Exploring the ontological dimension of dialogic education through an evaluation of the impact of Internet mediated dialogue across cultural difference

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Abstract

It has been claimed that dialogic education implies a direction of change upon an ontological dimension from monologic closed identities in the direction of more dialogic identifications characterised by greater openness to the other and greater identification with the process of dialogue. This paper recapitulates that theory and then provides an empirical illustration of what it looks like in practice. In order to do this a methodology for researching the impact of dialogic education is outlined and applied to the evaluation of the impact of a programme designed to promote greater dialogic open-mindedness: the Tony Blair Institute for Global Change's Generation Global Project (GG) supports schools in over twenty different countries to engage in dialogue with each other through videos and blogs. The methodology put forward argues that the understanding sought by educational research is dialogic in that it emerges from the dialogue between inside and outside perspectives. The findings offer some clear evidence of a shift in identifications resulting from dialogue through the analysis of changes in online language use supported by interview evidence. This study suggests that a pedagogical intervention can produce identity

change in the direction of becoming more dialogic and shows that it is possible to evaluate this change..

Introduction

This paper begins with a summary of a dialogic theory of education that lays stress on drawing learners into dialogue and on the dimension of identity-change from monologic to dialogic. It goes on to describe how the relevance of this theory of education was explored through an evaluation study that measured progress in becoming more dialogic or 'open to the other' as a result of dialogue across cultural differences. A particular version of a 'dialogic' methodology is outlined that enables not only the measurement of change in the direction of becoming more dialogic but also understanding the causal processes behind this change. Evidence is provided that internet-mediated inter-cultural dialogue can promote growth in the direction of dialogic open-mindedness and that it is possible to some extent, to measure this change as well as to understand the processes behind this change.

A dialogic account of the vertical in education

A dialogic theory of education has to combine a vision of the aims of education with an understanding of the processes of teaching and learning which includes a theory of learning. Wegerif (2011, 2013) proposes that dialogic education should aim, amongst other things, at dialogue as an end in itself. Dialogic education, on this theory, proceeds through drawing students into dialogue. This includes not only dialogues with specific others (eg teachers) but also, dialogues with cultural others (personified communities) and dialogue with 'the Infinite Other', the unbounded horizon that goes beyond and questions every fixed position conceptualised as an outside voice that can prompt thinking. The main causal mechanism of dialogic learning is claimed to be the dialogic switch whereby a student is drawn, through relationship, to see or feel things from a new perspective. In dialogic learning theory new perspectives do not replace previous perspectives but augment them leading to an expanded repertoire. A key component of the dialogic switch is the dialogic gap or the gap between voices in dialogue. According to Bakhtin it is because of this gap that dialogue is

possible. For participants in dialogue the gap opens up into an experienced dialogic space within which various voices are in relationship and able to inter-animate each other. The direction of education towards dialogue as an end in itself can be understood as an expansion of this dialogic space to bring more voices into dialogue (including background 'things' that currently are treated as dead things that have no voice).

This particular theory of dialogic education implies an ontological vertical dimension of growth in education from a monologic ontology at one extreme and towards a dialogic ontology at the other extreme. A monologic ontology assumes identities with locations and boundaries . A dialogic ontology, on the other hand, asserts that every apparent identity is in dialogue with every other apparent identity. In a sense the idea of a dialogic 'identity' is a paradox as dialogic is defined by non-identity. However the useful point of the dimension is to articulate the fact that not all identities are at the same level, some are more closed and located than others. One challenge raised by this educational theory is how to assess positive change. While it is relatively easy to measure an increase in knowledge or skills it is harder to measure an increase in dialogicity. This paper directly addresses that challenge proposing methods to measure an increase in dialogicity and showing that they work.

For most educators the ideal of 'openness to the other' has limits. A common and understandable response to extremist views on the Internet is to try to shut down the web-sites and to ban people from accessing them. Can students be allowed to engage with fascist ideology or extremist Islamic ideology? The point of the monologic to dialogic ontological dimension outlined above is that it is not the views that are the danger so much as holding any one view narrowly to the exclusion of other views. A dialogic student holds many views together and learns from the creative tension between them. It would not be possible for such a student to become an extremist because to do so implies shutting down the dialogue. Seeking to understand what it might mean to be, for example, a fascist or, for example, an Islamic extremist, through engaging in dialogue with these positions holds the potential for creative learning, moving students higher along the vertical dimension of becoming more dialogic. The more divergent and 'different' the voices that one is able to allow to speak within the dialogic space that one identifies with, the greater the progress in becoming dialogic and the more one is, in fact, protected from the danger of extremism since all forms of extremism can be defined through their monologism (Savage, 2011).

Developing the concept of dialogic open-mindedness

The Tony Blair Change Institute's 'Generation Global' project http://generation.global/ (formerly the Tony Blair Faith Foundation's Face to Faith projectclaims to promote open-mindedness with the aim of preventing violent extremism. The kind of pedagogy it uses to achieve this end is explicitly dialogic and our evaluation of this programme offers the opportunity to exemplify aspects of how the dialogic theory of educational growth outlined above works in practice. However, before we can go on to describe our evaluation of GG, we need to clarify our use of the term 'open mindedness'. The concept of open-mindedness found in the psychology literature proved inadequate as the basis of an evaluation of the impact of the programme and so needed to be developed into the new concept of dialogic open-mindedness. Literature searches on the database of psychology journals (PsychInfo) using 'open-mindedness' mostly pull up studies using open-mindedness as a variable in characterising identity. Berzonsky (1989) characterised an 'information' identity style in terms of open-mindedness towards new information and active processing of this information into a coherent identity. According to a study by Soenens, Duriez, and Goossens, (2005), identity styles can all be related to two basic dimensions: 'active vs. superficial processing of information and adherence to traditional opinions vs. open-mindedness'. While claiming to be empirical science this work is limited by the philosophical assumptions implicit in information-processing models of the mind. Open-mindedness in this literature is treated in purely cognitive terms as being open to new information and new interpretations. The conclusion that 'open-mindedness' is the opposite pole to 'adherence to traditional opinions' follows from this assumption rather than from any empirical findings.

Dialogic theory, increasingly present as a strand within social psychology (Fernyhough, 2009), begins with different philosophical assumptions to information processing models of mind. The fundamental difference can be summed up as the difference between an ontology of relations, assumed by dialogic theory, as opposed to an ontology of identity assumed by information processing models of mind (Gergen, 2009). Dialogism assumes that identities are formed out of and within relationships, not the other way around. The social relationships come first and not the identities. It follows from this that cultural traditions are not a limit to openness but a pre-condition for openness.

Bakhtin, one important source of dialogism, points out that we can only be 'open to the other' because we are always culturally and historically situated. Every word we speak has been spoken already by

others and so has a history and inheres in a tradition. Meaning, according to Bakhtin, only arises because there is a difference between voices in a dialogue so if we were to overcome this difference that would leave us with no meaning. It is the difference between voices that enables us to become more aware of ourselves as we become more aware of others. The aim of dialogue is mutual illumination in a way that augments and expands perspectives without reducing them to sameness (Bakhtin, 1986). In other words, dialogicity is not just about a capacity to handle cognitive complexity but is also about developing a capacity to handle the emotional and cultural complexity involved in the multiple relationships between voices in dialogue.

Dialogic open-mindedness is not reducible to cognitive openness to new information, although that is clearly important, but it is a more embodied construct that includes being able to partially inhabit the positions of others and so understand not only what they say but also how they feel and why they might feel that given their history and cultural context.

The Face to Faith (GG) programme

The GG programme is intended to build resilience against the narratives of violent extremism. Operating for more than seven years in more than 20 countries it has reached over 200,000 students aged 12 to 17. After a compulsory module teaching 'the essentials of dialogue' classes engage either in team-blogging or in facilitated video-conferencing with classes in other regions of the world discussing issues that are central to religious and cultural differences. The team blogging involves placing students into teams in the GG online learning community. In these teams, they talk with peers from other countries by creating short blog posts in response to pre-determined prompts (or questions), and by commenting on each other's posts. They are encouraged to use posts and comments that exhibit four key skills: giving insight, explaining ideas or thoughts clearly, asking good questions, and reflecting on thinking.

The desired outcomes of the GG programme have been expressed by Ian Jamison, Tony Blair Faith Foundation's Head of Education, in terms of what teachers should be able to say about their students (Jamison, I. personal communication, 31st March 2015):

a. My students are open to learning about the lives, values and beliefs of others.
b. My students have a healthy level of curiosity.
c. They are confident to share their own lives, values and beliefs with others.
d. They can suspend judgments in favour of listening with open hearts, minds, eyes and ears.

e. They are concerned to find solutions to shared problems.

f. They are able to make others in the dialogue feel safe enough to share personal thoughts.

These skills, attitudes and dispositions have been identified as critical in building the resilience of students against radicalisation into religious extremism. The narrative of religious extremists is one that emphasises a single 'correct' worldview, against which all others are seen in opposition. In this regard extremism is also a particular manifestation of monologism as described above. This narrative is supported by selective quotation, and literal interpretation of key religious texts, as well as the constant reiteration of, and support for radical dichotomies of thought that reinforce narratives that emphasise difference. Students' own values and thoughts are neither explored nor valued – they are told what to think and believe, and there is a constant 'othering' process for all differing worldviews and schools of thought (Moghaddam, 2005: Jamison, 2014).

The Tony Blair Faith Foundation's GG programme is not easy to evaluate because it relies on volunteer teachers and allows them considerable freedom in how it is delivered. The experience of students on the programme depends both up on the experience of the delivery of the materials in the student's own school, and additionally upon the school or schools that they engage in dialogue with and so is unique to each class. The programme does not always have a clear beginning and end but is most frequently an iterative cycle combining classroom-based activities preparing for dialogue followed by dialogue with other schools through either a video-conference or through blogging.

It could be argued, as a criticism, that what is being taught here is a particular Western or liberal world-view. This challenge illustrates the importance of the distinction made earlier between a horizontal view of identity as if all identities were competing with each other on the same level, like counters on a table and vertical view which offers a dimension from monological to dialogical which is also a dimension from closed identities to identities that are more open to the other. The ideal of the programme is not to teach a particular world-view so much as to promote dialogue between worldviews. If dialogue, and the space of dialogue between perspectives, is itself treated as just another world view perhaps labelled 'liberal' or 'cosmopolitan' or even 'democratic' then it needs to be acknowledged that this 'world-view' is different in quality from many others. The capacity to engage in dialogue between world views is not the same thing as holding a world view.

The value of the movement into dialogue is not a specifically Western discovery. The dimension from monologism to dialogism, for example, is inspired not only by Bakhtin but also by the Buddhist

understanding of growth from the delusion that everything has a separate self to the liberating realisation of 'non-self' or 'Anatta'. The nobel prize winning economist Amartya Sen has argued that dialogism arises from the Indian tradition (Sen 2005) but similar claims could be made for other cultures, for example the Ubuntu philosophy in Southern Africa. Habermas has argued that the origin of a movement into dialogue (which he calls 'discourse') is a universal structural feature of human communication. When truth claims, or world views, come into conflict there are only a limited number of moves available, flight, fight or suspending the claims and reflecting on them in a dialogue (Habermas, 1979). In the long run the move into dialogue has benefits in contrast to the alternatives. These benefits lead to its emergence, survival and explicit reinforcement through education. The GG programme is clearly situated historically and culturally as an attempt not simply to impose one culture upon another but, in ideal at least, as an attempt to find a cultural way forward in response to the challenge of a shrinking planet and the desire for co-existence.

Towards a dialogic research methodology

Most accounts of dialogic research methodology are variations on familiar qualitative research themes of the importance of reflexivity and sensitivity to the unique (Frank, 2005). The emphasis is often on what has been termed the epistemological interpretation of dialogic as how we collaboratively construct meaning (Paulus, Woodside and Ziegler, 2008). Above we have already referred to an alternative more ontological interpretation of dialogic and this alternative can offer a different understanding of dialogic research methodology. Epistemological interpretations of dialogic as shared construction of meaning tend to follow from the metaphor of everyday dialogue where we imagine voices linked to bodies separated in space and talking together. An alternative source for an ontological understanding of dialogic was proposed by Merleau-Ponty. He argued that empirical face to face dialogues are particular examples of a more general dialogic pattern which he named 'chiasm', this is where an outside is in relationship with an inside such that the two sides can reverse around each other but do not coincide because separated by an unbridgeable gap which he termed the 'ecart' (Merleau-Ponty, 1964: 1968). In a dialogue as we live it the 'other' voice is not only a located individual within my field of consciousness but also an outside point of view that encompasses me and locates me. What we get in dialogue is not just two separated and located voices interacting but an outside and an inside reversing around each other such that the inside becomes outside in expression and the outside becomes inside as we listen and 'incarnate' the other as a voice we can hear (Wegerif, 2013: 31).

Applied to the issue of research methodology this suggests a variation on the theme sometimes found in ethnography of how an interpretation of a culture only ever exists as an emergent phenomena at

the boundary between an outside 'etic' point of view, that of the researcher and reader, brought into relationship with an inside 'emic' point of view, that of the participants in a culture (Pelto and Pelto, 1978). In dialogic terms the 'outside' or 'etic' perspective represents what Buber referred to as the objectifying stance of 'Ich-Es' or 'I to It relationship' that tries to locate and understand as if from the outside seeking, but never fully attaining, the ideal of an unsituated or universal over view. The 'inside' or 'emic' stance, by contrast, stems from Buber's 'Ich-Du' or 'I to Thou relationship' (Buber, 1958) that reveals contingent local meanings that can only be understood from within a dialogue. However this ontological dialogism from Merleau-Ponty should not be interpreted as simply a dialogue between inside voices, those of participants, and outside voices, those of detached observers. This invocation of actual voices into the research process is discussed by Cresswell and Miller (2000) in the context of ways of validating qualitative research. Our proposal is more at the level of methodology or theory of methods than of explicit methods. The inside voice here should be understand as the unique meaning of events or the 'ideographic' and the outside voice as the patterned and universal aspect of events or the 'nomothetic' with the claim being that understanding comes from the dialogic juxtaposition of these two aspects held together in the creative tension of a dialogue where there can be no reduction to one side or the other. Research in social science has frequently tried to reduce findings either to an outside view as in statistical correlation research for example, or to an inside view as in some 'deep description' or phenomenological studies, in reality we can only make meaning of these studies through an often implicit dialogue between outside and inside perspectives. If the meaning we seek in research is only to be found as something that emerges in the dialogic creative tension between an inside and an outside perspective then it follows that we should try to design empirical research in such a way to bring these two perspectives into a fruitful or mutually illuminative relationship without allowing the generative tension to collapse into any fixed synthesis or final unitary meaning.

We applied this ontological dialogical research methodology to the issue of designing an evaluation of the GG programme. In doing so we were constrained by practical considerations and the needs of the sponsor so what we are describing is a very imperfect implementation of the ideal. On the one hand we sought to provide an evaluation of the impact of the Face to Faith programme that is as rigorous and convincing as possible on the other hand we also sought to understand the processes whereby individual young people develop and change their attitudes towards others who are different from them. These twin aims require that we combine together in one methodology, two very different perspectives; one perspective looks at the experiences of young people in the programme as if from the outside, seeking to measure change objectively, the other perspective explores the same experiences as if from the inside trying to understand how each encounter feels for the young people

involved and what it means for them in the context of their lives. This is a development from the 'dynamic inverted pyramid' methodology, developed specifically to study learning in classroom dialogues (Wegerif and Mercer, 1997: Wegerif, Rojas-Drummond and Mercer, 1999), and is a way of combining quantitative 'outside' measures with qualitative 'inside' insights in such a way that these two very different perspectives can mutually inform each other in order to create a better overall understanding and evaluation of the effectiveness of educational programmes. In this methodology the findings of statistical measures are used to help focus in on those key events which need to be interpreted in order to understand where the measures come from and what they really mean, whilst at the same time, insofar as this is possible, the statistical measures are based upon and drawn out from those features of communicative events that interpretative analysis suggests carry causal significance.

The tip of the 'inverted pyramid' is a unique communication event, for example a young person writing about an experience they have had that has changed them. Aspects and features of the recording that we have of this event can then be abstracted, generalized and explored across the larger body of data to see if they always occur with changes in attitude and so can be assumed to have causal significance. Are those blog-posts describing change in attitudes all characterized by similar language features? Is it possible to correlate quantitative evidence of changes in attitude with more concrete exemplars of changes in attitude? A series of conjectures and explorations can indicate which aspects and features of events are causally significant in driving overall change. This describes how we can move one way, bottom-up, from events to generalized measures. The methodology also moves the other way, top-down, from the findings of generalized measures to focus in on the events and processes that cause these findings. Evidence of change in attitude, or, indeed, of no change in attitude, picked by responses to our questionnaire scale enabled us to select schools to be investigated further in order to understand why change occurred or no change occurred. This, in turn, leads us to explore those communicative events, either in VCs or blogging exchanges that might lie behind the findings of quantitative measures. We call this methodology 'dynamic' because it involves iterative movements between different perspectives and types of data, weaving between the more general outside view of change afforded by statistical measures and the more personal inside view of change offered by observing videos and individual blogs. The 'dialogue' here occurs in the dynamic movements within the creative data analysis process looking in from the outside and then looking out from the inside. This 'dynamic' iterative movement is particularly well-supported by electronic text and other data analysis which makes it possible move rapidly between full transcriptions of events and the exploration of the significance of abstracted features of such events, for example 'key words in context' or KWIC.

In this study the 'outside' point of view is partly represented by the development and application of a measure of 'Dialogic Open-Mindedness' or MDOM. Differences in the MDOM measure taken over time in target schools in the period from September 2015 to March 2016 enabled us to select schools both where change is happening and where change is not happening for case study analysis in the next phase in 2016. Case studies in 6 schools (two in three different countries) involving interviews with key teachers and selected students. In addition, we were able to exemplify some aspects of our proposed dialogic methodology in a separate parallel studies of online texts drawn from students engaged in team-blogging using corpus-linguistics approaches to explore changes in language use related to changes in dialogic open-mindedness.

Evaluation of the impact of the Face-to-Faith programme

The main aims of the empirical project were to explore and develop dialogic theory of education through:

- developing an effective methodology for measuring changes in dialogic open-mindedness.
- investigating the teaching and learning processes which impact on dialogic open-mindedness.
- developing and applying discourse analysis methods for investigating changes in on-line dialogues related to increased dialogic open-mindedness

The data for the project were a complex combination of quantitative responses, collected through two main questionnaire instruments (student and teacher questionnaire) and qualitative responses, some of which are written responses gathered through student questionnaires (vignettes), and teacher questionnaires. Other qualitative data were collected through team-blogging data, team-blogging reflective evaluations, and video data. This data is augmented by interviews with selected students and teachers.

In this paper we are not able to fully present all aspects of the development of our measures. The full report has been published and is available to download (Doney and Wegerif, 2017) . In this paper we are focussing in on those aspects of the project that both illustrate and inform the development of theory, both the dialogic education theory presented above and the dialogic research methodology presented above.

The Measure of Dialogic Open-Mindedness (MDOM)

For this scale, questions were created to access the core concept of dialogic open-mindedness. The development testing and application of this measure will be presented more fully in another publication that is in preparation. These were augmented with questions adapted from existing instruments; although this is an original instrument developed for the evaluation of the GGGG programme, we drew upon other measures for some of the questions which relate to various relevant traditions of research in psychology, including: Tolerance of Ambiguity, Self-Confidence in the Face of Difference, Knowledge and Experience of Difference – Approach and Avoidance, and Just World and Learning Environment.

Indicative questions include:

I feel uncomfortable when I don't know what the truth is.

Getting too many different views is distracting (-ve)

In-school controls were used consisting of classes that planned to engage in the GGGG programme next year. The study was designed in such a way as to gather baseline data at the beginning of preparation for the GG programme (from teachers and students), and then to gather data again (from teacher and students) following each GG video conference or team blogging activity. This repeated measures, semi-longitudinal, design was chosen in preference to a 'pre-/post-test' design in order to better identify key points in the process of change. The survey was live between September 2015 and May 2016. During this period over 11000 student survey forms were completed (5409 control group and 6278 programme group), along with 350 initial and 340 post-VC teacher questionnaires.

The quantitative analysis of the results of the MDOM will be presented fully elsewhere. This paper will show that the GG programme did produce a modest but statistically significant increase in MDOM scores. However, this headline finding hides a great deal of diversity. Some schools increased their MDOM scores markedly while others went down or stayed the same. This is not particularly surprising if we consider the voluntary nature of participation in the programme and the lack of central control over the pedagogy actually implemented in the hundreds of schools involved in the programme. Multi-level-modelling showed no significant difference between countries but that the main source of variation was between schools. We had expected to find correlations with items on the teacher questionnaire such as their length of engagement in the programme, their levels of training and their expressed enthusiasm for the aims of the programme but we did not find any such correlations. The MDOM scores enabled us to focus in on schools which had increased in scores and schools which had decreased in scores in order to compare them further with interviews conducted

via video with teachers and students, selected by the teaches as representative of their class, within those schools.

Case studies

Country 1: Palestine
School 1 MDOM change +6%
School 2 MDOM change – 2%

Both the schools selected in Palestine were girls' schools and had completed their survey data in Arabic. Interviews were conducted via a video link with the use of an interpreter. All the students interviewed and the two teachers were very positive about the programme and claimed to have learnt from it in terms of changed teaching practices, improved dialogue and greater confidence in communication. Beyond those similarities there were differences that might explain the apparent difference in the effectiveness of the GG programme in producing a change in dialogic open-mindedness as measured by our MDOM scale.

The students interviewed in School 2, where there had been a negative change in the MDOM measure, only described their dialogues with girls from another school within the same region. They described how they discussed together aspects of the experience of occupation and wanted to talk more about this.

School 1, by contrast, described VCs with several schools including schools in Jordan, Egypt and the USA. The school in the USA was most mentioned by the students. The teacher said that they had also had team-blogging interactions with this school.

One student said of this experience that 'first of all she was scared that they would be different from her but once she started talking to them she felt reassured as she realised that they were not really different from her'. The thing that she and the other students most remembered and valued was sharing their taste in films and music with the USA children and singing them a song. This made them feel that they were very similar in their tastes.

One student explained that the preparation for the VC had opened her eyes as to the variety of views within her own community. However, the aspect of the programme that she and the other two students interviewed found most challenging was discussing their community as they felt that their community was not to be criticised.

Both teachers saw the GG programme as an opportunity to teach in new ways and find new ways to get the students to interact. One difference was the extent to which the teacher in school 1 felt that her relationship with the students had changed. She gave an example of how, one time, the students challenged her decisions. They said that 'you have taught us to dialogue and listen to other points of view so you have to listen to us'. The teacher listened and changed her teaching plans.

Country 2: Italy

School 1 MDOM change +6 % Survey Completed in English.

School 2 MDOM change + 08 % Survey Completed in Italian

The most obvious difference between these two schools was that in school 1, the school that had a positive increase in MDOM scores, students and teacher all spoke good English and so could be interviewed directly whereas in school 2 the interviews had to be conducted via an interpreter. This might also have been why school 2 spoke only about their experience of VCs with another school in Italy whereas in school 1 the students and the teacher spoke about several international VCs including one with Ukraine and one with Jordan.

Clearly both schools had had opportunities for learning from the other. In school 2 one student described how his most memorable experience had been how a student in the VC had said that he was '*ashamed of the colour of his skin'*. This had shocked him and really made him think. However, there was a subtle difference in emphasis between the two schools. Both students and the teacher interviewed in school 2 put great stress on the value of the programme for increasing students' confidence and ability to speak to anyone. The teacher in school 2 was very interested in new pedagogy to improve dialogue. The same was true in school 1 but here the focus seemed to be more on dialogue for ethics and engagement in social issues.

In school 1 one of the students said that he most remembered their work on Malala. The teacher picked up on this and explained that she had shown the Malala video in response to a particular situation:

'After the Paris attacks in November - One of the kids came up with a comment that was quite racist – as if they all deserve to die – that caused a bit of an uproar in class so I decided to use the Malala video to start opening their eyes to different realities'.

She described her class as '*bullies*' but they had been coming on in '*leaps and bounds*'. She mentioned how the behaviour of one the chief bullies had become much more respectful towards a former victim of bullying: *'I have seen a change in their attitude – they are more respectful now of one another – not completely – there are still some bullying episodes – now more of an individual case rather than a group case'*.

This teacher seemed particularly enthusiastic and committed to the values of the GG programme. She said that for her it is: 'all about education more than teaching a specific programme to do an exam - it's an eye-opener for everybody – for me obviously – first of all – and the more I get experience out of the lessons – because the lessons are so rich – the more I am able to transmit enthusiasm to the kids and the more we can benefit from learning how to dialogue correctly – with more respect, honesty and trust in each other - - it is really, really, really a marvellous programme'. She added ' It is teaching me to be better at dialogue. Teachers should be good models and I am becoming a better model for the kids'.

She referred to dramatic changes in another class using the GG programme that is now working on human trafficking:
'I am really seeing them blossom to the point where they are taking on an active role in society which is incredible, remarkable. We've got 10 Syrian families which have just arrived in (local city) and they are working hands on with the Syrians and I am convinced that a year ago it wouldn't even have crossed their mind to do something like this - but having now developed - an openness and more empathy towards trafficking immigration and everything which is obviously also due to the face to faith programme they are doing something active – I would never have imagined that a year ago'

She described what had happened to the class that had taken to social action as – *'a miracle – which is exactly what they programme is all about*'.

Country 3: India

School 1 MDOM change +12%

School 2   MDOM change -1.0

Both schools expressed the positive value of the programme in promoting confidence and social values. Both schools had conducted several VCs with a range of countries including Pakistan. During this period there had been considerable tension reported in the Media between India and Pakistan making these dialogues highly significant.

Like the teacher in school 1 in Italy the teacher in school 1 in India laid stress not only on the impact of the programme on the confidence and communication skills of the students but also on social action. She told the story of one girl who: '*had a birthday and she donated clothes to the poor – before it was not like that – she used to only party with her friends – she has evolved – something has clicked – she wants to do something for society now*.' She went on to list a number of ways in which the actions of the students had changed in terms of care for the environment and action in their local community.

An interesting side-effect of the pedagogy was a change in the attitude of the students towards each reflected in spontaneous studying behaviour: ' *They used to work on their own but now they are working in groups – they share so many things on whatsapp'*.

Her description of the change she had seen echoed the change revealed by the discourse analysis of the pre and post team-blogging reflections:
'Earlier they used to look at other countries as the media is telling them as they used to read in the books or newspapers – now they are talking to them directly, now it has changed the way they look at them – they can relate to them now – they are friends to them and they see them as their own friends, their own buddies. Before it used to be "they are Pakistanis" but now they are their friends'.

The three students interviewed in school 1 were as enthusiastic about the impact of the programme as their teacher. The students described how their engagement in the programme had changed them.

Student 1: ' It has actually changed my way how I look at things. Now I look first at my perspective and then a completely new one because everything has so many aspects – it is a very complex process I guess – it has changed my perspective – now I look at things differently.'

Discussion of the school case studies

Each school is unique. There are many possible factors that might have impacted on the success of the GG programme. Our interviews with key teachers and selected students could not be certain of accessing all of these factors. This is especially true when the interviews were mediated by translators in some cases and disrupted by technical problems in others. Knowing in advance which school had increased on the MDOM and which had not leads to the possibility of being influenced by 'confirmation bias'. Nonetheless the interviews suggest several reasons why some schools apparently succeed with the programme and others do not. The successful schools in Italy and India had particularly remarkable and passionate teachers who were concerned not only with better teaching but with changing the world. Clearly they had communicated some of their passion to their students. Each teacher gave examples of how the programme had transferred out of the classroom into social action. The teacher in the more apparently successful school in Palestine was also remarkable in her willingness to embrace change in her teaching. She also gave an example of how the impact of the GG had transferred beyond its immediate context to change her relationship with the students in other lessons. It seems plausible that the character of the actual schools linked with the extent to which the children feel a rapport will be an important factor. Another possible factor impacting on the programme is the extent to which the focus is put on the pedagogy leading to improved communication skills and confidence in the students or, alternatively, on dialogue as a means to change people, change classroom culture and change society. All the teachers and students interviewed subscribed to both ideas but with differing degrees of emphasis. The schools with more emphasis on dialogue as an ethical end in itself, judging by the interviews, scored higher on the MDOM. The students interviewed, selected by the teachers as 'representative' of their class, described how the experience of dialogue had both made them more aware of the diversity within their own community and the similarities that they shared with students in the other schools. Stress was laid on moments of empathy, for example sharing music.

Analysis of team-blogging

In the GG programme there are two main options for dialogue between schools. One is video-conferencing and the other is 'team-blogging'. In team-blogging, groups of four schools from

different countries discuss world issues together. Before taking part in team-blogging, students were asked to reflect on how they 'feel about people from those countries, communities, cultures and faiths you expect to meet when team-blogging?' They were also asked to reflect on why they feel this way; 'write about things in your experience that have shaped your views'. Similar questions were posed after the team-blogging event. Quantitative data on how many blogs were written, read, and responded to, was also gathered.

1140 reflections were filled in in total by individual students from more than 100 different schools. These were labelled as either 'pre' blogging experience or 'post'. Matching pairs of pre and post reflections had been made by 45 individuals enabling us to explore changes in attitudes through changes in language use. Analysis of this data using a combination of discourse analysis and corpus linguistic statistical techniques showed clear patterns of change in the way that language was being used.

The keyword technique enables the comparison of two sets of texts (corpora) to see how similar or different they are. Log-likelihood is a statistical measure of how surprising it is to see patterns of language in one set of data in the context of the language use in another set of data. In this case we looked at the difference in word use in the 'post' data as compared to the 'pre' data. The log-likelihood measure tells us how likely that difference could have occurred by chance. A log-likelihood of 10.83, for example, translates as an event that is only likely to occur one time in a thousand by chance alone ($p < 0.001$) and a log-likelihood of 15.13 refers to a one in ten thousand chance ($p < 0.0001$) of being random. The differences in key word use that we display in tables 5 and 6 below are therefore all statistically significant which simply means that they almost certainly occurred as a result of the team-blogging experience rather than representing random changes (Dunning, 1993; Rayson and Garside, 2000).

We lemmatized the text data when comparing the post results for the 'how' question (outlined above) with the pre-results. . To lemmatize means to reduce words to their base form. For example, the verb 'to be' might appear in several different forms as 'is', 'was', 'am' or 'are' but when lemmatised all these forms are reduced to the single form 'be'. Once lemmatised the comparison of the pre-reflection and the post-reflection texts written in response to the question 'how do you feel about …' showed a clear pattern of development.

Frequency	Log-likelihood	Word

21	74.728	faith
18	43.085	country
40	33.939	different
19	29.138	view
35	25.581	culture
29	23.826	very
11	23.331	tradition
43	19.644	we
26	19.469	other
22	18.764	like
11	18.073	experience
18	14.763	good

Table 5: Difference in the post blog reflection for 'how' question

Table 5 shows the top twelve most significant changes in word use in the post data compared to the pre data with a word frequency greater than 10 out of a data set of 1923 words in the post data (very similar to the size of the pre-data set which was 2033 words). Exploring further, looking at these key words in context and then at the full texts, it is clear that several of these key terms expressed positive affect. 'Very' for example was collocated most often with 'interesting', 'good' and 'nice'. In the language of corpus linguistics, the use of 'very' shows positive semantic prosody. Words such as 'faith', 'culture' and 'community' reflected the content of the team-blogging exercise. What is perhaps most striking in this list is the appearance of the word 'we'. This draws attention to a shift in personal pronoun use. Personal pronoun use is often central to analyses of dialogicity and also to studies of identity change (Sanderson, 2008).

Pronoun	Pre frequency	As %	Post frequency	As %
I	122	6%	105	5.46%
We	32	1.6%	43	2.2%
They	45	2.2%	65	3.3%

Table 6 Change in pronoun use from pre to post reflection for 'how' question

Both the use of 'we' and 'they' increase significantly between the pre and the pot reflection while the use of 'I' declines. What is more interesting is the way in which the use of 'we' and 'they' changes.

Before the blogging experience 'we' refers most commonly to the home group as in the following two typical uses:

'when i heard from my teacher that we were going to team blog . I was very excited'

In addition 'we' is also sometimes used to refer to a very abstract notion of the unity of the human race:
'we all made from the same mud which is God create us from'.

After the team-blogging experience the way in which 'we' is used changes to refer to a much more concrete sense of shared identity:

'It was a wonderful experience. As i blogged and they commented on my blog, i found out that somehow we share similar beliefs and all of us wants to spend our life loving each other. Also i got to know that there are some common problems we face and its time we should find a solution to these problems and should stand up for each other.'

'We could easily find common ground and it was good to splash up my views and recive comments of what they think of my thoughts '.

At the same time the use of 'They' to refer to the other also changed. Before the team-blogging experience 'they' were clearly simply 'other'. The following statement is typical:

'I feel curious to know about the lifestyle they live , also the kind of problem they face in the society'

After the team-blogging experience the 'other' took on a much more concrete form and were seen as 'like us' perhaps even as part of an extended sense of 'us'.

'after the team blogging I feel that they are also like us . they also enjoy singing , dancing , act , ect'

'All of them where extremelly different. Each has their own opinion and worldview. Some of them differ from me and some are quite similar'

On qualitative examination the change in the use of pronouns to refer to self and other between the pre-team-blogging reflection and the post-team-blogging reflection indicates a shift in identity from a relatively closed sense of 'us' defined against an abstract sense of 'them' towards a more dialogic identity which can best be described as identification not with 'us' against 'them' but with the dialogue that unites encompasses the two terms.

Discussion and conclusions

This paper began with a theory of educational growth in the direction of dialogue as an end in itself and then illustrated what this might mean in practice and how it can be evaluated through an empirical evaluation of the impact of a particular programme promoting dialogue across cultural differences. This direction of growth is described as involving an 'ontological' dimension from monologism characterised by separate and closed identities to dialogism characterised by openness to otherness. The challenge addressed by this paper was how to measure such growth in a way that was both authentic to the phenomenon and rigorous for the policy-making potential readership. To do this a dialogic research methodology was put forward and partially implemented. This dialogic methodology based on Merleau-Ponty's notion of the 'chiasm' goes beyond existing accounts of dialogic methodology as improving knowledge construction through the inclusion of different voices to focus more specifically on the dynamic inter-relationship of 'outside' and 'inside' perspectives. In theory we hoped to show how the lived experience of participants in the programme fed into the development of objective and rigorous measures of the impact of the programme while at the same time these more quantitative measures were used to focus in on aspects of the lived experience of participants revealing how the programme worked when it did work. The ideal would be leading the reader into greater understanding of the programme through following the dynamic iteration of views from the outside and views from the inside. Practical constraints mean that the resultant combination of different methods was not as dialogic as was intended but nonetheless illustrates something of the potential of this dialogic methodological proposal.

The corpus-linguistics inspired discourse analysis of changes in the use of language in online reflections by young people both before and after team-blogging experiences of online dialogue with other schools showed clear evidence of changes in the way in which they identified themselves and others. These changes were in the direction of increased dialogic open-mindedness promoted by the GG programme. This method showed one way in which the inside perspective of reflections by individuals could be combined with the outside perspective of statistical rigour in describing a

general change. The changes in each individual's attitudes towards others and otherness were reflected in changes in the use of pronouns such as 'we' and 'they' that could be picked up by a general corpus-linguistics analysis of the difference between two corpora. At the same time that general difference helped the analysis focus in on the individual utterances that led to it. This illustration shows the potential of a dynamic circular dialogic interaction between inside and outside perspectives in which neither aspect is reduced to the other and yet there is no synthesis because it is the juxtaposition of inside and outside views that the reader is led to understand both the significance of the statistical changes (outside view) and the causal processes that led to those statistically significant changes (inside view).

The study as a whole tried to relate a robust large scale quantitative evaluation to interviews with participants in the programme illuminating the processes that lie behind the statistics. The results of the quantitative evaluation with an instrument reported more fully in the final report Doney and Wegerif 2017) suggested that the GG programme has a positive impact in developing dialogic open-mindedness. However, this overall impact was modest due to strong variations at school level. It is not surprising that schools will respond differently to the programme. Each school implements the programme in their own way and each school has their own local circumstances which will impact on the effectiveness of the programme. The great value of the quantitative MDOM scale that we developed and applied was in helping us to focus on those schools that responded to the programme in order to be able to learn more about the causal processes behind this. The case study interviews with successful schools suggest that the GG programme has the potential to have a transformative effect on teachers, on individual students and on whole classes but only under certain conditions. In particular success seemed to depend on the attitude of the teachers and forming a positive relationship with the schools that they interacted with via the internet. The interpretative analysis of the interviews confirmed the finding of the blogging-reflections analysis, that the key causal driver of change was empathy for others associated with becoming aware at the same time both of the diversity of their own community and the diversity of the others. In other words our evaluation was able to show increased empathy and understanding driven by dialogic switching of roles which involves taking on the perspectives of others within a dialogue.

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