

Last reviewed: November 2019

Intervention website: <https://www.em-edsupport.org.uk/Page/17328>

GUIDEBOOK INTERVENTION INFORMATION SHEET

Switch-on

Please note that in the ‘Intervention summary’ table below, ‘child age’, ‘level of need’, and ‘race and ethnicities’ information is **as evaluated in studies**. Information in other fields describes the intervention as **offered/supported by the intervention provider**.

Intervention summary	
Description	Switch-on is a school-based intervention for children aged 7 to 16 years who are working below age expectations for reading and writing. It is delivered by a teaching assistant or other trained practitioner to individuals for 10 to 12 weeks.
Evidence rating	3+*
Cost rating	1
Child outcomes	<ul style="list-style-type: none"> Enhancing school achievement and employment - Improved literacy.
Child age (population characteristic)	5 to 11 years
Level of need (population characteristic)	Targeted Indicated
Race and ethnicities (population characteristic)	White British

Foundations Guidebook – Intervention information sheet

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Intervention summary	
Type (model characteristic)	Individual
Setting (model characteristic)	<ul style="list-style-type: none">• Primary school• Secondary school.
Workforce (model characteristic)	Teaching assistant, teacher, librarian, SENCO
UK available?	Yes
UK tested?	Yes

Model description

Switch-on is a targeted-indicated intervention for children aged 7 to 16 years who are working below age expectations for reading and writing. These include children who have not met the expected level in English at a Key Stage assessment. Children may have Special Educational Needs, or have English as an Additional Language. Switch-on may also be run in Special Schools.

Switch-on is delivered by a teaching assistant or other trained practitioner (such as a teacher, librarian, or SENCO) to individuals. The practitioner delivers one-to-one sessions approximately daily for 20 minutes over 10 to 12 weeks (one school term).

There are currently two different versions of Switch-on: Switch-on Reading, and Switch-on Writing. Switch-on Reading is underpinned by robust evidence.

In Switch-on Reading, materials are selected based on pre-test scores and prior attainment in the first session; if a mismatch with the pupil's reading ability becomes apparent, this can be adjusted in the following session. Over the course of the intervention, pupils read both fiction and non-fiction books which include visual images. Each session includes: reading a familiar book, discussing the textual and visual content of a book, and introducing and reading a new book. Pupils practise reading comprehension through the discussion, and the practitioner provides feedback and tips on reading strategies. The practitioner also keeps a record sheet with an inventory of reading errors made by the pupil each week; there is a standardised way of completing the record sheet, which forms an important part of the intervention.

Foundations Guidebook – Intervention information sheet

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A historic, hybrid version of the intervention focused on both reading and writing, with reading sessions alternating with writing sessions. In the writing sessions, pupils read one book, and wrote out a sentence from that book with support.

The aim of the intervention is to achieve functional literacy for pupils, and close the reading gap between the most disadvantaged children and their peers. It does this through teaching pupils to be active independent readers and writers.

Target population

Age of child	7 to 16 years
Target population	Children with reading and writing below expected age level

Please note that the information in this section on target population is as **offered/supported by the intervention provider**.



Theory of change

Why		Who	How	What		
Science-based assumption	Science-based assumption	Science-based assumption	Intervention	Short-term outcomes	Medium-term outcomes	Long-term outcomes
Lack of functional literacy is a barrier to academic achievement and positive life chances.	Lack of functional literacy and low engagement in reading in childhood is a barrier to accessing the curriculum and achieving at school.	Pupils who are reading at below the age-expected level.	Trained teaching assistants have daily sessions with pupils to encourage active independent reading and writing, through reading practice, introduction of vocabulary, and discussion of comprehension questions.	<ul style="list-style-type: none"> • Improved pupil engagement with reading • Improved pupil reading (phonics) • Improved pupil reading comprehension • Improved pupil writing. 	<ul style="list-style-type: none"> • Improved access to the curriculum • Increased academic achievement. 	<ul style="list-style-type: none"> • Increased academic achievement • Improved life chances in adulthood.



Implementation requirements

Who is eligible?	Children aged 7 to 16 years who are working below age expectations for reading and writing.
How is it delivered?	Switch-on is delivered in 40 sessions of 20 minutes' duration each, approximately daily over 10 to 12 weeks, by a trained educational practitioner to individual pupils at school.
What happens during the intervention?	<p>In Switch-on Reading, the practitioner, usually a Teaching Assistant, meets almost daily with the pupil to read and discuss books together, including re-reading familiar books and reading new books. They discuss the text, vocabulary, and phonics, and the practitioner gives reading strategy tips.</p> <p>The aim is to improve children's independent reading and literacy skills, as well as writing.</p>
Who can deliver it?	The practitioner who delivers this intervention is a Teaching Assistant, Librarian, Teacher, or SENCO.
What are the training requirements?	The practitioners have 2 days of intervention training. Booster training of practitioners is not required.
How are practitioners supervised?	It is recommended that practitioners are supervised by one intervention developer supervisor, with seven hours of intervention training.
What are the systems for maintaining fidelity?	<p>Intervention fidelity is maintained through the following processes:</p> <ul style="list-style-type: none"> • Training manual • Video or DVD training • Fidelity monitoring.
Is there a licensing requirement?	No
*Contact details	<p>Organisation: East Midlands Education Support Service</p> <p>Email address: info@em-edsupport.org.uk</p> <p>Website: https://www.em-edsupport.org.uk/Page/17328</p> <p>*Please note that this information may not be up to date. In this case, please visit the listed intervention website for up to date contact details.</p>



Evidence summary

Switch-on's most rigorous evidence comes from an RCT which was conducted in the UK, consistent with Foundations' Level 3 evidence strength threshold.

This study evaluated a version of Switch-on Reading, and identified statistically significant improvements in reading.

There is also evidence from an RCT conducted in the UK, consistent with Foundations' Level 2+ evidence strength threshold, which identified statistically significant improvements in writing, and from a rigorous RCT conducted in the UK which did not observe any positive impact of the intervention. Both of these studies evaluated a version of Switch-on which focused on both reading and writing.

Switch-on therefore receives a rating of Level 3+* overall: its evidence base includes mixed findings. This includes rigorously conducted studies suggesting positive impact alongside studies, which, on balance, indicate no effect or negative impact.

Child outcomes			
Outcome	Improvement index	Interpretation	Study
Improved reading ability (For the Reading and Reading and Writing Versions of Switch-on)	+9	2.2-point improvement on the GL New Group Reading Test B – immediately after the intervention (based on study 1)	1 2
Improved writing ability (For the Reading and Writing version of Switch-on only)	N/a	N/a	2



Search and review

	Number of studies
Identified in search	3
Studies reviewed	3
Meeting the L2 threshold	1
Meeting the L3 threshold	2
Contributing to the L4 threshold	0
Ineligible	0

Individual study summary: Study 1

Study 1	
Study design	RCT
Country	UK
Sample characteristics	314 children across 19 schools between the ages of 11 and 12 years
Race, ethnicities, and nationalities	89% White British
Population risk factors	<ul style="list-style-type: none"> • 72% Special Educational Needs • 31% Pupils receiving Free School Meals • 4% English as an Additional Language.
Timing	<ul style="list-style-type: none"> • Baseline • Immediately post-intervention (10 to 12 weeks after baseline).
Child outcomes	Improved reading ability (child assessment)



Study 1	
Other outcomes	None
Study Rating	3
Citation	Gorard, S., See, B. H. & Siddiqui, N. (2014) <i>Switch-On Reading: Evaluation report and executive summary</i> . Education Endowment Foundation.

Brief summary

Population characteristics

This study involved a sample of 314 children, at 19 mainstream schools in Nottinghamshire, UK. This included pupils receiving Free School Meals, pupils with Special Educational Needs and Disabilities, and those with English as an Additional Language. All the children participating in the trial were in Year 7 and had not achieved a Level 4 in Key Stage 2 English.

58% of the children in the sample were boys, and 42% were girls. 89% of the children were White British. 72% of children had Special Educational Needs; 31% were receiving Free School Meals; and 4% had English as an Additional Language.

Study design

In this small-scale two-arm efficacy trial, 157 children were randomly assigned to the Switch-on group and 157 to the wait-list control. Randomisation was conducted through shuffling and dealing playing cards, with an odd card assigning a child to the intervention group, and an even card to the control group.

The wait-list control received business as usual for one term, which included normal lessons and any interventions also available to the intervention group.

Measurement

Assessments took place at baseline (pre-intervention) and immediately after the intervention.

- Child assessment measures included the GL New Group Reading Test A (at baseline) and B (at post-intervention) (administered by schools).

Study retention

98% (308) of children participated in post-intervention assessment, representing 99% (155) of intervention participants and 97% (153) of control.



Results

Data-analytic strategy

The primary outcome measure was assessed in the study by calculating the effect size of the difference between post-test scores between the intervention and control groups. An analysis with gain scores produced the same effect size.

The research team at Foundations used an independent samples t-test to assess the significance of this effect, and found it to be significant.

Findings

The study observed a statistically significant benefit favouring Switch-on children in improvement in reading ability.

Study 1: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
Reading ability	GL New Group Reading Test A (baseline, child assessment) and New Group Reading Test B (post-intervention, child assessment)	$g = 0.24$	Yes	308	Post-intervention, 10 to 12 weeks after baseline

Individual study summary: Study 2

Study 2	
Study design	RCT
Country	UK
Sample characteristics	100 children aged 5 to 11 years with reading ability well below the expected level



Study 2	
Race, ethnicities, and nationalities	No information
Population risk factors	<ul style="list-style-type: none"> • Children with well below the expected level reading • Majority attending schools in a relatively disadvantaged area • 61% of children received Free School Meals .
Timing	<ul style="list-style-type: none"> • Baseline • Post-intervention (12 weeks after baseline).
Child outcomes	<ul style="list-style-type: none"> • Improved word reading (child assessment) • Improved spelling (child assessment).
Other outcomes	None
Study Rating	2+
Citation	Coles, J. (2012) <i>An evaluation of the teaching assistant led Switch-on literacy intervention</i> (MA thesis, University of London Institute of Education).

Brief summary

Population characteristics

This study involved a sample of 100 children aged 5 to 11 years across eight primary schools within one local authority in the East Midlands, UK. In each school, two to four children who were working well below age expected outcomes in literacy were selected to take part, for each trained Teaching Assistant. They were randomly assigned to either the Switch-on group or a business as usual wait-list control group.

53% of the children were girls, and 61% received Free School Meals.

Study design

50 children were randomly assigned into the Switch-on group and 50 to the wait-list control groups. There were no differences in baseline measures or proportion of children with Free School Meals.

Measurement

Assessments took place at baseline and post-intervention (12 weeks after baseline):



- Child assessment measures included the Schonell Graded Word Reading Test and the Daniel and Diack Word Spelling Test (collected by teachers).

Study retention

92% (92) children participated in post-intervention assessment, representing 98% (49) of intervention participants and 86% (43) of control.

Results

Data-analytic strategy

Independent sample T-tests were used to compare the change scores for the reading and spelling ability tests, which had been transformed into a standardised score in years and months.

Findings

The study observed statistically significant benefits in word reading and spelling abilities.

Limitations

The conclusions that can be drawn from this study are limited by methodological issues pertaining to high differential attrition, hence why a higher rating is not achieved.

Study 2: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
Word reading ability	Schonell Graded Word Reading Test (child assessment)	N/A	yes	92	Post-intervention
Spelling ability	Daniel and Diack Word Spelling Test (child assessment)	N/A	yes	92	Post-intervention



Individual study summary: Study 3

Study 3	
Study design	Cluster RCT
Country	UK
Sample characteristics	999 pupils between the ages of 7 and 8 years, who had not achieved an expected level of reading in Key Stage 1, across 184 schools
Race, ethnicities, and nationalities	No information
Population risk factors	<ul style="list-style-type: none"> • Children selected failed to achieve an expected level of reading at Key Stage 1 • 40% of pupils were eligible for Free School Meals.
Timing	<ul style="list-style-type: none"> • Baseline (5 months before intervention) • Post-intervention.
Child outcomes	No statistically significant outcomes
Other outcomes	None
Study Rating	NE
Citation	Patel, R., Jabin, N., Bussard, L., Cartagena, J., Haywood, S. & Lumpkin, M. (2017) <i>Switch-On effectiveness trial: Evaluation report and executive summary</i> . Education Endowment Foundation.

Brief summary

Population characteristics

This study involved a sample of 999 pupils across 184 primary schools in 17 local areas, often where Switch-on had existing professional links. Maintained, academy or private schools, which were not already implementing Switch-on across the whole school, were eligible to take part in the study.



Children were selected in Year 3 (aged 7 to 8 years) who had not met age-related expectations in literacy at the end of Key Stage 1 and who did not have a high level of special needs.

At pupil level, across schools, 42% of children represented in the sample were female, and 40% of pupils were eligible for Free School Meals.

16.5% of all Year 3 pupils in Switch-on schools had English as an Additional Language, and 16.4% of all Year 3 pupils in Control schools had English as an Additional Language.

11.7% of all Year 3 pupils in Switch-on schools and 11.3% of all Year 3 pupils in Control schools had Special Education Needs.

Study design

In this three-arm effectiveness trial, 184 schools were randomly assigned to receive Switch-on Reading, Switch-on Reading and Writing, or to business as usual wait-list control group with a financial incentive (£1,500 on completion of outcome testing and option to participate in Switch-on training the following year). There were no differences on baseline reading score between groups.

Randomisation was stratified by Switch-on trainer: schools recruited by each trainer were randomised, three to Switch-on Reading, three to Switch-on Reading and Writing, and the remainder to the control group (each trainer aimed to recruit nine schools).

63 schools were assigned to Switch-on Reading, 63 to Switch-on Reading and Writing, and 58 to control. Before randomisation, schools selected between 4 and 16 eligible pupils to take part.

The study aimed to compare the two Switch-on intervention groups jointly to the control group, given ‘marginal differences’ between the two versions of the intervention.

Measurement

Assessments took place at baseline (5 months pre-intervention) and immediately after the intervention.

- **Administrative records** included the Key Stage 1 reading level.
- **Child assessment** measures included the Hodder Group Reading Test (administered to whole classes by blinded researchers).

Study retention

At follow-up, 92% of pupils were retained (93.6% in the Switch-on Reading group, 94.8% in the Switch-on Reading and Writing group, and 88.9% in the control group).

One school was excluded after randomisation as it was a Special School and its teachers decided the outcome measure was not appropriate for its pupils.



Results

Data-analytic strategy

Multi-level modelling was used to account for heterogeneity between schools, on an intent-to-treat basis. The main model adjusted estimates and standard errors to baseline reading outcomes (Key Stage 1 reading assessment) and the randomisation stratification variable, the Switch-on trainer, as fixed effects. It compared Switch-on Reading and Switch-on Reading and Writing combined, with the control group.

Findings

The study did not find an effect of the Switch-on intervention in children's reading skills (Switch-on Reading and Switch-on Reading and Writing combined, compared to the control group).

Study 3: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
Reading ability	Key Stage 1 reading level (baseline, administrative record); Hodder Group Reading Test (post-intervention, child assessment)	$g = 0.0$	no	902	Post-intervention, 8 months after baseline

Other studies

No other studies were identified for this intervention.

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Note on provider involvement: This provider has agreed to Foundations' terms of reference (or the Early Intervention Foundation's terms of reference), and the assessment has been conducted and published with the full cooperation of the intervention provider.