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Applying the framework for culturally responsive teaching to explore the adaptations that teach first beginning teachers use to meet the needs of their pupils in school

Alison Hramiak

Abstract: Previous research has shown that beginning teachers are capable of adapting their practice to the needs of ethnically diverse pupils. This paper investigates the possibility that such teachers were developing their practice into what I have termed culturally adaptive teaching. A variety of methods were used to collect qualitative data that focused on the perspectives of teachers in schools across Yorkshire and Humberside, (UK) over the course of an academic year. The framework for culturally responsive teaching (CRT) was used as a lens through which to analyse the data collected. It enabled findings to emerge that took the framework beyond that of CRT, to one of culturally adaptive teaching. Teachers continually adapted their practice, in terms of cultural sensitivity, to better meet the needs of their pupils. If we can apply this framework and support beginning teachers to help them understand issues of cultural diversity in the classroom, we might be able to engender a real systematic change in teaching for the benefit of pupils.

Subjects: Classroom Practice; Continuing Professional Development; Multicultural Education; Teacher Training; Teaching & Learning

Keywords: culture; pedagogy; teacher education; adaptation

ABOUT THE AUTHOR
Alison Hramiak is a senior lecturer in Education at Sheffield Hallam University, working primarily with Trainee Teachers in the Teach First programme, where she is the Regional ICT Subject Lead for Yorkshire and Humberside. She also teaches on the masters and doctoral Courses at the university. Her research interests focus on the cultural adaptations of Teach First beginning teachers as they are placed in challenging schools that are often very different from anything they have experienced before. The research in this paper builds on previous work in this field both in the UK and in America, looking at ways to better prepare beginning teachers for the challenges they face in a multicultural environment, by exploring the adaptations in pedagogy made by teachers as they develop through the academic year—their first year of teaching. It also seeks ways to apply the research to a wider audience, such as other types of trainee teachers, and possibly other professions where placements are similarly challenging.

PUBLIC INTEREST STATEMENT
This research looks at the ways in which beginning teachers adapt their teaching for pupils of different ethnic origins and backgrounds. It was conducted to try to seek ways to improve teacher training, to provide more informed guidance for beginning teachers as they face challenges in schools that are very different from what they have experienced before. The study builds on previous research by the author, extending the work and exploring the development of beginning teachers through their first year of teaching, using surveys, focus groups, and interviews as data collection methods. A new form of teaching was proposed as a result of the findings: that of Culturally Adaptive Teaching. The study illustrated that participants were able to adapt their practice. It is hoped that this research will be of wider relevance to other teacher training routes, and also to other professions where students are placed in similarly culturally challenging circumstances.
1. Introduction
Within the UK, in today’s culturally diverse classrooms, I would argue that teaching tends towards the monocultural, using the English national curriculum, focusing on “Britishness” in subjects such as citizenship, independent of the ethnic diversity of the pupil population within a school. An approach is needed which develops a pedagogical framework for the multicultural teaching of pupils. Findings from previous research with beginning Teach First (TF) teachers (Hramiak, 2014) provided interesting insights into how beginning teachers were able to adapt their practice for their culturally diverse pupils. In this paper, I discuss how this research was extended to incorporate more schools, in a systematic attempt to test the previous results and to explore the issues in more detail.

In this paper, culture is taken as a broad term encompassing the social, religious, and ethnic backgrounds of the teachers and pupils involved in this study. It is descriptive and has no implications of value of any culture referred to Barrow and Woods (1988). Culture, in the sense used here, is multidimensional and dynamic, and influenced by many factors, including time, age, economics, context and social background to name a few. The situation is complex and diverse in UK schools, with evidence to suggest that some learners achieve less well than others, partly because of a social and cultural gap between teachers and pupils (Gay, 2000). There is thus a strong case for developing classroom approaches that take this into account, for approaches that encompass the notion of culturally responsive teaching (CRT) as purported by Gay and Ladson-Billings (Gay, 2000; Ladson-Billings, 2014).

Building on the notion of culturally relevant pedagogy (Ladson-Billings, 2014), evidence is presented to introduce the concept of culturally adaptive teaching. The purpose of this research then was to explore the strategies and adaptations deployed by these teachers throughout the academic year to overcome any difficulties that arose through cultural and social diversity in school.

The paper describes the background and context for the research, and the theoretical grounding that underpins it, detailing the framework for CRT used as a tool for analysis. The methods for data collection are described, and the findings presented to show how using the CRT framework as a tool for analysis lead to the proposed concept of culturally adaptive teaching. The research concludes that the participants were able to develop into culturally adaptive teachers, and ideas for future research are presented which will take this further forward.

2. Culturally responsive teaching
The research draws on the concept of CRT developed by Gay as one which “teaches to and through the strengths of ethnically diverse students”, and which uses the “cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning outcomes more relevant to and effective for them” (Gay, 2013, p.49). This is not a new concept arising, as it does, from concerns for racial and ethnic inequities in the 1970s. It recognises that not all schools are a homogeneous environment, and neither are the teachers and pupils in them. School culture and pupil culture do not always align (Gay, 2000, 2010). To avoid culture clashes, school and community must connect, and pupils’ backgrounds must be taken into account when considering their learning in class, allowing teachers to move away from the assumption that difference implies deficiency (Brown-Jeffy & Cooper, 2011). In the USA at least, it has been long known that there are links between pupil achievement and their ethnic identity and cultural background, and so having teachers who are able to offer pupils multicultural contribution, experiences and orientations is paramount for such pupils (Gay, 2000). There is no reason to expect the United Kingdom (UK) to be so very different in this respect, given the multicultural identity of the population. Applying the conceptual framework of CRT more widely, as was done in this study, allows the examination of any resulting issues through a CRT lens, irrespective of the ethnic composition of the school in which the issues arose. The basic framework of CRT has the following five characteristics:
It acknowledges the different cultural heritage of pupils as legacies that affect their learning and as valuable content within the curriculum.

(2) It bridges the gap between home and school, and between academic concepts and sociocultural realities.

(3) It deploys a variety of teaching and learning strategies.

(4) It encourages and instructs pupils to embrace and praise each other’s cultural heritages.

(5) It incorporates a range of multicultural information, resources, teaching and learning materials across all school subjects within the curriculum (Gay, 2000).

Although this work has moved on since 2000, (Gay, 2013) it was felt that this version of the framework was most suitable for the current study. Using this framework as a tool for analysis, the current research explored how far the TF trainees are able to adapt their teaching to respond to the multicultural or simply different culture(s) they experience in their schools. Data from the research will show how the characteristics of CRT are prevalent in the trainee teachers in this study, that is they are culturally responsive to the needs of their pupils. It also shows how this increases as they proceed through the first year of teaching. Paris, building on the work of Ladson-Billings (1995, 2014), proposes the term culturally sustaining pedagogy (that which seeks to sustain linguistic, literate and cultural pluralism as part of democratic schooling (Paris, 2012). Similarly, this research takes the idea of CRT, in the spirit of dynamic scholarship as purported by Ladson-Billings in her remix article for culturally relevant pedagogy (Ladson-Billings, 2014), and proposes the term culturally adaptive teaching (CAT)—teaching which continually adapts to the cultural needs of pupils—based on the evidence from this study.

Research in America by Saint-Hilaire (2014), based on experiences in primary education, is arguably somewhat critical of the ability of teachers to teach pupils from diverse backgrounds. It purports that teachers should get an understanding of their own culture before trying to teach others, (Saint-Hilaire, 2014). I would argue, however, that they may have already done so through their own education, and that this is evident in this study, as the data shows. Thus, participants were able to identify and respond to the cultural diversity they found in their pupils, and did not remain insensitive to their cultural background, adapting their pedagogy as they did so.

The practical foundations of CRT (Ladson-Billings, 1995) centre on the attitudes and expectations of teachers, the communication of culture in their classrooms, having a culturally broad curriculum and having teaching and learning strategies that encompass cultural differences. Previous work in this area suggested that not all of these criteria were met, and in particular, that the content of the current English school curriculum posed problems across all subjects for pupils unfamiliar with the references it relies on (Hramiak, 2014). This research, then, seeks to determine if such findings can be applied beyond the context of this research, and explores how these teachers adapt their practice independent of school circumstances.

3. The TF initiative

TF is one of a number of ways in which one can enter the teaching profession in England. It is an employment-based route for training teachers that aims to address educational disadvantage through the use of high-quality graduates (Blandford, 2008). It is a route that is based on Teach for America—a similar programme from which TF in England developed. The ethos of TF combines the expertise of business, schools, government and Higher Education Institutes (HEIs) to educate and develop teachers for challenging urban schools such as those involved in this research. TF, therefore, arguably responded to a need to encourage a different kind of graduate into teaching. TF is intended to address wider issues of poverty by improving outcomes for pupils in these challenging schools (Scherrer, 2014). Those who successfully complete the course meet the standards for Qualified Teacher Status and gain a master’s level certificate in education. They do this while being employed as unqualified teachers with a 75% timetable of teaching in school. TF targets people who would not otherwise have thought of teaching as a career, and are often broadly middle-class graduates from leading universities (Muijs,
Chapman, Collins, & Armstrong, 2010). It should be acknowledged, however, that TF trainees are also arguably culturally diverse as a group, and are not necessarily exclusively white middle-class graduates as might be assumed (Teachfirst, 2015). These teachers need to adopt their teaching to the cultural contexts of their pupils, who will arguably, consequently, learn from the cultural contexts of their teachers—one of the driving forces behind the TF mission (Teachfirst, 2015).

Following a six-week summer training programme at a university, TF trainees are assigned to and employed by a challenging school (a school where behavioural management might present difficulties, and often where aspiration and motivation are low amongst pupils) and are given the support of professional and subject mentors in school, along with professional and subject tutors in university. TF is intended to address wider issues of poverty by improving outcomes for pupils in these challenging schools (Scherrer, 2014). This is a demanding route into teaching, thus only those judged to be capable of success are taken on to the programme (Muijs et al., 2010).

The TF mission statement states that it should address educational disadvantage through the use of exceptional graduates, transformed into inspirational teachers (Blandford, 2008). The idea is that it combines the expertise of business, schools, government and Higher Education Institutes (HEIs) to educate and develop teachers for challenging urban schools such as those involved in this research. TF, therefore, arguably responded to a need to get a different kind of graduate into teaching. A “one size fits all” approach does not work when it comes to teacher preparation, (Hobson et al., 2008) and so it was introduced in part to try and attract more graduates with high-level degrees who might not normally consider teaching as a career. This type of teacher training programme is not uncommon in other parts of the world, particularly in America and Asia—but it has received mixed reviews (Mcconney, Price, & Woods-Mcconney, 2012; Sleeter, 2001). Indeed, some critics argue that this type of pathway into teaching can actually be counterproductive (Darling-Hammond, 2010). In Scotland, for example, research by Paterson (2014) has argued that social mobility and economic development cannot be realised by educational change alone (Paterson, 2014). This route was expanded to train 2,000 exceptional graduates with high academic ability as teachers by 2015/16 in further areas of the England (Gove, 2012).

TF might thus be seen as a tool through which challenging schools can be supported, however, that can only happen if the teachers are able to demonstrate an ability to respond to the cultural diversity of their pupils. The purpose of this study is to test that argument, and to determine if teacher training can be improved in this area.

4. Teacher training

Research that explores cultural differences in schools (for example, in ethnically and religiously diverse schools) is somewhat limited and some researchers argue that much of it has been descriptive, rather than explanatory, focusing on a detailed and accurate description of social and cultural processes in specific settings, (Hammerness & Matsko, 2013) with only a few entailing participant observation or action research methodologies (Young, 2010). As Gay argues, (Gay, 2000) culture is at the heart of everything we do in education, and so research in this area is crucial if we are to understand how it affects teaching on a day to day basis. Recent research using culturally relevant pedagogy revealed that both pre-service and in-service professional development for teachers did not adequately prepare them for teaching in diverse schools, and that they were unable to apply culturally relevant pedagogy to their practice (Young, 2010). In a literature review by Garcia et al., the need to prepare all teachers for culturally and linguistically diverse students was identified as vital to developing culturally responsive teachers, who would require the setting of both the school community in which they work, and the university in which they study, in order to achieve this aim (Garcia, Arias, Harris Murri, & Serna, 2010). Beginning teachers develop their identity over time as a process of socialisation, through an active process that involves both themselves and others around them. Without a sense of their own identity, teachers can hardly be expected to help their pupils develop theirs (Gay, 2000). This is arguably a dramatic cultural phase for such teachers, a phase of cultural initiation in their new school (Wilkins, Busher, Kakos, Mohamed, & Smith, 2012). Relatively
less research has addressed the consequences, as it were, of these situations, in terms of the achievements of the pupils, and their relations with their teachers (Rueda & Stillman, 2012). This research goes some way to addressing this gap, and builds on work that has previously been done in this field to investigate the influence of cultural identity on the development of trainee teachers and also to determine how we might better prepare such teachers for teaching (Au & Blake, 2003; Marx, 2011; Sleeter, 2001).

Previous research has also highlighted the need for better training on issues of diversity, noting that some teacher training courses devote only one or two hours to the subject, and that the tutors are faced with complex issues from trainees related to gender, faith, class and social status, which they are ill equipped to cope with. Indeed, in a study in the UK with secondary trainee teachers from a variety of school subjects, the university tutors themselves identified a need to provide space within their own teacher training courses to address these issues more fully (Mirza & Meetoo, 2012). In another study involving urban schools in Chicago, Hammerness and Matsko have also shown that learning about the features of school context during induction may be especially important for beginning teachers in urban contexts such as those used in this study (Hammerness & Matsko, 2013). Though limited in scope, this study also highlights the need for greater and larger scale research in this field.

Research in culturally diverse classrooms has also shown that culture is dynamic and changing. In his study on the professional development of in-service teachers in the US, Eun determined that the cultural resources represented by the pupils can actually help teachers to develop new understandings and build classroom practice, as they internalise their experiences in the classroom (Eun, 2011). Findings from other studies investigating cultural diversity in Australian schools in terms of lack of affiliation to “Britishness” also support this (Keddie, 2014), and show that teachers who differ in terms of cultural identity from their pupils often benefit from training that prepares them for being in a diverse community (Au & Blake, 2003). Research in secondary education in the US that explores community-based immersion experiences (where trainees experience time spent within the community in which they will be teaching) reports a powerful impact of the trainees on the community in which they are immersed, and reports also that the informal learning gained from their experiences is often as important as that gained through their formal education processes (Sleeter, 2001).

Irrespective of culture, education always has consequences in the later lives of those who undergo it (Bruner, 1996). Blandford’s (2008) study showed that pupils in London secondary schools benefited from the generation of new energy in the classroom, and from the new and varied cultural backgrounds that the TF trainees often bring with them, (Blandford, 2008) widening the perspectives of the pupils they teach. Thus, CRT is not necessarily a one-way process—pupils and teachers learn from each other in both classroom settings and beyond. When new teachers bring new and different cultures into the lives of young people, then it is possible that we may be increasing these consequences in a way that broadens the outlook of the teachers, and possibly challenges their own cultural assumptions. Of course, this cultural passage may be reciprocated, in that teachers would also benefit from the experience, even if it were only something as simple as learning new references to use in class. This type of two-way interchange between learner and teacher can arguably be aligned with the cultural synthesis ideas of Freire, in which the differing views support each other, and in which knowledge of each other’s culture is transformational and liberating (Freire, 1996). In his ideas on cultural synthesis, Freire talks of the undeniable support between the two different sides, as it were, and which I would argue was indicated in this research. Indeed, as this and other research has shown, teachers do experience growth in their levels of cultural sensitivity while teaching culturally diverse learners (Lastrapes & Negishi, 2011). That is, they adapt, and continue to do so, as they develop as teachers, they become culturally adaptive teachers.

It is important that as educational researchers, we do not shy away from research that centres on culture and all that it implies in terms of social background (Forsman & Hummelstedt-Djedou, 2014). Although we need to be mindful of stereotyping and oversimplifying what might be complex and less easily understood situations, particularly by outsiders (Milner, 2013), we need to attend to this
type of research if we are to address the inequity aligned to ethnicity and poverty arguably present in our schools. It is with this in mind that this study was done. The purpose of this research then was to explore the strategies and adaptations deployed by these teachers throughout the academic year to overcome any difficulties that arose through cultural and social diversity in school. Through the research, a new theoretical framework emerges, indicating that these teachers continually adapt their teaching. As Young concludes from her multi-method study in an elementary school in the US, pre-service teacher training was “woefully inadequate” (p. 258) in preparing teachers to apply culturally relevant pedagogy to their practice.

The adaptations devised by the teachers in order to relate better to their pupils were explored, along with the strategies they developed often opening up new doors for both themselves and their learners. Thus, the overarching research questions for the study were to address how the pedagogy of the trainee teachers changed over time as they developed a greater awareness of their pupils, and also if analysis of the data using the CRT framework could lead to the proposal of a new type of teaching, culturally adaptive teaching, evidenced by the data.

5. Methods
This research uses a multi-method, qualitative approach. The purpose of combining multiple methods was to achieve some triangulation of the data (Cohen, Manion, & Morrison, 2007) and that it would add rigour to any claims made from such data (Gorard, 2004). The case study approach was particularly suitable because of the specificity of the contexts, and by increasing the number of trainees (12) and schools (6) in the research, it also goes some way to addressing the acknowledged limitations of this approach based on size and comparison (Hammerness & Matsko, 2013).

The trainees in this research were selected on the basis of opportunity (Robson, 1993) at the start of the academic year and all were placed in challenging schools across Yorkshire and Humberside (the TF mission requires that only schools described as challenging by Ofsted are used to place trainees, schools with, for example, above-average special needs pupils, and which experience above-average behaviour management challenges (Reynolds, Hopkins, Potter, & Chapman, 2001). All the schools were assigned to me in my role as a TF tutor. All trainees who had been assigned to me as a tutor took part in the research. The group totalled 12, teaching subjects including Mathematics, Computer Science, English, Geography, History, French and Physics. They were all graduates with an age range of 21–28, six male and six female teachers, and all had graduated with at least an upper second-class degrees (two also had masters degrees) from university (all but one from leading universities). Details of the trainees and their schools are given in Table 1. Where ethnic background is indicated, this describes a school with pupils from a variety of non-white British backgrounds.

<table>
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<th>Table 1. Summary of trainees and schools used in the study</th>
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<tr>
<td><strong>School</strong></td>
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<td>S1 Urban 97% pupils of ethnic background</td>
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<td>S2 Urban 3% pupils of ethnic background</td>
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<td>S3 Urban 18% pupils of ethnic background</td>
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<td>S4 Urban 4% pupils of ethnic background</td>
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<td>S5 Urban 3% pupils of ethnic background</td>
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<td>S6 Urban 75% pupils of ethnic background</td>
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As an opportunity sample, there is only limited scope to generalise from this study, although the insights it offers are useful in a wider context for the training of teachers, and possibly other professions. The author/researcher was responsible for the trainees in the role of academic tutor. The relatively small sample size meant that in-depth context rich data could be obtained throughout the year. All trainees were informed at the start of the academic year about the nature of the research and invited to participate. All gave informed consent for, and participated in the research. Participant names have been changed to protect their identity, as have the names of the schools and any teachers associated with them. In terms of my own positionality, as their university tutor, I was the link between the university, the trainees, the school, and my role focused on supporting the trainees’ professional learning through their first year in the school, through a series of regular observations and visits to the school. Each participant completed three questionnaires, and participated in a focus group for the research. Throughout the research, I was mindful of possible ethical issues arising my dual role here, with the potential for some blurring of boundaries acknowledged between that of research and tutor as moderator/researcher. As such, I took great care to maintain a professional distance during the research to avoid bias or overfamiliarisation with participants.

Qualitative data were collected through a series of questionnaires with the trainees over the course of the year. The first questionnaire was distributed and collected during September (2013), and contained a mixture of open and closed questions. These questions were initially generic, covering a wide range of topics that were narrowed down in subsequent questionnaires to focus more directly on cultural aspects. This questionnaire concentrated on their views as they approached the academic year, how well prepared they felt, their main worries, how well supported they felt and what they hoped to achieve. In the second questionnaire, which was distributed and collected during December (2013), greater emphasis was put on the cultural aspects of the trainees in relation to their schools and the pupils in them, with a series of open and closed questions that explored the issues for the trainees and their strategies for coping in school. The final questionnaire was distributed and collected in June (2014) near the end of the academic year, with a series of open and closed questions that allowed the trainees to reflect on what they had achieved in school, and to describe how they had adapted their practice to the challenging situations in school with respect to cultural differences.

Focus groups were conducted at the end of the academic year with all trainees in their school or the university in an informal, private setting to investigate some of the issues brought to light in the questionnaires conducted throughout the year. This allowed for an in-depth gathering of data focusing on cultural issues and adaptations throughout their first year of teaching. These focus groups permitted the trainees to share and reflect on different viewpoints, developing their responses to issues they had previously only reflected on in private (Elton-Chalcraft, Hansen, & Twiselton, 2008). The main purpose of the focus groups were to explore as a group how practice had changed over time by this, the fourth point of data collection in the year. A total of three focus groups were held, each with at least two trainees in, but no more than six as a maximum. Where trainees were unable to attend a focus group, (two in total) they were interviewed on a 1:1 basis using the focus group questions. The discussions were recorded by audio device and transcribed by a professional experienced transcriber.

Semi-structured interviews were conducted with school mentors at the end of the academic year. Three school mentors were interviewed in total. All trainees were made aware that these interviews would take place. It was felt that semi-structured interviews would allow some freedom in the order of questions and in the amount of time and depth given to following up on responses (Robson, 1993). These focused on the school mentor’s views on the trainees in school, and the cultural challenges they had faced and overcome. The outcomes of the analyses of the survey data were used to inform the structure of the interview, allowing the interviewer the freedom to explore some of the cultural issues identified in the trainees’ survey responses.
The findings from the study are reported below in relation to the how the CRT framework was used as a tool for analysis.

6. Applying the framework as a tool for analysis
As indicated above, the basic framework of CRT has five characteristics of; acknowledging different cultural heritage of pupils as legacies that affect their learning and as valuable content, bridging gaps between home and school, academia and social realities, deploying various teaching and learning strategies, encouraging pupils to embrace different cultures, and incorporating, multicultural information, across the curriculum (Gay, 2000).

Using this as a basis for analysis, that is as a lens through which the data was interpreted, the results of the study are presented in terms of their positioning with respect to the theories associated with CRT through to CAT.

6.1. It acknowledges the different cultural heritage of pupils as legacies that affect their learning and as valuable content within the curriculum
Evidence of this can be found in the questionnaire returns. In the first questionnaire, for example, one participant (a languages teacher) commented that they:

[...] try to be sensitive and not make assumptions about [...] what their faith is or whether they have a traditional family unit. (P5, S1)

By the second questionnaire, the same participant commented on how they felt:

[... ] viewed as an outsider to the culture of the pupils in a way which possibly has a negative impact on my attempts to build positive relationships with them ..., (P5, S1)

However, evidence from the third questionnaire completed by this participant showed that they had adapted their practice as the year went on, acknowledging the different cultural heritage of their pupils. As they explained:

I have tried to reflect the culture of the pupils I was teaching – using examples from Muslim majority French – speaking countries such as Algeria in my lessons, for example, and trying to ensure that the names used in examples reflected this. (P5, S1)

This resonates with the cultural synthesis teachings of Freire (1996) the outcome of which leads to the organisation being served, in this case the school, and from this leads to freedom, in this case, the freedom afforded the pupils by education. Something which can be arguably achieved, even if all you do is open their eyes more to what is available for them.

In the focus group, this participant also cited how they had acknowledged the different cultural heritage of the pupils, particularly at times like Ramadan, when pupils were fasting, saying:

[...] you have to make allowances for the fact that they're not going to be as switched on when they're fasting, and they're also not getting enough sleep. (P5, S1)

While the pupils were fasting, this participant had reduced the content of the lessons, acknowledging that the pupils would not be able to get through as much as they normally did. This sensitivity towards the pupils was also noted by the school mentor in their interview, who said that the participants were:

[...] all respectful of the pupils and the pressures they are under, for example, at Ramadan and the associated health issues that come with it.
These examples show how the participants not only responded sensitively to the needs of their pupils, but also positively adapted their practice in such a way in order to continue to do so. They did not, as described in other research, “remain somehow insensitive to their students’ cultural background” (Saint-Hilaire, 2014). They not only responded to cultural differences between themselves and their pupils, and between their pupils and the curriculum, but also continued to adapt their teaching to maintain their responsiveness, to become culturally adaptive teachers.

6.2. It bridges the gap between home and school, and between academic concepts and sociocultural realities

One participant (a Computer Science teacher) was shocked by the difference between what they had experienced (as a child), and the experience of their pupils, saying that their biggest challenge would be getting pupils to want to learn and succeed, particularly because of how they were brought up:

[...] I went to a very small catholic school where everyone wanted to be the best academically and in extra-curricular activities so it was eye opening to meet my students. (P1, S5)

This resulted in the teacher bridging this gap by adapting their teaching practice to focus initially on behaviour management rather than stretching pupils. There is evidence to suggest that the participant viewed some of the cultural differences as being related to the lack of academic maturity of their pupils, commenting in the second questionnaire that:

[...] they are very immature with regard to respecting authority and in a sense knowing their place. (P1, S5)

This participant adapted their practice by responding to the neediness of pupils, which had been far greater than they had expected, in order to get them to participate in lessons, this neediness was something they found:

[...] had a massive impact on my teaching. I have found that without attention from me pupils will not participate in the lesson – this is challenging when five or so in class exhibit this behaviour. (P1, S5)

By the third questionnaire, the participant commented that they had had to: “metaphorically drag some students through their studies” during the year, and had adapted their practice to make the lessons more fun so that pupils enjoyed the subject more, bridging the gap between the academic and the realities of life by contextualising the work they had to do in class through the introduction of fun activities for pupils, so that they did not see their subject as: “boring from the outset” (P1, S5).

In the focus group, this participant felt that the gap they had perceived in terms of aspirations between them and their pupils—them not understanding why pupils did not want to go to university as they themselves had been brought up to aspire to—was actually an advantage, because as they said: “[...] I can open their eyes to more options”. (P1, S5) The participant had thus adapted their teaching to use this cultural gap to their advantage to show pupils what other options there were for them after school.

Despite the demonstrable heroic efforts of the teachers in this study to adapt their pedagogy for the pupils they are teaching, the fact that they have to do so, (in a very proactive and positive way), means that it is easy to perceive of a school system in which the goal is that of creating a monocultural and monolingual society based on White middle-class norms of language and cultural being (Paris, 2012). This is also supported by the findings from the previous study (Hramiak, 2014).

6.3. It deploys a variety of teaching and learning strategies

There are examples within the data of different strategies used by participants, for example, seating plans of boy/girl in schools with 97% ethnic minority pupils to encourage them to talk and work with
each other in class. There are also cultural discussions with pupils, examples and references for activities and resources in class that link to their cultural heritage/background, rather than that of their teacher, with participants getting pupils to discuss their own religious background, rather than that of the country they live in. In one school, (S2) the trainee spent time with pupils in an after-school club and competition focusing on robotics, getting pupils to make and compete with robots. In another, (S1) a trainee brought in Asian spices so that pupils could write about something familiar to them.

One participant, who was a languages teacher, commented in the first questionnaire that they were looking forward:

[…] to hearing pupils sing along to French songs and have German and French conversations using new vocabulary. (P1, S2)

By the second questionnaire, the same participant had tried to overcome what they saw as the cultural challenge of getting their pupils to understand the point of learning languages by making lessons:

[…] as engaging as possible. For example, in one of my most disengaged classes we frequently have competitions and find that these stimulate interest … (P1, S2)

In the third questionnaire, this participant spoke of introducing a competitive element straight away in classes: “[… so that they quickly become engaged and persuaded to work hard.”, believing as they did that “[… a particularly enthusiastic approach and frequent games and competitions can help break down the barriers between some learners and the new language” (P1, S2). This participant also felt at this point in the year that they were: “[…] now aware of the cultural difference in attitude between myself and a number of pupils and I will be prepared for this from the start”, (P1, S2) thus adapting their practice as they moved in to the new academic year.

This same languages teacher reported in the focus group that they had adapted their practice to “pretty much focus the whole lesson on competitions and games because I found more conventional teaching methods just don’t seem to work”. This adaptation enthused the pupils to learn in class by “almost disguising the fact that it’s language learning” (P1, S2).

The school mentor commented on both these participants in this school (S2) in terms of teaching and learning variety, saying that P2 (a maths teacher) had shifted the way they taught to make it more real life for pupils, and to: “[…] make it more practical which you don’t often see”, and that P1 (a languages teacher) was: “[…] not afraid to take other people’s resources and use them their own way and innovate with them – brave to do in front of their mentor and other experienced teachers in the department”. Thus they had adapted their teaching over time to align it with the cultural needs of their pupils by using a variety of teaching and learning strategies.

6.4. It encourages and instructs pupils to embrace and praise each other’s cultural heritages

There were some very telling comments in the data across all schools that spoke of how the participants had encouraged and instructed pupils to embrace and praise each other’s cultural heritages. However, this was not necessarily something they experienced from the start. As one participant (a science teacher) said in the first questionnaire when asked if they had identified any cultural/background differences between them and their pupils:

Muslim culture, women as subordinate, especially in male associated disciplines such as Physics. I will overcome this by addressing any uncouth remarks, and developing a rapport with pupils who hold this view, and showing them otherwise by my competence. (P1, S1)
By the second questionnaire, this same participant was starting to positively address misconceptions, adapting their practice to get pupils thinking more about other cultural heritages, commenting that:

I have seen a few misconceptions about other ethnicities and their beliefs. For example, I remember a conversation with a pupil who said that “you lot all think that Jesus ...”, by this she meant that “you lot” were all white skinned people, and that by having white skin this automatically meant that a person was a devout Christian. It provided me with an insight into her mindset. Therefore, it provided me with an opportunity to explain how people have different beliefs and that some have no faith. (P1, S1)

At the end of the academic year, in the third questionnaire, this same participant felt they had had to work harder as a young white British female to muster the respect of their (largely ethnic minority) pupils. Over the course of the year, this participant had adapted their practice to overcome initial issues around respect, ensuring that pupils embraced the cultural heritage of them as a teacher, and had done so:

[...] by ensuring that I am strict around matters of respect and fairness to ensure that I get the respect I am owed by all pupils and parents. (P1, S1)

In the focus group, this same participant had managed to adapt their practice using cultural differences as a “tool”, so that when introducing topics in science such as the big bang theory, or evolution, they were able to turn the disbeliefs of their pupils round saying to their pupils:

These are the theories, I’m not forcing these upon you, but let’s look at how a theory is formed, how do people collate evidence, and so I try to utilise it instead of going against that previous position. (P1, S1)

6.5. It incorporates a range of multicultural information, resources, teaching and learning materials across all school subjects within the curriculum

Evidence from the questionnaire data shows that across all subjects in all the schools, participants were using a range of multicultural teaching and learning resources in their lessons, as they adapted their practice through the course of the year. For example, one participant (an English teacher) found at the beginning (questionnaire one) that their pupils found it difficult to understand their accent, and assumed they knew the Queen. From this difficult starting point, the participant tackled race riots and other sensitive issues, sharing their opinions with the pupils who were:

[...] very aware that I might have different opinions to their family members, so love asking me interesting questions. So far, they’ve made a real effort to share their culture with me, and really enjoy it when I take an interest (for example, learning Urdu or asking them about Eid plans. (P3, S1)

By the second questionnaire, this participant had started running extra-curricular clubs for pupils in new areas that the school had not experienced before, such as one for Chinese language. In the third questionnaire, the participant had adapted their practice, making a: “[...] concerted effort to use resources that reflect the dominant culture of student body, as students are noticeably more engaged”, and also found that even keeping books related to the country of origin of their pupils was useful in their practice (P3, S1).

In the focus group at the end of the year, this participant commented on how they had adapted their practice to allow for religious issues such as low blood sugar in pupils at Ramadan, saying that asking their pupils about what they did during Ramadan, and allowing pupils to relax more in class during this time, “works really well to build up relationships” (P3, S1).
Participants had used “a range of multi-cultural information, resources, teaching and learning materials”, including the use of imagery through technology to give feedback in the classroom, creating fun ways in lessons using acrostics, Crime Scene Investigations in science, context setting scenarios involving play acting and Nerf guns, to name a few. As the school mentor commented in their interview when asked about the adaptations participants had made:

They think outside the box, for example P1 in science who had the kids drawing in the playground outside for a CSI lesson, and P5’s ideas and strategies where they are willing to take risks with pupils and the activities they do. A brave teacher.

The findings are arguably synchronous with the research of Ladson-Billings, who showed that culturally relevant pedagogy was being demonstrated by teachers who had specifically chosen to teach in low-income, ethnically diverse schools (Ladson-Billings, 1995). What this research demonstrated was that participants who had also specifically chosen to teach in challenging schools, positively, continually, adapted their teaching in order to better suit the need of their pupils. This research, therefore, deepens the framework, adding a new dimension to it. These teachers create bonds with their pupils, encouraging them to learn collaboratively, to learn from each other and to become more independent learners (Ladson-Billings, 1995).

7. Conclusions
The CRT framework provided me with a lens through which I was able to analyse the data from this research to evidence how participants not only demonstrated the characteristics of CRT, but took this further, and continually adapted their teaching to remain culturally sensitive as they developed their practice through the year. They exhibit the characteristics of what I have named culturally adaptive teaching (CAT). The participants adopted new pedagogies as they moved through the year, and did so intuitively, without guidance or support, as survival strategies that helped them improve their practice in the classroom. The examples of embracing multiculturalism evidenced here arguably reflect the right kind of multiculturalism as purported by Keddie in her study of teachers at a large English comprehensive school (2014), and as this research shows, it is the broadening of the concept of Britishness to incorporate multicultural teaching and learning activities that will allow us to make progress in schools such as the ones described here.

As a tool for data analysis, the CRT framework has relevance in other areas. This concept is arguably not restricted to teacher education, and has relevance to TF nationally, in terms of preparing trainees for school, and to initial teacher education nationally and internationally, where similar situations arise. It also has relevance to other types of professional learning, such as medicine and law, where students are placed in workplaces that are culturally and socially very different from anything they have experienced before.

This work thus builds on previous research by Ladson-Billings (1995) and supports her concept of revision that speaks to the changing and evolving needs of dynamic systems (Ladson-Billings, 2014). As others have done (Paris, 2012), I have used culturally relevant pedagogy as my starting block and built on this to achieve an end goal for me of culturally adaptive teaching, a concept which for me incorporates an appreciation that the cultural sensitivity exhibited by these teachers is continually adapted and moved forward as they themselves gain experience and become better teachers. This in turn may itself be a starting place for others in this field, who can then take the concept even further as others have done (Ladson-Billings, 2014).

Multiculturalism is a dynamic entity, constantly evolving for all concerned, and as such should be embedded into a teacher training programme, not just bolted on (Mirza & Meetoo, 2012). As Gay purports, (Gay, 2013) the underlying message here is for a need to change attitudes when it comes to teaching cultural, racial and ethnic diversity, and arguably, the participants in this study have surely shown how this can be done, and without specific training in this area. Similar research in this field in mathematics has also demonstrated positive outcomes when teachers adapt their teaching.
to the cultural needs of their pupils (Harding-Dekam, 2014). Conscious of the need to demonstrate fairness, consistency and to motivate their pupils, these teachers have shown that progress is possible through the development and adaptation of their pedagogy. This supports the findings of Hammerness and Matsko, who indicated that an approach to supporting new teachers that takes into account the specifics of their settings may help them understand their pupils better (Hammerness & Matsko, 2013), and with the research of Garcia et al. (2010), who found that there was a need to prepare all teachers for culturally and linguistically diverse students.

In the research conducted here, I have taken previously developed ideas and, using the data from the study, I have tried to synthesise what I feel is a step forward in this area of research by putting forward the notion of culturally adaptive teaching, which I feel was repeatedly exhibited by the participants in this study. If teachers are able to adapt their teaching without specific formalised guidance or support in this area, as was evidenced here, then think of what we might achieve if we applied this framework in teacher training if we deliberately supported them to understand these issues to systematically change their teaching for the better, indeed, if we trained them to perform culturally relevant teaching, (Saint-Hilaire, 2014) then we might be able to make real changes to initial teacher education.

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