# Setting and streaming

No impact for very low cost based on very limited evidence

'Setting' or 'streaming' refer to approaches by which pupils with similar levels of current attainment are consistently grouped together for lessons.

**Implementation cost**

£ £ £ £ £

**Evidence strength**

**Impact (months)**

0 months

## Subject breakdown

toolkit: 58

## School phase breakdown

primary: 41
secondary: 17
toolkit: 58

# Technical Appendix

The criteria used to judge the inclusion of studies in the Toolkit are:

- The population sampled involved early years and school age learners from 3-18 learning in their first language.
- The intervention or approach being tested was educational in nature, including named or clearly defined programmes and recognisable approaches classifiable according to the Toolkit strand definitions (e.g. peer tutoring or small group teaching). The intervention or approach is undertaken in a normal educational setting or environment for the learners involved, such as a nursery or school or a typical setting (e.g. an outdoor field centre or museum).
- A valid comparison was made between those receiving the educational intervention or approach and those not receiving it.
- Outcomes include the assessment of educational or cognitive achievement which reports quantitative results from testing of attainment or learning outcomes, such as by standardised tests or other appropriate curriculum assessments or school examinations or appropriate cognitive measures.
- The study design provided a quantitative estimate of the impact of the intervention or approach on the educational attainment of the sample, calculated or estimated in the form of an effect size (standardised mean difference) based on a counterfactual comparison.

Standardised mean differences and confidence intervals for the most appropriate estimates of the impact of the intervention or approach for the Toolkit were extracted from each included study, along with other study variables. These effect sizes were further synthesised into a single pooled effect using a random effects meta-analysis adopting a restricted maximum likelihood (REML) estimation methods.For the full details of the methodology see the Protocol and Analysis Plan (https://educationendowmentfoundation.org.uk/public/files/Toolkit/EEF_Evidence_Database_Protocol_and_Analysis_Plan_June2019.pdf)
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# References (58)

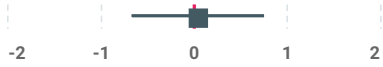
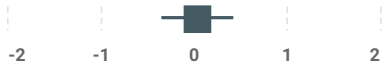
The forest plot below is a graphical representation of the results of all included studies in this Toolkit strand. It shows the effect size and confidence interval of each study, and whether the particular intervention in that study was more or less effective than standard practice or other alternative interventions that the study looked at.

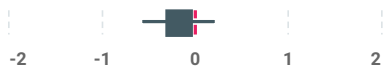
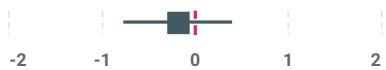
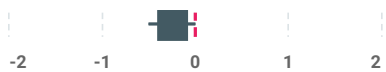
Studies that show an effect size result on the right-hand side of the red vertical red indicate that the particular intervention studied was more effective than standard practice. Studies that show an effect size on the left-hand size of the red vertical indicate that the particular intervention studied was less effective than standard practice.

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Hart (1959) 1_1 | The Effectiveness of an Approach to the Problem of Varying Abilities in Teaching Reading *(The Journal of Educational Research)* | **Effect Size**: 1.399<br>**LCI**: 0.951<br>**UCI**: 1.847<br>**Weight**: 1.653<br>**Standard error**: 0.229 |  |
| Hart (1959) 1_2 | The Effectiveness of an Approach to the Problem of Varying Abilities in Teaching Reading *(The Journal of Educational Research)* | **Effect Size**: 1.365<br>**LCI**: 0.914<br>**UCI**: 1.816<br>**Weight**: 1.648<br>**Standard error**: 0.23 |  |
| Green (1963) 1_1 | Interclass Grouping for Reading Instruction in the Middle Grades *(The Journal of Experimental Education)* | **Effect Size**: 0.731<br>**LCI**: 0.47<br>**UCI**: 0.992<br>**Weight**: 1.966<br>**Standard error**: 0.133 |  |
| Green (1963) 1_2 | Interclass Grouping for Reading Instruction in the Middle Grades *(The Journal of Experimental Education)* | **Effect Size**: 0.686<br>**LCI**: 0.318<br>**UCI**: 1.055<br>**Weight**: 1.793<br>**Standard error**: 0.188 |  |
| Moorhouse (1964) 1_1 | Interclass Grouping for Reading Instruction *(The Elementary School Journal)* | **Effect Size**: 0.621<br>**LCI**: 0.234<br>**UCI**: 1.007<br>**Weight**: 1.763<br>**Standard error**: 0.197 |  |
| Green (1963) 1_3 | Interclass Grouping for Reading Instruction in the Middle Grades *(The Journal of Experimental Education)* | **Effect Size**: 0.615<br>**LCI**: 0.096<br>**UCI**: 1.133<br>**Weight**: 1.528<br>**Standard error**: 0.265 |  |

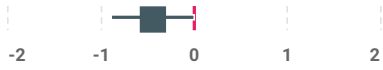
| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Moorhouse (1964) 1_3 | Interclass Grouping for Reading Instruction<br>*(The Elementary School Journal)* | **Effect Size**: 0.517<br>**LCI**: 0.111<br>**UCI**: 0.924<br>**Weight**: 1.727<br>**Standard error**: 0.208 |  |
| Ingram (1960) | Flint Evaluates Its Primary Cycle<br>*(The Elementary School Journal)* | **Effect Size**: 0.499<br>**LCI**: 0.236<br>**UCI**: 0.762<br>**Weight**: 1.964<br>**Standard error**: 0.134 |  |
| Moorhouse (1964) 1_2 | Interclass Grouping for Reading Instruction<br>*(The Elementary School Journal)* | **Effect Size**: 0.477<br>**LCI**: 0.134<br>**UCI**: 0.82<br>**Weight**: 1.836<br>**Standard error**: 0.175 |  |
| Roy (2018) | Best Practice in Grouping Students Intervention B : Mixed Attainment Grouping Pilot report and executive summary<br>*(NA)* | **Effect Size**: 0.46<br>**LCI**: -0.475<br>**UCI**: 1.395<br>**Weight**: 0.915<br>**Standard error**: 0.477 |  |
| Platz (1965) 1_1 | The Effectiveness Of Ability Grouping In General Science Classes<br>*(NA)* | **Effect Size**: 0.371<br>**LCI**: -0.095<br>**UCI**: 0.837<br>**Weight**: 1.621<br>**Standard error**: 0.238 |  |
| Platz (1965) 1_3 | The Effectiveness Of Ability Grouping In General Science Classes<br>*(NA)* | **Effect Size**: 0.361<br>**LCI**: -0.111<br>**UCI**: 0.834<br>**Weight**: 1.61<br>**Standard error**: 0.241 |  |
| Loomer (1962) 1_3 | Ability Grouping And Its Effect Upon Individual Achievement<br>*(NA)* | **Effect Size**: 0.359<br>**LCI**: -0.35<br>**UCI**: 1.069<br>**Weight**: 1.213<br>**Standard error**: 0.362 |  |
| Platz (1965) 1_2 | The Effectiveness Of Ability Grouping In General Science Classes<br>*(NA)* | **Effect Size**: 0.339<br>**LCI**: -0.021<br>**UCI**: 0.7<br>**Weight**: 1.807<br>**Standard error**: 0.184 |  |
| Burris (2006) | Accelerating Mathematics Achievement Using Heterogeneous Grouping<br>*(American Educational Research Journal)* | **Effect Size**: 0.323<br>**LCI**: 0.086<br>**UCI**: 0.561<br>**Weight**: 2<br>**Standard error**: 0.121 |  |

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Jones (1967) | A Comparison of Pupil Achievement after One and One-Half and Three Years in a Nongraded Program<br>*(The Journal of Educational Research)* | **Effect Size**: 0.307<br>**LCI**: -0.259<br>**UCI**: 0.874<br>**Weight**: 1.446<br>**Standard error**: 0.289 |  |
| Loomer (1962) 1_2 | Ability Grouping And Its Effect Upon Individual Achievement<br>*(NA)* | **Effect Size**: 0.269<br>**LCI**: -0.371<br>**UCI**: 0.908<br>**Weight**: 1.323<br>**Standard error**: 0.326 |  |
| Barton (1964) | An Evaluation Of Ability Grouping In Ninth Grade English<br>*(NA)* | **Effect Size**: 0.223<br>**LCI**: -0.052<br>**UCI**: 0.498<br>**Weight**: 1.945<br>**Standard error**: 0.141 |  |
| Baiow (1963) | The effects of three types of grouping on achievement<br>*(California Journal of Educational Research)* | **Effect Size**: 0.195<br>**LCI**: -0.138<br>**UCI**: 0.528<br>**Weight**: 1.853<br>**Standard error**: 0.17 |  |
| Bent (1969) | Grouping of the Gifted: An Experimental Approach.<br>*(NA)* | **Effect Size**: 0.142<br>**LCI**: -0.263<br>**UCI**: 0.547<br>**Weight**: 1.73<br>**Standard error**: 0.207 |  |
| Duflo (2011) SetS | Peer effects, teacher incentives, and the impact of tracking: Evidence from a randomized evaluation in Kenya<br>*(American Economic Review)* | **Effect Size**: 0.139<br>**LCI**: -0.014<br>**UCI**: 0.292<br>**Weight**: 2.101<br>**Standard error**: 0.078 |  |
| Moses (1965) 1_1 | A Study Of The Effect Of Inter-Class Ability Grouping On Achievement In Reading<br>*(NA)* | **Effect Size**: 0.107<br>**LCI**: -0.286<br>**UCI**: 0.499<br>**Weight**: 1.752<br>**Standard error**: 0.2 |  |
| Adamson (1972) | Differentiated Multi-Track Grouping Versus Uni-Track Educational Grouping In Mathematics<br>*(NA)* | **Effect Size**: 0.087<br>**LCI**: 0.026<br>**UCI**: 0.148<br>**Weight**: 2.166<br>**Standard error**: 0.031 |  |
| DeGrow (1964) | A study of the effects of the use of vertical reading ability groupings for reading classes as compared with heterogeneous groupings in grades four, five, and six in the Port Huron Area Schools of Michigan over a three-year period.<br>*(NA)* | **Effect Size**: 0.082<br>**LCI**: -0.016<br>**UCI**: 0.179<br>**Weight**: 2.146<br>**Standard error**: 0.05 |  |

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Koukeyan (1976) 1_2 | Evaluation Of A Vertical-Horizontal Enrichment Program For The Math-Gifted Students Fourth, Fifth And Sixth Grades. *(NA)* | **Effect Size**: 0.042<br>**LCI**: -0.375<br>**UCI**: 0.459<br>**Weight**: 1.708<br>**Standard error**: 0.213 |  |
| Loomer (1962) 1_1 | Ability Grouping And Its Effect Upon Individual Achievement *(NA)* | **Effect Size**: 0.037<br>**LCI**: -0.686<br>**UCI**: 0.76<br>**Weight**: 1.192<br>**Standard error**: 0.369 |  |
| Koukeyan (1976) 1_3 | Evaluation Of A Vertical-Horizontal Enrichment Program For The Math-Gifted Students Fourth, Fifth And Sixth Grades. *(NA)* | **Effect Size**: 0.035<br>**LCI**: -0.474<br>**UCI**: 0.545<br>**Weight**: 1.544<br>**Standard error**: 0.26 |  |
| Moses (1965) 1_2 | A Study Of The Effect Of Inter-Class Ability Grouping On Achievement In Reading *(NA)* | **Effect Size**: 0.032<br>**LCI**: -0.364<br>**UCI**: 0.429<br>**Weight**: 1.745<br>**Standard error**: 0.202 |  |
| Koukeyan (1976) 1_1 | Evaluation Of A Vertical-Horizontal Enrichment Program For The Math-Gifted Students Fourth, Fifth And Sixth Grades. *(NA)* | **Effect Size**: 0.031<br>**LCI**: -0.249<br>**UCI**: 0.311<br>**Weight**: 1.938<br>**Standard error**: 0.143 |  |
| Fogelman (1978) | Ability-grouping in Secondary Schools and Attainment *(Educational Studies)* | **Effect Size**: 0.007<br>**LCI**: -0.311<br>**UCI**: 0.324<br>**Weight**: 1.879<br>**Standard error**: 0.162 |  |
| Moses (1965) 1_3 | A Study Of The Effect Of Inter-Class Ability Grouping On Achievement In Reading *(NA)* | **Effect Size**: -0.012<br>**LCI**: -0.404<br>**UCI**: 0.38<br>**Weight**: 1.753<br>**Standard error**: 0.2 |  |
| Bicak (1962) 1_1 | Achievement in eighth grade science by heterogeneous and homogeneous classes *(NA)* | **Effect Size**: -0.028<br>**LCI**: -0.417<br>**UCI**: 0.362<br>**Weight**: 1.757<br>**Standard error**: 0.199 |  |
| Kline (1963) | A longitudinal study of the effectiveness of the track plan in the secondary schools of a metropolitan community *(NA)* | **Effect Size**: -0.033<br>**LCI**: -0.173<br>**UCI**: 0.106<br>**Weight**: 2.113<br>**Standard error**: 0.071 |  |

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Bailey (1968) | A study of the effectiveness of ability grouping on success in first year algebra<br>*(NA)* | **Effect Size**: -0.05<br>**LCI**: -0.436<br>**UCI**: 0.336<br>**Weight**: 1.763<br>**Standard error**: 0.197 |  |
| Russell (1946) | Inter-Class Grouping for Reading Instruction in the Intermediate Grades<br>*(The Journal of Educational Research)* | **Effect Size**: -0.098<br>**LCI**: -0.269<br>**UCI**: 0.073<br>**Weight**: 2.082<br>**Standard error**: 0.087 |  |
| Flair (1964) | The Effect Of Grouping On Achievement And Attitudes Toward Learning Of First Grade Pupils<br>*(NA)* | **Effect Size**: -0.116<br>**LCI**: -0.334<br>**UCI**: 0.102<br>**Weight**: 2.026<br>**Standard error**: 0.111 |  |
| Hoffer (1991) | Middle School Ability Grouping and Student Achievement in Science and Mathematics<br>*(Educational Evaluation and Policy Analysis)* | **Effect Size**: -0.153<br>**LCI**: -0.239<br>**UCI**: -0.067<br>**Weight**: 2.153<br>**Standard error**: 0.044 |  |
| Zweibelson (1965) | Team Teaching and Flexible Grouping in the Junior High-School Social Studies<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.168<br>**LCI**: -0.455<br>**UCI**: 0.119<br>**Weight**: 1.927<br>**Standard error**: 0.146 |  |
| Halliwell (1963) 1_3 | A Comparison of Pupil Achievement in Graded and Nongraded Primary Classrooms<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.181<br>**LCI**: -0.58<br>**UCI**: 0.218<br>**Weight**: 1.74<br>**Standard error**: 0.204 |  |
| Thacker (1987) 1_3 | Effects of Administrator Implemented Homogeneous and Heterogeneous Grouping on Reading Achievement of Selected Sixth-Grade Students<br>*(NA)* | **Effect Size**: -0.19<br>**LCI**: -0.785<br>**UCI**: 0.405<br>**Weight**: 1.397<br>**Standard error**: 0.304 |  |
| Thacker (1987) 1_1 | Effects of Administrator Implemented Homogeneous and Heterogeneous Grouping on Reading Achievement of Selected Sixth-Grade Students<br>*(NA)* | **Effect Size**: -0.207<br>**LCI**: -0.753<br>**UCI**: 0.34<br>**Weight**: 1.48<br>**Standard error**: 0.279 |  |
| Daniels (1961) 1_2 | The effects of streaming in the primary school: Comparison of streamed and unstreamed schools<br>*(British Journal of Educational Psychology)* | **Effect Size**: -0.252<br>**LCI**: -0.515<br>**UCI**: 0.012<br>**Weight**: 1.964<br>**Standard error**: 0.134 |  |

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Halliwell (1963) 1_2 | A Comparison of Pupil Achievement in Graded and Nongraded Primary Classrooms<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.27<br>**LCI**: -0.663<br>**UCI**: 0.124<br>**Weight**: 1.749<br>**Standard error**: 0.201 |  |
| Loomer (1962) 1_4 | Ability Grouping And Its Effect Upon Individual Achievement<br>*(NA)* | **Effect Size**: -0.287<br>**LCI**: -1.271<br>**UCI**: 0.697<br>**Weight**: 0.861<br>**Standard error**: 0.502 |  |
| Daniels (1961) 1_1 | The effects of streaming in the primary school: Comparison of streamed and unstreamed schools<br>*(British Journal of Educational Psychology)* | **Effect Size**: -0.296<br>**LCI**: -0.568<br>**UCI**: -0.023<br>**Weight**: 1.95<br>**Standard error**: 0.139 |  |
| Loomer (1962) 1_5 | Ability Grouping And Its Effect Upon Individual Achievement<br>*(NA)* | **Effect Size**: -0.303<br>**LCI**: -1.34<br>**UCI**: 0.734<br>**Weight**: 0.807<br>**Standard error**: 0.529 |  |
| Berkun (1966) | An Experiment on Homogeneous Grouping for Reading in Elementary Classes<br>*(The Journal of Educational Research)* | **Effect Size**: -0.32<br>**LCI**: -0.441<br>**UCI**: -0.199<br>**Weight**: 2.129<br>**Standard error**: 0.062 |  |
| Thacker (1987) 1_2 | Effects of Administrator Implemented Homogeneous and Heterogeneous Grouping on Reading Achievement of Selected Sixth-Grade Students<br>*(NA)* | **Effect Size**: -0.335<br>**LCI**: -0.86<br>**UCI**: 0.19<br>**Weight**: 1.517<br>**Standard error**: 0.268 |  |
| Breidenstine (1936) | The Educational Achievement of Pupils in Differentiated and Undifferentiated Groups<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.336<br>**LCI**: -0.556<br>**UCI**: -0.117<br>**Weight**: 2.024<br>**Standard error**: 0.112 |  |
| Koontz (1961) | A Study of Achievement as a Function of Homogeneous Grouping<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.438<br>**LCI**: -0.708<br>**UCI**: -0.168<br>**Weight**: 1.953<br>**Standard error**: 0.138 |  |
| Cartwright (1972) 1_3 | Three Approaches to Grouping Procedures for the Education of Disadvantaged Primary School Children<br>*(The Journal of Educational Research)* | **Effect Size**: -0.44<br>**LCI**: -1.008<br>**UCI**: 0.128<br>**Weight**: 1.442<br>**Standard error**: 0.29 |  |

| Author | Title | Effect Size | Effect Size (Graph) |
|---|---|---|---|
| Loomer (1962) 1_6 | Ability Grouping And Its Effect Upon Individual Achievement<br>*(NA)* | **Effect Size**: -0.448<br>**LCI**: -0.895<br>**UCI**: -0.001<br>**Weight**: 1.656<br>**Standard error**: 0.228 |  |
| Cartwright (1972) 1_2 | Three Approaches to Grouping Procedures for the Education of Disadvantaged Primary School Children<br>*(The Journal of Educational Research)* | **Effect Size**: -0.45<br>**LCI**: -0.96<br>**UCI**: 0.06<br>**Weight**: 1.544<br>**Standard error**: 0.26 |  |
| Abadzi (1984) | Ability Grouping Effects on Academic Achievement and Self-Esteem in a Southwestern School District<br>*(The Journal of Educational Research)* | **Effect Size**: -0.479<br>**LCI**: -0.668<br>**UCI**: -0.291<br>**Weight**: 2.062<br>**Standard error**: 0.096 |  |
| Bell (1959) 1_1 | A comparative study of mentally gifted children heterogeneously and homogeneously grouped<br>*(NA)* | **Effect Size**: -0.558<br>**LCI**: -1.075<br>**UCI**: -0.042<br>**Weight**: 1.532<br>**Standard error**: 0.264 |  |
| Cartwright (1972) 1_1 | Three Approaches to Grouping Procedures for the Education of Disadvantaged Primary School Children<br>*(The Journal of Educational Research)* | **Effect Size**: -0.746<br>**LCI**: -1.254<br>**UCI**: -0.238<br>**Weight**: 1.547<br>**Standard error**: 0.259 |  |
| Halliwell (1963) 1_1 | A Comparison of Pupil Achievement in Graded and Nongraded Primary Classrooms<br>*(The Journal of Experimental Education)* | **Effect Size**: -0.945<br>**LCI**: -1.364<br>**UCI**: -0.526<br>**Weight**: 1.705<br>**Standard error**: 0.214 |  |
| Nichols (1969) | Intraclass grouping for reading instruction: Who Makes the Decisions and Why?<br>*(Educational Leadership Research Supplement)* | **Effect Size**: -1.006<br>**LCI**: -1.338<br>**UCI**: -0.673<br>**Weight**: 1.854<br>**Standard error**: 0.17 |  |