Abstract

This article outlines a collaboration between the Foundation Centre and the Education PGCE department at Durham University to support student teachers on a particular academic writing assignment (the Self Directed Study assignment). This project involved designing online academic writing activities tailored especially to the assignment. These activities made use of excerpts of exemplar student writing as well as the FOCUS corpus, a Foundation Centre initiated database of "good" (2:1 or First) Durham University student writing. The article outlines the challenges for the students with this particular assignment, details of the collaboration, student feedback from the first roll out of the activities as well as future steps in this ongoing project.
Keywords: Reflective Writing, Literature Reviews, Academic Writing, Corpus

Introduction

This case study details support for PGCE primary trainee teachers at Durham University with their Self-Directed Study (SDS) assignment, which requires them to explore a particular research question through writing a literature review, followed by a reflection about the question in relation to their school placement experience. The individuals in this study were not only students required to do Masters level writing, but also trainees on a professional programme. For this reason, we will refer henceforth to these individuals as ‘trainees’ rather than ‘students’.

The PGCE is both a professional and an academic course, and the trainees come from a variety of backgrounds, ranging from individuals with higher degrees to those whose previous academic experience did not require a great deal of academic writing. In addition, there is a wide range of disciplinary backgrounds within the cohort, with previous qualifications spanning a range of subject areas from natural sciences through to humanities. This means that the cohort can often lack understanding of what is expected both in relation to the marking criteria specifically and Masters level writing more generally. In addition, both literature reviews and reflective writing can be challenging for academic writers from many different levels (Badenhorst, 2017; Ryan, 2011), and the combination of the two into a single assignment has added an extra layer of difficulty for these trainees. The need for further support was thus identified, leading to a collaboration between the Primary Education PGCE department and the Foundation Centre at Durham University.

This paper will outline how these students were able to receive support through a wider Foundation Centre research project at the university. It will detail how online academic writing activities were developed to help this diverse group work with the principles of the assignment in a non-threatening way and in their own time. To make the online activities relevant to the task, each online lesson uses a database of student writing, the Durham University Foundation Corpus (FOCUS), to work with certain language issues as well as student exemplars to illustrate the principles outlined in SDS departmental documents. Before moving on to these points a short conceptual base will be outlined.


Conceptual base

**Reflective writing and literature review genres**

Literature reviews, though commonplace in many university text-based assignments, require a multi-layered set of skills such as integrating multiple texts into one piece of writing whilst considering aspects such as authorial voice and comprehensiveness (Bruce, 2001), critical evaluation (Green & Bowser, 2006), and a decision about the organisation of the content that is relevant to a particular research question (Bitchener & Turner, 2011). Literature reviews thus require a certain level of sophistication and include rhetorical expositions that are part of a complex process (Badenhorst, 2017; Kwan, 2006). Reflective writing, on the other hand, falls within the narrative recount genre (Nesi & Gardner, 2012) where the social purpose of academic reflection can be seen to ‘transform practice in some way, whether it is the practice of learning or the practice of the discipline or the profession’ (Ryan, 2011, p.103). Reflective writing thus allows a space for writers to move away from the ‘measured impersonality of the university essay’, to more deeply consider concepts for personal growth (Crème, 2008, p.62).

Incorporating reflective activities into assignments on a course such as this one aims to develop trainees’ problem-solving skills by making them conscious of their thinking processes linked to their actions and decisions (Dewey, 1933). Reflective writing is an example of reflection-on-action (Schon, 1991), with the reflection process occurring after the event leading to the reflection. The opportunity for in-depth reflection through written activity may later support trainees in the more immediate process of reflection-in-action (Schon, 1991). An integral component enabling this type of reflection is for the trainee to have some experience in practice – something to reflect upon. Through this process, trainee teachers can thus become more reflective future practitioners (Lindroth, 2015; Vassilaki, 2017) as they can have a safe space to explore, test and shape their own discourses about teaching as well as their teacher identities (Vassilaki, 2017). There are many essential professional qualities that they must develop to achieve success, including self-regulation, autonomy, and resilience (Boud, Hymer & Lockney, 2015; Beltman, Mansfield & Price, 2011). Acquiring reflective practice skills is therefore considered
integral to the development of such professional qualities as critical analysis of their own experiences (Schon, 1991) can engage future teachers in the process of making evaluative judgements (Sadler, 2010).

A critical evaluation of the effectiveness of the teaching and learning processes in the classroom can be achieved by students becoming more aware of the pedagogy they observe and undertake. This awareness may increase if they adopt different vantage points or ‘lenses’ (Brookfield, 2017, p.61). Using an autobiographical lens alongside a knowledge-informed lens - developed by reviewing scholarly literature - may strengthen their critical reflections of their own practice (Brookfield, 2017). In turn, this could inform professional judgements, which is an essential skill in daily decision-making (Dudley, 2016). Writing a literature review and a reflective writing piece together in one assignment presents a challenge for the trainees partly due to the differences inherent in the expectations of each of these genres. Being able to integrate these into one piece is, as stated previously, what this project aimed to support.

The SDS assignment

The SDS assignment requires students to address the following title, within a 5000-word limit:

Drawing on recent research evidence and school experience, critically discuss an issue in teaching and learning of relevance to your own phase and a specific curriculum area. You may choose from mathematics, English or science.

The assignment aims to develop subject-specific knowledge and skills, by enabling students to explore an educational issue in-depth through, as stated previously, writing a literature review. Incorporating examples from their own practice aligns with the aim of the course; students become critically reflective teachers by undertaking an enquiry-based approach to their professional practice so that it continuously impacts on the outcomes for pupils. The SDS is assessed using Masters Level marking criteria which focus on:
• Knowledge and understanding of central ideas and concepts;
• Use of evidence to support the argument;
• Links made between theory and practice;
• Effectiveness of communication and quality of presentation.

Students can submit a 500-word formative plan, and a designated supervisor provides formative feedback.

**Student cohort**

The students differ greatly in their experiences gained before embarking on the course, from those who have recently completed an undergraduate degree, with first- or second-class honours to those who already have a higher degree, to those who have previously gained a degree but have been away from higher education and in employment for a significant time. As part of their degree courses, students are expected to develop graduate attributes, such as becoming critical thinkers and autonomous learners (Boud, 2014). However, trainees’ experience of engagement with academic writing also varies widely, from those who were not assessed by written academic assessment or a dissertation during their undergraduate degree, to a limited number of students who have already gained a higher degree in other disciplines.

**Issues with the assignment**

Feedback from students, informally and through Module Evaluation Questionnaires (MEQs), indicated that some lacked confidence when engaging with writing at Masters Level, whilst others had not developed an understanding of the key components of Masters Level work or the marking criteria. Developing student engagement with feedback is integral to understanding how to transform knowledge and thinking, by minimising the difference between current and desired performance (Hattie & Timperley, 2007). However, the students lacked understanding about how their work was assessed. Tutors’ comments when marking using the criteria, and through an established moderation process, indicated that many students needed further development in their use of research
as supporting evidence, alongside both their effectiveness of communication (in particular, academic language), and critical analysis.

**Academic Online Writing Support**

*Decision for the collaboration with the FOCUS project*

Two PGCE course tutors redesigned the SDS module to reflect the feedback and address the issues (Boud & Molloy, 2013). Where previously the students were delivered an introduction to the assignment session, followed by individual tutorials, the following taught sessions are now also integrated into the module:

- an introduction to the SDS, the marking criteria and the subjects;
- an introduction to writing at Masters Level, including the use of exemplars;
- an introduction to critically evaluating research;
- a group tutorial (in subject groups).

As a result of this intervention, initial feedback from tutors has indicated that students are demonstrating more critical analysis during lectures and seminars.

During the module re-design process, consideration was given to how trainees might develop their effectiveness in communication, and so a collaboration was formed with colleagues from the Foundation Centre, initially through the submission of SDS assignments for inclusion in the Foundation corpus of academic writing (FOCUS) (outlined below). This corpus provides the trainees with the opportunity to develop their use of academic language alongside academic writing from other disciplines at Durham University. In order to address both the theoretical and reflective nature of the assignment, it was decided that further support would be developed in the form of bespoke online provision through both online activities and the use FOCUS.
The FOCUS project background

Before discussing the specific provision for the students, a brief background about the FOCUS project will be detailed below. The development of corpus-based teaching activities to support the creation of the SDS assignment in the School of Education builds on previous work within the Durham University FOCUS project (https://community.dur.ac.uk/foundation.focus/). The FOCUS corpus was initially created in the Foundation Centre in 2012 and includes writing produced by Durham University students from a variety of disciplines. The writing spans both undergraduate and postgraduate levels, and any samples of work included have been assessed by departments as being at a good academic level (normally 60% or above). The corpus provides a searchable database of texts which can be accessed via our bespoke concordancer, which is where users search for a key word or phrase, and their search returns a random selection of text extracts (concordance lines) in context (KWIC) with a few characters either side for context. As seen in Figure 1 shows an advanced search function can be used to limit results to a particular text type (e.g. essay, lab report), a particular discipline (e.g. Education, Physics), and/or a particular level of study from Foundation (level zero of an undergraduate programme) through to PhD.

The FOCUS project was initially created as a way to support the development of academic grammar and vocabulary in cohorts of students who lacked the metalanguage to respond well to more traditional language teaching methods (Bruce & Rees, 2013). In the past few years, the corpus team has secured funding to develop a project strand entitled “Write on the Edge” which has focused on helping students in particular academic disciplines to produce texts in genres with which they were previously unfamiliar. We used corpus-based activities to support level 3 Chemistry undergraduates in their dissertation and literature perspective assignments: the first time they had been required to produce a long piece of writing during their degree programme (Bruce et al., 2016). Using a data driven learning approach which appealed to the scientific background of the students, we designed corpus-based activities to help students develop a more formal academic writing style. We focused in particular on reporting verb choices, nominalisation and use of connectives (as discourse markers) to help the students to develop a more appropriate
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academic voice in their final degree assessment. The second phase of Write on the Edge provided corpus-based interventions to level 1 Sport students with no science background who were producing their first physiology lab report. This most recent phase of the project supporting trainee teachers with literature reviews and reflections builds on the methodology of Data Driven Learning (Johns, 1991) that has underpinned our work from the outset.

**Figure 1.** Screenshot of FOCUS with an Education text reflective language corpus search (In this case, the search is for the phrase ‘I have observed’)

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
<th>Level</th>
<th>Type</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>ms with other methods. On most occasions when I have observed</td>
<td>a child using this principle, it has been thr</td>
<td>M</td>
<td>Essay</td>
<td>Education</td>
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<td>dering U.K. primary schools, as this is where</td>
<td>I have observed and experienced education. Outdoor learning p</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>ds, especially in Key Stage One. Once again,</td>
<td>I have observed and had personal experience that these scheme</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>e or other means. However, within my practic</td>
<td>I have observed and taught lessons which have been more of an</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>more developed. However, during my placement</td>
<td>I have observed explicit comprehension teaching in year 2 and</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>knowledge to what is written in the text. What</td>
<td>I have observed follows the suggestions of Kendeou et al. (20)</td>
<td>M</td>
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<td>Education</td>
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<tr>
<td>e I would like to explore whether the effects</td>
<td>I have observed in one Primary science classroom extend to ot</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>o. The preferred method to achieve this which</td>
<td>I have observed in schools is through representation. An exa</td>
<td>M</td>
<td>Essay</td>
<td>Education</td>
</tr>
<tr>
<td>room experience. Firstly, I will relate what</td>
<td>I have observed in the literature review to what I observed i</td>
<td>M</td>
<td>Essay</td>
<td>Education</td>
</tr>
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<td>subtracting strategies. Some of the children</td>
<td>I have observed in the lowest Year 3 maths ability group stru</td>
<td>M</td>
<td>Essay</td>
<td>Education</td>
</tr>
<tr>
<td>his finding, and yet the practical experience</td>
<td>I have observed reflects that despite the criticism LSCWC is</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>In an attempt to address this misconception,</td>
<td>I have observed teachers endeavour to improve their knowledge</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>s 11-14) as well as primary teacher trainees.</td>
<td>I have observed that both groups appear to hold many of the</td>
<td>PhD</td>
<td>Diss</td>
<td>Education</td>
</tr>
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<td>port also builds confidence within the group.</td>
<td>I have observed that children flourished when allowed to shar</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>e of the four strategies beyond intervention.</td>
<td>I have observed that progress made during RR, along with the</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
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<td>exities of creative writing has developed, as</td>
<td>I have observed the formal content children are required to I</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
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<td>concepts may be introduced (Bagby, 2007).</td>
<td>I have observed the Montessori Method emerging during Englis</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
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<td>onclusion During the research for this essay</td>
<td>I have observed the practice in my placement school and crit</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
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<td>ls (DIEE, 1998). In my professional practice,</td>
<td>I have observed the use of shared reading with a whole class</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
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<tr>
<td>ly during my own observations for this essay.</td>
<td>I have observed them being used effectively during visits to</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>g given by an adult, rather than through PBL.</td>
<td>I have observed this in science classrooms where the content</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>t do to complete the learning (1971, p. 58).</td>
<td>I have observed this type of formative assessment in year 5 c</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>ox I am a step forward in addressing problems</td>
<td>I have observed. Two examples of vignettes and accounts of o</td>
<td>PhD</td>
<td>Diss</td>
<td>Sociology</td>
</tr>
<tr>
<td>l language interventions. In my opinion, what</td>
<td>I have observed within the classroom supports the research an</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>e, 2013). These findings are shadowed by what</td>
<td>I have observed within the classroom. Despite the support f</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
<tr>
<td>gs and characters. Another application which</td>
<td>I have observed within the school setting is Bug Club. Whils</td>
<td>M</td>
<td>Diss</td>
<td>Education</td>
</tr>
</tbody>
</table>
Outline of different lessons with examples

The different online activities were designed based on analysis of issues in the SDS essays themselves, feedback from markers as to what trainees lacked as well as analysis of the marking criteria and other departmental documents (possible plan and the handbook). By providing online support tailored especially for the students’ context, our aim was to make their online experience as effective as possible through providing purposeful activities that they could access independently.

The activities are divided into three lessons: Lesson 1 (Structure, Focus and Referencing), Lesson 2 (Critical Engagement with Ideas) and Lesson 3 (Reflective Practice). The first lesson supports students in understanding the structure of their introduction as well as possible ways to structure the literature review. The SDS introduction structure outlined in the activities follows the possible plan’s advice (see Figures 2-4), helping the writer to establish the research niche.

Figure 2. Possible plan (departmental document) for the introduction of the SDS assignment

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Introduction (approx. 750-1000 words)
What is the issue?
Why are you interested in this issue? (justification)
What are some of the possible explanations that could help to understand the issue?
Which aspects will you be exploring further and why?
What questions do you want to answer?
You may want to include definitions / notions to support later arguments

Introduce your example of school experience: eg. the school’s context, justify your chosen method (questionnaire, small group task, class observation etc).
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**Figure 3.** First part of the lesson on Introduction structure

Structure, focus and referencing
Introduction 1st half

To the right is the first half of an Introduction to an SDS assignment entitled:

**How effective are visual representations in the form of number lines in developing children’s understanding of addition and subtraction?**

Drag and drop the different sections of the introduction to the text above.

**Figure 4.** Second part of the lesson on Introduction structure

Structure, focus and referencing
Introduction (2nd half)

To the right is the second half of the introduction. Once again, drag and drop the different sections to each paragraph.

A common barrier many children face in mathematics is failing to make sense of mathematical concepts (Drury, 2015). Two essential mathematical concepts that provide children with a solid foundation for the development of other mathematical skills throughout their education and life-time are addition and subtraction (Anghileri, 2009). However, research shows that many children experience great difficulty with these as they are the first operations taught (Frobriner et al., 1999). This is something that I also witnessed in my preliminary placement in school. Whilst on my placement, I taught three addition and subtraction lessons and I saw how children experienced difficulty in these first operations. In these instances, I found the number line to be a particularly helpful diagrammatic representation. I thus became interested in how the number line could help children overcome the barriers listed above, and I decided to research it further.

Therefore, this assignment will explore the effectiveness of the number line (NL) as a tool, paying particular attention to how it can help children to develop an understanding of addition and subtraction.
The activities attempt to help the students understand how to move to the research niche, as can be seen in Swales’ (1990, p.141) three-move structure:

- Move 1- Establish one part of the territory
- Move 2- Establishing the research niche- in response to field
- Move 3- Occupy the research niche

Swales was referring to the moves in a literature review, but his structure can be applied to the introduction in this case. This is because what is outlined in the possible plan leads the students toward establishing and occupying the research niche through both consideration of the literature and their own reflection.

The aim of the second lesson is to help trainees critically engage with ideas as outlined in Figure 5 in the marking criteria below:

**Figure 5.** Marking criteria for critical engagement with ideas
The activities address these elements of the marking criteria in different ways. One of these is to help trainees to critically discuss relationships, most specifically in raising and discussing dilemmas as seen in Figure 6 below:

**Figure 6.** Extract from the Critical Engagement with Ideas Lesson

![Critical Engagement with Ideas](image)

The third lesson aims to help trainees with reflective practice. Most particularly it focuses on how they can explore their own emerging identities as practitioners in relation the literature, which is reflected in the possible plan and lesson extract (Figures 7 and 8) below. Note that the departmental document uses the term 'Discussion' for what we are calling a Literature Review. In this context, they are interchangeable terms as the Discussion section, as seen below, is asking the trainees to critically engage with the literature.
Figure 7. Possible plan (departmental document) for the Literature Review (Discussion) section

Discussion (approx. 3500-4000 words)
What does the research literature tell you about this issue – in general? – more specifically? Discussion of dilemmas and tensions in the literature and between theory and practice. Relate your arguments to your example of school experience by analysing and evaluating your observations/insights – recognise the limitations of these.

How has research informed your understanding of the issue?

(Brief) critical engagement with the research is important: how far can it be trusted/generalised? Do you agree with the argument?... why/why not?

Conclusion (approx. 350-500 words)
What are your conclusions regarding the issue?
How might your understanding impact on your professional development/practice?
What are the wider implications for education?
What would you like to explore further?

Figure 8. Extract from the Reflective Practice lesson

In your assignment, you should weave in your own experiences, observations and insights to show how they are (or are not) supported by the literature (in this case the National Curriculum). First, read through the passage on the right. Then consider the following questions and complete the multiple choice activity below.

Which sentences in this passage show the student’s observations?

Which sentences show how the student’s observations are supported by and linked to the literature?

Problem solving was embedded in every lesson through word problems, which is a key aim of the National Curriculum. At the end of the unit of work a post-learning test was given (same as the pre-learning) which gauged the amount of progress with word problems made by each child. In my time at the school, 100% of students improved from pre to post tests, with the majority making substantial improvements. Thus, in this instance, the children’s problem solving really seemed to improve, showing an alignment between what was implemented based on the school policy and the aims of the National Curriculum.
Through raising awareness of ways to weave in experience with the literature, it is hoped that, as Beauchamp and Thomas (2009, p. 185) state, trainees can develop the ability to negotiate ‘shifting conceptions of what teaching is or should be’ whilst becoming active participants in their own identity development.

Besides working through these different concepts, the lessons incorporate language work through use of FOCUS as seen in Figures 9 and 10.

**Figure 9.** Concordance lines from FOCUS from the critical engagement with ideas lesson
Figure 10. Concordance lines from FOCUS from the reflective practice lesson

It is hoped that through working with the corpus, trainees will use data to uncover the rules behind the language (Johns, 1991). These activities thus attempt to provide a platform for the trainees to become more adept at using the corpus tool for future practice as well as in developing a repertoire of language that they can work with.

Student Feedback

The activities were first introduced to last year’s cohort (2017-2018) and in general, the lessons were positively received as seen in the trainee questionnaire feedback (question 3) in Table 1 below.
Table 1. Responses to Question 3: Usefulness of the Activities

Q3: Below is a list of the different lessons. If you completed the lesson, think about how useful you found the activities as a whole, and tick the appropriate box in the table below.

As can be seen, all of the trainees found the lessons useful, which is also reflected in the interview comments below.

I found it really useful to brush up on some techniques in academic writing and to get to know the requirements for writing from a Durham point of view. As it is a long time since I wrote academically, this was a really handy course. I hope it stays open throughout the year so that I can refer back to it for all assignments.

The opportunity to see other people’s writing styles which has helped my own ideas.

They were relevant to the SDS assignment and have helped me with ideas on how to structure my essay and critical discussion.
Overall this is a great resource and very helpful for someone like me that is returning to education after quite a long break (and a lot of technological advances). I would consider taking it even a step further back in terms of simplicity as, although we have to have a degree to get onto a PGCE, in some cases that degree was completed a long time ago and a lot has been forgotten, changed or indeed standards at Durham are different to our other universities.

In addition to the positive feedback about the online activities above, it has been noted, during taught sessions and through marking, that trainees are demonstrating reflective practice skills, which seems to be linked to the module redesign and support activities as outlined above.

Conclusion

Our next steps are to scrutinise the feedback questionnaires completed by the current cohort of trainees. The results of the questionnaires will be complimented by more detailed questions explored with a focus group from the same cohort. Permission will be sought from the current cohort of trainees for assignments to be added to the FOCUS, to increase the number of SDS assignments available on the database. The module will follow the redesigned format described above, with minor identified modifications as a result of module evaluations and feedback from colleagues and trainees. In addition, trainees will continue to engage with FOCUS and the bespoke SDS online activities. Future research into supporting trainees with experience of different undergraduate disciplines is also a future project that we are considering.

We believe that our work is potentially of benefit and use to the sector, as our corpus and concordance are available for other HEIs to access. The corpus in its current form can be accessed online (https://community.dur.ac.uk/foundation.focus/external), though consideration must be given to the fact that it is a monitor corpus and thus new texts are being added periodically. In addition, we have shared the concordance software with some other institutions who have then entered their own texts, thus further extending the value of the project.
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