

Decolonising the Secondary Initial Teacher Education Curriculum in a university in England: A Journey

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Abstract

Decolonising the curriculum has become a topical issue among academics, schools and organisations in the UK. The current situation with the lack of knowledge of how to decolonise the curriculum can raise a variety of challenges for all involved in teaching and learning. This article, therefore, draws attention to how secondary schools and teachers are engaging with decolonising the curriculum for the effective inclusion of everyone involved in teaching and learning. The article highlights suggested ways that we can decolonise the secondary ITE curriculum by drawing upon examples from the following subject areas science, maths and physical education. This provides opportunities for both trainee and experienced teachers to understand their roles in the process and be aware of the contributions of ethnically diverse people who have had major global input in developing education. It concludes by suggesting that a collective effort is required by all organisations involved in education to support the development of resources and assessments to address decolonisation, and question practices that do not promote it, be it consciously or unconsciously until a common ground is reached.

Keywords: decolonising, inclusion, curriculum, ethnic minority, initial teacher education

Introduction

The institution in which we work has a long history of initial teacher training. For over 100 years there has been teacher training at the university and the campus where we work is built upon colonialism. It is important to mention this as this hidden history encapsulates the Industrial Revolution and the British Empire in the World, and the exploitation of Chilean miners (Edmundson, 2011). Illustrating this relationship is the story of ‘Colonel’ John Thomas North who was a businessman, investor and exploiter of the nitrate mines in Chile and Africa in many of his projects. His multiple schemes and investments made him a fortune that led him to purchase the mansion upon which one of our campuses used to stand. After the death of ‘Colonel’ John Thomas North, the site was acquired by London County Council and this led to the establishment of a teacher training college. The current form of the university was shaped by the college merging with Thames Polytechnic. Through this merger, the university also became associated with Martina Bergman-Österberg, an advocate for suffrage and founder of the first physical education female instructors’ college in England (Bloomfield, 2005).

There are a plethora of British histories and identities that shape our world and the curriculum that we teach. The acknowledgement that there is a problem is an important step in recognising that colonialism and white supremacy contribute to the curriculum whether in universities or schools. For example, Brooks and Patel (2020) assert that the idea that Western white people are more intelligent than other civilisa-

tions provides the context for early scientific endeavours and they argue that this lives on today even though there is evidence of contributions from other ethnic groups.

There is a clear connection between teaching, curriculum and racial justice (Haynes, 2021). Therefore, designing a curriculum that is fit for purpose becomes a crucial element in challenging any form of systemic racism leading to racial discrimination, and we suggest that as academics, a better understanding of decolonisation and diversity would create opportunities to improve this situation. Arday et al (2020) define decolonisation as interrogating accepted and dominant knowledge through recognising the legacy of colonialism, the history of migration and examining the relationship between power and knowledge. In the context of global health, Opara (2021) stated that decolonisation is about critically assessing, contextualising and challenging viewpoints and assumptions. In education, this includes working to incorporate hidden histories otherwise known as viewpoints from the historically marginalised. To support our racially and ethnically minoritised (also known as the global majority) students in university and school, there is a moral imperative to ensure that we know our histories, address perspectives in the curriculum to foster belonging, support our students to look at the curriculum through different lenses and be capable of having confident conversations with students about race.

This article, which is crafted in a reflective mode, will explore decolonisation as the theoretical approach to race equality and as an introduction and focus on diversification as the practical element of decolonisation (Harper, 2020). It will highlight suggested ways that we can decolonise the secondary ITE curriculum to provide opportunities for our trainee teachers to understand their roles in the process.

A Series of (Unfortunate) Incidents

Our journey started with a study discussing primary pupils' perceptions of inventors (Magaji, Smith and Best, 2021). Many pupils identified inventors who were either science fiction characters such as Iron Man AKA Tony Stark, middle-aged men such as Elon Musk and James Dyson. There was a distinct lack of female, race and ethnically diverse representation. This highlighted the lack of knowledge of decolonising the curriculum owing to the way pupils were taught and this may equally apply to the broad area of STEM education as the pupils may not be aware of the contributions of ethnically diverse people who have had major global input in developing the economy. This notion of decolonisation and lack of awareness started the discussion with our colleagues about the perspectives of our students as soon-to-be teachers and how we could support them to overcome this process of decolonisation. Anecdotal evidence has shown that trainee teachers and colleagues alike have a myopic understanding of decolonising the curriculum let alone planning pedagogical activities to support students.

An incident in a recent lecture with the trainee teachers brought to the fore issues of racial literacy and consciousness. In this instance, the reclaiming of language was the instigator for an incident where some of our students did not respond compassionately to racially and ethnically minoritised students in the cohort. The lack of understanding of the use of specific language in addressing issues of racial disparity led to a traumatic situation for some students who may have deemed themselves as ethnically segregated or ignored by the actions of others. As a team, we assumed too much in terms of racial literacy, cultural capital and inclusivity knowledge of the trainees. However, we realised that more effort is required to promote inclusion among the trainees but to do this, we have to look at aspects of our curriculum to ensure that all voices have equal opportunity in teaching, learning and assessment requirements. The university had made a commitment to equality, diversity and inclusion as part of its strategy and continues to be transparent in the way students are supported and given the platform to develop themselves. However, this mantle needs to be steered by the

staff involved in working with the students. This was a perfect point to make a change and improve our training to prepare the trainees to support their pupils and enhance their knowledge of inclusion. By challenging curriculum knowledge, our trainees who become teachers may help to promote inclusion and engagement for their racially and ethnically minoritised students (Garces-Bacsal & Elhoweris, 2022). On this basis we will discuss the challenges we face and why we decide to decolonise the secondary ITE curriculum and suggest some steps that can be used to achieve this.

Actions for decolonising the secondary education curriculum

Sealey-Ruiz (2021) indicated that racially literate teachers develop curricula that have a responsibility for social justice to support pupils. As such teachers view their pupils as less likely as at-risk based on race or socio-economic status. The focus and aspiration going forward were to develop racially literate and racially conscious teachers. As part of decolonising the curriculum for our trainee teachers, a starting point was the areas identified by Nayeri and Rushton (2021) that include:

- Challenging misconceptions
- Identifying power inequalities
- Reconstructing the curriculum

Our changes started with incorporating racial literacy and cultural capital lectures and seminars into the curriculum to challenge misconceptions and add to their cultural and racial knowledge. Adding a section in the lesson planning template for trainees to consider decolonising their lessons supports the trainees in challenging misconceptions for their students and identifying power inequalities in their lessons. However, it is important to avoid tokenism and if the supporting structures for lesson planning are not put in place to support this, the lesson plan interventions may not have an impact on marginalised students. In addition, the National Curriculum is not a document that can be changed as it is compulsory for school education. However, as part of the initial teacher training curriculum, we created an opportunity to develop an intercultural model of the history and current contexts of our subject areas (Gandolfi, 2020). In essence, promoting such an ambitious curriculum has enabled us to continue to decolonise our curriculum, although, this is a work in progress. Therefore, as we move forward with the decolonisation agenda in our secondary education subjects, the focus is to ensure that our trainees become knowledgeable in this area to be able to support pupils and the secondary schools that they work for. This, in part, requires our trainees to be aware of this movement to decolonise our learning spaces and curricula, and partner with us in the co-design of the curricula. Secondary education comprises subject areas such as science, math and physical education and we have discussed below the steps that could be taken to decolonise each curriculum subject.

Decolonising the Science ITE Curriculum

Decolonising the science curriculum may involve a restructuring of how teachers consider the contents of lessons, how they teach and the makeup of students in their classrooms. Trainee teachers need to understand the meaning of the term ‘decolonising the curriculum’ as anecdotal evidence points to a lack of knowledge of this. An attempt to suggest the meaning of decolonising the curriculum highlights the lack of knowledge of students’ voices as part of curricula development and the influence of Western culture on education, especially with one group of people being dominant in STEM subjects. Science involves discussing inventions, technologies, theories and models but most of these focus on one particular group of people. Decolonising the curriculum is vital in the secondary science PGCE course as it helps trainee teachers to consider what they teach, the way they teach it and how they can promote students as part of the curriculum development process.

At the heart of decolonising the curriculum is the need for teachers to promote an inclusive curriculum that enables students to contribute to the curricula development process and encourage them to explore the contributions of other scientists who may have come from ethnic minority groups that have had inventions in STEM. The contributions of such scientists may have led to the development of society, yet their work has not been promoted or celebrated simply because one dominant voice has replaced the others. Therefore, if we must decolonise our curriculum, a drastic change has to take place so that all voices can be heard in the curricula development process in schools. For example, Magaji, Smith and Best's (2021) work on children as inventors encourage teachers to discuss with children what is it to be an inventor by highlighting examples of famous inventions by children and other groups of people who may not have been recognised by the world. Examples include Thomas Mensah, a Ghanaian, who developed fibre optics which is used in telecommunications and advancing nanotechnology. He produced the first laser-guided missile system used in the US military. He made it possible for global digital communication, yet he is not known even in his home country. Philip Emeagwali, a Nigerian, designed the program for the Connection Machine, the fastest computer developed, and Chandrasekhara Venkata Raman, an Indian scientist who won the 1930 Nobel Prize for Physics for his work on the scattering of light. Female black scientists and their inventions include Katherine Johnson, an American mathematician whose calculations of orbital mechanics were crucial in ensuring the success of U.S. crewed spaceflights, and Jewel Plummer Cobb, an American biologist who studies melanoma thus contributing to the field of cancer research. The privilege of those who conducted science and the context in which scientific discoveries or inventions have been made is something to explore and question with our trainees to help them explore the inequalities and contexts that contributed to scientific discoveries. Therefore, some suggested steps to decolonise the science curriculum have been discussed below however, we would recommend that you think carefully about what you intend to achieve in the process and how these steps could be useful to you.

Step 1: It is suggested that teachers of science should understand what the term 'decolonising the curriculum' means and how a curriculum can be structured to consider the various voices that should be heard. Are teachers' views Eurocentric and how can this be avoided? They also need to avoid any bias and prejudice that may be geared towards one type of race as opposed to the other. In this regard, coining the term 'decolonisation cleansing' may become useful as teachers need to uphold values that may help them to contribute to this process.

Step 2: Science teachers should talk about history, philosophy and cultural perspectives about science and how this has evolved. They can discuss inventions and inventors in the field of STEM, especially from different backgrounds. This may involve identifying the contributions of various scientists that cut across various races and ethnicities and not only those from the Western world. Galileo is referred to as the father of 'modern astronomy and physics', however, other scientists may have advanced his contributions to science but are not known or celebrated for their achievements just like the examples of inventors mentioned earlier.

Step 3: Review the curriculum, what you teach and how you teach it. What are the voices that are represented such as students from different ethnic groups, cultural awareness and how they learn, is the curricula contents dominated by one perspective such as the reading materials and activities? Ask students what type of content they would like to see in science lessons. Do the principles and big ideas of science education (See Harlen, 2010) address decolonisation, or rather how can teachers incorporate aspects of decolonisation in teaching the principles and big ideas of science education?

What are the science contents in the National Curriculum and what opportunities can teachers create in lessons to talk about decolonising the curriculum?

Step 4: Through lesson planning and curricular contents, teachers may identify aspects that lend themselves to decolonisation and explore this in their planning by using structured activities.

Step 5: Students could be assigned tasks to find information on scientists from their ethnic origin who may have contributed to the development of STEM and how the invention is useful to the world. This simple task will help students to appreciate what people who look like them have achieved. You may ask them to reflect on why such scientists have not been recognised for their achievements as well as not discussed in the science curriculum. Then ask them to consider what National Curriculum topic in science the invention fits in as this may allow them to look at the applications of science to the real world.

Step 6: Assessment is central to promoting students' progress in learning. How are students assessed in your lessons, do they have the choice to contribute to their assessments? In most cases, this is not possible as students complete a standardised summative assessment of what they have learned. But in decolonising the curriculum the assessment regime could be altered to consider the students' voices. This could be through project work that allows students to choose areas of interest and explore them through researching a problem, reviewing, and reflecting on its impact on their development. Teachers can design an assessment rubric to grade the outcome of the work as contributions to their final assessments.

Decolonising the Maths ITE Curriculum

Schools consist of teachers and students that come from diverse backgrounds and heritage. Teachers have a responsibility to not only teach their subject area but to also support the students in their care in becoming valued contributing members of society. Many students do not see the point of learning maths as it is not relevant to them.

Discussions with maths trainees about what 'decolonising the Maths curriculum' means to them and what this may look like in their classrooms have highlighted that this is a difficult concept to understand and address. The majority of trainees thought that maths was already decolonised due to the cultivation and creation of mathematics across different cultures and countries over thousands of years. Therefore, it is important that the maths curriculum sets out and identifies what 'decolonising the maths curriculum' means and what it may look like by making it clear where in the curriculum/lesson this has been addressed.

Trainees concurred that teaching the history of maths by introducing various maths and the reasons why specific mathematical topics were created across the ages and how they contributed to the maths we know today would be a good starting point. This is already embedded in the maths curriculum to some degree but could be enhanced by clearly identifying the impact these concepts have had on current inventions and discoveries many of which are used in everyday life. For example, the Indus Valley people of India invented the system of measuring. It needs to be careful that it is not biased to any specific race or culture but is inclusive of all races, philosophies and cultures across all genders. Trainees could be encouraged to research a mathematician and their discoveries and run a small presentation to the class where the resources will then be kept on Moodle for the class to share good practice.

Gardee & Brodie (2022) discuss how we could effect change in the maths curriculum by looking into the pedagogy of mathematics, addressing critical thinking and problem-solving skills and specifically how students identify with the teaching and learning of mathematics. The mathematics curriculum currently embeds the

‘Shanghai’ or ‘Mastery’ methods of teaching from South Asia and looks at how these methods could be incorporated into trainees' teaching practice to promote and aid pupils' understanding of the concepts taught. This could be extended to compare and analyse other countries' mathematical pedagogical styles and approaches including the assessment systems with our own. Therefore, starting to move away from a Eurocentric curriculum of teaching and learning.

Another idea is for trainees to research current successful mathematicians and the contributions they have made to the world ensuring that these mathematicians are from all races, genders and cultures in order to make it more relevant to the pupils that they teach. For example, Fern Hunt is known for her work in applied mathematics and mathematical biology. She is passionate about getting women and minority students to take up mathematics and other STEM subjects.

Incorporating social injustice into the maths curriculum is another area that could be embedded within the curriculum it would support trainee teachers to see how to use mathematics lessons to enable the pupils that they teach to understand social injustice and how they could view mathematics as a valuable tool to effect social change and address inequitable areas in the societies that they live in (Berry, Conway, Lawler & Staley, 2020). For example, using graphs and diagrams to show the distribution of wealth across the world and discussing areas such as power relations - who are affected and the impact this has on different societies and cultures or looking into climate change through graphs and diagrams and the impact this has on the environment around them.

Literacy is an area that is often overlooked in maths lessons but the use of correct vocabulary is very important as we have a high proportion of ethnic minority pupils and teachers in our schools, especially in inner-city schools and colleges. We need to encourage trainees to appreciate the need to use correct and relevant mathematical vocabulary in their lessons through modelling and feedback on assignments, lesson plans and micro-teaching that trainees undertake.

Decolonising the Physical Education ITE Curriculum

PE and school sport has the potential to bind, alienate or divide pupils from different communities and heritages in complex ways. As a teacher training provider, it is our responsibility to highlight cultural challenges around inclusiveness that trainee teachers might encounter when teaching and contributing to extracurricular activities when on placement, and how to address and overcome these through explicit discussion and deliberate practice. There are many historical and cultural reasons that schools adopt a Eurocentric curriculum where some sports and PE activities dominate, such as rugby, football, netball and hockey thus highlighting issues of equity and diversity. With only seven percent of postgraduate physical education trainees coming from a minority ethnic group (McBean, 2019) it is imperative that we self-reflect as professionals on how we address both the published and ‘hidden curriculum’. Failing to consider the voices of marginalised people in the profession, coupled with rolling out a somewhat anachronistic curriculum is not actively addressing ways of how we can decolonise the PE curriculum to promote equality and equity for all. One of our collective aims should be for teachers entering the profession to better reflect the young people that we teach- especially in urban areas.

As part of this, the physical education curriculum should actively incorporate games that are beyond the experience of traditional English school-based sports and activities. These can be integrated into the curriculum to develop the skills necessary for our trainees and pupils within non-traditional English sports and games. We will explore some in relation to the skills developed and their context to understand where these games have come from and explore their heritage. The ‘typical’ school games lesson during the winter months will often involve football, rugby, netball and basketball. The principles of play such as attacking space and defending space alongside

tactics and teamwork can all be found in Kabbadi, an Indian team sport that we have started to show trainees so that they can broaden the curriculum offered when entering their placements. Creating an opportunity to engage in a different game from a different culture helps to frame our sporting world beyond that of traditional ‘British’ or ‘colonial’ games.

Developing fundamental movement skills is critical in the early development of young children to enable them to develop competence and confidence in basic movements that can then link to actual sports. For example, throwing and catching link many games including netball, basketball, rugby, and goalkeeping in football. Diketo a traditional South-African game helps develop these fundamental skills in young children and links to both throwing, catching and coordination. Such basic games decolonise traditional primary schools activities such as rounders and kwik-cricket. Cricket itself is a sport heavy in links to the British empire and is still predominantly played by countries once ‘ruled’ by Britain (Cronin & Holt, 2017). By moving away from these traditionally ‘British’ activities and embracing those from other cultures who are part of our society we offer children a greater understanding of the richness of their peers’ heritage and background.

Questioning our current physical education curriculum, sports and games is a starting point as to why they are Eurocentric and Western. Our vision is to support our trainees in becoming global citizens by incorporating games and sports from other parts of the world. As such we are supporting them in developing a global perspective around physical education. In teaching our trainees games they may never have heard of and, in turn, teaching their pupils, we are making connections between our ‘traditional’ curriculum and other cultures. This is an evolving approach as we encourage our trainees to reflect on their own culture and background and the culture and background of the diverse group of pupils they teach.

Continuing to move forward

Racially conscious and literate teachers are an important addition to the teaching workforce. As safeguarding is a priority and responsibility of everyone, anti-racism and decolonising the curriculum is everyone’s responsibility. With this in mind, it is important to ensure that racially and ethnically minoritised teachers are not given the stereotypical responsibility to lead. We are all responsible.

As an initial teacher training provider, we aspire to develop teachers who are the thought leaders of the future to change the outcomes for ethnically and minoritised students. Difficult conversations cannot be shielded away if we are to enhance the growth of racial knowledge, consciousness and literacy. The knowledge and understanding, perception of the curriculum through different lenses by incorporating contributions from marginalised people and critiquing the dominant narrative are challenging. However, working towards a better and inclusive future that acknowledges the past and those that the knowledge was taken from and built upon, and the inequalities provides for a richer understanding of our world. That is why this article highlights the meaning of decolonising the curriculum and lists examples of contributions of ethnically marginalised people to create awareness of their impact on society. In further supporting teachers and educators, we suggested steps that can help with decolonising the curriculum and hope that it would help our trainees and other teachers who may be confused about how to address issues of decolonising the curriculum. Therefore, a collective effort is required by all organisations involved in education to support the development of resources, find the ‘hidden’ knowledge and make it ‘visible’, and continue to question practices that do not promote decolonisation, be it consciously or unconsciously until a common ground is reached.

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References

- Berry, R.Q, Conway, B.M, Lawler, B.R. & Staley, J.W. (2020) High School Mathematics Lessons: To explore, understand and respond to social injustice. Corwin Press, Inc.
- Bloomfield, A. (2005) Martina Bergman-Osterberg (1849–1915): creating a professional role for women in physical training, *History of Education*, 34(5), pp. 517-534.
- Brooks, E. L. & Patel, B. A. (2020) Decolonising science research education and practices. In Moncrieffe, M., Asare, Y. & Dunford, R. *Decolonising the Curriculum: Teaching and Learning about Race Equality*, issue 3, University of Brighton, pp. 14-16.
- Cronin, M. & Holt, R. (2017) *The imperial game in crisis: English cricket and decolonisation in British culture and the end of empire*. Manchester University Press.
- Edmundson, W. (2011) *The Nitrate King, A Biography of “Colonel” John Thomas North*, Palgrave MacMillan.
- Gandolfi, H. E. (2021). Decolonising the science curriculum in England: Bringing decolonial science and technology studies to secondary education, *The Curriculum Journal*, 32, pp. 510–532.
- Garces-Bacsal, R. M. & Elhoweris, H. (2022). Decentering Whiteness in Gifted Education: Addressing the Needs of the Gifted “Others” Through Social Justice and Culturally Responsive Pedagogies. *Gifted Child Quarterly*. 66(2), pp. 121-123.
- Gardee, A. & Brodie, K. (2022). A framework for learners’ mathematical identities: A critical realist perspective. *Didactica Mathematicae*. 43. 10.14708/dm.v43i1.7114.
- Harlen, W. (2010). Principles and big ideas of science education. Association for Science Education, Hartfields. Available at: www.ase.org.uk.
- Harper, J. (2020). The 'N' Word: Are Trainee Teachers prepared to teach about race and inequality?, *Decolonising the curriculum teaching and learning about race equality*, Issue 3, University of Brighton, pp. 5-6.
- Haynes, C. (2021). The Susceptibility of Teaching to White Interests: A theoretical explanation of the influence of racial consciousness on the behaviors of White faculty in the classroom. *Journal of Diversity in Higher Education*, 16(1), 97–108.
- Magaji A., Smith LD. & Best, M. (2021). Children as Inventors, in McDonald R and Gibson P (2021), *Inspiring Primary Learners, Insights and Inspiration Across the Curriculum*, Taylor and Francis, London.
- McBean, L. (2019). A Journey to understanding critical whiteness, *Journal of the Association for Physical education: PE Matters* 14(3) pp. 70-72.
- Opara IN (2021). It’s time to decolonize the decolonization movement. PLOS Blogs, Speaking of Medicine and Health; July 29, 2021. Accessed <https://speakingofmedicine.plos.org/2021/07/29/its-time-to-decolonize-the-decolonization-movement/>.