.5 رتّب المكان الذي استخدمته لإجراء التقييم .... ☐

2.6 اشْكُر مدير المدرسة والمعلمين .... ☐

3 بعد زيارة المدرسة

☐

3.1 حمّل البيانات على الانترنت .... ☐

3.2 اشحن الحاسوب اللوحيّ كهربائياً .... ☐

3.3 جهّز نفسك لزيارة المدرسة التالية .... ☐

4 بعد إتمام جميع زيارات المدارس وكافة التقييمات

☐

4.1 قم بإرجاع جميع الحواسيب اللوحيّة ومواد التقييم إلى مديرية التربية .... ☐