Annotation for critical reading: An action research project

Abstract

Using an action research methodology, this project investigates the benefits of explicitly teaching secondary students annotation as a critical reading skill. The project focused on teaching annotation using cues directly related to the curriculum achievement standards, which underpin curriculum content and the marking of assessment. Using data from teacher-researcher records of practice, student interviews and work samples, and summative assessment results, our findings suggest that the explicit teaching of annotation yields both tangible and intangible benefits. These include greater student growth in assessment results and increasing student confidence in their critical reading ability. Overall, our findings suggest that teaching secondary students critical reading skills such as annotation has benefits and opens avenues for further research.

Introduction

While annotation as a reading practice is widespread and well-established, it is less commonly taught in Queensland schools due to the prevalence of textbook hire schemes (Queensland Government, 2023), which means texts need to be returned unmarked and in good condition at the end of each school year for use by the next cohort. This action research project stems from a teacher-researcher's interest in annotation for critical reading and the subsequent purchase of texts for students to own and annotate. The project was co-designed with an academic research partner at a Queensland university and has ethics approval from both the University and the school's governing body.

The academic partner has implemented the "reading resilience" (Douglas et al., 2016) approach in her pedagogy, which sees students respond to multiple-choice quizzes that require re-reading to answer and provide comprehensive explanatory feedback. However, the reading resilience approach focuses on an assessment of student close reading in a tertiary setting, whereas the teaching of annotation can be seen as the forerunner to student success in close reading, as it provides the reading scaffold necessary for the student to undertake close reading in the first instance.

As Douglas et al. explain, reading resilience is less reliant on teacher modelling and more about developing a student-centred approach to develop "sustainable, transferable reading skills" (Douglas et al., 2016, p. 256). Fisher and Frey note that in close reading, students are more responsible and "students are held more accountable" (Fisher & Frey, 2014b, p. 33). It is this focus on increasing student autonomy as critical readers that was the impetus for the annotation project, as to undertake the sophisticated close reading required in upper secondary, students first need to be able to identify the relevant elements of the text to inform their analysis. Annotation challenges the assumption that deconstruction is "textual vandalism" (Johnson, 1985, p. 140) and drives students to "[pay] attention to what a text is doing - *how* it means not just *what* it means" (Johnson, 1985, p. 141). It also places a renewed focus on the teaching of reading as a skill, which is often seen as automatic or assumed, and overlooked in favour of teaching writing or composition (Poletti et al., 2016, p. 236).

Annotation as an academic reading practice is borne out in research (Allen, 2012, p. 104) and is characterised by an active engagement with the text, including but not limited to the use of highlighters, sticky notes, underlining, paraphrasing, summaries and arguments and other marginalia (Allen, 2012, p. 105). This is reiterated by Fisher and Frey, who emphasise that highlighting alone is not annotation; "questions, comments, and notes" to support later discussion and writing are a key

feature of annotation as part of a close reading strategy (Fisher & Frey, 2014b, p. 48). Allen argues that that this sort of reading is motivated by a "thinker identity" (2012, p. 13) that places the reader in dialogue with the text as an active meaning-maker or finder, rather than a passive receiver. This understanding of active academic reading underpins Nerlino's recent action research project, part of which included a requirement to make "notes per page" annotations. Akin to the reading resilience research and our own project, Nerlino's objective was "to focus on promoting students to persist with doing and following through with the reading in a way that enhanced their comprehension" (Nerlino, 2023, p. 3). Results of this project found that over 83% of respondents read the book more carefully and felt they developed a deeper understanding (Nerlino, 2023, p. 10); however, the focus was on making notes within a certain number of pages, rather than on the content of the notes or the text per se. Fisher and Frey's close reading intervention for struggling readers also uses annotation as a key strategy, with the notes focusing on main ideas and language features (Fisher & Frey, 2014a, p. 369). These annotations were then used to support responses during class discussion (p. 374). As this project focuses on students in a secondary setting, support to know *what* to annotate is particularly important. Thus, the teacher-researcher designed a bookmark intended to help students focus on key concepts from the curriculum (Figure 1) and taught annotation strategy explicitly, with the goal of improving student autonomy and outcomes, and sought to explore this through an action research methodology with an academic partner.

The Research Question

The goal of this action research project is to investigate the question: *to what extent can the teaching of annotation with explicit links to the Achievement Standards improve students' critical reading ability and assessment responses?* The sub-questions include: how do students annotate when reading?; how effective do they perceive annotation to be in improving their reading of texts?; what impact has the teaching of annotation on assessment performance and success against the Achievement Standards?

Action Research Methodology

As Clark et al. (n.d.) argue, one of the impetuses for action research is "unrealized self-understandings to be discerned by analyzing their own practices and understandings" (28). In this study, the teacher-researcher had introduced annotation as a critical reading practice in her Year 11 Literature class the previous year and anecdotally observed its efficacy. This prompted the development of a more systematic investigation of annotation for critical reading, in partnership with an external education researcher using an action research methodology. As Clark et al. (n.d.) argue, "Action research offers one path to more deliberate, substantial, and critical reflection that can be documented and analyzed to improve an educator's practice" (8).

Both researchers are informed by a social constructivist ontology – that is, a belief that our understanding of reality is shaped by our experiences as members of a broader society, which has developed dominant attitudes, values and beliefs over time, and which generally works to reinforce and maintain these shared norms. This is of particular importance to this project, as the act of critical reading works to reveal how social attitudes, values and beliefs are reinforced or challenged in our society's cultural outputs (in this case, specifically literature) and so can work to destabilise the maintenance of dominant ideals. Both researchers have extensive experience in studying and teaching literature, which further cements their ontological and epistemological standpoints.

This project adopts the broad phases of 'Plan, Act, Observe, Reflect' which Clark et al. (n.d) note are common to the popular models of action research proposed by Kemmis and McTaggart (2004) and O'Leary (2004). The project was sparked by the teacher-researcher's initial reflections on the perceived benefits of introducing annotation in a Year 11 class. An opportunity for a collaborative research project offered a way for the teacher-researcher's use of annotation to be validated through empirical qualitative research. In the Planning phase, the researchers secured ethics approval both from the University of Southern Queensland (H22REA129) and the Toowoomba Catholic Diocese, which oversees the school in which the project took place. Parental permission was sought and secured prior to the project commencing. The teacher-researcher developed a unit plan focused on a novel study of John Marsden's 1993 *Tomorrow, When the War Began*. This Australian young adult novel has a relatively low Lexile level (850L) for a Year 9 cohort, whose recommended Lexile range is 1205-1520L (lexile.com). The text is both culturally and linguistically familiar for the majority of students, so the focus of the unit was on critical reading and analysis as general narrative comprehension was expected. The teacher-researcher planned a sequence of learning experiences to scaffold students' ability to annotate effectively, as outlined in Table 1.

The Action phase consisted of the students undertaking a pre-test to assess their current reading approaches, noting that all students had been given prior explicit instruction in a range of reading strategies as part of a school literacy initiative. The teacher then engaged in explicit instruction on annotation, including providing a scaffold closely aligned to the achievement standards against which the students would ultimately be assessed. The teacher modelled annotation (see Appendix B) and then the students began their own process of annotation, with teacher feedback. Student novels were collected as work samples at the end of unit, and the class also completed a post-test and eleven students with permission were interviewed by the external researcher.

The analysis of this evidence gathered during the action phase embodies the Reflection phase, and informs the teacher-researcher's own narrative reflection and planning for the next iteration of the project, which saw students continue to use annotation as a strategy in their final Year 9 term. The text studied was Shakespeare's *Romeo and Juliet* (Lexile 1260), which presented a significant challenge in both language complexity and cultural familiarity for students. A post-assessment survey was taken at the end of the term to assess if students had found annotation useful when working with a more challenging text.

While action research as a method is sometimes subject to criticism, this project has deliberately set out to mitigate some of the most common critiques. As Clark et al. (n.d.) outline, action research is sometimes perceived as lacking rigour or objectivity (p. 35). We explicitly acknowledge the personal motivations of the teacher-researcher and explore these fully through narrative inquiry as a method for investigating the underlying beliefs and ideas that may underpin the teacher's planning and action. The involvement of an external researcher who will lead the data analysis and the collection of evidence from all participants at differing points in the project allows for data to be triangulated as a part of the analysis. Another common complaint is that the findings of action research are context-specific and cannot be readily generalised to other contexts (Clark et al., nd, pp. 35-36). This study investigates an approach to reading that requires no special training or resources, has a basis in existing research (Douglas et al., 2016; Fisher & Frey, 2014a; Nerlino, 2023), and can be readily tailored to the context in which it is being used, and so, as a sharing of professional practice, could readily be adopted and adapted in any secondary literature or text study.

Participants

The participants of this project were the teacher-researcher and a multi-gender Year 9 English Extension class in a regional Catholic secondary school. Only one student has a multicultural background, and most are from urban locations and are not socio-economically disadvantaged. The class includes six boys, twenty girls and two non-binary students. There are a total of 28 students in the class, with 11 giving consent for participation in interviews. Whole class data was also used when analysing assessment results and class reflection activities.

Data Analysis

As Koro-Ljungberg et al. (2009) suggest, a constructivist or social constructivist ontology lends itself to methods of analysis such as "narrative analysis, grounded theory, conversation analysis" and "discourse analysis" (690). While some may argue against narrative inquiry as an action research method, Pushor and Clandinin suggest that "if we understand action research as research that results in action or change in the practices of individual researchers, participants, and institutional practices" (2009, p. 290) narrative inquiry can be relevant, as "practitioner researchers… tell their stories of how they have taken action to improve their situations by improving their learning" (p. 293). We adopt this approach in the reflection stage of the action research cycle, using analysis of the teacher-researcher's own narrative to inform subsequent phases of action. The student work samples gathered throughout the project were subject to thematic analysis, identifying trends and patterns in the students' annotations, which then informed subsequent iterations of the action research cycle. Finally, student interview responses were analysed thematically using Nvivo. In all instances, the thematic analysis was undertaken independently by the two authors and then correlated, which further increases the rigour and objectivity of the study.

The coding of the interview data was completed in Nvivo. The average Kappa value across the codes used in the discussion was 0.394, which is at the upper end of the 'Fair' range of intercoder agreement in both Landis and Koch (1977) and Altman's (1991) scales (De Vries et al., 2008). This relatively low degree of intercoder agreement is indicative of different coding behaviours between the coders, rather than differences between the overall content coded, which had an average agreement of 94.56% across the themes discussed. The coding comparison revealed one coder tended to multi-code examples and code longer passages, while the other single-coded individual phrases. This suggests that greater intercoder agreement could be achieved with a more consistent shared approach to coding behaviour, and engagement in a review of partner work, as suggested in Allsop et al. (2022, p. 152). However, given the time demands on the teacher-researcher and the additional supporting data collected, for this project, further revision of the data to increase intercoder agreement was not undertaken. The relationship between teacher planning and practice, student experience and testing results is explored in the discussion, framed by the inquiry sub-questions.

Findings

Teacher Researcher Narrative

As part of my practice as an English and Literature teacher, text annotation has been important in helping students build reading comprehension skills, as well as providing them with easily identifiable markers to refer to when looking for evidence in texts. In English and Literature, a large proportion of the texts studied are novels. It happens though, that in many schools, students access the texts through a textbook hire scheme and students are, therefore, unable to annotate the texts.

When I first moved to St Joseph's College as the Curriculum Leader for English, I proposed that the school should add set novels and play texts to the Book List for each grade so that students could

purchase them. Being able to annotate the text was one of the main reasons cited in the proposal. The proposal was approved for the Book Lists of years 10-12 students. We initiated it the following year in 2020 (which proved a good thing, as COVID forced a partial shutdown of the library and book hire scheme for non-digital texts).

That year, I began an informal annotation with a Year 11 Literature class that involved teacher-led reading and annotation of initial chapters with a focus on the knowledge Application Assessment Objectives of the QCAA Literature General Senior syllabus V1.4. This was the first time these students had ever written in a novel and, after initial hesitations, they were excited by the possibilities that annotation presented. Although not structured or formally researched, anecdotally, the students found success in using objectives-focussed annotation as a reading strategy a very successful method of learning. It prompted an interest for me as an educator and I wondered about other ways of approaching annotation.

Alongside this, the College Leadership created a new Strategic Plan with a heavy focus on improved literacy with KPIs attached to NAPLAN literacy results. Fortnightly 'Guided Reading' lessons were timetabled as part of this Strategic Intent and staff were trained to deliver Reading Comprehension lessons to levelled groups of students. In these sessions, students learnt reading skills such as Q-A-R (Question Answer Relationship), Box-it, Summarising, Root words, Prefixes and Suffixes, Skimming, Scanning and others. Annotation was not explicitly taught. These lessons were taught parallel to content in their English and Humanities classes (using content-adjacent texts and concepts).

In 2022, an opportunity to partner with UniSQ researcher Dr Alison Bedford presented itself and I saw it as a way to more formally investigate the impact of annotation on reading comprehension and application of assessment objectives and Achievement Standards. The College's strategic priorities for Literacy Improvement, and the inclusion of a 'standalone' class of motivated Year 9 Extension English students added to my teaching load, meant that I had a unique opportunity to conduct an Action Research Project.

The program for the Year 9 Extension English class had not been written and the students demonstrated such strong determination and desire to be involved in the co-constructing of their English 'journey' that we were able to decide as a class which novel we were to study for their Term 3 Unit and I was able to petition College Leadership to allow for the purchase of novels for that class in order for them to own a copy of the text to annotate. I was also able to focus the class on the ACARA Achievement Standards and the relevant elaborations so they could better determine their study needs.

The focus on the ACARA Achievement Standards stemmed from an impact cycle run in a Professional Learning Team that I led on improving metacognition and metalanguage in the classroom. In the current QCE senior system, students have access to, and are actively encouraged, to engage with the syllabus documents, and to do so requires competence in the metalanguage of each subject area. Working with this class and the ACARA Achievement Standards was a way for me to test the teaching and learning of curriculum-based metalanguage in the lower grades. Students already had a good grasp of the metalanguage of Language Features and Text Structures from their first unit of work, so exploring how the Language Features and Text Structures fit within the bigger picture was a logical step. I also drew from language used in the QCAA Senior General English/Literature Syllabuses to draw connections between the ACARA metalanguage and the QCAA metalanguage. This was done to begin to develop these connections in a group of students who would be going onto General English and/or Literature in their Senior years.

To assist the students in making connections between the Achievement Standards, Language Features and Text Structures, and the novel they were studying, and to guide them in knowing what to annotate, I created a bookmark that synthesised the links between the Curriculum metalanguage and their unit of work. This bookmark served as a visual reminder of what to annotate in line with the Achievement Standards.

The teaching and exploration of the ACARA Achievement Standards metalanguage through novel annotation, although very difficult for the class at first, proved influential in guiding students to measure their own successes in the unit. We then repeated the process in the following Unit which was a Shakespeare play text study.

Annotation Bookmark

As the teacher-researcher described in the above narrative, the Annotation Bookmark was designed specifically to support student success in explicitly addressing the Achievement Standards. Below, the Annotation Bookmark content is provided, with additional detail to show alignment to the standards, although this alignment was not made available to students.

CURRICULUM ALIGNMENT (Achievement Standards, Receptive Modes)	Literary Elements	ANNOTATION BOOKMARK
1. Students analyse the ways that text structures can be manipulated for effect.	Form – narrative, essay, poem, text structures, conventions.	TS - Text Structures The ways that texts are organised: Form, Titles, Chapters, Sequencing,
2. They analyse and explain how images, vocabulary choices and language features distinguish the work of individual authors.	Language – language features, language choices, vocabulary, symbolism Mood – tone, how are you positioned to feel about the text?	LF – Language Features Language that supports meaning: Figurative Language, Rhetorical Devices, Imagery, Sensory Language, syntax, grammar, dialogue,
3. They evaluate and integrate ideas and information from texts to form their own interpretations.	Plot – events. Setting – description, role of setting in plot, Cultural Assumptions Perspectives – narration, how are you positioned to feel about the narrator?	VC – Vocabulary Choices Specific vocabulary that has impact: Connotation, denotation, archaic, specialised, vernacular ? – Questions Questions that you have about the text? Plot holes, unfamiliar vocabulary
4. They select evidence from texts to analyse and explain how language choices and conventions are used to influence an audience.	Themes – main ideas, how are you positioned to feel about main ideas? Characters – archetypes, Attitudes, Values, Beliefs, how are you positioned to feel about characters?	AVB – Characters' Attitudes, Values & Beliefs Evidence of characterisation: Speech, thoughts, effect on others, actions, looks, direct description CA – Cultural Assumptions What you can assume about the culture in which the text is set: Cultural norms, societal expectations, trends
5. They read for ways texts position an audience.	Effect on Reader – how does it make you feel/your own interpretation? Personal opinion – your own thoughts/connections	Des – Description Descriptive writing Th – Themes Evidence of major themes in the text M – Mood Tone and mood of the text AC – Author context Where you can see how the author's context has influenced the writing

Outline of Learning

Table 1: Scaffolded Learning Experiences to Develop Annotation.

Learning Experiences	Pedagogical strategy to develop annotation skills
Pre-test	To determine if students already have some annotation skills
Introduction to novels:	History, types of novels and book-length literature.
Introduction to Australian Curriculum	Co-constructed Learning Intentions and Success

Achievement Standards for Year 9 English	Criteria for the unit. Focus on 'if we are being assessed against these standards, what do we need to be able to do?'
Link co-construction of Learning needs to Achievement standards	Creation of bookmark
Discussion of how annotation can lead to success	Why annotate? How to annotate When to annotate
Demonstration and examples of different annotation styles	Students experiment with them and find one that is comfortable for them. Methodology no prescribed.
Demonstration of annotation and Gradual Release of Responsibility with Chapter 1 of text	I do We do You do
Independent explorations and annotation of text at student pace	Students annotating based on bookmark
Teacher-led 'deep dives' into specific focus areas of text	Students annotating based on bookmark and teacher focus areas

As the teacher-researcher's narrative outlines, this planning was organic and based on experience and intuition rather than a purposeful implementation of theory; however, the alignment with Fisher and Frey's Gradual Release of Responsibility model is notable, as the teacher provided focused instruction about how and what to annotate, modelled annotation and supported student's initial attempts and then allowed students to annotate with increasing independence (Fisher & Frey, 2013).

Student work samples

Pre-test

The pre-test consisted of two tasks. The first assessed student understanding of the language and concepts found in the Achievement Standards, and the second task assessed the strategies they used when reading text analytically. The Achievement Standards pre-test asked students to explain their understanding of what they would need to do to demonstrate particular elements of the Achievement Standards, and most students were able to make a sound response to these questions, although their use of cognitive verbs was not always well aligned to the language of the Standards. In the next section of the task, students were asked to apply this understanding to a passage of text. Interestingly, very few students were able to complete the questions, and almost all students were unable to explain how "texts position an audience" or "how language choices and conventions are used to influence an audience". This pre-testing reinforced the teacher-researcher's design of the Annotation Bookmark, which prompts students to identify specific language features; attitudes, values and beliefs, and other evidence that could be used to address these aspects of the Achievement Standards.

Responses to both pre-tests showed a wide variation in students' reading strategies. Some students used different coloured highlighters to mark up key passages and phrases and also numbered paragraphs, while others made no marks on the text at all. Some students underlined and circled or put in parentheses key phrases. Very few students actually engaged in annotation, that is, adding their own commentary or notes to the marked-up text. In the Achievement Standards pre-test, a

number of students engaged in annotation of a different sort, drawing sketches of shapes or characters unrelated to the text in the margins of their work.

The second pre-test also included questions explicitly about student's reading skills. Students had had some previous general introduction to reading strategies such as skimming and scanning, and approximately two-thirds of the students found this the most useful strategy in the pre-test. The other third identified re-reading the text as the most helpful approach, and a number of students indicated that they read or re-read the whole text rather than just sections. A very small number of students mentioned using highlighting or looking back at very specific parts of the text as a strategy they used in developing their answers. Interestingly, a small group of students described a process where they read the questions before engaging with the text, so they read the text with the questions in mind, suggesting a more purposeful and targeted approach to their initial reading. The final question on the pre-test was a 5-point Likert-scale of student confidence in their ability to read for analysis. Only two students felt very confident, and only one had limited confidence, while the majority were somewhat confident in their analytical reading ability.

Novel Annotations

After the period of initial teacher modelling, student approaches to annotation varied, with some developing systems of colour-coding with highlighters or sticky notes, and others engaging in more simple forms of underlining or other forms of markup. The most notable change between the pre-test and the student's novel annotation was the significant increase in their use of text commentary and the use of codes from the Annotation Bookmark. This meant that student annotations were inherently aligned with the Achievement Standards on which the Bookmark was based and thus they could readily find evidence to respond to specific questions about the text. Overall, while each student found an individual approach that was effective for them, they consistently annotated elements within the text more purposefully and more explicitly, rather than it simply being a series of unlabelled highlighted phrases. The efficacy of teaching annotation aligned to the evidence needed to address the Achievement Standards is further borne out in the student interview responses and in their summative assessment results.

Post-Test

Data from the survey undertaken at the end of the *Romeo and Juliet* unit found that almost all students felt that their annotation skills had continued to improve. Almost half the class noted the increased difficulty of the vocabulary and language features found in Shakespearean text, but navigated this through the use of a modern translation or through peer support, suggesting a spontaneous engagement with the "we do together" phase of Fisher and Frey's gradual release (2013). Approximately a third of the class found it difficult to select relevant content when annotating however the majority of students felt that they understood the text better than they would have without annotation. Almost all students felt annotation contributed to their assessment response by allowing them to select text more purposefully, understand and use a wider range of language features or make stronger links and connections between text and interpretation. Interestingly, one student stated that they did not find annotation helpful, but also indicated they could not have responded to the assessment task without using their annotations.

Student Interviews

In analysing the eleven interview responses, a number of common themes emerged. These included the students' definitions and descriptions of the annotation process, confidence, effects upon reading and writing, transferability and uncritical reading practices.

When asked about their general reading practices, students largely described what can be considered uncritical or recreational reading. This included reading during 'down time', reading in bed (6 responses) and no use of academic reading strategies such as note-taking, highlighting or annotation. Students tended to "just read" (P6). Three students suggested that they would summarise sections of their reading when it was a text they were studying for school, but this was done after reading, rather than during and tended to be plot-driven rather than focusing on the stylistic or language choices of the author.

Students did not have a shared definition of annotation. However, common elements emerged, including the deconstruction of the text, with a number of students noting that the goal was to "pick it apart" (P3). Students recognised this was done by identifying "parts of the text" (P6), "details" (P5, P1), "devices" (P4) and "themes and features" (P10). Most students linked this identification of specific elements of the text to the development of a "deeper understanding" (P1), and a number noted that it made going back to the text later easier.

Despite this lack of precision in defining annotation, students had a shared understanding of the processes of annotation. They emphasised that they used a range of approaches, with some using highlighting (P1,2,7, 8), sticky notes (P1, 2, 3, 7) or colours. Many students mentioned knowing *what* to annotate was initially challenging, but they overcame this with peer and teacher support (P2, 10, 11) and gradually "as I started, I found out that that actually got easier this time because I figured out how to recognise that stuff" (P7). The role of the teacher was not commented on extensively by students, although they did note that being explicitly taught what to look for and ways of annotating was what enabled them to overcome a general uncertainty about the approach.

Unsurprisingly, many respondents noted the effect annotation had on their reading practices. P1 noted that annotating prompted them to ask more questions of the text, which resulted in a deeper understanding (reiterated by P3, 4, 5, 8, 9). P2 described this as "when you annotate it, you actually understand what the, the, the author is trying to tell you". Students attributed this to the improvement in their ability to identify specific elements of the text, as exemplified by P8's comment: "it's easier for me to pick up like similes, metaphors and all those sort of language features because I've gone through and I've looked for them and its easier for me to see". This also proved to have a degree of transferability, with almost all students noting that they had been able to transfer the annotation skills to other subject areas, most notably in the Humanities and Science.

Several students also made explicit links between how their writing had been influenced by learning annotation, and these responses were closely tied to comments about increasing confidence. About half of the respondents mentioned feeling unsure about what to annotate or their success in using their annotations effectively in their assessment. However, almost all students reported an increased sense of confidence, both in their ability to make meaningful annotations and in using this to develop effective assessment responses. As P10's response exemplifies, there was an initial uncertainty reported by a number of students; however, their confidence in their ability and perceived benefit of annotation increased over time. "I didn't have that great of an attitude to it, towards it at the start. But I feel like as I developed like in the task, I feel like I enjoyed it more as I knew what to look for in my assessment" (P10). This is reiterated by P11, who reported an increased confident or perceived ability "It's a lot easier to think critically about what I'm reading than it was before".

Assessment performance

While there is a wide array of factors that impact student assessment performance, analysis of the class and cohort assessment results showed a widening gap between the class taught annotation and the rest of the cohort. Grades are awarded on a 15-point scale, A+ to E-. In the first two assessment items of the year, there was a difference of between 2.58-2.78 average marks between the regular class and extension class performance: in grades, the regular cohort averaged C to C+, while the extension class averaged B- to B, and this gap was fairly consistent. This gap can in part be attributed to the pre-existing ability gap between an extension class and a regular cohort, and the differing range of results; while there were only small differences in the maximum result between the two groups on each task, there were much higher minimum results in the extension group (See Table 2).

	Task 1	Task 2	Task 3	Task 4	Average of tasks 2-4	Growth (using Task 1 as baseline)
Regular cohort average	7.93	8.62	7.34	7.02	7.66	-0.265
Extension class average	10.51	11.41	10.60	10.28	10.76	0.251
Difference	2.58	2.78	3.25	3.26	**Average min/max**	0.516
Regular cohort task minimum	2	1	1	2	1.5	
Extension task minimum	5	7	5	6	5.75	
Regular cohort maximum	13	13	14	11	12.75	
Extension maximum	14	15	15	14	14.5	

Table 2 Summary of results Year 9 cohort

The teaching of annotation commenced prior to Task 3 and was a strategy maintained by the class for Task 4. In these two tasks, the gap between the regular cohort and the extension class widens to ~3.25 marks. Additionally, if Task 1 is taken as a baseline, the regular cohort shows a slightly negative growth across the remaining items, while the extension class shows slightly positive growth. Obviously, this difference cannot be attributed to annotation alone, particularly when the final task was the student's first study of Shakespeare, which given the wider range of ability in the regular cohort may account for the decline, as the extension students would have been more able to navigate this increase in difficulty. However, by the same argument, all students did the relatively easy 'Tomorrow when the War Began' in Task 3, and the gap in performance is evident in this task also, suggesting it is not only increasing text difficulty contributing to variations between the two groups.

Analysis and Discussion

How do students annotate when reading?

The initial pre-resting and student interview responses indicate that while they initially found annotation challenging, following a period of teacher modelling, most students were able to devise an annotation system that worked for them, supported by the scaffolding bookmark provided by the teacher, despite it not being a 'natural' reading practice as indicated by the pre-testing.

The wide variety of annotation styles observed in the research findings address one of the common concerns of action research, that is, the approach under investigation is context-specific. The variation in student style demonstrates that annotation as a critical reading strategy can be effective even with personal variation – rather, the benefit is derived from the explicit teaching of annotations aligned with the Achievement Standards, which makes student annotations more purposeful and more useful as they devise their assessment responses.

The pre- and post-tests of students' reading practices reveal that while only some of the initial responses showed limited evidence of annotation, such as underlining and occasional highlighting, the post-test results suggested that students had not only adopted annotation, but were able to make more purposeful annotations than previously.

How effective do they perceive annotation to be in improving their reading of texts?

Student responses in the interviews indicated that after an initial period of uncertainty, most students felt that annotation improved their ability to identify features and devices within the text and as a result, they developed a deeper understanding. The majority felt that it allowed them to read the text in greater detail and this contributed positively to their assessment performance, which is borne out in the assessment data.

What impact has the teaching of annotation on assessment performance?

While it is impossible to control for every variable in a classroom setting or account for personal, social and developmental influences on student performance, the two key differences between the regular cohort and the extension class were the fact that the extension group was selected on the basis of previous high performance and the teaching of annotation to this class. The difference in ability between the two groups is reflected in the assessment results for Tasks 1 and 2, which show an achievement gap of approximately 2.68 between the two groups. If growth across the cohort was consistent, this gap should not vary significantly over time, however, after annotation is introduced to the extension class, this gap widens to approximately 3.25 marks on average. This, coupled with the student interview responses, suggests that annotation enabled the extension students to better identify the textual features and language devices to inform their responses to the texts in their assessment.

To what extent can the teaching of annotation improve students' critical reading ability and assessment responses?

Overall, our findings show that annotation has both tangible and intangible impacts on students' critical reading ability. Not only do their assessment responses show tangible evidence of growth, supported by the teacher's observations in their narrative, but there is also evidence of impacts upon the students' confidence as critical and independent readers, most clearly supported in the interview responses. This suggests that the teaching of annotation has merit as an explicitly taught reading practice.

Conclusions and Implications

Overall, this action research project has established that annotation as a critical reading strategy has benefits to both student outcomes and confidence as readers in secondary English classrooms. Put most simply, it supports students "reading to understand rather than just reading" (P1). Corroborating other studies, it was found that annotation needed to be active and go beyond simple highlighting (Fisher & Frey, 2014b), and that while students found it initially challenging, it had positive impacts on their critical reading ability, which also translated to assessment success.

While not the direct focus of the project, the shared experiences of the research team have also highlighted how academic/educator partnerships can be leveraged to develop rigorous research projects that address many of the concerns around practitioner-led action research. While the teacher-researcher led the annotation project, as reflected in their narrative and planning outline, the ability of the academic partner to lead the interviews reduced the risk of bias or undue influence associated with the pre-existing teacher/student relationship. The academic partner's contribution to the data analysis, particularly in the dual coding of interview responses and interpretation of assessment results allowed for a more rigorous analysis through establishing a degree of intercoder reliability and objective analysis of the assessment results.

Further Research

Given the cyclical nature of genuine action research, this first iteration of annotation for critical reading will be built upon, noting the key findings to further refine the process. Since the first iteration of this project, the teacher-researcher has moved to a new school, which offers new opportunities to assess the generalisability of annotation as a critical reading practice in different educational contexts.

Reference List

Australian Curriculum, Reporting and Assessment Authority. (2018). *Australian Curriculum: English V8.4*. ACARA. https://www.australiancurriculum.edu.au/f-10-curriculum/english/

Allen, I. J. (2012). Reprivileging Reading. *Pedagogy*, *12*(1), 97–120. https://doi.org/10.1215/15314200-1416540

Allsop, D. B., Chelladurai, J. M., Kimball, E. R., Marks, L. D., & Hendricks, J. J. (2022). Qualitative Methods with Nvivo Software: A Practical Guide for Analyzing Qualitative Data. *Psych*, *4*(2), 142–159. https://doi.org/10.3390/psych4020013

Clark, J., Porath, S., Thiele, J., & Jobe, M. (n.d.). *Action Research*. Pressbooks. https://kstatelibraries.pressbooks.pub/gradactionresearch/

De Vries, H., Elliott, M. N., Kanouse, D. E., & Teleki, S. S. (2008). Using Pooled Kappa to Summarize Interrater Agreement across Many Items. *Field Methods*, *20*(3), 272–282. https://doi.org/10.1177/1525822X08317166

Douglas, K., Barnett, T., Poletti, A., Seaboyer, J., & Kennedy, R. (2016). Building reading resilience: Re-thinking reading for the literary studies classroom. *Higher Education Research & Development*, *35*(2), 254–266. https://doi.org/10.1080/07294360.2015.1087475

Fisher, D., & Frey, N. (2013). Gradual Release of Responsibility Instructional Framework. *IRA E-Ssentials*, 1–8. https://doi.org/10.1598/e-ssentials.8037

Fisher, D., & Frey, N. (2014a). Close Reading as an Intervention for Struggling Middle School Readers. *Journal of Adolescent & Adult Literacy*, *57*(5), 367–376. https://doi.org/10.1002/jaal.266

Fisher, D., & Frey, N. (2014b). Student and Teacher Perspectives on a Close Reading Protocol. *Literacy Research and Instruction*, *53*(1), 25–49. https://doi.org/10.1080/19388071.2013.818175

Johnson, B. (1985). Teaching Deconstructively. In G. D. Atkins & M. L. Johnson (Eds.), *Writing and Reading Differently: Deconstruction and the teaching of composition and literature* (pp. 141–148). University Press of Kansas. https://www.google.com.au/books/edition/Writing_and_Reading_Differently/n8ZZAAAAMAAJ?hl=en&gbpv=0

Kemmis, S., & McTaggart, R. (2000). Participatory action research. In N. Denzin & Y. Lincoln, (eds.), *Handbook of Qualitative Research.* London: Sage.

Koro-Ljungberg, M., Yendol-Hoppey, D., Smith, J.S., & Hayes, S.B. (2009). (E)pistemological awareness, instantiation of methods, and uninformed methodological ambiguity in qualitative research projects. *Educational Researcher 38*(9), 687-699.

Nerlino, E. (2023). 'Annoying but helpful…': Action Research Examining Secondary Students' Active Reading of Assigned Texts. *Educational Action Research*, *0*(0), 1–18. https://doi.org/10.1080/09650792.2023.2209609

O'Leary, Z. (2004). *The Essential Guide to Doing Research.* London; Sage.

Poletti, A., Seaboyer, J., Kennedy, R., Barnett, T., & Douglas, K. (2016). The affects of not reading: Hating characters, being bored, feeling stupid: *Arts and Humanities in Higher Education*, *15*(2), 231–247. https://doi.org/10.1177/1474022214556898

Pushor, D., & Clandinin, D.J. (2009). The interconnections between narrative inquiry and action research. In S.E. Noffke & B. Somekh (Eds) *The SAGE Handbook of Education Action Research.* Sage. 290-300.

Queensland Government. (2023). Textbook and resource allowance (TRA) procedure. *Policies and Procedures.* https://ppr.qed.qld.gov.au/pp/textbook-and-resource-allowance-tra-procedure