Listening to Claire: Analysing one student's story told in the context of resitting mathematics in a post-16 college

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For students who are labelled as low prior attaining, having the opportunity to tell self-positioning stories about their own identity work can enable a researcher to reflect on the teaching and learning of mathematics through the students' lived experience. This article demonstrates the creation of a poetic structure as a device for listening to student voice as part of a project in the context of resitting mathematics in a post-16 college. A rubric was developed for the creative process, adding consistency both within and across different poems formed during the analysis. The rubric enabled me to focus on the voices identified rather than the potential unpredictability found in the creative process.

Keywords: Low attainment; Voice; Listening Guide; Poetic structures

Introduction

Mathematical identity work is said to be found in the self-positioning stories a person tells about themselves in relation to mathematics as well as how others position them (Bishop, 2012; Sfard & Prusak, 2005). For students who are labelled as low prior attaining (LPA) in mathematics, the opportunity to tell their own stories about and as identity work can be limited, impacting the possibility to listen through the lens of the student's lived experience (Helme, 2021a). The discussion that follows is a result of a desire to foreground the process of listening to voice when analysing the narrative of a student participant called Claire. I demonstrate the use of a rubric to add consistency to the creation of a poetic structure which is a key part of the Listening Guide method of analysis (Gilligan et al., 2006).

Listening to LPA students

Gilligan et al., (2006) state that listening is embodied in culture, history, and relationship of the speaker and hence provides an entry point into the inner world of another. The process of listening has been described as a complex choreography, an orchestra of voice between the speaker and hearer, that involves the decentring of self as a listener (Davis, 1997; Gilligan et al., 2006). Not seen as a passive undertaking, listening should be an active attempt to temporarily suspend preconceptions, acknowledging bias and, most importantly, making space for the words of the speaker (Arcavi & Isoda, 2007; Dobson, 2014). Arcavi & Isoda (2007) go on to say that, regarding student voice, listening involves "giving careful attention to hearing what students say (and see what they do), trying to understand it and its possible sources and entailments" (p.112). Although being listened to, and having weight given to opinions, is the legal and moral right of every student (Shier, 2010), for students labelled as low attaining, their own voice can be marginalised, particularly in relation to identity work (Helme, 2021a; Solomon, 2012). Hence, the opportunity is not afforded to recognise the varied knowledge that comes from their experiences of

teaching and learning (Mapolelo, 2009), and to challenge perceptions around engagement, competency, and affect (Hintz & Tyson, 2015). However, for those students who are resitting General Certificate of Secondary Education (GCSE) mathematics in a post-16 college, labelled as low attaining due to not previously gained a grade 4 pass, there is some contemporary work that does include student voice. Three of the studies discuss the impact of interventions including elements of realistic mathematics (Hough et al., 2017), introducing resilience courses (Johnston-Wilder et al., 2015), and a restricted curriculum content focus (Nixon & Cooper, 2020). Three other studies report on the impact of transition from school and college (Boli, 2020) including forced resit policy (Bellamy, 2017) and an alternative offering of curriculum (Dalby & Noyes, 2015). The studies evidence shifts in student voice within the context of post-16 education in terms of the usefulness of mathematics, affect, engagement, motivation, and relationships. However, there has not been a focus on shifts in student voice in a 'more of the same' situation, considering changes over time during the academic year when students are resitting the same GCSE mathematics curriculum as their previous school experience. The focus of my study was to listen less for *what* is said, but more to *how* a student talked about themselves in relation to the teaching and learning of mathematics.

Context of study

The focus of the study was the stories told about/as identity work in the context of low attainment in mathematics. The field site was a post-16 college with one student participant Claire, who was a student in a mathematics resit classroom, and her classroom teacher. Due to Covid-19 restrictions in the summer of 2020, students were allocated a GCSE grade by their school though a process called Centre Assessed Grades (CAG), however there was an option to resit the examination under usual arrangements in November 2020. Having been allocated a grade 3 by her previous school, Claire sat the examination in November 2020 and achieved a grade 3, and hence was continued to be labelled as low attaining. As is policy in England, Claire had to continue to study mathematics in college to attempt to achieve a grade 4 or above considered to be a pass at GCSE.

Using the data collected from email conversations and a recorded online discussion, I wanted to listen for the self-positioning voice of Claire within stories of and as identity work told from her own lived experience. Having previously reflected on the impact of my own positionality using a Social Identity map (Helme, 2021b), at this stage I sought to foreground the marginalised voice of the LPA student by extending the Listening Guide process of analysis (Gilligan et al., 2006). The listening Guide is a method of analysis that is said to provide an entry point into the silent, inner voice and lived experience of another. The four-stage process focuses the attention of the listener onto a person's ways of speaking to uncover that which is silent, invisible, and hence marginalised. The first stage of the Listening Guide involved listening for the overall plot and recording an initial response to reading the whole narrative, before moving on to the second stage which uses poetic structures to focus on the voice of or about the protagonist.

Poetic structures

Within the second stage of the Listening Guide, the listener is invited to create a poetic structure called an I-poem, focusing on the first-person pronoun, to exposed how the speaker talks about themselves. Within the study, I have extended the

Listening Guide process to introduce a They-poem alongside the I-poem; the purpose of this novel poetic structure is to focus on how another positions the student and can be used as a contextual foil for the first-person voice of the student (Helme, 2021a). However, in the original work by Gilligan et al. (2006) the process behind creating the poetic structure is not clearly defined. In the discussion below I describe my use of a rubric that added consistency to the creative process. Although the example below focusses on the first-person pronoun, the process can be applied to create both poetic structures of an I-poem and a They-poem.

Rubric step 1: Preparing the data

In the first step of the creative process, I began by preparing the narrative data, focusing on the pronoun voice used by the participant. The procedure involved removing any noise created through the transcribing process as well as the inclusion of other voices. The other voices may consist of the researcher's own voice if present in the transcript, for example asking questions, and sections that used the same pronoun but do not refer to the protagonist of the poem, for example, reading out an exam question or discussing another person. However, I retained the rhythm of the conversation by keeping responses and conversation episodes in separate paragraphs. Finally, for transcribed data, it is not possible to know the intention of the speaker regarding punctuation and capitalisation and therefore these elements were removed where they have been introduced as part of the auto-captioning transcription process, including using the lowercase *i* for the first-person pronoun. The only exception is in the use of elisions, for example *do not* contracted to *don't* where the apostrophe is retained.

Rubric step 2: The long phrase form

For the second step of the process, I created the long phrase form of the poetic structure as a way of initiating the focus on, in this example, the first-person voice of how Claire spoke about herself. I identified the pronoun used by the speaker and underlined the pronoun wordstrings that seemed to have meaning, acknowledging my subjectivity as a listener. For the They poetic structure this would include the use of the proper name of the protagonist, which would subsequently be changed to the pronoun. The word strings were extracted and arranged a consecutive list, as illustrated below, mirroring the structure of the final poem:

> <u>i have chosen this image because for me my path was not straight at all</u> there were mistakes and <u>a very long way i had to go to achieve my grades</u> and it wasn't easy for me <u>as i struggled to understand maths</u> therefore <u>this image is a perfect example of how i felt about my experiences of maths</u> however <u>during college period that i am in i am finally understanding maths</u> and being able to recognise and interpret maths.(Claire's email response, 25/12/2020)

as a long phrase form the above would become:

> i have chosen this image because for me my path was not straight at all
> a very long way i had to go to achieve my grades
> as i struggled to understand maths
> this image is a perfect example of how i felt about my experiences of maths
> during college period that i am in i am finally understanding maths

The long phrase form of the poetic structure is a device that acts as a reference point, providing the listener with a tool to help remain as close as possible to the original meaning when further reducing the wordstrings in the subsequent steps of the process.

Rubric step 3: The 1ˢᵗ iteration

Moving to the next step of the process, I created the 1ˢᵗ iteration of the poetic structure. The step involved inspecting the long phrase form, focusing initially on the pronoun and associated verb or verb phrase and then deciding which other words from the wordstring were important to retain a sense of the original meaning. In practice, this step was somewhat complicated as the structure of a wordstring was often not neatly formatted by the speaker. Through research into linguistics, I developed guidance to support the process with direction on when to remove or retain additional words in the string, helping to mitigate some of the issues with syntactic complication. The guidance has two sections, the general which is a set of rules that could be applied to any narrative data, and the idiosyncratic which are a set of decisions made by the researcher as a result of the peculiarities of the particular speaker. Due to issues of space in this article, the full guidance has not been included but examples can be seen in table 1 below.

Guidance	Type/definition	Example	Action
General	Adverb Adverbial phrase: A word or phrase that modifies or qualifies an adjective, verb, or other adverb or a word group, (often ends in *-ly*)	…she *really* struggles…	Retain where it is modifying the *verb* and is positioned between the pronoun and verb or directly before the pronoun. This will retain the pronoun verb phrase.
Idiosyncratic	<u>Speaker</u> Repeated phrases The speaker repeats a word or phrase <u>exactly</u> in succession, similar to a stutter.	…she would she would …	An *identical* repeated phrase is only used once; refer to original recording if necessary. Note: where the speaker used a *similar but not identical* phrase both are retained, including: • where an additional word is added • elisions in the repeat

Table 1: Examples of general and idiosyncratic guidance

Using the general and idiosyncratic guidance, the long phrase form was reduced to the 1ˢᵗ iteration as seen in the example below:

> <u>i have chosen</u> this image because for me my path was not straight at all
> a very long way <u>i had to go to achieve</u> my grades
> <u>as i struggled</u> to understand maths
> this image is a perfect example of <u>how i felt about</u> my experiences of maths
> during college period <u>that i am in</u> <u>i am finally understanding</u> maths

in the 1ˢᵗ iteration became:

> i have chosen
> i had to go to achieve
> as i struggled
> how i felt about
> that i am in
> i am finally understanding

This structure now has the form of the I-poem as originally discussed by Gilligan et al. (2006).

Rubric step 4: The aligned form

In the last stage of the creative rubric, to further bring the focus of the listener onto the actions or state of protagonist, I formed the final iteration by aligning the pronoun, parsing into three sections and positioning as shown to give the final form of the poem:

	i	have chosen
	i	had to go to achieve
as	i	struggled
how	i	felt about
that	i	am in
	i	am finally understanding

As a listener, my focus was on the verb or verb phrases that were used by the speaker to describe the actions or states of the protagonist of the poem and the aligned form gave a structure where the verbs and verb phrases are clearly presented. The poetic structure was in a form that exposed the different self-positioning voices that are present in the narrative. In this small example, I was able to identify the voice of 'struggle and understanding' in relation to learning mathematics intertwined with a reflective voice found in 'felt about' and 'finally'. Claire seems to be describing a positive emotional shift in her lived experience of learning mathematics.

Conclusion

The purpose of this article is to demonstrate the use of a rubric to create the poetic structure that is a key part of the Listening Guide process (Gilligan et al., 2006). The use of the rubric is an iterative process that gives consistency to the creative process, lessening the need for constant decision making by the researcher in constructing the poetic structure which could distract from the key focus of listening for the hitherto marginalised silent voice. Within a larger study, when considering shifts in student voice, the consistent use of a rubric will be particularly helpful as dealing with data collection and analyse over time would result in several poetic structures having to be formed from various sections of narrative.

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