



TIME TO ACT

RANDOMISED CONTROL TRIAL
FINAL REPORT

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FOREWORD

In 2021, the RSC were awarded Independent Research Organisation (IRO) status by the Arts and Humanities Research Council. This award builds on our history of engaging in research into the impact of arts and cultural learning on young people. For *Time to Listen* (2018), in collaboration with Tate and the University of Nottingham, we analysed over 6000 responses from students on their engagement with arts and culture. IRO status enables us to do more of this work, partnering with teachers to evidence the effects they see in their classrooms and advocating for the importance of an arts-rich education.

The RSC works in long term partnership with 280 state schools across England and 15 regional theatres. We focus on areas of structural disadvantage.¹ We do that because we know that talent and potential are everywhere, but opportunity isn't. That fact drives our choices in where we form long term partnerships. Over the past 10 years of working deeply with primary, secondary and special schools across England, the same two themes have consistently emerged about the difference that the combination of Shakespeare's language and RSC teaching approaches make to learning outcomes for children:

1. Children's literacy, particularly their writing, improves – they write more, they use more complex sentences, they want to write (particularly children who have previously been reluctant writers).
2. Children's academic self-concept improves; when a child feels confident about Shakespeare's work, they seem to feel differently about what they can achieve.

Our work in schools relies on highly skilled teachers; none of the impacts that we see or hear about are possible without them. But we heard the same

consistent themes reported by teachers using RSC teaching approaches in their classrooms. What we didn't have was a way of measuring what teachers were reporting; we didn't have a specific enough understanding about what was changing in children's writing, or in their sense of self.

¹ We define structural disadvantage as the inequality that impacts upon some individuals, families and communities as the result of the way resources are allocated across the country.

Paul Hamlyn Foundation have supported our work with schools for a number of years. In 2021 they awarded us a research grant. We asked teachers what kind of research question would be of most value to them. They said they wanted to understand what was happening for children when we bring together Shakespeare's language with RSC teaching approaches. That is the research we are sharing in this report.

We believe the research results have uncovered new insights about the impact of RSC teaching approaches on young people. The measurement tools we used show how and why this work makes a difference to teachers and children. We believe that the whole arts and cultural sector needs more tools and more research studies like Time to Act to help us better understand and evaluate the contribution the sector's work makes to the social, emotional and academic development of children and young people. We hope the report can contribute to that body of learning.

Jacqui O'Hanlon

Director of Creative Learning and Engagement

EXECUTIVE SUMMARY

And suddenly, you've got children who are unwilling to speak who are talking...it's so inclusive...'

TEACHER OBSERVATION

'They can all access it. And it builds their confidence, it builds their sense of self-belief.'

TEACHER OBSERVATION

'Particularly boys who are disengaged, find their voice, pick up the pen and start to write. And I didn't hear 'what's the point?' anymore, [instead, I heard] that 'this is fun and I really like it.'

TEACHER RESEARCH PARTICIPANT

Time to Act is a major research study exploring the difference that Shakespeare's work and RSC teaching approaches make to the language development and social and emotional development of children and young people. The findings show positive impacts and contribute new insights into the impact that engagement with the arts and cultural education has on their lives.

The study consisted of two kinds of research methods:

1. A randomised control trial (RCT) involving schools that had never previously worked with the RSC or used RSC teaching approaches.
2. A teacher-led action research programme undertaken by teachers that have been using RSC approaches for several years.

Across both parts of the study, we used a range of existing and new impact measurements.

METHODOLOGY: Randomised Control Trial

- 45 state-maintained primary schools across England were recruited, all with above average eligibility for Free School Meals.
- None of the schools had previously worked with the RSC or used RSC teaching approaches.
- The schools were randomly assigned to either be in the intervention or control group.
- Teachers in schools receiving the intervention took part in five days of professional development with the RSC.
- Intervention teachers delivered 20 hours of Shakespeare teaching to Year 5 pupils using RSC approaches.
- Control schools delivered their existing curriculum and did not participate in RSC professional development.

Researchers then analysed more than 3,000 written responses from children in control and intervention schools over the 12-month research period.

METHODOLOGY: Teacher-Researcher Network

We worked with 14 teachers who had extensive experience of using RSC teaching approaches. The teachers were based in a range of schools across primary, secondary, further education and SEND settings. The research projects focused on groups of children that were not meeting age-related expectations or who were at risk of not meeting their potential in other ways.

The teachers undertook classroom-based research projects during the academic year 22/23. They used existing measurement tools as well as piloting new, inclusive measures aimed at capturing the impact of RSC teaching approaches and Shakespeare's language on literacy, wellbeing, and social and emotional development.

HEADLINE FINDINGS FROM THE RANDOMISED CONTROL TRIAL

Improved Language Development

We applied a range of indicators that measure language development in children's writing by comparing writing produced by children in both the intervention and control schools. Both groups of children were responding to a character dilemma from a Shakespeare play. In 98% of those indicators, schools receiving the intervention outperformed control schools. The writing produced by children in the schools using RSC teaching approaches was longer, more detailed and more complex.

The children:

Employed richer, broader and more sophisticated vocabulary, including

- **13.8%** more 'sophisticated' words (outside the 2,000 most commonly used words).
- **24.3%** higher use of rarer verbs.

Showed a better grasp of linguistic structures and devices, including

- **20%** more clauses within sentences and clauses at greater length.
- **18.8%** greater use of complex sentences.

Were better at writing in character and expressing emotion

- Used **27.4%** more words relating to emotion.

Demonstrated a broader understanding of abstract terms and descriptions

- Used **6.7%** more abstract vocabulary (words relating to emotion, cognition and concepts outside of the physical world).

Our qualitative analysis of the children's writing showed that children in intervention schools:

- Produced more expansive descriptions of setting, place and atmosphere
- Showed greater optimism and resilience when imagining character outcomes
- Demonstrated better inferencing skills, imagining what might come next.

While these findings are not yet generalisable to pupils' wider writing practice, they are strongly indicative of increased sophistication in language use.

Increases in Young People's Confidence

We also analysed the same young people's belief in themselves as learners, using a validated tool, Myself As a Learner Scale (MALS). MALS is a validated measure of academic self-concept that has been used widely in Social Science research. MALS survey results showed that in comparison to control school pupils, children in the intervention schools exposed to Shakespeare and RSC approaches were:

- **17.3%** more confident in their ability to work out what to do next when stuck
- **13.8%** more confident with language
- **12.6%** more confident in taking a considered approach to tackling work
- **11.3%** more confident in their own ability as a good learner
- **9.9%** more confident in wider problem-solving.

WHY THESE RESULTS MATTER

Research from the Department for Education shows a direct link between the enjoyment and frequency of children's writing and their attainment levels. The most recent National Literacy Trust survey (2023) shows that children's enjoyment of writing is currently at its lowest level since 2010 and that nearly half (46%) of disadvantaged 11-year-olds in England left school in 2022 unable to write at the expected level.

Time to Act suggests that the combination of Shakespeare's language and RSC teaching approaches leads to advances in the language development and proficiency of children, with positive improvements in the breadth, depth and complexity of the language used in creative writing. Crucially it also points to an increase in enjoyment and confidence with words and language, as well as attitudinal shifts in the children's perception of themselves as learners. The results suggest that children in schools receiving the intervention were better able to empathise; they showed greater resilience and creativity in the writing they produced.

'The language and vocabulary that the children were including in their letters was incredible.'

TEACHER OBSERVATION

TIME FOR ACTION

The research results uncover a new understanding about the impact of RSC teaching approaches on young people. The measurement tools used show how and why this work makes a difference to teachers and children. We believe that the whole arts and cultural sector needs more tools and more research studies like *Time to Act* to help us better understand and evaluate the contribution the sector's work makes to the social, emotional and academic development of children and young people.

We recommend that:

- The arts and cultural sector work together to develop inclusive measures and a shared outcomes framework to enable better understanding of the impact of arts interventions on the social, emotional and academic development of children and young people.
- Investment is made in a centralised research hub for arts and cultural learning in the UK, sharing latest research and evaluation about how and why arts and cultural learning makes a difference to children and young people.
- Policymakers locally and nationally should recognise the impact and importance of an arts-rich education on young people's lives and embed arts learning in education policy and decision making.

School is a universal provision in the UK. If arts experiences and subjects aren't offered in school, some children will not experience them. Every young person has the right to benefit from an arts-rich education and these experiences must be offered by all schools.

Background

This report, *Time to Act*, is the culmination of two years of research that aimed to look at the impact of the combination of RSC teaching approaches and Shakespeare text on pupil's language development and academic self-concept.² To develop the research focus, the RSC talked to teachers, young people and artists that had experienced its work. It asked them what kinds of research they would find most helpful. Their responses connected to previous research undertaken by external agencies (including University of Warwick and University of Nottingham) where both the attitudinal and literacy impacts of the work were referenced.³

Time to Act comprised a randomised control trial (RCT) and a quasi-experimental study, both investigating the impact of the RSC's teaching approaches in schools. RCTs are the gold standard of assessment of the efficacy of an intervention. They are considered the most suitable approach when testing change propositions, following the first steps in the implementation framework advocated by the major UK funder of education trials, the Education Endowment Foundation (EEF).⁴ *Time to Act's* RCT was exploratory and conducted, in part, to provide proof in principle that this methodology was viable as an assessment of arts education. The second trial was qualitative and examined the impact of the RSC teaching approaches by convening a Teacher-Researcher Network.⁵ Here, we present the findings of the exploratory RCT.

² RSC Teaching Approaches: The RSC believes there are direct parallels between teaching and learning in the classroom and the way that plays are developed in the theatre. The process of rehearsing a play is active and collaborative. As a group, the actors and director will make choices about the interpretation of plot, characters, themes and language of the play. They also explore the key themes and dilemmas that are present in the text. Students learning in this way will explore texts in character, inhabiting roles from Shakespeare's works and embodying dramatic language, as actors do. More information on RSC teaching approaches and example classroom activities can be found here: <https://www.rsc.org.uk/learn/schools-and-teachers/teacher-resources/rehearsal-room-approaches-to-shakespeare>

³ More information on the RSC's previous research projects can be found here: <https://www.rsc.org.uk/learn/research/previous-research>

⁴ <https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/implementation>

⁵ The results of the Teacher-Researcher Network will be published in a companion report at <https://www.rsc.org.uk/time-to-act>.

Participants

In consultation with schoolteachers, academics, practitioners, and in reference to the research literature on language development and academic self-concept, we identified Year 5 pupils (aged 9-10 years old) as the study's participants. Academic and practical considerations informed this decision: The Year 5 curriculum identifies several aspects of language learning that align with those developed by RSC teaching approaches. Year 5 is part of the learning journey to National Assessments at the end of KS2 for which students need high level literacy for the assessment (portfolio) in writing and for the KS2 Reading Test. Therefore, it is a pertinent year for improving vocabulary, syntax and reading for understanding. The absence of national assessments for this year group also relieves pressure on teachers and classes for training and testing, hence their involvement is feasible.

Between June and July 2022, the research team recruited Year 5 primary school teachers. The criteria set were:

1. Schools and pupils that had not previously been exposed to RSC pedagogy and teachers who had not been trained in or applied RSC teaching approaches.
2. Schools located in England in areas of structural disadvantage, i.e. those schools:
 - where Free School Meal eligibility was at or above 20.8% (national average in January 2022);
 - located in a Government Levelling-up area;⁶
 - located in an area defined by Arts Council England as a Levelling-up for Culture area.⁷

⁶ <https://www.gov.uk/government/publications/levelling-up-fund-round-2-successful-bidders>

⁷ <https://www.artscouncil.org.uk/your-area/priority-places-and-levelling-culture-places>

Approach

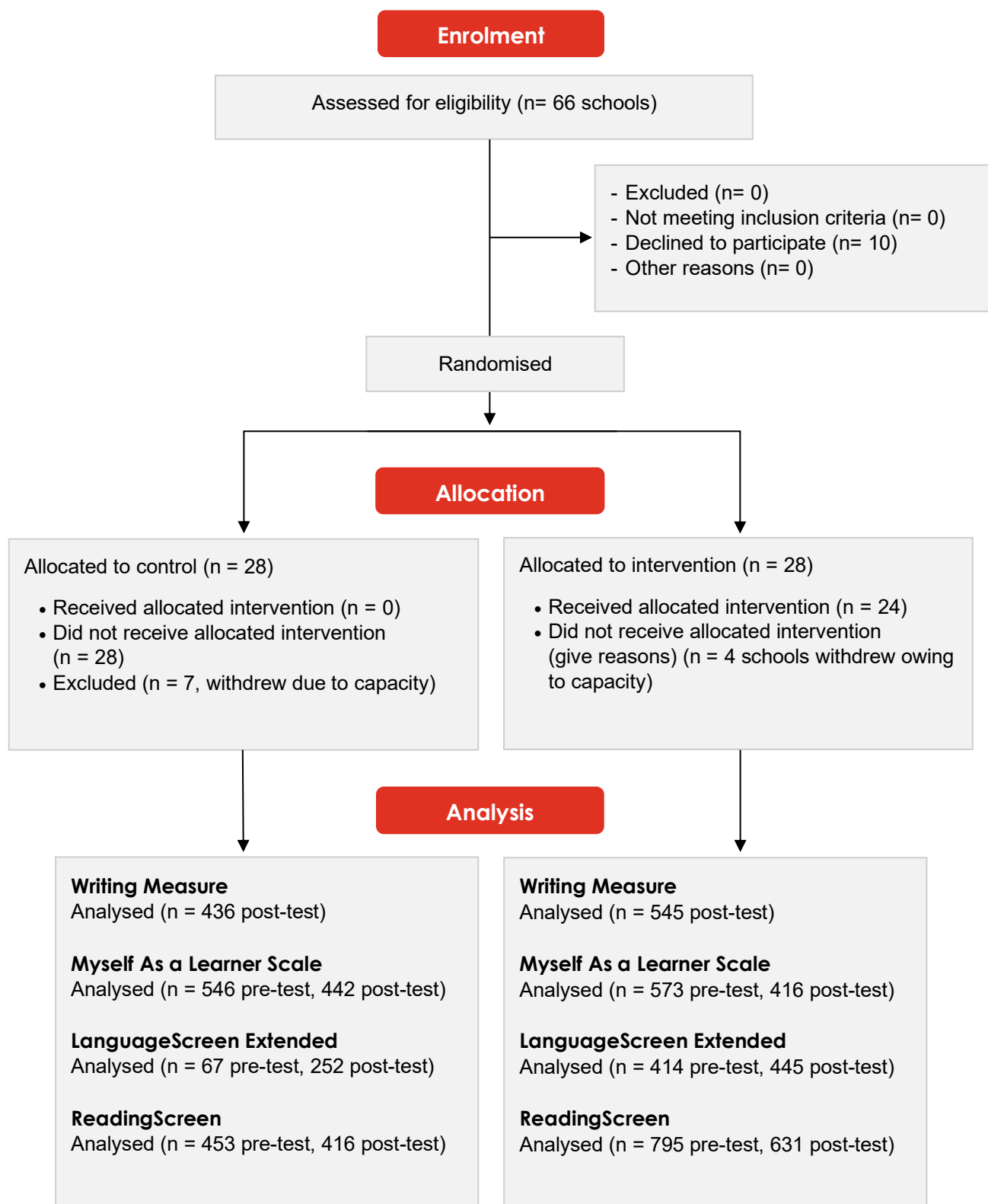
66 schools were initially recruited to the trial, of which 56 committed to undertake the research. They were randomised, using a stratified random sampling method, based on the school population's percentage eligibility for Free School Meals and whether the school had single or multiform enrolment.

The randomisation resulted in schools being split into two groups: Intervention and Control. Intervention schools were invited to undertake 5 days of CPD training in Stratford-upon-Avon between December 2022 and March 2023 in which teachers would be taught how to apply rehearsal room approaches to teaching Shakespeare.

Teachers in the Intervention group were then asked to deliver a minimum of 20 hours of the rehearsal-room approaches between January and July 2023. Control teachers were asked to continue to deliver their usual curriculum, and thereby provided a baseline against which different indicators could be measured. As a Waiting Control group, these teachers have been invited to undertake the same CPD training in 2023/24.

Schools were provided payments for teacher backfill in the days that they were absent due to training and additional reimbursement to cover the time taken to complete the testing.

CONSORT 2010 Flow Diagram



Writing Measure

Background

Teachers with whom the RSC has worked and who deliver these approaches consistently report the impact of RSC teaching approaches to text on pupils' written outcomes. We therefore developed a writing measure that would specify and gauge exactly what that impact might be.

The measure included a short passage that summarises in Present Day English the storm and shipwreck from the opening of *The Tempest*. Pupils were asked to write a message in a bottle as Ferdinand which could describe the storm, the island, or Ferdinand's predictions of what will happen next. Teachers were asked to conduct this as a 30-minute independent writing activity. In Intervention schools only, this exercise was preceded by a 30-minute drama-based activity.

Post-Test Writing Exercise



Ferdinand waited anxiously in his father's cabin, listening to the sounds of the growing storm. The ship was rising and falling with the movement of the sea. He felt the waves crashing into the ship. He heard roaring thunderclaps. Looking through the small window in the cabin, he saw a flash of lightning split the sky. At the horizon, he thought he saw land. But, at that moment, the sailors on the deck screamed. Ferdinand feared for his life. His father, the King, entered the cabin and shouted over the deafening tempest: 'We must go aloft.' As they reached the deck, the crew ran across the slippery surface, attempting to correct the sails. All was chaos. Ferdinand and his father fell to their knees and prayed for mercy. 'Keep below,' shouted the boatswain. But it was too late. The crew cried, 'We split!' The ship was breaking into parts. The men called out to their absent families and friends: 'Farewell, my wife and children.' Ferdinand held on tightly to his dear father's hand, but the deck split, and they were separated. Ferdinand saw his father, the King of Naples, tossed into the mountainous waves. Crying with fear and grief, he was forced into the water. Unable to stay afloat in the tempestuous ocean, Ferdinand slipped under the surface of the water and fell into unconsciousness.

When he awoke, Ferdinand was alone on a deserted beach. Exhausted and distressed, he saw objects from the shipwreck reaching the shore. Amongst them was a large wooden trunk.

Imagine you are Ferdinand. You have washed up on the shore of the desert island along with the captain's trunk; inside is paper, a pen, some ink and a bottle. Write a message in a bottle telling your friends and family back home what has happened.

You should write in first-person and may wish to describe the storm, the island, or how you plan to get back home. You can include your thoughts and feelings and what you think might happen next.

Submissions

There were just under 1,000 responses from participating schools. These submissions produced a corpus of 130,000 words of pupil writing which provides the basis of the analysis that follows. Teachers delivering this exercise in Intervention schools reported increased engagement from participating pupils. Children enjoyed the exercise, with even reluctant writers foregoing their break time in order to complete their pieces of writing.

Arm	Submissions	Word count	Avg word count per pupil
Control	436	57,663	132.25
Intervention	545	74,992	137.6
Total	981	132,585	

Analysis method

The written submissions were scanned and transcribed using OCR technology.⁸ A further stage of transcription was undertaken by four researchers which both verified the accuracy of the automated transcription and annotated those transcriptions so that two scripts could be extracted: one that reflected the original and one that adjusted any errors in spelling and grammar.

The writing measure has been designed as an inclusive research tool in that it is suitable for the majority of pupils, including those with literacy-based Special Educational Needs (SEN), such as dyslexia, and English as an Additional Language (EAL). In focusing on word use (lexis), sentence structure (syntax) and the content of pupil writing (semantics), rather than spelling and handwriting, this measure provides all pupils with an opportunity to showcase their compositional and inferencing skills, alongside their creativity and imagination.

This approach makes the measure more inclusive than standard assessment criteria. Furthermore, such proofing allowed linguistic software to assess more accurately the vocabulary and syntactical capabilities of the young people studied without being compromised by what, in many cases, are orthographic shortcomings.

⁸ Optical character recognition technology converts images – here scans of pupils' handwriting – into digitised text.

Lexical analysis was performed using the Lexical Complexity Analyzer (Lu, 2010). Syntactical analysis used TASSC (Kyle, 2016) which incorporates the 15 L2SCA indices (Lu, 2010). Semantic analysis used the UCREL semantic analysis system (Wilson and Rayson, 1993) and examines the content of pupils writing by analysing the 'discourse fields' from which pupils draw their language.

An error rate⁹ was calculated for each script, resulting in the following totals:

Intervention	=	11.6%
Control	=	13.2%

It is worth noting that some of those scripts with high error rates score highly in terms of the linguistic features identified, demonstrating the way in which this measure highlights exceptional writing often missed in the application of formal/traditional assessment measures.

Results

We analysed the results using standard measures of writing. Primarily, these aimed to measure differences in the *form* or *style* of the language pupils used; however, we also wanted to identify in what ways the *content* of the written pieces differed between the two groups.

Three linguistic areas therefore provided the basis for the analysis:

- **vocabulary** (lexis)
- **grammar** (syntax)
- **meaning** (semantics)

Across all three of these areas, the writing of Intervention group pupils provided evidence of the positive impact of RSC teaching approaches.

⁹ The error rate is calculated according to the number of spelling or grammatical errors that were made by pupils in their writing in relation to the word count of their writing.

Vocabulary (lexis)

Taking the first of those areas, pupils' use of words, against an inventory of 27 measures of lexical richness, Intervention pupils' writing score higher in 26 of those indicators.

The first thing to note is the overall discourse length – pupils in Intervention schools write longer pieces. Their writing draws on a greater overall range of vocabulary, and they are more likely to vary the vocabulary within their writing.

In drawing on a wider vocabulary, pupils also demonstrate a greater use of sophisticated words (defined as the prevalence of words that are outside of the 2,000 most frequent in English).

When we drill down into where these differences lie with respect to the different roles that these words play – the Parts of Speech indicators – this is most evident in pupils' use of sophisticated verbs.

A final measure of lexical density indicates Intervention pupils' preference for using content words rather than grammatical items.

	Difference			
	Control	Intervention	Score	Perc (%)
Word count	132.4	138.2	5.77	4.4%
Word types	76.1	80.2	4.14	5.4%
Lexical variety	0.82	0.84	0.01	1.5%
Sophisticated word types	18.2	20.8	2.52	13.8%
Verb sophistication	0.12	0.15	0.03	24.3%
Adjective variation	0.12	0.13	0.01	7.9%
Modifier variation	0.17	0.18	0.01	5.7%
Lexical density	0.42	0.43	0.01	2.7%

Summary

Length Students in the Intervention group write pieces of greater length. An analysis of syntax indicates that this is due to writing at greater depth.

Diversity Intervention students draw on a wider vocabulary than their Control counterparts, demonstrating broader lexical variety.

Sophistication Not only are pupils drawing on a wider vocabulary, but also one that is classed as more sophisticated or rarer.

Parts of Speech Further analysis indicates that the lexical sophistication seen in Intervention writing is particularly prevalent in pupils' use of verbs. Adjectives and modifiers also show greater variation; the differences between nouns and adverb variation are slight.

Density Intervention student writing shows a slight preference for lexical/content words (rather than functional/grammatical items).

Grammar (Syntax)

Moving up a linguistic level to look at syntax, we see Intervention pupils writing longer sentences, an indicator of syntactical complexity.

And that use of longer stretches of text extends into the component parts of the sentence, with Intervention pupils using longer clauses and phrasal units.

These larger units infer greater syntactical sophistication, and this is borne out by Intervention pupils' greater use of – the more complex – dependent structures.

The Complex T-Unit¹⁰ ratio measure included here is designed to capture syntactical complexity in one score and here shows one of the largest differences when it comes to syntactical indices.

	Difference			
	Control	Intervention	Score	Perc (%)
Sentence length	11.61	12.61	1.01	8.7%
Clause length	6.02	6.79	0.76	12.7%
Clauses per sentence	1.4	1.68	0.28	20.2%
Dependent clauses per clause	0.21	0.25	0.03	16.0%
Complex T-Unit* ratio	0.27	0.32	0.05	18.9%
Complex nominals per clause	0.42	0.5	0.08	17.9%
Verb Phrases per T-Unit*	1.47	1.68	0.21	14.6%

¹⁰ A T-Unit is defined as the shortest grammatically allowable sentence, i.e., a more grammatically robust definition of a sentence. The Complex T-Unit ratio included here, is a composite measure, designed to capture grammatical complexity in one score. In the data this score shows one of the largest differences when it comes to syntactical indices.

Summary

Sentences 'Mean Length of Sentence' (a proxy for language development) shows a slight increase; a more significant increase is seen when analysed grammatically (as a T-Unit) indicating that Intervention students' longer sentences are more syntactically complex.

Clauses Within the sentence, we can see the components that account for these differences, with Intervention pupils using more clauses within each sentence by a fifth.

Taxis These differences are echoed in the relationship between clauses, with Intervention students making greater use of subordinating/dependent structures resulting in c.20% greater use of complex sentence structures.

Phrases Within phrases, the largest difference is seen in Intervention pupils' use of complex noun phrases.

Semantics

Beyond the mechanics of pupil writing – the lexis and syntax – we have also examined the *content* of writing samples using semantic analysis and close reading techniques. A semantic field is a set of words grouped by meaning, or what we call semantic property. Using an established framework¹¹ for undertaking automatic semantic analysis of text, we have analysed children’s language choices, not only as indicators of writing sophistication, but as evidence of their imaginative response to the Shakespearean prompt text. Do the Intervention and Control groups respond differently, and do they make distinct language choices in composing their message home and conveying Ferdinand’s experience of the shipwreck?

Analysis

Our findings are emphatic. The two groups, Intervention and Control, are distinct with respect to the majority of semantic fields. Pupils who experienced a rehearsal room session on the content of the prompt text in advance of the writing exercise employ a different range of words and ideas to those writing solely in response to a reading of the prompt text. Pupils are writing about an identical situation, from the perspective of the same character, but they make radically different compositional choices.

The image below lists the semantic fields used most frequently in pupil writing samples. The figures indicate the percentage difference in usage between the Intervention and Control groups. For example, Intervention pupils use 45.2% more language relating to the theme of ‘government and public’ than Control students, while Control students use 34.9% more language relating to ‘food and farming’.

¹¹ The UCREL Semantic Analysis System (USAS) was first developed by Andrew Wilson and Paul Rayson at Lancaster University in 1993.



The writing brief suggests that pupils describe the storm and the island from the opening of *The Tempest*. At first glance, the results of the semantic analysis suggest that Control students manage this task more effectively than their Intervention counterparts. They use significantly more language relating to environment and the related semantic fields of 'food and farming', 'life and living things' and 'architecture, housing and the home'. However, a closer examination of the writing samples tells a different story. In the absence of any activities that might help build a rich picture of their environment, Control pupils rely on desert island clichés to conjure an image of the island; coconuts, palm trees, monkeys and parrots all figure prominently. The environmental descriptions of Intervention pupils are less conventional and more expansive, including imagery of their immediate surroundings alongside a broader picture of the sky, the sea and the atmospheric conditions.

Emotional Expression

Another key area in which the two groups diverge is in their use of emotional language. Pupils exposed to rehearsal room pedagogy use 27.4% more language in the semantic field of 'emotional actions, states and processes' than Control group children. When we look at two sub-classifications of 'emotion' – 'liking' and 'happy/sad' – we see an even greater disparity, with the Intervention group using close to 50% more language relating to 'liking' and 43% more language depicting levels of happiness and contentment.

Close reading of the writing samples suggests that this distinction manifests itself in pupils' understanding of character. Children who have been asked to play different parts during active classroom sessions appear to be more comfortable writing in role and expressing different characters' emotions. While Control group pupils imagine how they themselves would react to being shipwrecked, intervention children put themselves in the shoes of a literary character and express that character's emotion. This finding corresponds with teachers' own reflections on the impact of RSC teaching techniques in the classroom; they consistently report increased levels of emotional expression and empathy for characters.

Pupils in the Intervention group also use 38% more language relating to speech acts, incorporating a broader range of speaking characters within their stories. And while the sub-classifications of emotion above suggest a spectrum from happy to sad and from confident to concerned, we can see from the samples that Intervention pupils show greater positive emotion and greater resilience in their first-person account of Ferdinand's situation. Pupils in Control schools tend to focus on the immediate danger of their situation. Pupils in Intervention schools use their comprehension and inferencing skills¹² to sequence their narratives, recalling Ferdinand's past and planning confidently for his future.

These findings correlate, we would suggest, with the experiential nature of RSC teaching approaches, in which students are asked to inhabit Shakespearean characters and embody their emotional states. That pupils channel these immersive and character-based experiences into their writing, enhancing elements of both their literacy and emotional literacy, is a promising finding and one that could have wide-ranging implications for both academic and personal development within schools.

¹² For the KS2 reading paper, pupils can only achieve a rating of 'greater depth' if they can demonstrate inferencing skills.

MYSELF AS A LEARNER SCALE

Background

The Myself As a Learner Scale (Burden, 1998) is a validated tool for academic self-concept in which pupils rate themselves against 20 statements about their attitudes to learning on a 5-point Likert Scale.

We received just under a thousand submissions both at pre-test and post-test but, as the second table (after the arrow) shows, there were gaps in the data regarding those submissions which has impacted our ability to make claims for significance.

Counts

	Pre	Post	Total
C	546	442	988
I	573	416	989
Total	1,119	858	1,977

Total Scores

Arm		Pre	Post
Intervention	Mean	68.30	69.96
	SD	1.93	15.60
	n	573	416
Control	Mean	68.23	69.12
	SD	1.20	15.89
	n	546	442

As the results show, there was a small improvement in the total scores of both Intervention and Control pupils, but this was not statistically significant.

Where we were able to match pupils at post-test to their pre-test, there was a larger, but still small, effect seen in Intervention pupils' total scores.

Factors

We can look at individual items and factors where there were larger differences, both between pre- and post-Intervention scores and between Intervention and Intervention groups. The greatest difference within the Intervention group was seen with regards to factors relating to agency and feelings towards ability. There are significant differences in scores on questions relating to language skills and enjoyment of learning.

It is worth noting also that the question on the scale that relates to confidence with language scores highly, suggesting that the gains we see in the linguistic measures are recognised by the pupils themselves.

Items

An analysis of individual questions indicates increases for Intervention pupils with respect to planning around learning, enjoyment in learning, and confidence in language skills.

Positive differences were largest for Intervention pupils in relation to the following items, both between pre- and post-tests and between Intervention and Control pupils.

Item	Difference	
	Pre/ Post	Control/ Intervention
I think carefully about what I have got to do	10.3%	12.6%
When stuck with my work I can usually work out what to do next	19.2%	17.3%
I know the meaning of lots of words	16.7%	13.8%
I know how to solve the problems that I meet	17.9%	9.9%
(Reversed) I find a lot of schoolwork difficult	18.9%	4.6%
I know how to be a good learner	16.1%	11.3%
(Reversed) Learning is difficult	15.2%	4.2%

READINGSCREEN AND LANGUAGESCREEN EXTENDED

Additional assessments of language and literacy were administered by teachers using two OxEd & Assessment mobile apps developed by the creators of the Nuffield Early Language Intervention (NELI): ReadingScreen and LanguageScreen.

ReadingScreen assesses word and nonword reading. LanguageScreen focuses on oral language development and assesses four fundamental language skills: expressive vocabulary; listening comprehension; receptive vocabulary; sentence repetition. While ReadingScreen is suitable for Year 5 children, the RSC worked closely with OxEd & Assessment to develop LanguageScreen Extended, a test of oracy suitable for 9-10 year olds. For both tests, teachers guide pupils on a one-to-one basis through the assessment.

The requirement that teachers administer tests individually with each pupil—in contrast to the Writing Measure and Myself As a Learner, which are delivered as whole-class exercises—resulted in an incomplete dataset at pre- and post-testing stages. While there looks to be a small effect on the intervention group’s language development within the scope of the measures, we cannot reliably use these findings due to the extent of the gaps in the data.

ReadingScreen			
Arm		Pre-test	Post-test
Intervention	Mean	74.99	79.70
	SD ¹³	14.51	13.08
	n	795	631
Control	Mean	71.06	77.13
	SD	17.29	14.26
	n	453	416

LanguageScreen Extended			
Arm		Pre-test	Post-test
Intervention	Mean	38.15	40.68
	SD	7.04	3.09
	n	414	445
Control	Mean	39.33	38.15
	SD	5.69	2.10
	n	67	252

TEACHER REFLECTIVE JOURNAL

Teachers are integral to the meaningful delivery of RSC pedagogy in schools. The teachers recruited to this project were all new to the RSC and to rehearsal room teaching techniques.

¹³ ‘SD’ indicates standard deviation and ‘n’ equals sample size.

We asked teachers in the Intervention group to keep an online journal, recording the activities they undertook in the classroom and the responses these activities elicited from pupils.

Teacher Observations

The effects of the intervention on children's language development are highlighted by many teachers in their journals, supporting the findings from *Time to Act's* research into literacy in primary settings. Teachers witnessed improved reading comprehension and inferencing ability. They observed the positive effects of matching a physical action to a line of Shakespearean text on pupils' ability to recall complex language. In both oral and written exercises, teachers saw pupils using more sophisticated vocabulary and becoming visibly more comfortable in expressing emotion and demonstrating empathy towards, not only literary characters, but each other.

'The language used by the children was far more expansive than I have previously seen in their writing. They have become engrossed with Macbeth's character, and it has really helped their writing.'

YEAR 5 TEACHER

'The language and vocabulary that the children were including in their writing was incredible – some of them even added a Shakespearean twang.'

YEAR 5 TEACHER

Teacher Development

Teachers also use their journals to reflect on the personal and professional development opportunities that their collaboration with the RSC provided. They report the urgent need within schools for more inclusive teaching practices. They admit their surprise at the suitability of RSC approaches for diverse student groups. Like many of their pupils, teachers describe being initially intimidated by 'Shakespeare'. However, teachers' fears were quickly allayed by a supportive training programme, one underpinned by the RSC's belief in equity and wider access to Shakespeare and the arts.

**'I arrived scared that I wouldn't understand the language.
However, you have given me the tools and skills for me to teach
a Shakespeare!'**

**YEAR 5 TEACHER
AFTER THEIR FIRST EXPERIENCE OF CPD at the RSC**

Teachers' journal entries are invaluable to us as feedback on the RSC's approach to teaching Shakespeare and the training programmes we offer to teachers. They also aid us in identifying future directions for research. Several teachers reflect, for example, on the increased engagement of boys in the classroom as a result of the intervention. They also comment on the pedagogy's suitability for mixed-ability groups and its adaptability for SEND and EAL pupils. Teachers comment on the cross-curricular potential of active approaches and how they might enrich the teaching of history and other subjects. They note the impact of the intervention on class discussion and debating, as pupils start to recognise the multiple interpretations that literature can be subject to. Finally, teachers celebrate the sheer creativity and imagination of Year 5 children in their engagement with Shakespeare. These are all areas that demand further study and exploration.

NEXT STEPS

As an Independent Research Organisation (IRO), the RSC is committed to undertaking research into the impact of arts and cultural education, and to sharing it with educators, academics and policy-makers.

The time to act is now.

We recommend that:

1. The arts and cultural sector work together to develop inclusive measures and a shared outcomes framework to enable better understanding of the impact of arts interventions on the social, emotional and academic development of children and young people.
2. Investment is made in a centralised research hub for arts and cultural learning in the UK, sharing latest research and evaluation about how and why arts and cultural learning makes a difference to children and young people.
3. Policymakers locally and nationally should recognise the impact and importance of an arts-rich education on young people's lives and embed arts learning in education policy and decision making.

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