



Pearson

NAME

Efficacy Research Report

April 3 2018



Contents

- 03 Introduction
- 05 Findings in brief
- 06 Product design and development
- 09 Intended product implementation
- 10 Product research
- 15 Appendix
- 16 PwC assurance report

The corpus of research for this product includes research conducted by our in-house researchers in partnership with customers, and research conducted by third party researchers. All research included in this report meets the standards we have set out for our own efficacy research. These are informed by and aligned with guidance on educational research quality provided by organisations, such as the American Educational Research Association and the What Works Clearinghouse.

Efficacy statements in this report are subject to independent assurance by PricewaterhouseCoopers LLP (PwC). The PwC assurance report is on page 16 and further details can be found in the [Pearson Efficacy Reporting Framework dated April 3 2018](#).

Introduction

In 2013, Pearson made a commitment to efficacy: to identify the outcomes that matter most to students and educators, and to have a greater impact on improving them. Our aspiration is to put learners at the heart of the Pearson strategy; our goal, to help more learners, learn more. Part of our commitment was to publish research regarding the impact of the use of our products on outcomes, and to have the outcomes subject to independent audit. We call this efficacy reporting. There is no rulebook for how to do this, no model to follow. We've had to learn fast during this journey, we've sought guidance from others including external expertise, and we are now some, but not yet all of the way there.

The road taken and the milestone reached

In a first for the education sector, we have published audited efficacy reports on some of our most widely used products. Together, these products represent 18 million learners. This Research Report includes independently audited efficacy statements that have been prepared using the [Pearson Efficacy Reporting Framework dated April 3 2018](#) — which we have used consistently for the Pearson products we are reporting on.

We have sought to use the efficacy reporting process to amplify existing non-Pearson peer reviewed research about our products. We've also sought to foster innovation in efficacy research by conducting new research and placing value on a range of research methods — including implementation studies, correlational and causal designs — ensuring data is collected, analyzed and presented to agreed standards at the appropriate stages in each product's lifecycle. The research conducted for this report, and the efficacy statements produced as a result, are designed based on international best practices such as those set out by the American Education Research Association and the What Works Clearinghouse. We have synthesized these into a set of standards we hold ourselves accountable for in our research and reporting. These are set out in the [Pearson Efficacy Reporting Framework dated April 3 2018](#).

Furthermore, we adhere to the same peer-review processes as other high quality research in the education sector. Our work was independently reviewed and validated by SRI International, a well-known non-profit research center, and shared for discussion at research conferences organized by, among others, the American Education Research Association.

Our body of research contains evidence of statistically significant relationships between the use of our products and learner outcomes like student achievement. We want to be clear, though, that efficacy is not a quality a digital product can possess in and of itself. We recognize that implementation — the way a product is integrated into teaching and learning — also has a significant impact on the outcomes that can be achieved. Our reports do not yet capture the full range of intended product outcomes, nor the variety of different ways of implementing our products. What we do know is that the more we can engage with our customers about best practices that can support the integration of learning technologies into their teaching, the more likely they will be to achieve their desired outcomes.

We have commissioned PricewaterhouseCoopers LLP ('PwC') to audit the efficacy statements set out in our Research Reports. This is to demonstrate that the statements accurately reflect the research that has been carried out. PwC's audit report can be found at the end of this document.

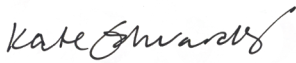
The journey ahead

Delivering on our reporting commitment has never been our ultimate goal; what matters most to us is helping more learners, learn more. Our aspiration is to explore what works, for whom, and why; and to encourage discussion about questions such as: What outcomes matter most to students? What should teaching and learning look like? What evidence should we apply to its design? And how should we evaluate impact?

We are excited to continue partnering with educators and others in the field in order to better understand how interactions between educators, students and learning technology can enhance outcomes. We have also been energized to see others in the education sector begin to focus on efficacy and research — though we recognize that their application in education is still nascent. In order to accelerate the emergence of its full potential we are already developing new ways of partnering with educators, researchers and institutions so we can advance this work together. In doing so, we will continue to advocate for the need to apply rigorous evidence to improve the outcomes of teaching and learning, while also seeking to ensure that evidence captures customers' experiences and is relevant and useful to educators in their practice.

Special thanks

We want to thank all the educators, students, research institutions and organizations we have collaborated with to date. We are spurred on by the growing number of opportunities for us to learn from others in the sector who are beginning to tackle the same challenges. If you are interested in partnering with us on future efficacy research, have feedback or suggestions for how we can improve, or want to discuss your approach to using or researching our products, we would love to hear from you at efficacy@pearson.com. If we, as a sector, tackle this together, we will help more learners learn more.



Kate Edwards

Senior Vice President,
Efficacy and Research, Pearson
April 3 2018

Findings in brief

Pearson sought to explore whether the students in schools in Brazil using the NAME learning system (an integrated program that encompasses a school's whole educational environment) demonstrate higher achievement in Portuguese and math, compared to those not exposed to NAME, as measured by national achievement assessments.

This Research Report presents findings from one research study: a quasi-experimental study comparing 54 schools using NAME with 267 comparable non-NAME schools. Our aim in using a comparative study design was to seek out possible relationships between exposure to NAME and students' achievement, to identify areas of focus for potential future research using more rigorous causal study designs.

The findings appear alongside details of the research study, including a description of the sample studied, method of analysis, results, limitations and generalizability, and notes on possible future research.

The report also summarizes the context surrounding the findings, including the research that informed the design and development of the product, the history of the product in the market, how educators use the product, and its intended outcomes.

The findings are inseparable from their surrounding context and the design of the study that produced them. To learn more about these elements, follow the links to our Technical Reports in the **Research studies** section.

In the context of a study based on analysis of schools data from 2015, made publicly available through the National Institute of Educational Studies and Research Anísio Teixeira (INEP), Pearson found that:

- Fifth grade students who had received NAME since 1st grade, from schools already using NAME, outscored students from similar schools (matched on 2009 IDEB¹, 2013 SES², and 2015 school complexity) by 4 points on the Prova Brasil Portuguese assessment and 11 points on the Prova Brasil math assessment in 2015.
- Ninth grade students who had received NAME since 6th grade, from schools already using NAME, outscored students from similar schools (matched on 2011 IDEB, 2013 SES, and 2015 school complexity) by 3 points on the Prova Brasil Portuguese assessment and 6 points on the Prova Brasil math assessment in 2015.

The complete statements are set out in the box titled "Efficacy statements" on page 12. These statements have been subject to assurance by PwC, whose report can be found at the end of this Research Report.

¹ Basic Education Development Index

² Socioeconomic status

Product design and development

Product overview

NAME is a Sistema de Ensino: a Brazilian education system term for an integrated learning program that encompasses an institution's whole educational environment, including curriculum design, teacher support and training, print content and courseware, technology platforms, assessments and other services. NAME is a Sistema de Ensino designed specifically for public schools.

In Brazil, it is very common for higher income families to enroll their children in private schools. Traditionally, the public educational Sistema for K-12 has a poor reputation due to low student outcomes and low investment in public education. NAME is dedicated to serving students from low income backgrounds, where private school fees are out of reach for their parents.

NAME is designed to enhance and improve outcomes related to achievement — e.g., on Prova Brasil, an external national standardized exam.

Foundational research underpinning the design

NAME aims to offer quality public education to K-9 students of associated municipalities, using the most up-to-date pedagogical, technological, and administrative resources.

NAME's teaching materials are all designed to align with the three fundamental pillars of Brazil's education system:

- The Law of Basic Education Guidelines
- The National Curriculum Parameters
- The National Curriculum References

The full list of the outcomes this product is intended to support, accompanied by a brief description, can be found in the appendix of this report.

To help NAME partner schools to explore the teaching materials to their full potential, the program also provides pedagogic consultancy, continued distance education, education technologies, and services to support inclusive education.

The design of NAME incorporates numerous principles from learning science, with the goal of enhancing students' achievement. What follows is a summary of some specific learning science research that underpins the design of NAME.

Instructional sequence

A multitude of studies has shown that prior knowledge — the set of declarative knowledge and skills students bring with them to a new learning situation — is related to learning outcomes (Dochy, Segers, & Buehl, 1999). Learning consists of either expanding on existing knowledge, which is known as conceptual growth; or revising existing knowledge, which is known as conceptual change (Lucariello et al., 2016).

An important element of the NAME model, supported by this research, is the teaching sequence used: clearly stating objectives, activating prior knowledge, instruction of new knowledge, and opportunity for practice.

This element is designed to encourage conceptual change. By getting students to access their prior knowledge before a lesson, teachers can judge whether they should employ techniques to build on existing knowledge or techniques that highlight the conflict between existing conceptualizations and new knowledge.

Practice

Practice is an important element in instruction; it is a way to develop fluency. In both reading and math, practice results in skills becoming more efficient, accurate, and flexible, which we summarise as more fluent (Russell, 2000).

Efficiency means the learner does not get hung up on steps or individual words. Accuracy is not just correctness of response, but also knowing how to monitor or check correctness. Flexibility involves knowing more than one way to solve a problem, and being able to choose when to use each one. Finally, fluency is not just memorizing a procedure, but being able to choose an appropriate strategy for a given problem.

In both reading and math, debates have raged among researchers and educators about how to achieve fluency. For example, in reading, there are arguments about whether students should read more independently, read more assisted, and/or receive direct instruction in phonics (Kuhn & Stahl, 2003). In math, there are ongoing debates about how much time should be spent on “drills” of basic facts (Schoenfeld, 2004). As Schoenfeld (2004) argues, “any sensible person would realize that children need both phonics and reading for understanding. Either of the two perspectives, taken to extremes, is nonsensical” (p. 280). What is clear is that students must actively engage in a variety of activities in order to develop fluent use of knowledge and skills (Prince, 2004).

Recalling students’ existing knowledge of topics as they are learning allows for the deepening, contextualization, and expansion of concepts. In order to do this, teachers and students need to raise and check hypotheses, collect and compare data, make records and fastening exercises, and apply and summarize concepts. Students also need to make a self-evaluation of their level of understanding. NAME 's didactic sequence is structured to provide students with opportunities for practice. The sessions "Organizando nossas ideias" (organizing our ideas) and "Vamos ..." (let's go) allow teachers and students to systematize and expand knowledge, and apply that knowledge to content.

Active learning

In its simplest form, active learning involves introducing some form of student activity into lectures. For example, instructors can pose a question, ask students to reflect on it and then share their thoughts with a partner. Even this simple procedure has been shown to increase both short- and long-term retention (Ruhl, Hughes, & Schloss, 1987).

However, many other activities that increase engagement have also been shown to increase learning. In addition, collaborative learning generally, and cooperative learning specifically, have shown positive effects on learning (Prince, 2004).

Encouraging active learning is an increasing focus of NAME’s design. Name provides active learning activities within the teacher’s guide — embedding active learning within the didactic sequence. This is anchored by specific professional development training provided by the NAME pedagogical consultant team, who are all certified Pearson master trainers. Pearson’s Master Trainer (MT) program is a rigorous, practical course that prepares trainers to deliver active, research-based, learner-centered professional development for teachers and leaders. All participants deliver professional learning as part of the program and receive feedback and coaching from the facilitator and from peers. The Master Trainer program prepares Pearson facilitators to deliver and create professional development, based on active learning methodologies. All training sessions emphasize a “learner-centered” approach. This means that educators learn and practice the skills they need to focus on student learning. All courses, including new courses built for NAME, are purposefully interactive and designed to create a community of learners within the training classroom.

Professional development

Neither technology nor effective teaching strategies can be successfully implemented without professional development for teachers. A recent review of studies of teacher professional development from around the world (Cordingley et al., 2015) revealed that:

- Prolonged or extended professional development programs were almost always more effective than shorter ones. To bring about change, they likely need to last at least two terms
- Professional development that results in change has multiple instances of ongoing support and follow-up activities that create a “rhythm” of activity
- Content must be overtly, explicitly relevant to the day-to-day experiences of the participants
- Covering both pedagogy and content knowledge, as well as information about how learners learn both in general and in specific study areas, produces the strongest results
- Peer support is a common feature in effective professional development

The Wechsler Intelligence Scale for Children (WISC-V) was developed for use with children between the ages of 6 and 16 and is used to obtain a comprehensive assessment of general intellectual functioning in the context of various types of evaluations, including (but not limited to):

- Identifying students in school with specific learning disabilities and qualification for services.
- Identifying children with intellectual disability or giftedness.
- Evaluating cognitive processing strengths and weaknesses.
- Assessing the impact of brain injuries.

In 2015, a comprehensive evaluation of NAME was conducted using the Pearson School Framework.¹ Following this review, NAME professional development services were redesigned to reflect best practices established by the framework, as well as updates to the pedagogical materials. The professional development program is now run over the course of 3 years, centred on providing teachers with the knowledge and skills required to implement the product.

History and reach of NAME

NAME started in 1999 as Núcleo de Apoio a Municípios e Estados (Core Support for Municipalities and States), establishing pedagogical partnerships with public schools in a few cities in the state of São Paulo. Based on the success of the setup in those locations, NAME has expanded to reach 89 municipalities throughout Brazil, with more than 114,000 students in 2016. Today it is known simply as NAME; it has grown since 1999, and its original extended title is no longer a clear description of what it offers.

In 2016, NAME launched a new version of the First Elementary Collection (1st to 3rd grades launched in January 2016, 4th and 5th grades launched in January 2017), including a new pedagogical approach and teaching sequence, together with a revision to the implementation model supported by consulting and professional development services. This new offer, which constitutes a major refresh of the product, has been adopted by 10 municipalities in the states of São Paulo and Minas Gerais. More than 6,300 students and 600 teachers and school leaders used this new product in 2016.

NAME developed a new version of its kindergarten offering in 2017. The new collections of book materials were launched in January 2018.

¹ The Pearson School Framework is a single source of evidence-based best practice for effective teaching and learning. The framework consists of findings from classroom-based research from 26 meta-analyses, synthesising thousands of peer-reviewed research papers and publications. It is intended as an easy-to-use reference for internal stakeholders to ensure the pedagogical rigour of our products and services.

Intended product implementation

NAME is contracted by the various municipalities of Brazil through a bidding process. Each bid reflects the need of the municipality as defined by its Secretary of Education. The contract is annual and may be renewed for another year.

As we are aware of the diversity of educational proposals in a country of continental dimensions, and committed to quality education for all, NAME is designed to provide educational solutions that can be tailored to the priorities of different education departments.

NAME provides both primary and secondary education programs for public schools. It is offered in the following three stages:

- Ensino Infantil: age 3–5, kindergarten
- Elementary 1: age 6–10, primary education, 1st to 5th grades
- Elementary 2: age 11–14 secondary education, 6th to 9th grades

For each of these three segments, and at all ages, students and teachers receive bi-monthly deliveries of teaching materials covering knowledge on math, Portuguese, culture, arts, history, geography, environment, sciences, reading, sports, technology, and English, as per the curriculum. The materials include teacher guides, student books and notebooks.

The collections also include specific preparation books for the main external academic exams, such as:

- Prova Brasil — a national achievement exam in math and Portuguese, started in 2005 and administered to 5th and 9th grade public school students every two years
- ANA — a national reading, writing and math exam administered at the end of students' third year

The Elementary 1 curriculum is organized with the aim that all students will be literate by the third year. During the 4th and 5th grades, the learning of the previous years is consolidated and expanded. The curriculum is fully aligned with the proposals of the National Pact for Literacy at the Right Age (PNAIC). The materials offer individual assessment sheets for teachers to monitor students' learning in all subjects. The Elementary 2 curriculum is organized by skills and abilities, giving priority to reading and writing in all subjects and aiming to build literacy in all areas.

NAME also offers a program of learning evaluation. A skills evaluation forms the basis of an action plan for improving school work, with the goal of improving students' academic achievement. The evaluation of learning for various grade levels includes:

- 1st to 9th grades: diagnostic evaluations with application guide and correction
- 1st to 9th grades: assessments related to bimonthly content
- Third year: simulated ANA
- 5th and 9th grades: simulated Prova Brasil

NAME also provides a digital platform designed to support teaching and learning. NAME Online offers 55,000 pages of content, including news, biographies, simulations, animations, games, videos and encyclopedia, as well as Digital NAME for curriculum and classroom management. These digital resources aim to support educators, both to develop lessons, and in their own teacher training.

In 2016, alongside the new Elementary 1 collection, a new professional development and product training program was launched. The program is based on a three-year cycle. The first year of the training cycle is devoted to the use of the product, and to training teachers according to the definition of the skills necessary for ideal delivery. The second and third years are dedicated to specific education management skills for school leaders, and enhancing pedagogical skills for teachers.

The format and features of NAME are designed to help all schools in a participating municipality to reach a baseline level of implementation by the end of the first year of the program. The program is designed to deliver its full potential impact on learner outcomes with the application of the national exams, i.e., after five years for Elementary 1 schools (first to fifth year) and after four years for Elementary 2 schools (sixth to ninth year).

Product research

Given NAME's alignment with the learning science and professional development research discussed in the **Product design and development** section above, we hypothesize that use of NAME will have a positive relationship with learner outcomes, particularly in terms of achievement (see Appendix for the full list of intended outcomes). The purpose of the research done to date was to explore the relationship between usage of NAME and students' performance on national standardized exams.

Specifically, NAME's teaching sequence, growing emphasis on active learning, and professional development strategies are designed to enhance student learning. Accordingly, to the degree that NAME is effective for learning, students in NAME schools may be found to perform better on these exams than students in similar schools not implementing NAME, after controlling for variables that could affect the analysis.

Existing research

In 2018, Pearson researchers completed a systematic search and review of research articles published since 2012 that assessed the impact of NAME on learner outcomes. Our criteria for the review and inclusion of existing published research on our products were designed based on US Department for Education What Works Clearinghouse guidance. Based on these guidelines, in order for research to be included in this Efficacy Report on NAME it needed to meet a number of criteria, including that the study was published in the past five years, examined at least one intended learner outcome category, and reported results in enough detail that the research could be properly evaluated. For more information on this see the [Pearson Efficacy Reporting Framework dated April 3 2018](#).

In our initial screening, we discovered no studies that were completed in the last five years that explored the impact of NAME on learner outcomes. For the initial screening list see the [Pearson Efficacy Reporting Framework dated April 3 2018](#).

Research studies

There is one new study, conducted by Pearson, that forms the basis of the Efficacy Report for NAME. The research questions and findings for this study are set out in detail below, including the efficacy statements generated by those studies.

Study 1

Study citation	Merola, S.S. and Guido G. Gatti (March 2018). A study of the effects of NAME on student achievement in Brazil. Merola Research, LLC.
Research study contributors	Stacey Merola, Kelli Millwood, Vincent Bonnet, Marcy Baughman, Gustavo Reis, Guido Gatti
Research question	Do 5th grade and 9th grade students exposed to the NAME learning system from 1st and 6th grade demonstrate higher achievement in Portuguese and mathematics, compared to a matched group of students not exposed to NAME, as measured by national achievement assessments?
Related intended outcomes category	Standard of achievement or level of competence Specifically: — Increased school performance in external national standardized exams
Study design	Quasi-experimental design This study, conducted in 2017 and analyzing 2015 student assessment data, used a quasi-experimental design, where NAME schools were matched with similar schools that did not implement NAME.

Metrics studied	— 2015 5th and 9th grade Prova Brasil scores
Description of sample	<p>A total of 73 NAME schools from 23 municipalities were eligible for inclusion in the study. Of these, all schools that had been implementing NAME fully and consistently since 1st or 6th grade were included in the study.</p> <p>This means that all NAME municipal schools included in this study implemented NAME for at least five years before 2015 for Elementary 1 schools (1,233 students) and four years before 2015 for Elementary 2 schools (1,984 students). This allows for students tested in 2015 (i.e., 5th and 9th grade students) to have used NAME for the entirety of their Elementary 1 or Elementary 2 schooling. On average, NAME municipalities included in the study had been implementing NAME for eight years before 2015.</p> <p>The majority of the Elementary 1 (i.e., 21 of 27, or, 78%) and Elementary 2 schools (i.e., 24 of 27, or, 89%) were from Sao Paulo. Only two matched Elementary 1 NAME schools were designated as rural (i.e., 2 of 27, or, 7%): one from São Paulo and one from Minas Gerais. All 27 matched Elementary 2 NAME schools were designated as urban.</p> <p>Comparison schools were then drawn from the entire population of schools from the same state as the NAME school.</p>
Sample size	<p>Analytic sample (NAME schools): 54 schools — 27 Elementary 1 schools (1,233 students) — 27 Elementary 2 schools (1,984 students)</p> <p>Comparison group (schools not implementing NAME): 267 schools — 135 Elementary 1 schools (8,545 students) — 132 Elementary 2 schools (11,320 students)</p> <p>The study used school data from the 2015 educational indicators published by the National Institute of Educational Studies and Research Anísio Teixeira (INEP) to match each NAME school exactly with five comparison schools (except in one case, where only two proper matches were found).</p> <p>The specific indicators used for matching included location (rural, urban), socio-economic level, school complexity, and prior Basic Education Development Index (IDEB) score (2009 scores for Elementary 1, 2011 scores for Elementary 2). A school's IDEB score is based on the average student's Portuguese and mathematics achievement assessment scores on the Prova Brasil exam, and the progression rate for the school's 5th and 9th grade students.</p> <p>Of the 135 Elementary 1 schools, 90 (or 67%) had an exact IDEB match with the corresponding NAME school. When an exact IDEB score match did not exist, a matching school was randomly selected from candidates within one point. Even though matching on prior school IDEB score was not exact in all cases here, the difference between the matched groups was only 0.125². This result meets the What Works Clearinghouse standards for baseline equivalence.</p>

²0.16 standard deviations. Mean ES1 NAME IDEB = 6.085,
Mean ES1 Comparison IDEB = 5.960

Analysis

Individual student Prova Brasil scores for mathematics and Portuguese from 2015 were analyzed to compare the groups' achievement. These scores are divided into nine levels on a scale that ranges from 125 to 350 for 5th grade math, 150 to 350 for 5th grade Portuguese, 200 to 425 for 9th grade math, and 200 to 400 for 9th grade Portuguese.

The general linear model was used to statistically test the difference in the group means (i.e., similar to an independent samples T-test).

In addition, since students are nested within schools, the bootstrap technique was used, randomly resampling from within schools to produce accurate statistical tests. In a simple sense, the analysis may be thought of as a comparison between NAME and matched schools, where the contribution from each school is weighted by the number of available student scores and how those scores are related to each other. This is possible because nature knows the stochastic portion of the statistical model, and the practitioner merely needs to execute the bootstrapping technique properly.

It should be noted that prior school IDEB scores were entered into the Elementary 1 statistical models to further remove any remaining group difference after matching³. This is in accordance with current recommendations from the What Works Clearinghouse.

Results

After comparing the group means, students in NAME schools scored statistically significantly higher than 5th and 9th grade comparison students in both mathematics and Portuguese.

On the mathematics portion of Prova Brasil:

- 5th grade NAME students scored an average of 250.67 after adjusting for prior school IDEB, whereas matched comparison students scored an average of 239.60 (SD=46.63). NAME students significantly outperformed comparison students by 11.07 points ($p < .01$).
- 9th grade NAME students scored an average of 261.40 (SD=47.08) and matched comparison students scored an average of 255.32 (SD=45.59). NAME students significantly outperformed comparison students by 6.08 points ($p < .01$).

On the Portuguese portion of Prova Brasil:

- 5th grade NAME students scored an average of 227.32 after adjusting for prior school IDEB, whereas matched comparison students scored an average of 222.93 (SD=46.05). NAME students again significantly outperformed comparison students by 4.39 points ($p < .01$).
- 9th grade NAME students scored an average of 254.87 (SD=49.58), while matched comparison students scored an average of 252.12 (SD=48.66). NAME students, again, significantly outperformed comparison students by 2.74 points ($p = .02$).

Efficacy statements

In the context of this study, based on analysis of 2015 schools data made publicly available through the National Institute of Educational Studies and Research Anísio Teixeira (INEP), Pearson is able to make the following comparative statements about the efficacy of NAME:

- Fifth grade students who had received NAME since 1st grade, from schools already using NAME, outscored students from similar schools (matched on 2009 IDEB, 2013 SES, and 2015 school complexity) by 4 points on the Prova Brasil Portuguese assessment and 11 points on the Prova Brasil math assessment in 2015.
- Ninth grade students who had received NAME since 6th grade, from schools already using NAME, outscored students from similar schools (matched on 2011 IDEB, 2013 SES, and 2015 school complexity) by 3 points on the Prova Brasil Portuguese assessment and 6 points on the Prova Brasil math assessment in 2015.

³ 0.05 < 0.16 SDs < 0.25

Limitations and generalizability*Limited information on implementation:*

Because this study is retrospective, there is limited information on how NAME materials were implemented in the schools. There may be differences between high implementers and low implementers, which would not have been possible to determine from the data available.

Research Design:

In addition, matching was performed solely at the school-level. Matching at both the school and student level would provide a more rigorous design. Finally, because NAME schools in this study had been using the NAME system prior to the 5th or 9th grade, the measure of prior achievement used in the study — school-level IDEB scores from 2009 (for Elementary I) or 2011 (Elementary II) — is not a true measure of achievement at baseline for the NAME schools. Matching on baseline achievement in this way may reflect changes in achievement that have occurred as a result of prior NAME adoption, resulting in conservative estimates for the impact of NAME on student achievement. This is because any prior achievement gains from using NAME would likely be removed as these NAME schools are matched to schools with already higher performing 5th and 9th grade students.

Future research

Future research could attempt to replicate this study with future cohorts of students and/or by obtaining data necessary to match groups at the student level. In addition, studies could assess whether there is a relationship between fidelity of NAME implementation and learner outcomes, and to identify the aspects of implementation that are most strongly related to student achievement. That is, if there are dramatic differences in implementation between schools, this may provide greater insight into the effectiveness of the program.

Read about this research in more detail in our [Technical Report](#).

References

- Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., Saunders, L., & Coe, R. (2015). *Developing great teaching: Lessons from the international reviews into effective professional development*. Teacher Development Trust.
- Dochy, F., Segers, M., & Buehl, M. M. (1999). The relation between assessment practices and outcomes of studies: The case of research on prior knowledge. *Review of Educational Research*, 69(2), 145-186.
- Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology*, 95(1), 3.
- Lucariello, J. M., Nastasi, B. K., Dwyer, C., Skiba, R., DeMarie, D., & Anderman, E. M. (2016). Top 20 Psychological Principles for PK-12 Education. *Theory Into Practice*, 55(2), 86-93.
- National Institute of Educational Studies and Research Anísio Teixeira (INEP) (2016). Prova Brasil 2015. Retrieved on February 14, 2017 from <http://www.inep.gov.br/>.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.
- Ruhl, K., Hughes, C. and Schloss, P. (1987). Using the Pause Procedure to Enhance Lecture Recall, *Teacher Education and Special Education*, 10, 14-18.
- Russell, S. J. (2000). Developing computational fluency with whole numbers. *Teaching Children Mathematics*, 7(3), 154.
- Schoenfeld, A. H. (2004). The math wars. *Educational Policy*, 18(1), 253-286.

Appendix: full list of intended outcomes

Outcomes related to access and experience

Intended outcome 1

Learners have a positive learning experience.

Learners' positive learning experiences are determined by the degree to which their social and emotional wellbeing is encouraged to meet their individual needs and ultimately support them in becoming flourishing members of society.

Intended outcome 2

Learners are engaged in course.

Learners' engagement is determined by the quality of their participation with learning activities in the classroom, ranging from energized, enthusiastic, focused, emotionally positive interactions with academic tasks, to apathetic withdrawal.

Outcomes related to standard of achievement or level of competence

Intended outcome 3

Increased school performance in external national standardized exams.

Academic results during ensino Fundamental 1 and 2 (primary and secondary education, ages 6–14) in Brazil are measured officially by the Ministry of Education at three moments: at the end of the third year with a reading, writing and math exam (ANA exam), at the end of the fifth year with a math and Portuguese exam (Prova Brasil—Initial Years), and at the end of the ninth year with a math and Portuguese exam (Prova Brasil—Final Years). NAME intends to help schools not only to increase their average score on external national standardized exams, but also to continuously increase the percentage of learners reaching the proficiency level.

— We have evidence about how NAME relates to this intended outcome. Find it under **Product Research**.

Intended outcome 4

Increased school performance in internal national standardized exams.

As part of the standard offering, NAME partner schools receive specific test prep materials and specific services, such as teacher training, pedagogical consulting, and standardized mock tests of the official national exams. Every year, NAME partners take part in the Rewarded Prova Brasil, which involves applying a simulated test to the fifth and ninth year's students.

Outcomes related to learner progression

Intended outcome 5

NAME partner schools will maintain high "student flow" (i.e., students progressing through to the next grade).

Student flow is a measure of the students, who, at the end of the school year, progress to the next grade in their school.



Independent limited assurance report to the directors of Pearson plc

The directors of Pearson plc (“Pearson”) engaged us to provide limited assurance over the efficacy statements clearly identified by the box titled ‘Efficacy statements’, including reference to the study design type, in the Pearson NAME Efficacy Research Report dated April 3 2018 (“Research Report”).

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the efficacy statements set out in the Pearson NAME Research Report have not been prepared and reported, in all material respects, in accordance with the Pearson Efficacy Reporting Framework dated April 3 2018.

This conclusion is to be read in the context of what we say in the remainder of our report.

Efficacy statements

The scope of our work was limited to assurance over the efficacy statements clearly identified by the box titled ‘Efficacy statements’, including reference to the study design type, in the NAME Research Report. Our assurance does not extend to other information presented in the Research Report.

Professional standards applied and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits and Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards board. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal controls, and the procedures performed in response to the assessed risks.

Our independence and quality control

We applied the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Control (UK) 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent and multi-disciplinary team including educators, statisticians, and experts in reporting and assurance.

Reporting and measurement methodologies

The efficacy statements need to be read and understood together with the Pearson Efficacy Reporting Framework dated April 3 2018 (the “Framework”), available on Pearson’s website at <https://www.pearson.com/efficacy-reporting-framework>. The absence of a fully comprehensive set of generally accepted rules for identifying learner outcomes and defining, assessing and reporting the efficacy of educational products allows for different, but acceptable, ways of measuring product efficacy and reporting findings as efficacy statements. This could affect

comparability between Pearson’s efficacy reporting and that of other organisations.

Work done

We are required to plan and perform our work in order to consider the risk of material misstatement of the efficacy statements. A material misstatement would be an efficacy statement that does not reflect the study design and quality of underlying research or the omission of key information from a relevant study.

In doing so, we:

- made enquiries of relevant Pearson management;
- evaluated the design of the Framework including key structures, systems, processes and controls for managing, generating and reporting the efficacy statements;
- tested all 19 controls across the 8 stages of the Framework;
- confirmed that all management reviews were performed by at least two members of Pearson’s Efficacy & Research team;
- performed substantive testing on a sample basis of the data that underpins the research studies and the resulting efficacy statements, and the controls over the completeness and accuracy of that data (supported by Pearson Internal Audit in those instances where student data was subject to confidentiality restrictions);
- assessed the quality and conclusions of the underlying research studies;
- inspected the statistical analysis to assess whether the efficacy statements are valid, supportable and consistent with the underlying research studies;
- independently re-performed screening of relevant external public research studies and compared to that done by Pearson;
- assessed the efficacy statements and underlying Technical Report(s) for consistency with the Framework; and
- reviewed the product’s efficacy web page, Research Report, and Technical Report(s) for alignment of research studies and efficacy statements.

Pearson responsibilities

The directors of Pearson are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of efficacy statements that are free from material misstatement, whether due to fraud or error;
- establishing an objective framework for preparing and reporting efficacy statements;
- preparing and reporting efficacy statements in accordance with the Framework; and
- the overall content of the Framework and the Research Report.

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the efficacy statements are free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the directors of Pearson.

Inherent limitations

Efficacy research, and the resulting efficacy statements, reflect the implementation and use of a product in a particular context. It would not be appropriate to assume a product would always generate similar outcomes in other contexts and/or in the future.

Intended users and purpose

This report, including our conclusions, has been prepared solely for the board of directors of Pearson in accordance with the agreement between us, to assist the directors in reporting Pearson NAME efficacy statements, in accordance with the agreement between us dated 9 August 2017. We permit this report to be disclosed onlineⁱ at <https://www.pearson.com/corporate/efficacy-and-research/efficacy-reports> in respect of the NAME Research Report to assist the directors in responding to their governance responsibilities by obtaining an independent assurance report in connection with the efficacy statements. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the board of directors and Pearson for our work or this report except where terms are expressly agreed between us in writing.



PricewaterhouseCoopers LLP
Chartered Accountants
London
3 April 2018

ⁱ The maintenance and integrity of Pearson's website is the responsibility of the directors; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported efficacy statements or the Framework when presented on Pearson's website.



Pearson