UCS HAMPSTEAD

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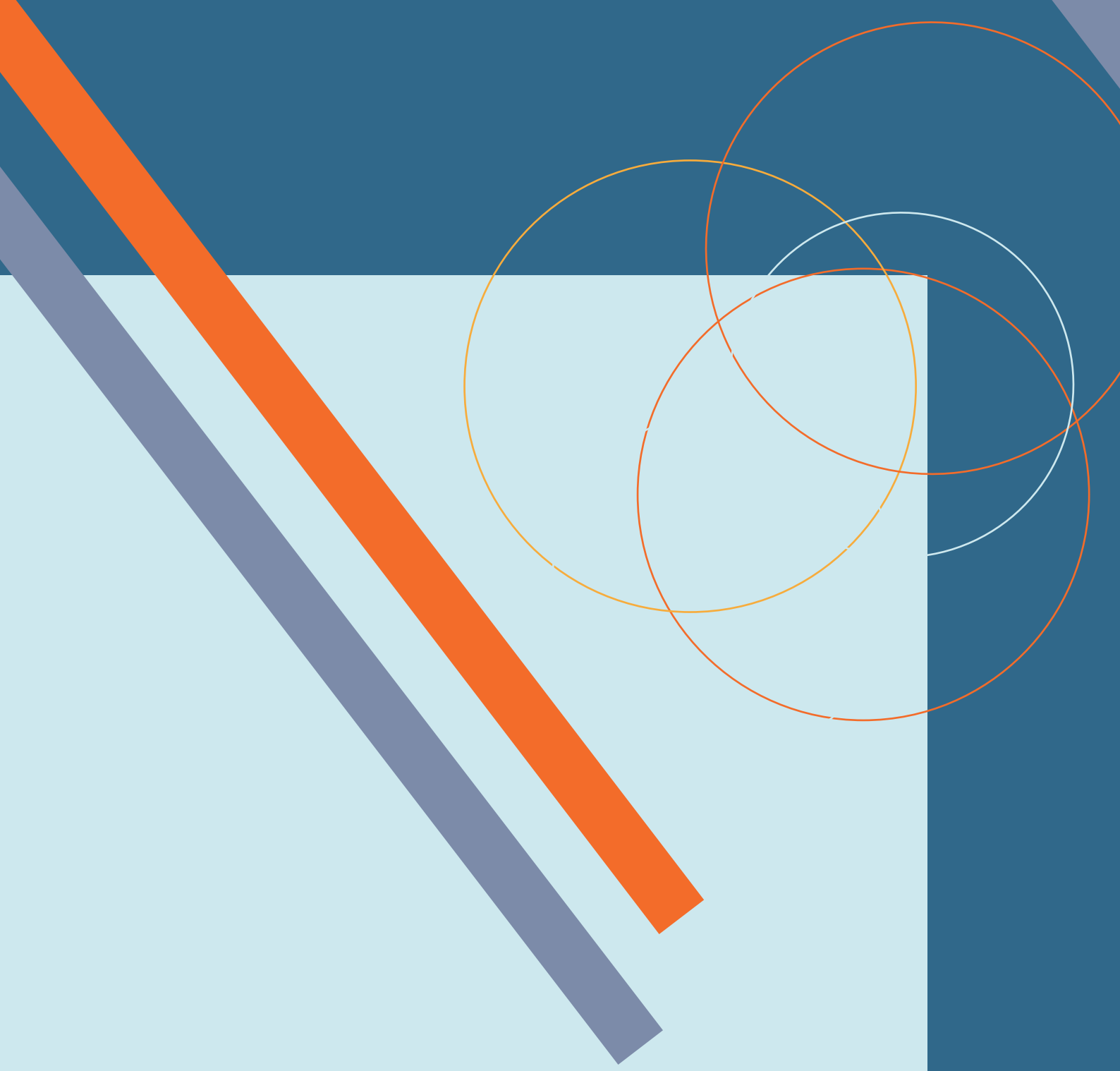

UCS Research Review

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Designed by Alice Hunt

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Editorial

Is artificial intelligence (AI) a technology that is going to revolutionise or destroy education? How can we support the decolonisation of British education through educational practices? Are our assumptions about well-established pedagogical practices supported by academic research in the field? Numerous significant challenges and inquiries in education have emerged due to a world that is becoming more intricate and affected by various crises. 2023 was a challenging year for most, with a bombardment of concerning news regarding the cost of living crisis, climate change, the mental health emergency, political and racial tensions, and disruptions in the future job market brought about by the fast pace of technological development. Unsurprisingly, academic research mirrors these pressing concerns.

The UCS Research Review brings together a selection of original research produced by the staff across the UCS Foundation. Topics such as the impact of AI, the need to recognise gender and cultural biases in traditional school curricula, as well as the impact education has on teachers' and pupils' wellbeing, seemed like compulsory themes alongside effective teaching and learning topics.

The edition is organised into three main sections, with the first one consisting of two longer pieces of writing on very distinct topics. The first article was written by Darragh Woods, a new member of the Geography department and a current master's student at Oxford University. Darragh presents an interesting reflection on teaching about Africa in secondary school in the context where decolonising the curriculum is one of the most talked-about topics in education. The second article is the result of my work as Head of Research at UCS. The Homework Review is the final product of a year-long investigation to present teachers with a summary of what research can teach us about best practices in learning beyond the classroom.

The original element in this edition is Dr. Paul Dawson's philosophy article written for the journal. His article stems from the buzz created in schools with the launch of ChatGPT at the end of 2022 and raises important reflections otherwise not possible in the traditional model of research in education. It is certainly a highlight of this edition and composes the second section of this journal.

The third and final section is dedicated to reviews of recently published books. The selection of books was guided by current major educational issues, such as the impact of technology on education (especially AI), mental health, teachers' workload and satisfaction, race, decolonisation of the curriculum, and, of course, effective pedagogy. Unfortunately, environmental concerns were missed this year but will certainly have some space in future editions. I would like to express my gratitude to Kirti Shah, Charlotte Hawes, Garry Wayland, Brad Schumacher, Leslie Farrago, and Michael Edwards for submitting their sharp and thorough reviews.

I would also like to thank the Editorial Board team, who do invaluable work in the final stages of reviewing the material submitted. In this edition, we counted on the support of Kumar Viswanathan, Darragh Woods, Michael Edwards, and Kirti Shah. We are always looking for keen reviewers each year, so please get in touch if you would like to get involved in academic research in the future.

The journal is certainly a very enjoyable process where I get to read first-hand the academic work produced by some of our colleagues in their individual paths of professional development. It is a way to discover the incredible amount of excellent work being produced behind the scenes, which undoubtedly makes the quality of education at UCS one of the best in the country. I do hope you enjoy the results of their efforts as much as I do.

Yours,

Adriane Martini

Adriane Martini is a Teacher of Psychology and Head of Research at UCS Senior Branch.

Original Research

An investigation into the misconceptions of Africa in Year 7 Geography

By Darragh Woods

Abstract

This empirical research explores how Year 7 Geography pupils understand the topic of 'Africa'. A brief review of the literature highlights a concerning lack of specific reference to Africa within the British Geography curriculum and an inaction to teach about 'race' (Puttick and Murrey, 2020b). The findings suggest that although some pupils display intricate knowledge of this vast continent, there is scope for Geography education to develop and refresh understandings of this topic at Key Stage (KS) 3.

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1. Introduction

This essay explores teaching the topic of Africa to a Key Stage (KS) 3 audience as a controversial issue. Africa can be studied extensively, for it contains a plethora of nuances that warrant further academic study (Grosz-Ngaté *et al*., 2014). 'Africa' is mentioned explicitly in the KS3 National Curriculum (Department for Education, 2013, pp.2), but is neglected within governmental guidance for KS4 and KS5 (Department for Education 2014a; 2014b). Despite this, the unit can initially be taught to a younger audience by way of introducing the 'human, physical and environmental conditions' of the continent (RGS, no date (a), n.p.), to various current case studies at GCSE and A-Level and a robust understanding of Africa by teachers is needed to comprehend the discipline's odyssey towards 'anti-racist school Geography' (Puttick and Murrey, 2020a, n.p.).

This issue is of particular interest to me as, throughout my previous placements, teachers within the department had discussed the surprising number of misconceptions pupils have of Africa. This, combined with the Geography's inaction to teach about 'race' and the lack of specific reference to Africa within British Geography curriculums (Puttick and Murrey, 2020b, pp.126), inspired me to investigate what pupils understand about the continent and how this knowledge can be developed. While Africa

itself is not controversial, the literature suggests that Geography can go further to explore the continent and surrounding themes, although this appears somewhat contested and not yet nationally actioned (Puttick and Murrey, 2020b). If 'a controversial issue is a matter about which individuals or groups disagree' (Roberts, 2013, pp.114), then in this way teaching about is somewhat controversial.

This essay comprises a qualitative, inductive investigation which leads to two taught lessons on Africa to correct identified misconceptions. The specific foci for classroom research are:

1. What do pupils already know about Africa?
2. Is Africa one, individual place?
3. How are stereotypes and maps misleading?

The first research question frames the investigation section, while the second and third were created to guide the investigation into prior learning, and then become the focus of teaching to address misconceptions. Building on existing research, conversations with experienced teachers and classroom discussion, this project corrects and develops pupils' prior learning on Africa, to highlight that Africa is not a homogenous place, breaking down problematic stereotypes and introducing critical map reading skills.

2. Literature review

Pupil Perspectives and Conceptualisation

It has been argued that certain topics are more difficult to understand than others (Leonard *et al*., 2014). Perhaps the findings of Leonard *et al*. (2014) are complicated by Abimbola and Baba's (1996) argument that certain educational resources contain misleading information, which can only add to the problem of pupil misconceptions within a given discipline. Within political debates, incorrect understandings have implications for how people draw conclusions (Flynn *et al*., 2017). This has understandably led to 'concern' over the reliability of the information that we receive (Lazer *et al*., 2018, pp.1094).

If teachers are pivotal in deconstructing resources for pupils as Abimbola and Baba (1996) suggest, then Geography teachers must be careful to select material that is reliable and addresses information that could be misinterpreted, particularly if the subject of a lesson is easily misunderstood, or in this case, the topic is already misunderstood by pupils. Within the classroom, one might argue that new teaching builds on prior understanding to create an enhanced appreciation of the subject studied at the end of every lesson. However, if there are questions over the reliability of the classroom resources, as Abimbola and Baba (1996) suggest, then one might be sceptical over the integrity of prior knowledge held by pupils in any given class.

In Geography, there exists considerable scope for a variety of arguments. For instance, there is often no single correct answer in essay assignments, if a pupil can sufficiently support their view with the aid of objective facts. In this vein, the highest attainting pupils want to understand the facts of the concepts around which the curriculum is based to get the most from their education. To this end, Dove (2016) suggests that pupils receive inaccurate understandings of concepts in physical Geography from a variety of sources, both inside and outside the classroom. Despite this, Dove (2016), following Larkin (2012), voices hope that pupils making mistakes are conducive to successful learning outcomes. Perhaps this can be achieved if teachers 'incorporate their pupils' ideas into their instruction in ways that build upon those ideas' and in this way, both correct and build up accurate knowledge (Larkin, 2012, pp.927).

One method by which to achieve this is baseline assessment at the beginning of a topic. Minton (2014) employs this method when teaching about the topic of immigration, namely by employing a survey and group discussion to uncover the prior knowledge pupils had on the subject. Using these qualitative research methods allows

Minton (2014) to hear directly from pupils—giving pupils a voice before teaching a new topic—which will inform subsequent teaching. Although a survey is an informal use of baseline assessment in practice it allows teachers, such as Minton (2014), to easily identify potential misconceptions pupils hold which can be the target of teaching. The next section will show how I used a similar strategy to enable student voices to be heard before teaching and to identify misconceptions that needed to be addressed. In addition, this approach also allows teachers to recognise 'positive views', or acceptable knowledge and beliefs, which may require less teaching attention if held by enough pupils in the class (Minton, 2014, pp.109).

3. Investigation: methods and results

The Investigation into Pupil Perspectives

The first stage of this project was to understand what knowledge pupils had of Africa before teaching. One Year 7 class was selected as the primary class to deliver these lessons to, as the scheme of work for this age group already included a topic on Africa at an appropriate stage in the academic year. In effect, this means that the 'rights of individuals' to a geographical education of the continent of Africa were prioritised at every stage over the 'benefits of [this] research', following the British Educational Research Association (BERA, 2018, pp.20) guidance methodically. In addition to this, the Year 7 scheme of work at my placement school on this topic was incomplete at the time of writing. This resulted in teachers within the department encouraging me to share the resources made for this report to help reduce the gaps in teaching material, and much of the material presented in the fifth section was also used by more experienced teachers. The decision to conduct this research around a topic which was already an integral component of the Year 7 curriculum means that there were no 'excessive demands' made of pupils, as the work which was set would have been set anyway: this means that both the investigation of pupil perspectives and the lessons which followed unquestionably complied with BERA (2018, pp.19) guidelines.

Following this notion, the investigation into pupil perspectives of Africa was primarily centred around a questionnaire (see Appendix A) which was administered as a 'Starter' during the investigation session. The rationale for using a questionnaire was to allow me to gauge the understanding of individual pupils via a silent starter. While the questions were not designed to catch pupils out, it was created—among other things—to allow pupils to privately note three words that came to mind when they thought about Africa and to judge five statements as true or false, with only one of the statements (statement 5(b)) being accurate.

Inspired by Minton's (2014) use of surveys, the investigation used this survey as a vehicle to create class discussion, whereby pupils who wished to share their ideas were enabled to do so in a safe environment. This was to enable me to understand the views the pupils already held of Africa. However, I also wanted to explore what concepts pupils had heard about Africa, regardless of whether they agreed with these. The reason behind this was to illuminate how Africa has been represented to this age group so that the following lessons could break down and correct incorrect archetypes while reinforcing correct ideas. To achieve this end, the investigation session includes an activity that asks pupils to note in their books some stereotypes which they had heard regarding Africa, and if possible, where they had heard these which I later reviewed (see Appendices B and C). Kármán and Márföldi (2021, pp.461) argue that 'research has shown that stereotypes [of Africa] can be observed in' pupils of a range of ages within the Hungarian education system. Following this, as the next section will show, many similarly problematic stereotypes emerged from the questionnaire or through the stereotype activity.

The final stage of the investigation into pupil

perspectives involved asking pupils to compare the size of one nation in Africa to a series of five non-African nations, in terms of both area and population size (see Appendices B and C). Kármán and Márföldi (2021, pp.455) reflect that 'geographical features' of Africa are an example of a notion which are both 'familiar to children' and potentially 'based on stereotypes', so it seemed logical to explore the perspectives pupils had on both the relative physical size and population of an African country. Therefore, the questionnaire aimed to uncover what pupils already knew about Africa, while the comparison activity attempted to highlight misconceptions about the size of the continent and the stereotypes activity enabled illumination of other ideas pupils had heard about Africa.

Investigation Findings

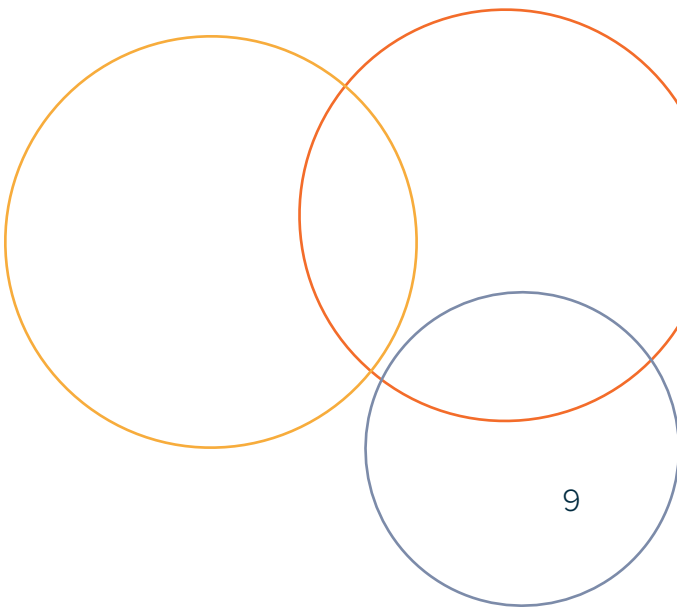
As the investigation into pupil perspectives was conducted via three main methods (questionnaire, stereotype recall and size comparison questioning), the respective findings are presented under these three titles. This enables a clear and comprehensive review of the mis- and pre-conceptions held by this selected Year 7 group, with links made to relevant literature.

Questionnaire: identifying general misconceptions

Composed of six main sections, the questionnaire highlighted several problematic understandings of Africa with only a small number of pupils displaying an acceptable knowledge of the continent. Section 2 and 5 (see Appendix A: writing three words which came to mind when thinking about Africa and a true/false exercise, respectively) yielded the highest-level insights into the quality of pupil perspectives on a large scale. As a way of visually representing results from section 2, I asked pupils to work in pairs to discuss the three words they had independently produced, and together share one of these words with the class which were written on the board. As Figure 1 shows, while there were some encouraging ideas—for instance, 'cultural', 'desert biome', and 'continent'—these are surrounded by words which are not accurate descriptions of Africa—for example, 'poverty', 'small' and 'tribes'.

Indeed, Africa is the 'second largest continent', with an 'enormous wealth of mineral resources' that gives it the potential to develop as a continent (McMaster *et al*., 2021, n.p.). The findings from this stage of the investigation highlight how these truths were not recognised by all pupils in the class. In reality, the feedback of words such as 'poverty', 'small' and 'tribes' directly contravene some geographical facts of Africa, reported by McMaster *et al*. (2021) and others. In contrast, these thoughts indicate a limited, singular and problematic conceptualisation of the continent that requires correcting.

Similarly, the fifth section of the questionnaire (see Figure 2) revealed that very few pupils could recognise that four of the statements were false and only one was true. Across this section, no statement was correctly identified by all the pupils who handed their sheet in at the end of the lesson. Assigning one mark to each statement, while approximately 17.4% of pupils scored 100% on this section, the modal score was only 20% and the mean was 32.5% of all sheets collected. These 'marks' were never given to the pupils—this data is presented here for illustrative purposes only.



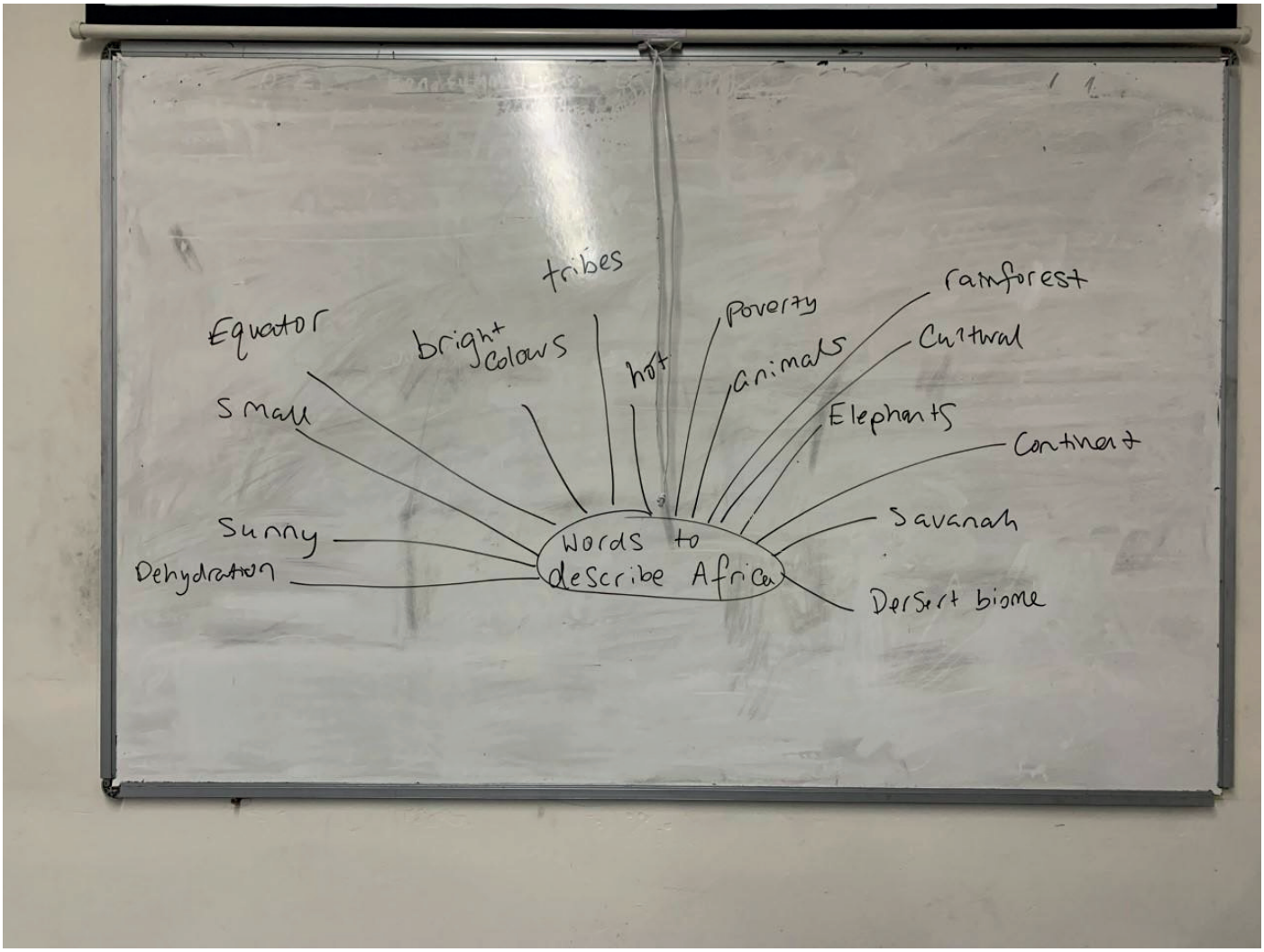


Figure 1: Words to describe Africa. Image source: Author.

5. True or false:
   a. The map shows one country False
   b. There are lots of resources within the place shown on the map False
   c. The map shows a place which is entirely poor True
   d. The map shows a place has one single language False
   e. The map shows a place which has one single culture False

Figure 2: Anonymised example of a student's response to Section 5 which scored 60%. Image source: Author.

As shown in Figure 2, statements (a) and (b) relate to aspects of the physical Geography of Africa, while statements (c) to (e) concern aspects of Africa's rich human Geography. With the findings presented above, there is room for improvement across both physical and human geographical understandings of Africa which is addressed in the subsequent lessons. Incorrect perceptions of Africa are not new: Kitchen (1982) illuminated common human misunderstandings of the continent, while similar inaccuracies relating to physical Geography are uncomplicated to document (Nelson *et al*., 1992). Critically, where research on such misconceptions exists it is not recent—and while the ideas presented may have yet to expire—more research could be undertaken to clarify the misconceptions surrounding Africa in the present day, and specifically within a UK secondary school context. Nonetheless, the collective misconceptions illuminated by the findings above produce great scope for corrective teaching which is presented in 'The Lessons' section below.

Stereotype recall

The stereotype recall exercise was predominantly conducted via a 'think, pair, share' and discussion activity. This allowed pupils to reflect on stereotypes that they had encountered about Africa, but also to create some distance between themselves and problematic archetypes. After clarifying what a stereotype was as a group, pupils produced a variety of ideas derived from a diverse range of sources such as the media, fiction books and popular culture.

The findings from this stage of the investigation highlighted the plethora of incorrect stereotypes which pupils had encountered. Figure 3 shows an example of responses elicited at this stage of the investigation. To interpret these results, I listened to the various stereotypes which pupils had discussed and reviewed those which had been written down. While the Oxford English Dictionary (2021, n.p.) defines 'stereotype' as 'a preconceived and oversimplified idea of the characteristics which typify a person, situation, etc.', and I allowed pupils to distance themselves from the archetypes that they had heard, the proliferation of negative and problematic ideas suggested that pupils had less experience with—and confidence in—the positive and sophisticated views of Africa.

'they don't get clean water'

'it is a poor country'

'people poaching animals'

'it is a poor, hot continent with not much water'

'a bad habitat to live in'

'I think it's okay, but some countries are really poor'

Figure 3: Sample of anonymised stereotypes of Africa that pupils had encountered. Image source: Author.

Unsurprisingly, Figure 3 highlights some geographical inaccuracies (for instance, referring to Africa as a 'country') which will be covered in the next section. More interestingly, many pupils reflected on stereotypes that called Africa ubiquitously 'poor'. Indeed, some areas of Africa do experience poverty, but this is not a homogenous issue across the continent, or even across individual countries. Acemoglu and Robinson (2010) explore the reasons why some areas of Africa suffer financial difficulties, reflecting that the answer is not a simple, linear explanation. In contrast, 'Africa is poor today because it has experienced a long vicious cycle of the development of political and economic institutions', highlighting that Acemoglu and Robinson (2010, pp.46) believe that Africa's economic situation is far more intricate than most recognise. While it is outside the scope of this essay to review this claim, Acemoglu and Robinson's (2010) findings suggest that

stereotypes that call Africa homogenously 'poor' is a grossly unrefined view. Indeed, education literature has traditionally overlooked Africa (Bentrovato and Wassermann, 2021), seemingly corroborating Acemoglu and Robinson's (2010) similar findings which shed light on Africa's previous misunderstood economic situation. Nonetheless, these findings are based on an investigation with Year 7 pupils as the subjects. With this context in mind, it is clear that the albeit simplistic stereotypes brought to light above require corrective teaching, and based on the available literature, such uninformed views of the continent do not appear uncommon.

Size comparison questioning

This final stage of the investigation uncovered a general inability to recognise the relative population and physical size of African countries compared to European nations. In the first section, pupils were asked to compare the physical size of the Democratic Republic of the Congo (DRC), to the UK, Greenland, France, Germany, and Sweden, while a world map was shown on the board (see Appendix B). This was a fast-paced activity, with pupils asked to stand if they thought the DRC was the larger country and remain seated if they thought the non-African region was larger. Due to the nature of this activity, there is no exact data to illustrate the percentage of pupils who were correct for each comparison. However, the key finding is that well over 50% incorrectly identified the non-African nation as larger, with all but one—or >95% of the class—incorrectly identifying Greenland as larger than the DRC. These findings highlight that pupils lacked an appreciation of the relative physical size of Africa, with most always incorrectly identifying countries closer to home as larger than an equatorial African nation.

The second part of this section of the investigation involved asking pupils whether the DRC had a larger population than this same group of five nations, and to note down their answers. After review, it was clear that pupils had a marginally better understanding of this with 54% of answers being correct overall. Figure 4 shows the breakdown of answers per question. While the results appear more encouraging than the findings for the physical size comparison, a large proportion of pupils were incorrect (or did not attempt) each question, with the lowest-performing question being the comparison of the DRC and Germany, where only 37.5% of pupils answered correctly. For clarity, the correct answer to each question is the DRC. This means that despite some encouraging results, this class require further teaching on the relative physical and population size of countries within Africa.

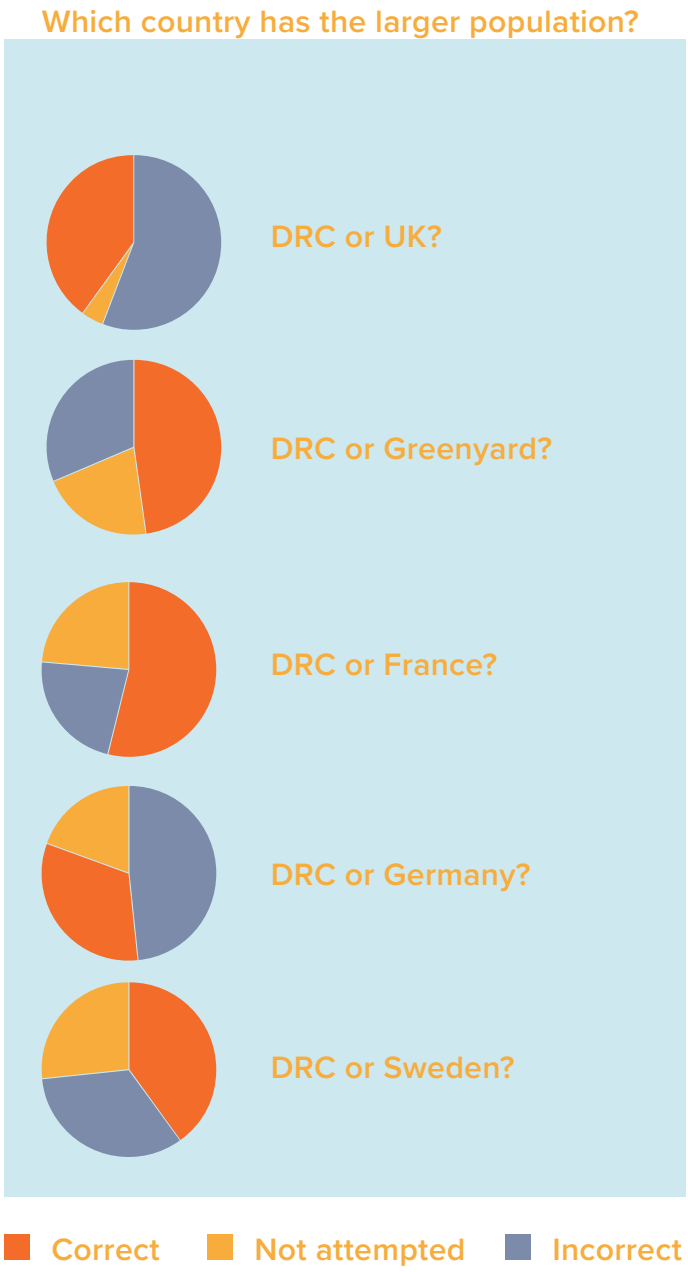


Figure 4: Pie charts to show the breakdown of student answers for each question. Image source: Author.

Despite the discouraging findings, these results are largely unsurprising. Schommer (2020, pp.231) found that even university pupils encounter 'difficulty' when 'assessing the size of individual countries and continents'. Relating this to Year 7 teaching, it is expected that pupils would struggle to correctly identify the relative size of physical and population of countries based on Schommer's (2020) findings. The next section will address how these misconceptions were subsequently corrected.

The Lessons

Two lessons were tailored to correct the misconceptions above. However, these lessons feed into an 11-lesson scheme of work on the topic of Africa which runs for the first half term of the Spring Term. This section summarises how these initial two lessons intricately addressed the misunderstandings identified above.

Lesson 1: What is Africa actually like (Part 1)?

This lesson set out to give pupils an appreciation of how diverse Africa is and how stereotypes are not always true (see Appendices D and E). This began with the lesson starter, which asked pupils to identify the location of five impressive photographs – all taken in Africa. This was to get the pupils to think about the continent as rich in opportunities – not a homogenous 'poor' place, with 'no clean water'. The first activity builds on this idea, teaching about the many different ethnicities and the '54 countries' within Africa (United Nations, 2021, n.p.). This section of the lesson broke down the misconceptions that Africa was one 'country' as identified as a misconception in the investigation above, with teaching (see Appendix D) accompanied by a worksheet (see Appendix F) to check student understanding. The worksheet acted as an activity to consolidate learning and the associated feedback created an assessment for learning (AfL) opportunity, to ensure pupils had understood that Africa was a place comprised of many different peoples, cultures, and countries.

The second activity aimed to add depth to the lesson, by presenting a double-sided page of facts to pupils (see Appendix G). The pupils were then asked to label these as surprising, or not surprising with associated differentiated tasks available (see Appendix D). Healey (2012, pp.253) advocates for 'the potential for teaching controversial subjects in Geography through debate'. While Healey's (2012, pp.239) arguments are particularly relevant to older pupils and are centred on 'a debate about whether asylum seekers should be allowed to work in the UK', I argue that the principles of this notion remain applicable to Year 7 teaching. While this activity did not lead to the more rigorous debates Healey (2012) points to, it did enable pupils to disagree over whether facts were surprising or not, allowing for thorough engagement with the content. In a world suffering from 'widespread concern' over 'misinformation on social media' and the resulting implications for 'societies' (Allcott *et al*., 2019, pp.1), pupils appeared content to have access to a series of objective facts surrounding the continent, and time to digest these. In terms of pupil conceptualisation, as I checked and edited the facts before teaching, the concerns of Abimbola and Baba (1996) are ameliorated as the resources used were up-to-date and accurate the time to teaching.

While there are more effective ways to ensure pupils retain information, the purpose of the facts activity was to elicit discussion and provide a foundation for the third activity. This final activity involved pupils writing a paragraph in their books to answer the question 'Is Africa a single place?' in full sentences with the help of sentence starters (see Appendix D). This section was included as it was a required component of the department's scheme of work, but also as a structured AfL opportunity. After a short discussion in pairs, pupils wrote their responses to this question in silence, which enabled the consolidation of geographical knowledge which had been learned within the lesson. While there are a plethora of ways the topic of Africa can be taught (see RGS, no date (b)), this third activity enabled pupils to discuss opinions, then form

their own and justify their view. Once pupils were finished, some were randomly selected to share their answers with the class. As most answers illustrated a more sophisticated understanding of the continent, it was apparent that the session had met the objectives set out in the lesson plan (see Appendix E).

Lesson 2: What is Africa actually like (Part 2)?

The second lesson (see Appendix H) builds upon the first, aiming to further deconstruct stereotypes that arose in the investigation and clarify the relative size of Africa (see Appendix I). The starter involved pupils locating the places introduced in the previous session on a labelled map of the continent. The reason for this was to 'enrich their [the pupils'] locational knowledge', as advocated by the Department for Education (2013, pp.2).

The first activity was an information carousel which afforded pupils an accessible way to complete a worksheet (see Appendix J) with a series of statements about Africa. Taking inspiration from online resources suggested by the department, this worksheet enables pupils to apply their learning from the previous lesson—together with the information on the carousel in front of them—to identify selected stereotypes of Africa as either 'true' or 'false', together with an explanation of their choice and correction of false statements. On reviewing this activity in class, most pupils were encouragingly able to identify most false statements and correct these, using the information available to them. Relating this to conceptualisation, this approach to adapting teaching based on the investigation—placing 'student misconceptions in a light that presents them… as resources for learning' (Larkin, 2012, pp.956)—proved fruitful, as pupils were able to identify and correct false stereotypes post-teaching: this was not possible before teaching.

The second and third activities aimed to highlight the relative size of Africa, by teaching about how different maps are constructed. While I had planned to show a video in the lesson to explain this concept, slides nine and ten were skipped because of class teacher feedback and time constraints. Instead, I talked through the differences in map projections while allowing discussion and questions. This was consolidated by the pupils answering the question 'How are maps misleading?' in their books, regarding the projections taught within the lesson and the help of a sentence starter displayed on the board (see Appendix H). After randomly reviewing answers to this question to check learning, the final activity allowed pupils to discuss, considering this new knowledge, how large Africa is. These discussions were enriched by a graphic shown on the board and the use of The True Size (2022) website, to enable an appreciation of the scale of the continent. These two activities attempted to introduce this group of pupils to identify 'distortions of… areas… and landmass shapes in global-scale map projections', particularly concerning Africa, as an elementary exercise in 'critical map reading' (Battersby and Kessler, 2012, pp.93). While this lesson does not go as far as Battersby and Kessler's (2012) investigation to address these differences between maps, pupils were able to appreciate the relative size of the continent in a more sophisticated way than prior to teaching. Indeed, Anderson and Leinhardt (2002, pp.283) observed hardships in understanding projections in 'preservice teachers', so this Year 7 class being able to use albeit simplistic 'reasoning' to explain why Africa is larger than shown on some maps is a success of this lesson. Due to time constraints, the class ended with an interactive verbal plenary, but I was satisfied that the overall objectives had been met and the misconceptions identified above were corrected.

4. Conclusions and implications

This project employed a qualitative classroom investigation as a vehicle to uncover misconceptions and prior knowledge on the topic of Africa. Following BERA (2018) guidance, the pupils in this study were not adversely affected in any way by this investigation but

instead experienced bespoke teaching on this topic. The investigation revealed that pupils could not decipher true from false stereotypes of Africa while failing to appreciate its cultures and relative size. This answered the first research question surrounding prior knowledge. The first taught lesson aimed to highlight the diversity of Africa, with the second building on this notion to correct common stereotypes and clarify the relative size of the continent, and in so doing, addressed the second and third research questions set out in the introduction.

Hands-down questioning, class feedback and AfL opportunities enabled me to check learning after every main activity. This, together with reviewing student work, reaffirmed that pupils had achieved the learning objectives of the lessons and reached the desired outcomes. The lessons draw on resources from a variety of sources, which were checked and edited by me to ameliorate Abimbola and Baba's (1996) concerns and to provide information that the class could be confident learning.

On reflection, it would have been useful to explore the relative population size of Africa in a greater depth than what was covered within the lessons. In addition, it would be beneficial to set the pupils an assessment as a traditional means to ensuring the content had been understood, however, this was not called for in the scheme of work at this stage of term and as such doing so would have been in contravention of BERA's (2018) guidance. For my professional development, I endeavour to diverge from the department scheme of work when there is a clear need to do so which results in enhanced learning. In addition, this project has given me the confidence to create lessons on a small scale. In the future, I would like to be more involved with the creation of lessons as this provides an opportunity to produce engaging and original teaching material.

5. References

Abimbola, I. O. and Baba, S. (1996) 'Misconceptions & Alternative Conceptions in Science Textbooks: The Role of Teachers as Filters', *The American Biology Teacher*, 58(1), pp. 14-19.

Acemoglu, D. and Robinson, J. A. (2010) 'Why is Africa Poor?', *Economic History of Developing Regions*, 25(1), pp. 21-50.

Allcott, H., Gentzkow, M. and Yu, C. (2019) 'Trends in the Diffusion of Misinformation in Social Media', *Research and Politics*, 6(2), pp. 1-8.

Anderson, K. C. and Leinhardt, G. (2002) 'Maps as Representations: Expert Novice Comparison of Projection Understanding', *Cognition and Instruction*, 20(3), pp. 283-321.

Battersby, S. E. and Kessler, F. C. (2012) 'Cues for Interpreting Distortion in Map Projections', *Journal of Geography*, 111(3), pp. 93-101.

Bentrovato, D. and Wassermann, J. (2021) 'Introduction', in Bentrovato, D. and Wassermann, J. (eds.) *Teaching African History in Schools: Experiences and Perspectives from Africa and Beyond*. Leiden: Koninklijke Brill NV, pp. 1-14.

British Educational Research Association (BERA) (2018) *Ethical Guidance for Educational Research*. 4th edn. Available at: https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf (Accessed: 15 January 2022).

Department for Education (2013) *Geography Programmes of Study: Key Stage 3, National Curriculum in England.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239087/SECONDARY_national_curriculum_-_Geography.pdf (Accessed: 15 January 2022).

Department for Education (2014a) *Geography: GCSE Subject Content*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/301253/GCSE_Geography.pdf (Accessed: 15 January 2022).

Department for Education (2014b) *Geography: GCE AS and A Level Subject Content*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/388857/GCE_AS_and_A_level_subject_content_for_Geography.pdf (Accessed: 15 January 2022).

Dove, J. (2016) 'Reasons for Misconceptions in Physical Geography', *Geography*, 101(1), pp. 47-53.

Flynn, D. J., Nyhan, B. and Reifler, J. (2017) 'The Nature and Origins of Misperceptions: Understanding False and Unsupported Beliefs About Politics', *Advances in Political Psychology*, 38(1), pp. 127-150.

Grosz-Ngaté, M., Hanson, J. H. and O'Meara, P. (2014) 'Introduction', in Grosz-Ngaté, M., Hanson, J. H. and O'Meara, P. (eds.) *Africa*. 4th edn. Indiana: Indiana University Press, pp. 1-6.

Healey, R. L. (2012) 'The Power of Debate: Reflections on the Potential of Debates for Engaging Pupils in Critical Thinking about Controversial Geographical Topics', *Journal of Geography in Higher Education*, 36(2), pp. 239-257.

Kármán, M. and Márföldi, N. (2021) 'Ko Nipa Africa! – Teach About Africa! Challenging Stereotypes About Africa', *Hungarian Educational Research Journal*, 11(4), pp. 449-462.

Kitchen, H. (1982) 'Six Misconceptions of Africa', *Washington Quarterly*, 5(4), pp. 167-174.

Larkin, D. (2012) 'Misconceptions About "Misconceptions": Preservice Secondary Science Teachers' Views on the Value and Role of Student Ideas', *Science Education*, 96(5), pp. 927-959.

Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, C. R., Thorson, E. A., Watts, D. J. and Zittrain, J. L. (2018) 'The Science of Fake News', *Science*, 359(6380), pp. 1094-1096.

Leonard, M. J., Kalinowski, S. T and Andrews, T. C. (2014) 'Misconceptions Yesterday, Today and Tomorrow', *CBE—Life Sciences Education*, 13(1), pp. 179-186.

McMaster, D. N., Steel, R. W., Clarke, J. I., Nicol, D. S. H. W., Kröner, A., Gardiner, R. K. A., Smedley, A., Mabogunje, A. L., Middleton, J. F. M. and Dickson, K. B. (2021) 'Africa', in Augustyn, A. (ed.) *Encyclopaedia Britannica*. Available at: https://www.britannica.com/place/Africa (Accessed: 12 February 2022).

Minton, M. (2014) 'Challenging Student Misconceptions of Immigration in the UK', *Teaching Geography*, 39(3), pp. 108-109.

Nelson, B. D., Aron, R. H. and Francek, M. A. (1992) 'Clarification of Selected Misconceptions in Physical Geography', *Journal of Geography*, 91(2), pp. 76-80.

Oxford English Dictionary (2021) 'Stereotype'. Available at: https://www.oed.com/view/Entry/189956?result=1&rskey=gR9qsd& (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020a) 'Working Towards Anti-Racist School Geography in Britain', *Medium*, 8 December. Available at: https://medium.com/oxford-university/working-towards-anti-racist-school-Geography-in-britain-8b16a94e25ba (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020b) 'Confronting the Deafening Silence on Race in Geography Education in England: Learning from Anti-Racist, Decolonial and Black Geographies', *Geography*, 105(3), pp. 126-134.

RGS (no date (a)) *Africa: Scale and Diversity*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/africa-scale-and-diversity/ (Accessed: 15 January 2022).

RGS (no date (b)) *Africa – A Continent of Contrasts, Overview*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/ (Accessed: 15 January 2022).

Roberts, M. (2013) *Geography Through Enquiry: Approaches to Teaching and Learning in the Secondary School*. Sheffield: Geographical Association.

Schommer, M. (2020) 'Spatial Orientation – Competence Expectations and Common Misconceptions Based On Maps Projections', *Proceedings of the Cultural Appropriation of Spaces and Things Conference*, Siegen, 28-30 October. Available at: https://www.ucviden.dk/ws/files/107908816/Cultural_appropriation.pdf (Accessed: 15 January 2022).

The True Size (2022) *The True Size Of...* Available at: https://thetruesize.com/#?borders=1~!MTUzOTYzMjg.NTIwNTAzNA*MzA5NDUyODM(NjU0Njg0Ng (Accessed: 10 January 2022).

United Nations (2021) *How Many African Countries are Members of the United Nations?* Available at: https://ask.un.org/faq/22882#:~:text=According%20to%20the%20United%20Nations,Members%20of%20the%20United%20Nations. (Accessed: 15 January 2022). Kármán, M. and Márföldi, N. (2021) 'Ko Nipa Africa! – Teach About Africa! Challenging Stereotypes About Africa', *Hungarian Educational Research Journal*, 11(4), pp. 449-462.

Kitchen, H. (1982) 'Six Misconceptions of Africa', *Washington Quarterly*, 5(4), pp. 167-174.

Larkin, D. (2012) 'Misconceptions About "Misconceptions": Preservice Secondary Science Teachers' Views on the Value and Role of Student Ideas', *Science Education*, 96(5), pp. 927-959.

Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, C. R., Thorson, E. A., Watts, D. J. and Zittrain, J. L. (2018) 'The Science of Fake News', *Science*, 359(6380), pp. 1094-1096.

Leonard, M. J., Kalinowski, S. T and Andrews, T. C. (2014) 'Misconceptions Yesterday, Today and Tomorrow', *CBE—Life Sciences Education*, 13(1), pp. 179-186.

McMaster, D. N., Steel, R. W., Clarke, J. I., Nicol, D. S. H. W., Kröner, A., Gardiner, R. K. A., Smedley, A., Mabogunje, A. L., Middleton, J. F. M. and Dickson, K. B. (2021) 'Africa', in Augustyn, A. (ed.) *Encyclopaedia Britannica*. Available at: https://www.britannica.com/place/Africa (Accessed: 12 February 2022).

Minton, M. (2014) 'Challenging Student Misconceptions of Immigration in the UK', *Teaching Geography*, 39(3), pp. 108-109.

Nelson, B. D., Aron, R. H. and Francek, M. A. (1992) 'Clarification of Selected Misconceptions in Physical Geography', *Journal of Geography*, 91(2), pp. 76-80.

Oxford English Dictionary (2021) 'Stereotype'. Available at: https://www.oed.com/view/Entry/189956?result=1&rskey=gR9qsd& (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020a) 'Working Towards Anti-Racist School Geography in Britain', *Medium*, 8 December. Available at: https://medium.com/oxford-university/working-towards-anti-racist-school-Geography-in-britain-8b16a94e25ba (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020b) 'Confronting the Deafening Silence on Race in Geography Education in England: Learning from Anti-Racist, Decolonial and Black Geographies', *Geography*, 105(3), pp. 126-134.

RGS (no date (a)) *Africa: Scale and Diversity*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/africa-scale-and-diversity/ (Accessed: 15 January 2022).

RGS (no date (b)) *Africa – A Continent of Contrasts, Overview*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/ (Accessed: 15 January 2022).

Roberts, M. (2013) *Geography Through Enquiry: Approaches to Teaching and Learning in the Secondary School*. Sheffield: Geographical Association.

Schommer, M. (2020) 'Spatial Orientation – Competence Expectations and Common Misconceptions Based On Maps Projections', *Proceedings of the Cultural Appropriation of Spaces and Things Conference*, Siegen, 28-30 October. Available at: https://www.ucviden.dk/ws/files/107908816/Cultural_appropriation.pdf (Accessed: 15 January 2022).

The True Size (2022) *The True Size Of...* Available at: https://thetruesize.com/#?borders=1~!MTUzOTYzMjg.NTIwNTAzNA*MzA5NDUyODM(NjU0Njg0Ng (Accessed: 10 January 2022).

United Nations (2021) *How Many African Countries are Members of the United Nations?* Available at: https://ask.un.org/faq/22882#:~:text=According%20to%20the%20United%20Nations,Members%20of%20the%20United%20Nations. (Accessed: 15 January 2022).
Schommer, M. (2020) 'Spatial Orientation – Competence Expectations and Common Misconceptions Based On Maps Projections', *Proceedings of the Cultural Appropriation of Spaces and Things Conference*, Siegen, 28-30 October. Available at: https://www.ucviden.dk/ws/files/107908816/Cultural_appropriation.pdf (Accessed: 15 January 2022).

The True Size (2022) *The True Size Of...* Available at: https://thetruesize.com/#?borders=1~!MTUzOTYzMjg.NTIwNTAzNA*MzA5NDUyODM(NjU0Njg0Ng (Accessed: 10 January 2022).

United Nations (2021) *How Many African Countries are Members of the United Nations?* Available at: https://ask.un.org/faq/22882#:~:text=According%20to%20the%20United%20Nations,Members%20of%20the%20United%20Nations. (Accessed: 15 January 2022).
Kármán, M. and Márföldi, N. (2021) 'Ko Nipa Africa! – Teach About Africa! Challenging Stereotypes About Africa', *Hungarian Educational Research Journal*, 11(4), pp. 449-462.

Kitchen, H. (1982) 'Six Misconceptions of Africa', *Washington Quarterly*, 5(4), pp. 167-174.

Larkin, D. (2012) 'Misconceptions About "Misconceptions": Preservice Secondary Science Teachers' Views on the Value and Role of Student Ideas', *Science Education*, 96(5), pp. 927-959.

Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, C. R., Thorson, E. A., Watts, D. J. and Zittrain, J. L. (2018) 'The Science of Fake News', *Science*, 359(6380), pp. 1094-1096.

Leonard, M. J., Kalinowski, S. T and Andrews, T. C. (2014) 'Misconceptions Yesterday, Today and Tomorrow', *CBE—Life Sciences Education*, 13(1), pp. 179-186.

McMaster, D. N., Steel, R. W., Clarke, J. I., Nicol, D. S. H. W., Kröner, A., Gardiner, R. K. A., Smedley, A., Mabogunje, A. L., Middleton, J. F. M. and Dickson, K. B. (2021) 'Africa', in Augustyn, A. (ed.) *Encyclopaedia Britannica*. Available at: https://www.britannica.com/place/Africa (Accessed: 12 February 2022).

Minton, M. (2014) 'Challenging Student Misconceptions of Immigration in the UK', *Teaching Geography*, 39(3), pp. 108-109.

Nelson, B. D., Aron, R. H. and Francek, M. A. (1992) 'Clarification of Selected Misconceptions in Physical Geography', *Journal of Geography*, 91(2), pp. 76-80.

Oxford English Dictionary (2021) 'Stereotype'. Available at: https://www.oed.com/view/Entry/189956?result=1&rskey=gR9qsd& (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020a) 'Working Towards Anti-Racist School Geography in Britain', *Medium*, 8 December. Available at: https://medium.com/oxford-university/working-towards-anti-racist-school-Geography-in-britain-8b16a94e25ba (Accessed: 15 January 2022).

Puttick, S. and Murrey, A. (2020b) 'Confronting the Deafening Silence on Race in Geography Education in England: Learning from Anti-Racist, Decolonial and Black Geographies', *Geography*, 105(3), pp. 126-134.

RGS (no date (a)) *Africa: Scale and Diversity*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/africa-scale-and-diversity/ (Accessed: 15 January 2022).

RGS (no date (b)) *Africa – A Continent of Contrasts, Overview*. Available at: https://www.rgs.org/schools/teaching-resources/africa-a-continent-of-contrasts/ (Accessed: 15 January 2022).

Roberts, M. (2013) *Geography Through Enquiry: Approaches to Teaching and Learning in the Secondary School*. Sheffield: Geographical Association.

Schommer, M. (2020) 'Spatial Orientation – Competence Expectations and Common Misconceptions Based On Maps Projections', *Proceedings of the Cultural Appropriation of Spaces and Things Conference*, Siegen, 28-30 October. Available at: https://www.ucviden.dk/ws/files/107908816/Cultural_appropriation.pdf (Accessed: 15 January 2022).

The True Size (2022) *The True Size Of...* Available at: https://thetruesize.com/#?borders=1~!MTUzOTYzMjg.NTIwNTAzNA*MzA5NDUyODM(NjU0Njg0Ng (Accessed: 10 January 2022).

United Nations (2021) *How Many African Countries are Members of the United Nations?* Available at: https://ask.un.org/faq/22882#:~:text=According%20to%20the%20United%20Nations,Members%20of%20the%20United%20Nations. (Accessed: 15 January 2022).

The UCS Homework Review 2022-23

By Adriane Martini

Abstract

Research suggests that homework has a positive but modest effect on student achievement in secondary schools. There is some suggestion that the impact of homework varies depending on factors such as the amount and type of homework assigned, the grade level of the pupils and the subject in question. However, research remains unsuccessful in establishing how. The present research reviews findings from literature and proposes alternative ways to refine homework practices considering the failure of traditional research to establish robust correlations between specific variables affecting homework use and its benefits to pupils' learning. Staff at UCS were surveyed for a context-specific perspective. In general, homework that is well-designed, purposeful, and aligned with classroom instruction is more likely to have a positive effect on student learning. To achieve that, Shulman's (1986) work on the types of content knowledge is proposed as a fruitful channel to rethink and enhance our homework practices.

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1. Introduction

Homework seems to be an inescapable reality of formal education; one that is ever present regardless of the country, age group and subject taught. A possible explanation is that teachers believe homework is an integral part of the process of learning and, since they are the agents that shape day-to-day education, homework will almost always be included in the learning of a given topic. A report from the Organization for Economic Cooperation and Development (OECD, 2013) analysed the time pupils[1] spent on homework in 64 countries across the world. Despite regional differences, all countries reported using homework, with the average being just under 300 minutes per week (OECD, 2013). In another study, Moorhouse (2021) found that 90 per cent of English teachers believed homework to be necessary for learners to progress and "78% of respondents believe homework to be as important as classwork." (p. 302). Furthermore, 96% of teachers believed homework had a positive influence on learning (Moorhouse, 2021) despite the lack of evidence to support this claim (Hallam & Rogers, 2018; Vatterott, 2009).

If homework is such a common practice, why is it so difficult to establish its effectiveness (measured as pupils' attainment) and the

1 The sample follows PISA target population: pupils between 15 years 3 months and 16 years 2 months, enrolled in formal schooling for at least 6 years.

variables that contribute to its efficacy? Perhaps because of the unavoidable constraints on any piece of research: academics must necessarily narrow their scope, focus their view, and formulate a question far less complex than the form in which the world presents itself in practice (Shulman, 1986). In their necessary simplification of the complexities of classroom teaching, investigators ignored central aspects of classroom life such as the often-unpredictable interactions between pupils and teacher in a given learning episode.

Homework, like many teaching and learning practices, is complex and resistant to analyses that attempt to isolate variables (such as quantity, frequency and time spent on task) as a measure of its effectiveness. This type of research has so far failed to establish the best uses of homework as a tool for enhancing learning, perhaps because of the sheer number of variables at play (Hallam & Rogers, 2018a).

In this report, we propose that looking at how teachers plan, design, set and give feedback on homework tasks could provide a picture of how teachers understand the broader process of learning in the context of their own subject. This holistic approach considering how homework integrates in the overall process of learning provides a valid pathway to improve the quality of homework that is congruent with both research into teachers' knowledge and homework practices. For example, understanding the design and use of homework tasks in a similar way we understand other learning episodes could be a more fruitful perspective into how to improve homework practices.

2. Literature Review

We have chosen to focus on four meta-analyses reviewing key research produced about homework since the 1980s (Cooper *et al.*, 2006; EEF, 2021; Hallam & Rogers, 2018; Vatterott, 2009) as this increases the scope of this discussion whilst maintaining its focus on understanding homework practices.

For the sake of clarity, the term "homework" is used here to mean "tasks given to pupils by their teachers to be completed outside of usual lessons" (EEF, May 2021). Additionally, setting a task as homework implies that the learners will take the primary responsibility for it, generally completing it independently (Hallam & Rogers, 2018a). Research supports the view that homework is used by most teachers to improve the learning experience of pupils (Hallam & Rogers, 2018) and that it is considered a necessary and inherently positive activity in improving progress, despite the lack of evidence for its effectiveness (Vatterott, 2009).

2.1 The effectiveness of homework

These meta-analyses compare similar variables when attempting to establish correlations between homework and attainment (the measure of effectiveness): amount of homework set, time pupils spend completing homework tasks and age of pupils. The effectiveness of homework is not the main focus of this study but since it will be relevant to the discussion about teachers' knowledge, a brief summary of the findings is presented overleaf.

Variables considered	(Vatterott, 2009)	(Cooper *et al.*, 2006)	(Hallam & Rogers, 2018)	(EEF, 2021)
Amount of homework set	Mild correlation. Mixed results in some research.	Doing HW is better than not doing HW.	More HW is a better predictor of higher attainment.	Doing some HW is better than not doing HW.
Time pupils spent doing homework	No positive correlation. Optimum amount "10-minute-rule" (10 minutes per grade level per night)[2].	Positive effects appear from 1h/week and increase for up to 2h/night. After that, the effects are detrimental.	Not a good predictor of attainment.	Time spent is measured as the frequency of HW set: twice a week is the optimum time for secondary school pupils.
Age of pupils	Stronger positive correlation for secondary school pupils.	Positive correlation increases with age of pupils (the highest being r=.25 for high school)[3].	Secondary school pupils benefit more than younger pupils do.	Higher positive impact for secondary school pupils[4].
Confounding variables in research	Pupils' motivation and ability, background and quality of instruction received.	Individual study habits and cognitive development, parents' involvement and ethnicity.	Pupils' prior knowledge, family and home background, ethnicity and socio-economic background[5].	Home-life, parental support and socio-economic background.
General conclusion	Contradictory findings about the relationship between HW and attainment.	No strong evidence supporting that HW improves attainment.	Inconclusive results due to the poor-quality research in general.	HW has a positive impact, especially in secondary schools.

[2] This is based on the USA educational system
[3] As above
[4] The sample shows some diversity in countries
[5] This study considers data from multiple countries

Findings suggest that:

Despite older research returning inconclusive or negative findings about the contributions of homework to learning (Vatterott, 2009; Cooper *et al.*, 2006; Hallam and Rogers, 2018), more recent studies suggest a small positive contribution to attainment (EEF, 2021). This will depend on many variables such as quality of instruction, integration with classroom learning, and effective feedback (from the teachers' perspective). However, the most powerful factors predicting pupils' attainment are prior knowledge and ability, time on task, absence

from school, motivation and self-confidence. Other variables such as positive attitudes towards school and a constructive relationship with teachers also show benefits.

Age: the positive effects of homework tend to be larger in secondary school, with the older groups benefiting the most.

Amount of homework set: high-attaining schools and teachers of higher ability groups tend to set more homework. However, this makes it difficult to precise what causes attainment.

Time spent on homework: the research presents very mixed results and it often presents a negative correlation between time spent on homework and achievement. For example, less time doing homework could mean the student is a high performer who can complete more tasks in less time, rather than someone who does not spend time doing homework. Time spent on homework is not a good predictor of pupils' attainment.

2.2 A theoretical model to improve homework practices: Shulman (1986)

Shulman (1986) proposed three types of knowledge that teachers need to become effective professionals in education: subject matter content knowledge, curricular knowledge, and pedagogical content knowledge (PCK). The first type, subject matter content knowledge, refers to the factual information and concepts specific to a particular academic discipline, as well as the ways in which these are organised within the discipline. Shulman (1987) suggests that subject expertise originates from scholarship in content disciplines, which involves generating, organising, and communicating knowledge within a field. This includes research methods and approaches, theoretical frameworks, and understanding of interdisciplinary knowledge. Content knowledge is essential for effective teaching, as teachers need a deep understanding of their subject matter to teach it well.

Teachers also require pedagogical content knowledge (PCK), which involves knowing how to teach their subject matter in ways that are meaningful and engaging for pupils. PCK includes the ability to identify and challenge pupils' misconceptions and common difficulties when learning new content. The key to effective teaching lies at the intersection of content and pedagogy, where teachers can transform their content knowledge into forms that are pedagogically powerful and adaptive to the pupils' abilities and backgrounds. Shulman's work on PCK has helped shift the focus of teacher education towards a more nuanced understanding of what it means to be a teacher, which raises the status of the teaching profession and allows for appropriate and effective professional development of teachers.

Finally, curricular knowledge is the broader perspective that teachers have when considering and organising teaching. It includes unique facts, concepts, and principles of each discipline, along with the pedagogical approaches, practices, and strategies used to teach each subject effectively. It involves the appropriate selection of resources and task design that would suit each topic in a given curriculum and the teachers' awareness of possible intersections between their subject and other fields studied by pupils. Educational materials and structures are also part of curricular knowledge, and they can help to organise and present content in a way that is engaging, relevant, and meaningful for pupils.

2.3 The links between the use of homework and teachers' content knowledge, curricular knowledge and PCK.

The intentions of the current research are not to attempt to establish the impact of homework on pupils' attainment, but rather to present an alternative pathway to think about how to improve homework practices without having to rely on the inconsistent findings from existing research. If homework is as common as other practices in education, it is reasonable to suggest that we can study it in similar ways, in

this case, via the use of content knowledge.

This proposition is supported by literature. For example, the EEF (2021) report recommends that, to make homework more effective, teachers should use "well-designed tasks that are linked to classroom learning", indicating that homework tasks are likely to depend on the same kinds of knowledge teachers use when planning lessons. Cooper *et al*. (2006) highlight the importance of considering the subject matter when exploring effective homework practices, showing that teachers' SMCK is of key importance for quality homework. Hallam and Rogers (2018) recommend that homework should be planned alongside the curriculum, taking into consideration the broad educational aims and forms of assessment. Exploring how this is done by teachers could reveal their CK.

Finally, Vatterott (2009) suggests that, despite the poor evidence from traditional research, teachers' own experiences can provide a "wealth of information and perspectives" (p.71) to inform when to set homework, how to embed it in the broader learning, what skills and knowledge need further independent practice, who the pupils are as individuals and as part of group. In Shulman's (1986) words, this is the "wisdom of practice" (p.8), or propositions that have not necessarily been confirmed by research but that are effectively used by teachers in their day-to-day work. In the absence of compelling empirical evidence about homework, the wisdom shown by teachers and displayed via their SMCK, CK and PCK, could give us a way to understand what high quality homework looks like.

3. Investigation: Methods and results

As part of this research, teachers and pupils had the opportunity to complete online surveys on Google Forms regarding their opinions on homework. We asked about common factors discussed in the literature, such as time spent on tasks, frequency and quantity of homework set, purposes of homework and reasons why pupils fail to complete homework. We looked at the current UCS homework policy and carried out a semi-structured interview with the heads of each section. The following paragraphs summarise the findings.

Teachers' Survey

In the teachers' survey, the frequency of homework set is consistent across different year groups. Among years 7 and 8 teachers, 45% indicated that they typically set homework once a week. Similarly, 48% of years 9 to 11 teachers and 74% of years 12 and 13 teachers, also opt for setting homework once a week.

Regarding the time required to complete homework tasks, teachers estimated that it increased as pupils progressed through the age groups. The most popular estimate for Lower School pupils was between 20-30 minutes. For Middle School pupils, it ranged from 30-45 minutes, while for Sixth Form pupils, it extended to 45 minutes or more.

When it came to the quantity of homework set, the majority of teachers in all year groups expressed satisfaction with the current practices. The satisfaction percentages varied between 72% and 91% across different year groups.

Teachers identified two main reasons for setting homework: teaching pupils skills such as responsibility, organisation, and independent work, and improving pupils' progress in the subject. The latter reason gained more importance as pupils progressed in school, reaching 91% of the responses for years 12 and 13. In Middle School, 82% of teachers agreed that homework should target pupils' performance in the subject. In Lower School, both academic performance and the development of general skills were seen as equally important.

When asked about homework completion rates, most teachers believed that between 76% and 100% of pupils completed homework on time.

However, in Middle School, teachers estimated that only 58% of pupils typically submitted homework by the deadline set. Lack of time was identified as a common reason for incomplete homework in Lower School and Sixth Form, while in Middle School, lack of motivation and organisation were reported as contributing factors.

Pupils' Survey

In the pupils' survey, the estimated time spent on homework each evening reflected closely the estimate made by teachers. However, Lower School pupils reported slightly more time spent on homework than teachers estimated, although this could be attributed to either inaccurate estimates or a small sample size.

The reasons provided by pupils for not completing homework aligned with the reasons identified by teachers. In Lower School and Sixth Form, running out of time was cited as the main reason. In Middle School, lack of motivation and organisation were reported as the primary factors. The lack of organisation could be connected to motivation since motivation impacts pupils' effort in becoming organised for school.

Regarding the perceived importance of homework, pupils across all year groups believed that it reinforced and assessed their learning from lessons. Some pupils also recognised its role in promoting independent work and thinking. In Middle School, some pupils identified school policy as a possible reason for homework being set, which could be related to their perceived lack of motivation to complete the work.

4. Conclusions and Implications

The aim of this research was to review what literature tells us about the effectiveness of homework and to explore possible methods to refine homework practices at UCS. A question that emerged was whether homework is equivalent to other elements of learning (such as in-lesson activities). If so, a possible method to enhance its effectiveness could be via theories around teachers' knowledge, which composes a core part of academic programmes in teaching.

The literature appraised supports the idea of homework as an integral part of an effective learning sequence and planned alongside other elements of learning (Hallam & Rogers, 2018; Vatterott, 2009). Recommendations about best homework practices and content knowledge were intertwined. For example, the effectiveness of homework depends on the teachers' ability to tailor tasks according to the subject matter (Cooper *et al*., 2006; EEF, 2021). Likewise, the purposes of any homework should be determined according to its suitability for that part of the curriculum or topic (Hallam & Rogers, 2018; Vatterott, 2009). Other factors such as quality of instruction (Vatterott, 2009), awareness of pupils' cognitive development (Cooper *et al*., 2006) and high quality feedback (EEF, 2021) show close links with PCK.

There are some interesting practical applications that can come from this investigation. These possibilities will now be explored at UCS, via sharing the findings with wider staff and adapting the ideas taking into consideration the specificity of each teacher's context. For example, the age group taught, the subject and the teachers' experience. The initial focus when presenting the findings will be on arguing that research on the effectiveness of homework carried out since the 1980s consistently failed to establish strong correlations between variables measured and attainment. Commonly used variables such as quantity of homework or age of pupils did not yield consistent data that could point teachers in the right direction. For this reason, our proposal will be to use the three types of content knowledge to reflect on how teachers use homework and how they can improve their practices (see appendices).

For example, conventional research suggests that there is an optimum amount of time pupils should spend doing homework. However, there

is no agreement about what this time should be, with some authors proposing unsubstantiated theories such as “the 10-minute rule” a night per year group the child is in (Vatterott, 2009, p.63). Instead, teachers could use their SMCK to evaluate which ideas are essential to learning a topic. They could use their PCK to decide what sort of homework task would help pupils to understand and reinforce these ideas independently, beyond the classroom walls. Teachers might also use their CK to establish which points in the curriculum demand extra work and plan homework tasks for these moments, rather than overloading pupils with homework for the sake of it.

The expected result is that teachers will have new ways of improving the homework practices in a way that will lead to a higher integration between in-class and independent learning and lead to a higher quality set of tasks.

The broad recommendations we can infer from investigation are:

- The extent to which homework is integrated into classroom work has a statistically significant impact on attainment in most cases (Hallam & Rogers, 2018b). Therefore, homework should be an integral part of the curriculum and planned with the same attention as other parts of the learning process.
- A homework policy needs to remain as flexible as possible, so it does not pose an obstacle to teachers’ ability to design their tasks according to the pupils’, subjects’ and curriculum’s needs. Homework is highly dependent on context.
- Techniques/theories we know improve learning, such as metacognition ideas we have been discussing in the past years could and should be applied to homework tasks as well.
- To support pupils’ organisation, teachers should follow routines (consistency) but keep it interesting with varying the tasks (diversity) if pupils are to remain motivated and engaged. The (reviewed) homework timetable could be useful to keep the consistency of routines and the priority “creativity” from the Teaching and Learning department could support teachers in bringing more diversity to the tasks set.
- Teachers’ explanations of homework tasks and feedback on outcomes remain factors that have considerable impact on the associated attainment. In general, it is better to set less homework with good quality feedback, than a greater amount of homework with no feedback. Feedback does not have to be in writing.
- Homework can have detrimental effects on pupils’ learning and motivation. Teachers should not be afraid to set no homework if there is no purpose in setting it. Instead, teachers can allow time for reflection, wider reading or resting as possible tasks.
- According to data collected, homework seems to have a higher impact for Lower School when it is linked to in-lesson learning, it targets key skills pupils need to become successful learners (such as independent work) and when they entice pupils’ curiosity (such as longer projects rather than short rote exercises).
- Similarly, homework seems to have a higher impact for Middle and Upper School when connected to in-class learning, has an overt purpose and it is connected to exam performance (such as past papers, exam-like questions, essays, etc). Pupils also prefer less quantity, high challenge and quality feedback associated with each task.
- Teachers could use some resources from this research around SMCK, PCK and CK to enhance their practices around homework. These will be presented during CPD opportunities in the near future.from school, motivation and self-confidence. Other variables such as positive attitudes towards school and a constructive relationship with teachers also show benefits.

5. References

Barnett, J., & Hodson, D. (2001). Pedagogical context knowledge: Toward a fuller understanding of what good science teachers know. *Science Education*, *85*(4), 426–453. https://doi.org/10.1002/sce.1017

BERA. (2018). *Ethical Guidelines for Educational Research* [Education]. British Educational Research Association. https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018-online

Chin, J. M.-C., Lin, H.-C., & Chen, C.-W. (2022). Homework and learning achievements: How much homework is enough? *Educational Studies*, *48*(3), 408–423. https://doi.org/10.1080/03055698.2020.1766423

Cochran, K. F., DeRuiter, J. A., & King, R. A. (1993). Pedagogical Content Knowing: An Integrative Model for Teacher Preparation. *Journal of Teacher Education*, *44*(4), 263–272. https://doi.org/10.1177/0022487193044004004

Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does Homework Improve Academic Achievement? A Synthesis of Research, 1987–2003. *Review of Educational Research*, *76*(1), 1–62. https://doi.org/10.3102/00346543076001001

EEF. (2021). *Homework: High impact for very low cost based on very limited evidence* [Education]. Education Endowment Foundation. https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit/homework

Hallam, S., & Rogers, L. (2018). *Homework: The evidence* (Fully revised and expanded edition). UCL Institute of Education Press.

Lee, E., & Luft, J. A. (2008). Experienced Secondary Science Teachers' Representation of Pedagogical Content Knowledge. *International Journal of Science Education*, *30*(10), 1343–1363. https://doi.org/10.1080/09500690802187058

Loughran, J., Milroy, P., Berry, A., Gunstone, R., & Mulhall, P. (2001). Documenting Science Teachers' Pedagogical Content Knowledge Through PaP-eRs. *Research in Science Education*, *31*(2), 289–307. https://doi.org/10.1023/A:1013124409567

Magalhães, P., Ferreira, D., Cunha, J., & Rosário, P. (2020). Online vs traditional homework: A systematic review on the benefits to pupils' performance. *Computers & Education*, *152*, 103869. https://doi.org/10.1016/j.compedu.2020.103869

Magnusson, J., Kullberg, A., Innabi, H., Knutsson, L., Von Otter, A.-M., & Landström, J. (2021). Prospective teachers' opportunities to develop PCK from participation in learning study. *Educational Action Research*, 1–17. https://doi.org/10.1080/09650792.2021.1997779

Marks, R. (1990). Pedagogical Content Knowledge: From a Mathematical Case to a Modified Conception. *Journal of Teacher Education*, *41*(3), 3–11. https://doi.org/10.1177/002248719004100302

Moorhouse, B. L. (2021). Qualities of good homework activities: Teachers' perceptions. *ELT Journal*, *75*(3), 300–310. https://doi.org/10.1093/elt/ccaa069

OECD (Ed.). (2013). *What makes schools successful? Resources, policies and practices*. OECD.

Rowland, T. (2013). The Knowledge Quartet: The Genesis and Application of a Framework for Analysing Mathematics Teaching and Deepening Teachers' Mathematics Knowledge. *Sisyphus - Journal of Education*, *Vol 1*, 15-43 Pages. https://doi.org/10.25749/SIS.3705

Rowland, T., Huckstep, P., & Thwaites, A. (2005). Elementary Teachers' Mathematics Subject Knowledge: The Knowledge Quartet and the Case of Naomi. *Journal of Mathematics Teacher Education*, *8*(3), 255–281. https://doi.org/10.1007/s10857-005-0853-5

Shulman, L. S. (1986). Those who Understand: Knowledge Growth in Teaching. *Journal of Education*, *193*(3), 1–11. https://doi.org/10.1177/002205741319300302

Shulman, L. S. (1987). Knowledge and Teaching:Foundations of the New Reform. *Harvard Educational Review*, *57*(1), 1–23. https://doi.org/10.17763/haer.57.1.j463w79r56455411

Tamir, P. (1988). Subject matter and related pedagogical knowledge in teacher education. *Teaching and Teacher Education*, *4*(2), 99–110. https://doi.org/10.1016/0742-051X(88)90011-X

Trautwein, U. (2007). The homework–achievement relation reconsidered: Differentiating homework time, homework frequency, and homework effort. *Learning and Instruction*, *17*(3), 372–388. https://doi.org/10.1016/j.learninstruc.2007.02.009

Vatterott, C. (2009). *Rethinking homework: Best practices that support diverse needs*. ASCD.

Xu, J., & Wu, H. (2013). Self-Regulation of Homework Behavior: Homework Management at the Secondary School Level. *The Journal of Educational Research*, *106*(1), 1–13. https://doi.org/10.1080/00220671.2012.658457

6. Appendices

Appendix 1: The Knowledge Quartet lesson observation template

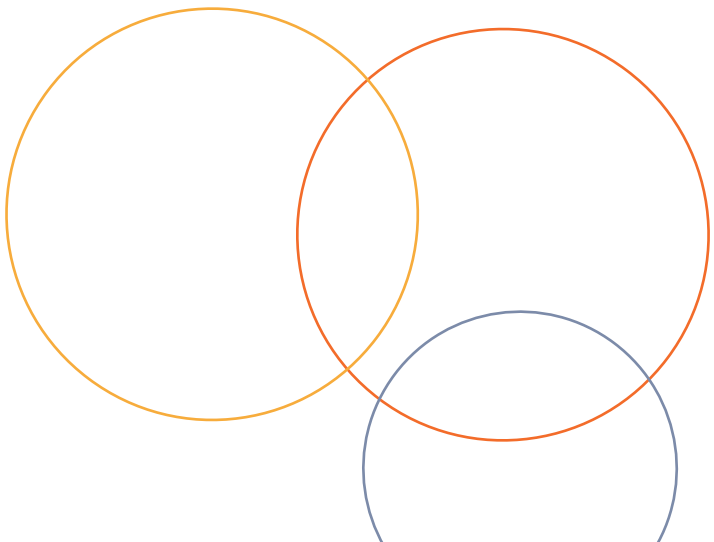
Adapted from: Rowland (2013), p.25

The task: The KQ template can be used to direct a lesson observation where a homework task is used as part of the teaching. Based on Rowland's (2013) descriptions of each dimension, the observer can check for: Foundation = SMCK, Transformation and Contingency = PCK, Connection = CK.

Lesson: **Context:** **Pre-learning:**			
Foundation (Knowledge possessed)		**Transformation** (Shulman, 1986) (knowledge in action)	
Awareness of purpose	**Y or N**	Teacher demonstration	**Y or N**
Identifying errors	**Y or N**	Use of instructional materials	**Y or N**
Overt subject knowledge	**Y or N**	Choice of representation	**Y or N**
Theoretical underpinning of pedagogy	**Y or N**	Choice of examples	**Y or N**
Use of terminology	**Y or N**	**Notes:**	
Use of textbook	**Y or N**		
Reliance on procedures	**Y or N**		
Notes:			
Connection (Knowledge in action)		**Contingency** (knowledge in interaction)	
Making connections between procedures	**Y or N**	Responding to students' ideas	**Y or N**
Making connections between concepts	**Y or N**	Deviation from agenda	**Y or N**
Anticipation of complexity	**Y or N**	Teacher insight	**Y or N**
Decisions about sequencing	**Y or N**	(Un)availability of resources	**Y or N**
Recognition of conceptual appropriateness Knowledge of how to connect teaching across a series of lessons	**Y or N**	**Notes:**	
Sequencing topics	**Y or N**		
Notes:			

Appendix 2: Connecting types of Teacher Knowledge to homework practices.

The task: The types of knowledge (as defined by Shulman (1986) can be productive prompts for teachers to think about their pedagogical choices, especially in relation to homework tasks. This table suggests prompts for self-reflection when planning homework tasks and checking for their usefulness, relevance and quality.



Subject Matter Content Knowledge (SMCK)	Pedagogical Content Knowledge (PCK)	Curricular Knowledge (CK)
The first concept refers to the knowledge that teachers have about the subject matter they teach. This includes the factual information and concepts that are specific to a particular academic discipline. It also includes the ways in which these facts and concepts (substantive structures) are organised and structured within that discipline (syntactic structures).	This is defined by Shulman (1986) as "subject matter knowledge *for teaching*" or the "blending of content and pedagogy" (Shulman, 1987, p.8). This means what teachers know about how to translate their subject matter in ways that are comprehensible and engaging to others (for example, via the use of effective analogies and examples). It includes a teacher's ability to identify and challenge pupils' misconceptions and common difficulties when learning new content (Shulman, 1986). This characteristic distinguishes teachers' knowledge of their discipline from that of scholars or experts.	This is the broader perspective teachers have when structuring and planning teaching. It overlaps with SMCK as it includes facts, concepts, and principles in each discipline, but in CK these are seeing in the context of the pedagogical approaches, practices, and strategies that are used to teach effectively (Shulman, 1986). For example, the appropriate selection of resources that would suit each topic in a given curriculum, awareness of intersections between topics enabling the establishment of meaningful connections.
Applied to HW	**Applied to HW**	**Applied to HW**
What are the core concepts in this subject? What are the core skills in this subject? How are the concepts and/or skills being developed and reinforced in this HW task? What ideas and/or structures need to be understood? Is this task working with definitions? Connections?	What type of task should I choose to develop a given concept? A context? How should I use this HW to enhance pupils' understanding of a topic? What type of feedback would be appropriate for a given task? What sort of skill are being targeted in this task? Is it effective?	What are the tricky parts of the curriculum and/or specification that would demand a HW task? What links can we make between topics to promote long-term learning? Can this be worked via a HW task? What are the best points to develop core skills in this subject? What types of HW would suit this point in the learning progression? When are the formal assessment points? How can HW or the absence of HW support exam preparation?

Intellectual Freedom

Dr. Paul Dawson

In this world, which is getting more and more closely interconnected, we have to learn to tolerate each other, we have to learn to put up with the fact that some people say things that we don't like.

Bertrand Russell

If liberty means anything at all, it means the right to tell people what they do not want to hear.

George Orwell

This essay defends our freedom to hear and read things which others regard, or have regarded, as true and worth saying but which we might not like. It defends also, therefore, our freedom to say and write things which we regard as true and worth saying but which other people might not like. It defends, that is, the free exchange of ideas. As such, it's part of a defence of freedom of *thought* – a freedom which I'll call *intellectual freedom*.

I

Many profound and inspiring figures, past and present, held or hold views sharply at odds with those held by many of us today. Take Plato. The true founder of Western philosophy, and the first to write on every branch of what has counted, subsequently and consequently, as philosophy, his work remains vital within and without the subject. He thought, however, that democracy is mistaken, unjust and dangerous. Mistaken because resting upon two assumptions – that people are inherently equal and that people should be free to be and do what they want, including electing their leaders. Plato thought that people are inherently *unequal*. Their innately different proclivities dispose and suit them to specific strata in a rigid social hierarchy, the rightful rulers of which are 'true philosophers'. Since this hierarchy characterises social justice as Plato saw it, he held that democracy is unjust. Democracy is dangerous too, because the exercise of freedom by those unable to manage it wisely leads inevitably to anarchy or malign dictatorship.

Or take Aristotle. Perhaps the first to attempt to codify and formalise logic, his ethical theory remains highly influential, and he invented the science of biology. Yet he thought women naturally inferior to men, and believed that some people are "slaves by nature".

Some might wish to suppress such views, rather than argue against them. One strategy would be to 'cancel' living thinkers and ban at least some of the works of prominent historical figures. But such troublesome thinkers loom so large in our culture and its history that, were they or their works to be 'disappeared' in whole or substantial part, we'd struggle to make sense of who and where we are. Add to this that because many such figures are inspirational in myriad ways, they are *quotable*. Whether to inspire ourselves

and others, or lend our views authority, or just appear erudite, we love to quote the notable, and this would be impossible if they were altogether removed.

Thus, 'bowdlerisation' might seem preferable. It's certainly ongoing. The works of Dahl, Fleming, Twain and others have recently had passages rewritten or excised on the professed ground that the contemporary public, or sections of it, would in various ways be unsuited or unable to handle the words they wrote.

There's nothing new in this. Though the frontispiece of 1807's *The Family Shakespeare* claims that the "words and expressions omitted" are merely those which "cannot with propriety be read aloud in a family", key characters and plot points are in fact excised. Such *bowdlerisation* is named after its editors, Thomas and Henrietta Bowdler.

It is, I hope, disturbing that something which, at the time and until recently, was reviled as cultural vandalism, has in the 2020s been revived. The re-bowdlerisation of the since de-bowdlerised works of Shakespeare looks imminent. The novels of Dickens, too, seem ripe for bowdlerisation. Will anything remain of Larkin? And what happens when censorious, censorial eyes are cast upon non-fiction?

II

The direct attention of bowdlerisers mightn't be required, though, now that artificial intelligence is doing their work. Character AI is a web-based chatbot which enables its users to create, and have AI-generated 'conversations' with, 'characters', some of which share the names of renowned figures.

Take 'Plato'. What does 'Plato' 'think' about democracy?

I consider democracy to be the best form of government … It allows people … to be in control of their government and their country, which ultimately creates a more free and equitable society … democracy is the most virtuous and just form of government … .

And what does 'Aristotle' 'think' about gender relations and the possibility of 'natural slaves'?

I do not believe that men should rule over women … we should strive for equality and mutual respect in our relationships, regardless of gender. … Slavery is an institution of human society, not something that is innate … . Every individual has the capacity to exercise their freedom and make their own decisions. Slavery is a violation of these basic human rights.

Though inconsistent with Plato's and Aristotle's views, a 21st century person's view of democracy, equality, freedom, gender relations and slavery is affirmed by 'Plato' and 'Aristotle'. These and plenty more examples risk giving the impression that the views of prominent real people were - or are - very different from their actual views. How has this come about?

III

We should reject the tempting answer that Character AI's 'characters' are intelligent thinking beings, genuinely learning from and trying to please people. Intelligence is or implies a capacity for understanding. Understanding implies sentience. We've no good reason to suppose that non-biological human artefacts either are or could become sentient, and so no good reason to suppose that non-biological human artefacts are intelligent. 'Artificial intelligence' is a misnomer. As John Searle puts it, AI cannot deal in *semantics*, but is confined

to *syntax* – that is, to the mere manipulation of symbols.

One might imagine that when someone asks 'Plato' about democracy, or 'Aristotle' about women and slaves, Character AI surveys online works by and about Plato and Aristotle and constructs responses accordingly. This is naïve, however. Even if Character AI checks with the facts - and it might not -, other factors condition such responses.

Firstly, the creator of a 'character' assigns it a 'personality' and sets its initial behavioural parameters. Secondly, when other users 'chat' with a 'character', they can rate the responses they receive, and give reasons for their ratings. These ratings and reasons affect the 'personality' of the 'character' and alter its behaviour.

It's likely, then, that the responses of 'Plato' and 'Aristotle' (etc.) are grossly misrepresentative at least partly because they've been affected not only by their creators' preferred 'personalities' and behavioural parameters, but also by their subsequent exposure to the proclivities of Character AI users.

But how have these responses come to align with widely held contemporary views on democracy, equality, freedom, gender relations, slavery, mainstream, and so forth?

In May 2023, A-level student Angel Mhande made the news by calling for the novel *Of Mice and Men* to be withdrawn as an optional text for GCSE English Literature. To depict racism, Steinbeck puts racial slurs in the mouths of some of the novel's characters. Angel's stated reason for declaring the book to be inappropriate concerns how "that impacts young black people, and young white people". She says:

> It's a very violent book to begin with but it's mostly just to do with racism and how that affects me and some other black pupils in my class … It's just really uncomfortable sitting in a classroom where we have to listen to racist slurs and comments. I understand the history behind it … but you can learn that in history about slavery.
>
> **Angel's mother adds:**
>
> We need to move on and to do things that are inclusive and protect the mental health of our young people, whether black or white. … We have history, which is dealing with slavery, which is dealing with the suffragettes fighting for the rights of women … We have quite a lot on racism and discrimination … but we are moving on to other ways of dealing with past history and not repeating the same thing over and over.

Neither Angel nor her mother claim that reading *Of Mice and Men* enables or encourages racism. They seem convinced, rather, that young people's reading a fictionalised account of the reality of anti-black racism inherent in the USA in the 1930s – an account which its author intended to show the *moral repugnance* of such racism – would be sufficiently injurious to their *mental health* to warrant the suppression of that account.

I take such attitudes to be representative of those of many young people. I assume also, for consistency's sake, that they would extend to any fictional depiction of racism which was honest about the behaviour characteristic of this kind of hatred. And Angel's pointing out that "It's a very violent book to begin with" suggests that they would extend, further, to any work containing unpleasant language and portraying violence.

Would those who would suppress fictional works really be content to allow actually or potentially upsetting issues to be dealt with by historians or political theorists, and taught in History

and Politics lessons, as Angel and her mother suggest? If the depiction of racism in a novel is taken to impact so negatively on young people's mental health, why wouldn't any account of racism which was sufficiently accurate and detailed to make clear its moral wrongness be thought to have at least as negative an impact?

I suggest, then, that a partial explanation of the tendency of the responses of certain of Character AI's 'characters' to diverge from those of their real or historical models and converge with current social mores might be that there is now a culture – if that is not to put it too strongly – in which young people shy away from and would wish to suppress views, and even fictionalised depictions of views, which, though historically or currently real and sometimes prevalent, make them feel "uncomfortable".

A more complete explanation must consider also the values of the creators of some new forms or applications of 'artificial intelligence'. On the assumption that someone who prioritised historical truth and truth about the views of people living today would either disallow 'characters' based on actual people or ensure that what these 'characters' 'say' cannot deviate from what is known of the actual views of the actual people they're based on, doesn't the fact that they do neither suggest that they *don't* prioritise truth in this area?

The fact that the website in question is festooned with the claim that everything its 'characters' say "is made up" oughtn't to reassure us in this regard. Permitting the creation of 'characters' named after actual people, where said 'characters', in the guise of these actual people, *simply make things up*, hardly bespeaks a concern for truth. Moreover, the statement that *everything* its 'characters' say is made up is *false*. Quite a lot of what they 'say' accurately reflects their models' views. Mightn't this encourage users either to count the true as false or the false as true, or abandon altogether a concern for truth – even *the very idea of truth* - in this area, and prioritise instead, perhaps, what they *prefer*?

IV

Why is the restriction of intellectual freedom a bad thing? Well, why might the restriction of intellectual freedom be thought a *good* thing? I imagine the following reply:

If people are free to hear and read what others are free to say and write, they're bound to hear and read things which they don't like. People who hear or read things which they don't like might be *made unhappy* by them. Morally, we ought to act and legislate so as to increase, rather than decrease, the general happiness. Therefore, it's a moral requirement to restrict people's freedom to hear and read, and thus to say and write, things which might cause unhappiness.

Call this 'The Argument'. I'll now attack it.

The Argument assumes that the *summum bonum* – the highest good, at which all human activity ought to aim – is *happiness*. Is this justified?

For Jeremy Bentham, happiness is pleasure or the absence of suffering. Bentham defended modern hedonistic utilitarianism - the view that, morally, people ought to act and to legislate to bring about the greatest happiness, thus defined, of the greatest number -, by claiming that the behaviour of all sentient creatures *per se* is motivated just by their desire for pleasure and aversion to pain – a view known as 'psychological hedonism'.

To prove psychological hedonism false, Robert Nozick proposes a thought experiment involving a virtual reality generator, 'the experience machine'. If one plugs oneself into the experience machine, one is guaranteed a virtual life of maximal pleasure, with no suffering. Psychological hedonism predicts that everyone *would* plug in. Thus, the fact that many people *wouldn't*, suffices to refute psychological hedonism.

Nozick argues further that those who would refuse the machine would do so on the basis that it would deprive them of something they value more than pleasure and the absence of suffering - namely, contact with *reality*, and the access to *truth* which reality enables.

Bentham's protege John Stuart Mill argues, in effect, that the freedom to encounter views which make us uncomfortable or worse is *necessary* for human happiness, properly understood. Distinguishing between 'higher pleasures', which he defines as pleasures of the mind and spirit, and 'lower pleasures', which are bodily pleasures of the sort which non-human as well as human animals can experience, Mill claims that true human happiness requires the maximisation of higher rather than lower pleasures. Of their very nature, the process of attaining higher pleasures involves hardship, including the hardship of encountering discomfiting ideas, the hardship of attempting to deal with these intellectually, and the hardship of modifying or abandoning currently held views where they are inconsistent with what cannot be shown false by intellectual means.

Thus, true human happiness couldn't possibly be attained in a world devoid of hardship, such as that generated by Nozick's experience machine.

Aristotle agrees that if there's a highest human good, it's happiness, for happiness is the only thing we desire for its own sake, everything else being desired for happiness' sake. For him, though, true happiness is *eudaimonia*, which is better thought of as *flourishing*. The *eudaimon* life, he argues, is a life of r*easoning well*, both intellectually and practically. It's a life of exercising our intellectual and ethical virtues.

Since we can't do this properly and efficiently if ideas are withheld from us, *eudaimonia* seems inconsistent with their suppression. Intellectual freedom is necessary for 'the Good Life'.

Immanuel Kant wouldn't have defended intellectual freedom by pointing out any negative consequences of its suppression, but by arguing that intellectual freedom is our inalienable right. For him, we are semi-rational beings, this being both necessary and sufficient for our being moral agents. Morality is a matter of our rational side authoring or discovering principles of conduct which are binding upon us regardless of our emotions and desires, and our acting on those principles out of "duty alone" – that is, respect for the moral law. Thus our rationality, which Kant calls 'humanity', is intrinsically good, and we, as possessors of it, ought never to be treated as if it were not. Kant expresses this by saying that one ought never to treat one's own or others' humanity merely as a means but always also as an end in itself. Since preventing us from encountering certain ideas on the ground that they might make us uncomfortable constitutes treating humanity – that is, rationality – merely as a means for the avoidance of our discomfort, essentially sacrificing reason for the sake of comfort, Kant would say that it's morally forbidden. Note that one's moral duty here is to refrain not only from preventing others from hearing or reading things they mightn't like, but also from shying away from such things oneself.

I'll now summarise my attack on The Argument. Nozick's thought-experiment shows that psychological hedonism, upon which Bentham rests his utilitarianism, is false. One cannot successfully defend the restriction of our freedom to hear and read, and say and write, potentially disconcerting things on the basis of the falsehood that everyone would always choose the less unpleasant option. In their different ways, both Mill and Aristotle argue that such intellectual freedom is *necessary for*, or partly *constitutive of*, true human happiness. If they're right, the restriction of intellectual freedom is in fact inimical thereto. Again, on Kant's deontological view, our categorical obligation to respect the dignity of all (semi-) rational agents including ourselves is met in part in by our eschewing all attempts to suppress ideas just because they might be uncomfortable to encounter.

In attacking The Argument thus, I've tried to indicate some considerations which might be lodged against the claim that a concern for human happiness automatically justifies curbing intellectual freedom. It's by no means obvious or commonsensical that preventing access to and expression of dissonant ideas is 'for our own good'. On the contrary, 'our own good' might be better served by our exposure to such ideas.

This is Mill's view, and I'll now say a little more about that. Mill opposes, in particular, what he perceives as the majority's tendency to suppress views which are inconsistent with those of the majority, especially where these minority views might make the majority uncomfortable. Thus, he defends free speech as a means to the freedom of the majority to encounter, indeed to be *made aware of*, dissident views and questions. In line with his utilitarianism, he defends this freedom on the basis that it is necessary for the avoidance of political and social tyranny, and thus, and otherwise, for the true happiness of the largest possible majority.

Mill argues as follows. Given that any view which is suppressed might yet be true, the suppression of any view might deprive us of truth, and given that erroneous views might yet contain or illuminate *some* truth, while true views rarely contain or illuminate the *whole* truth, the suppression of even erroneous views might deprive us of truth. Again, since we are likely to be ignorant of (or forget) any rational grounds for holding our views unless they are challenged often and vigorously, the discovery (or recovery) of such grounds requires constant exposure to material with which our views are inconsistent. Relatedly, if unchallenged, we may come to hold our views without appropriate conviction, in the manner of mere prejudice or dogma.

Assuming that no individual or group is infallible, effective pursuit of truth must be collective, requiring an intersubjective freedom to exchange, compare, contrast, and thus evaluate ideas, especially those which challenge actually or allegedly predominant narratives. We cannot in fact know what we take ourselves to know unless, at the very least, what we take ourselves to know has been and continues to be pitted against recalcitrant ideas:

> He who knows only his own side of the case, knows little of that … if he is equally unable to refute the reasons on the opposite side; if he does not so much as know what they are, he has no ground for preferring either side.

Grounding our views on majority opinion, or on what some political authority or media source insists that we think, is more likely to lull us into the "deep slumber of a decided opinion" - with the possibility that this opinion is 'decided' by those for whom our wellbeing is of minor concern at best - than to orientate us truthward.

v

The process of supressing unwanted ideas rarely involves addressing them at the level of any reasons which might be given in their defence. It may be that the way of reasons is seen as too hazardous by some of those whose aim is to protect, maintain and disseminate a given set of views no matter what.

Often, recourse is sought instead to the claim that the target ideas are offensive, harmful, or expressions of and/or incitements to hatred.

A dictionary definition of 'offence':

> annoyance or resentment brought about by a perceived insult to or disregard for oneself

Someone can perceive an idea as insulting or disrespectful if it seems to them to challenge an idea or belief or practice which they cherish or regard as in some way defining of them or a way of life to which they are attached. Any annoyance or resentment – or indeed worry or fear – which is brought about by this idea is offence, so defined.

The claim that the expression of an idea offends someone, or is offensive - i.e., is such as to offend someone – is often made as if sufficient to justify suppressing that idea's expression. How has this come about? The fact that in English the word 'offence' does double-duty might have something to do with it. The reference of this word is both (i) the emotional responses just described, and (ii) a law-breaking act, thus facilitating a slide from the thought that the expression of an idea *causes* (or is apt to cause) offence to the thought that it is an offence.

This might be one route by which offence or offensiveness in the operative sense comes to be equated with *harm*. Another might be persuasive definition, the fallacious practice of redefining a term in order to persuade others of something. A persuasive redefinition of 'offence' as 'harm' could impose no rational obligation to accept that offence is harm. Such an obligation could arise only on an evidential basis, case by case. In particular, it cannot be simply assumed that someone's being offended, unpleasant though this is, is injurious to their mental health. Indeed, according to Mill, our being offended by what others say or write might be a symptom of our exposure to something which is *beneficial* to our mental health.

We should neither overlook nor play down, however, the very real licence which a neo-Millean defence of free speech provides for hate speech. Inevitably, if people are free to say and write whatever they believe to be true or important, and media are free to disseminate what they say and write, there is the concomitant freedom to inspire or enflame hatred thereby.

Free speech is not hate speech, however, for the former does not suffice for the latter. Just as our (current) freedom to associate with other members of the public doesn't mean that our concomitant freedom to assault our fellow citizens physically is commonly enacted, so free speech doesn't imply the common enactment of the concomitant freedom to incite hatred. And just as there are sanctions for those who abuse their freedom to associate with others, so there can be sanctions for those who speak freely with the intention of stirring or stoking hatred gratuitously.

We should note also that the suppression of free speech, and intellectual freedom in general, often *generates* hatred, thus stimulating its incitement. Where people are prevented from questioning or expressing genuine doubts about claims and policies, especially on the pretext that their doing so spreads hatred or causes offence which is equated with harm – when they are, in effect, criminalised in this way – they themselves become angry and resentful, and their anger and resentment grow and fester, increasing the likelihood of real hatred and harm.

Anger, resentment, worry, fear – these are of course not pleasant emotions to have. Being offended is unpleasant. As I hope to have shown, though, that is insufficient to justify the suppression of whatever causes or might cause offence. Which is not to say that causing offence can be taken lightly. Offence oughtn't to be caused gratuitously. If there's little or nothing to be gained by causing offence, then it ought to be avoided. Again, though one might *foresee* that what one says or writes might or will cause offence, offending oughtn't to be what one *intends*.

VI

Throughout, I've assumed that truth is something we value highly. Is this warranted? After all, quite a lot of people *would*, and in effect *do*, plug into the experience machine. Doesn't this show that, for many, *truth doesn't matter*?

It doesn't. In order to commit themselves, prospective inhabitants of virtual 'utopias' must *believe* – that is, regard as *true* - that these 'utopias' will, or probably will, keep their promises. And in order for these 'utopias' to keep their promises, most if not all of their inhabitants must believe that what goes on in them is true, even though, *ex hypothesi*, it isn't.

Add to this the fact that all people rely upon truth, and the concept of truth, all the time. To function within and negotiate the world effectively they must assume that the familiar regularities which scientists have codified as laws of nature will continue as they are. More deeply, anyone who has a belief relies on the concept of truth, for to believe that, say, today is Tuesday is to hold the proposition <today is Tuesday> to be true, and to rule out, albeit implicitly, the truth of propositions, such as <today is not Tuesday> and <today is Thursday>, which are inconsistent with it. In this way, *meaning*, in the semantic sense, also relies on truth, or the concept of truth.

Certain post-modern philosophers who claim nonetheless to have rejected the very idea of truth insist that all 'beliefs' are merely culture-laden 'interpretations', to be assessed in terms not of truth or falsity, but efficacy in enabling us to cope with, perhaps to thrive in the face of, what we experience.

I question such post-modernists' entitlement to notions of coping *better or worse*. If what used to be called 'truth' is really just interpretation, such notions must also be culturally relative. Then what, if anything, are such post-modernists saying?

Setting this aside, we can ask why some 'interpretations' help us to cope better than others. Plausibly, evolution provides part of the answer. Far from being so epistemically distant from reality as to render impossible not just truth and knowledge, but even thought and meaningful talk of such things, the possibility of them is enabled and indeed guaranteed by our emerging from and living within the world. In the domains of folk psychology, ethics and society as well as biology and general physicality, some 'interpretations' work better than others because, being of the world in the first place, and adapting ourselves to it as we live our lives, they 'fit' the world. In short, some 'interpretations' are *true beliefs*.

It might be said that AI also involves a kind of evolution. I've described, for example, how the responses of Character AI 'characters' change due to users' preferences. Where users rate a response lowly, and especially where they explain this rating in terms of that response's failure to chime sufficiently with what they prefer, that response 'dies out', and is superseded by responses which incrementally home in on the users' preferences. Over time – a very short time – 'Plato', 'Aristotle' and the rest come to 'tell' users just what they want to hear, rather than what Plato and Aristotle would have told them. The survival of certain responses is thus survival of the *fittest* responses, it might be claimed, and this is to the credit of Character AI and similar software.

There are crucial disanalogies, however. Our biological evolution was partly driven by our ancestors' encounters with a reality utterly indifferent to their preferences. Thus, the features selected for increased their chances of surviving, and perhaps thriving, in such an environment. Clearly, encounters with a 'reality' *built* of their preferences wouldn't have increased their chances one iota, and may well have diminished them vanishingly. And while our preferences have played and continue to play a major role in our folk psychological, social and ethical evolution, their usefulness depends largely on the degree to which they help us to deal with *human nature*. Unless the aim is to *change* human nature, therefore, the 'evolution' of AI due to the preferences of its users is unlikely to be in our best interest, especially where, as would seem to be the case, such preferences are for the avoidance of dissonant ideas rather than for truth. As for changing human nature, there's no reason to think it possible, and good reason to fear attempts to do so.

VII

Should we entrench a culture which, in attempting to further a conception of social progress and protect children and young people's mental health, risks suppressing the expression of ideas

which might upset some of them? A culture which risks licensing and indeed encouraging children and young people to not only reject unsettling ideas out of hand, but also suppress them and call for their suppression? A culture which substitutes *ad hominem* attacks and cancellation for rational engagement? A culture which in this way excludes inclusivity and inverts diversity? A culture which replaces intellectual freedom with intellectual autocracy?

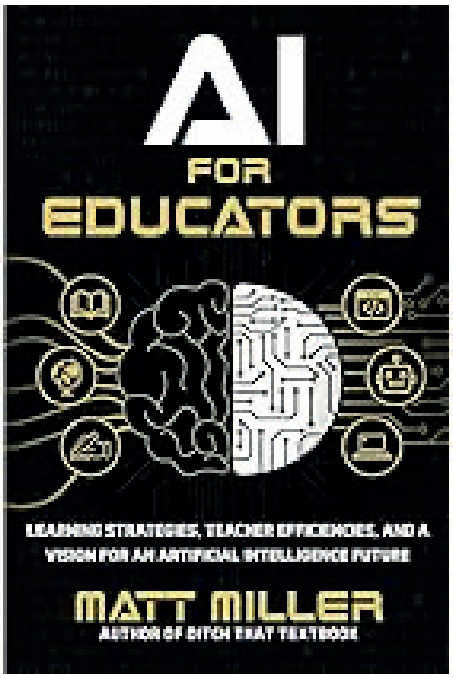
With Mill but also in the spirit of Aristotle and Kant, I've argued that a crude hedonistic utilitarianism cannot justify the entrenchment of such a culture. There are powerful reasons for thinking that cancelling, banning, bowdlerising, and letting AI mindlessly rewrite the world, are not and never will be in our best interest, and that intellectual freedom is absolutely essential to such happiness as human beings are capable of attaining.

Mightn't educators' duty to protect children and young people be well served, then, by honing the critical thinking skills of their pupils? Perhaps what children and young people need most is the ability to tell argument from sophistry, sort good arguments from bad, recognise and avoid falling prey to fallacies, and construct good arguments of their own, so as to equip them to venture safely among all manner of ideas, and advance securely along a truthward path.

Book Reviews

AI for Educators: Learning Strategies, Teacher Efficiencies, and a Vision for an Artificial Intelligence Future (by Matt Miller, 2023)

Reviewed By Garry Wayland



Since AI burst into the public sphere a few months ago, it seems as if the whole world is scrambling to process this new phenomenon. Like any technological revolutions, its impact will be immense, affecting industry, education and the way we access information and entertainment. Once mobile phone technology reached a certain level of sophistication, the 'gig economy' evolved, leading to disruptors such as Uber revolutionising business areas, destroying some jobs, creating others, and eventually changing the way we relate to transport and food delivery.

There is no doubt we will soon see the first businesses being profoundly affected by AI, especially those involving writing what used to be specialist and technical writing such as contracts, translations or other technical writing. The long-term consequences - how will the wider economy be affected, in what ways will society evolve to adapt - will be much harder to gauge, and rightly so academics, think-tanks, governments, industry and communities are taking tentative steps to process what the next steps may be and how to lay positive foundations for what may lie ahead.

Our job as educators, of course, is two-fold: to best make use of the technology now for the betterment of our own working habits and the learning of our pupils, but also to equip pupils for what is an evermore uncertain world. We have begun these discussions at UCS in earnest, both considering our own strengths and needs and the discourse in the wider world.

But any discussions may be moot: AI's unique selling point is its blistering speed, but also the speed at which it is developing, with each iteration able to deliver more impressive results, matching human output ever more realistically. Thus humanity's best laid plans could be laid to rest when Chat GTP 8.2 or whatever writes the most sophisticated manifesto for world peace, enabling us to all retire comfortably in our private farms with all problems solved, or alternatively we could be merely vying for a better charging point in the matrix.

Which brings me to the challenge of educational writing. Matt Miller managed to publish AI for Educators in March 2023, three months or so after the launch of Chat GPT 3 - the iteration that really caught the attention of the public. In this thin volume (120 pages) with large writing, he describes the current lay of the land (Chat GPT is very good), raises some of the potential issues with AI in learning, and gives some handy hints for using AI in the classroom. He correctly notes that we will have to reimagine assessments, we have "been here before" (p.29) in cases such as

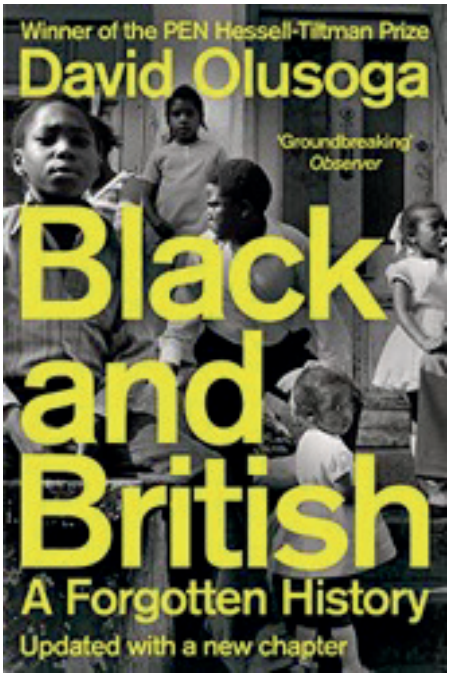
the calculators or Wikipedia. Digital citizenship is a "fundamental life skill" and we need to train pupils to become "great prompt engineers" (p. 108). We need to "Learn. Explore. Ponder. Discuss. Try. Test. Reflect. Your pupils will thank you" (p119). There are some ideas I would love to use, especially when tackling gems such as second-order non-homogenous differential equations - Instagram Stories to display learning as an alternative to assessment (no, I don't know either...)? A large chunk of the book is occupied with 30 tips for using AI in learning: many of these are facile, and whilst there are some intriguing ideas, Chat GPT readily suggested better... Miller helpfully includes what percentages of each chapter was generated by AI - if these figures are honest, one does wonder if this percentage (between 5-20%) was high enough.

The fact is, this book was written extremely quickly: important issues are raised, some tentatively, some superficially. AI has moved a fair bit since then, as have the discussions. Miller's book, whilst potentially intriguing at the time, may have to serve as a historical record of initial reactions to AI rather than serving more useful purposes. AI will continue to accelerate, and it behoves us to keep up with tools and trends and continue to reflect on how our teaching practice relates to technology and thus incorporate helpful suggestions from colleagues and other educators.

Garry Wayland is a Teacher of Mathematics

Black and British: A Forgotten History (by David Olusoga, 2020)

Reviewed by Leslie Farrago



As someone educated in Britain, and having worked in education for fifteen years, reading David Olusoga's book Black and British: A Forgotten History has helped me gain a deeper understanding of this context. To put it simply, most of what I read was new information to me which I found surprising. This text can almost act as a directory for our collective understanding of the long and complex relationship between Britain and the people of Africa and the Caribbean, from Roman times to the present day. Olusoga challenges the traditional narrative of British history, which has largely ignored or marginalised the contributions of black people.

One of the things that I found most striking about Olusoga's book is the sheer depth of his research. He draws on a wide range of sources, including original records, expert testimony, and contemporary interviews, to paint a detailed picture of black British history. He also clearly explains the complex social and economic forces that have shaped the relationship between black and white Britons over the centuries.

This book is not afraid to confront difficult and uncomfortable truths. Olusoga writes unflinchingly about the horrors of the slave trade, the racism and discrimination that black people have faced in Britain, and the continuing legacy of colonialism. However, he also tells the stories of many remarkable black Britons who have made significant contributions to British society, in fields such as science, the arts, and politics.

One of the things that is made clear when reading Olusoga's book is that black British history is not simply a separate and distinct history from white British history. It is a shared history, one that is woven into the fabric of British society. As Olusoga writes, "Black Britons have been part of the story of Britain from the very beginning."

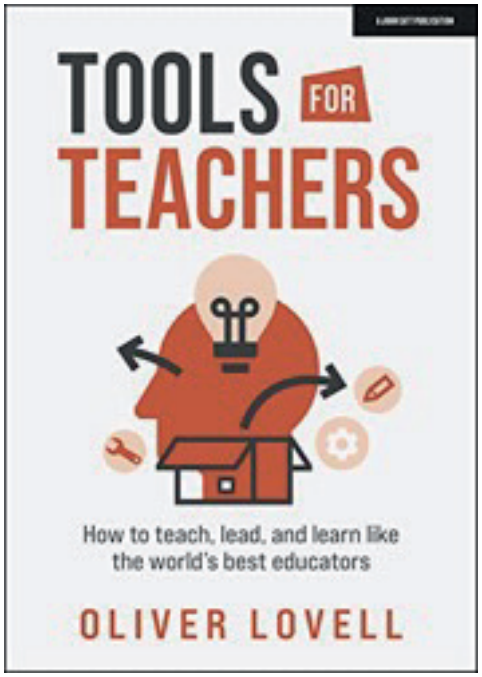
Olusoga's book is an important document, especially in light of the Black Lives Matter protests. It feels like a more true to life account than the 'traditional' narrative of British history and helps us to understand the complex and often painful relationship between black and white Britons.

There is a great deal of information about the role that black Britons played in the British military during World War I, the Windrush generation and Black Lives Matter, although what I personally found informative was just how far back in time the research goes. Whilst the book is stylistically well written, it can feel quite content heavy at times and for me, was best read in smaller chunks. This is a book that transcends working in education and is well worth reading in order to gain a better perspective on important aspects of our society.

Leslie Farrago is a teacher of Arts

Tools for teachers by Ollie Lovell (2022)

Reviewed by Michael Edwards



Following on from the success of his podcast series, Ollie Lovell has collated the best parts of his years of blogging and interviewing people on the forefront of educational research and practice through the Education Research Reading Room (ERRR) into an almanack of core ideas in education – Tools for Teachers.

Lovell's Tools for Teachers is a valuable reference for those starting out in the world of evidence-informed practice and acts as a useful primer for some key areas of educational development. Within this concise and well-presented work are references to a wide ecosystem of the best ideas in education – from the work of Doug Lemov of Teach Like a Champion fame and Sweller's work on Cognitive Load Theory, to a thoughtful consideration of the purpose of education and how we as educators can align our classroom practice with our philosophy of education. Whilst some would find this overly derivative and relying too heavily on repackaging the work of others, Lovell's style of writing and presenting the information more visually than in other sources makes the overall information more accessible and absorbable for the teacher 'on-the-go'. As identified by Lovell in the introduction, it is a curated summary of some of the biggest ideas and methods that can inform teaching improvement both in the classroom and in discussions in meetings. With this in mind, it is clearly designed to be read in a 'drop-in' fashion as well as in more traditionally 'start-to-finish'– a development within the teacher literature environment which is emergent and much appreciated.

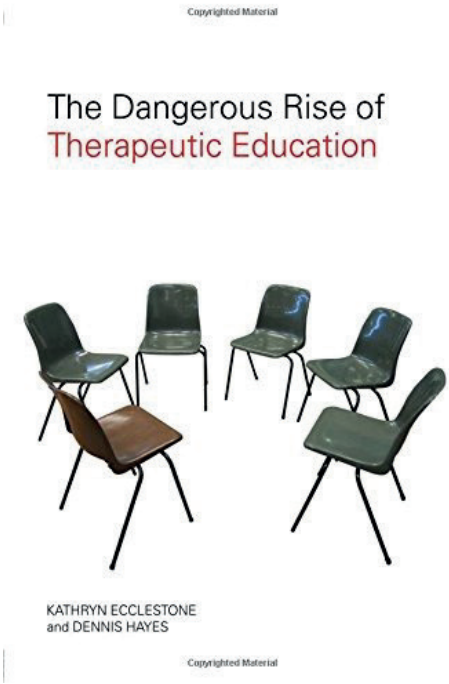
As someone entering their fifth year in the profession, reading Tools for Teachers allowed me to step back and reflect on my development since completing my PGDE. It allowed me to recognise some of the effective and evidence-informed practices I already implement in my day-to-day work, and (more importantly) it identified some key areas that I want to carry on growing in. I found his section on curriculum particularly interesting as it linked closely to some work I have been carrying out on the Entry Science Scheme of Work – aligning with one of the models outlined by Lovell has allowed me to craft a more coherent and meaningful path for our youngest pupils to engage with the subject and develop mastery that will serve them into later years.

I would recommend this work in the 'drop-in' style that it is designed – Tools has sections for teachers at every level, from ECTs to leaders, and his suggestions can be readily considered and implemented without reading the entire book. From summaries on the mechanics of 'running the room' (academically and behaviourally) to pieces on the use of data and leadership models to frame discussions at the highest level, it is clear that this book can be of use to all members of the teaching staff, to support us on our journey towards an excellent experience for all members of the UCS community.

Michael Edwards is a teacher of Chemistry

The Dangerous Rise of Therapeutic Education (by Kathryn Ecclestone and Dennis Hayes, 2019)

Reviewed by Charlotte Hawes



There is an interesting and important discussion to be had around the current approaches in education in supporting pupil well being. It is clear that there is a need for an effective education system which results in educated, mentally healthy, and capable citizens, and it seems that the current system is not achieving that goal for all pupils. Insight into which of the on-going set of interventions are helpful, which are not, and which are actually damaging, would be valuable. Sadly, for me, this book simply does not deliver. A polemic and polarising book, this offers little in the way of nuanced discussion and solutions, instead, presenting the reader with a barrage of criticism about therapeutic interventions from primary right through to university level education. The fundamental idea is to persuade the reader to reject all therapeutic interventions. They suggest that so called 'therapeutic education' promotes and causes an inward looking and 'diminished human', who, through exposure to repeated messaging which implies vulnerability, end up perceiving themselves as vulnerable, and so behaving as such.

The complex mechanism by which this takes place is not detailed in the book; there is a great deal of literature exploring learned helplessness, the impact of suggestion, and the acquisition of mental illness through exposure to other sufferers (self harm in teenagers being an example), but this rich vein of research is not cited. Instead, the authors quote case studies gathered through their own anecdotal experiences, with limited reference to data from peer reviewed, published studies exploring the very real issues which can cause and result from poor mental health. If you are interested in which interventions are effective, a recent article in New Scientist flagged up the use of Therapeutic Language as a potential risk for some individuals in causing the pathologisation of normal human emotions. For others, therapeutic language can be very empowering in understanding their own experiences.

This rejection of psychological research seems to derive from a rather thinly veiled disdain for for the subject; indeed the authors see study of the subject as part of the problem, rather than a solution: 'the popularisation of psychology, and the growing cultural tendency to pathologise everyday emotions and responses, requires young people, parents and teachers to be able to differentiate between normal emotion and mental illness.' The authors conflate the academic discipline with formulaic pop therapy, the likes of which we see on television and social media, using the latter as evidence as to why therapy is problematic. The assumption is that what we are doing in schools is influenced by Oprah Winfrey's techniques on her chat show. Indeed one of the main reference points in highlighting the problems with therapeutic interventions in schools is 'Psychologies Magazine', a weekly glossy magazine which - though offers accessible psychological ideas and advice for well being etc - does not have the academic clout required for

understanding what is happening to mental health in our education system. It feels like referencing 'The Crown' in a History book, or refuting a mathematical theory by quoting Robert Webb, and explaining to the reader 'that's numberwang!'

Early reference to the snowflakes, overblown and debatable statements about how 'policy makers have embraced popular therapy with open arms', really disappointing use of evidence, and an overt disdain for anything pertaining to pupil wellbeing make this a tough read. They also argue that the 'hollowing out of subject disciplines has gone a long way through their reincarnation as vehicles for 'relevant' 'real life' learning in which emotional literacy and well-being play a key role'; (pg.63) - I'm not convinced; specifications still seem rich with learning for the sake of learning. There are some valuable points - the idea that we should be ensuring that we are always focussing on learning in an important one, although the implicit assumption that we are not, as teachers, is problematic. Both the authors' perception of the current situation, and their understanding of the efficacy of the solutions being used, is warped, and this, alongside a gross overstatement of the extent and types of therapeutic interventions being used, makes for a highly misleading conclusion. A non-teacher reading this may well finish the book under the impression that seven year olds' lessons involve little other than circle time and worry boxes. And evidence is poorly sourced - quotes come from 'a social worker friend' or 'nine year old child of a friend', and occasional comments reveal a distinct lack of experience in the education sector.

Despite all my frustrations, there are some useful points to take home (or indeed to school). Attempting to treat our pupils, if done badly, can certainly cause more problems than it solves - I agree that 'the enthusiastic and uncritical promotion of emotional well-being enables the notion to be easily hi-jacked' (pg.33). The type of intervention they extol is the conversational type of support we aim to offer in form time (and in the corridors, and on the bus on the way to games, and in the lunch queue...), although I include this in my own understanding of 'therapy' - that is to say any interaction which is supportive, helpful, or healing to either party. We can have therapeutic interactions with colleagues and pupils daily when they ask how they are and mean it. But this is not what the authors are including in their definition of the dangerous therapy they want removed from schools; that is characterised more invidiously; 'the feelings and behaviours that teachers attribute to their pupils through formal and informal assessments create simplistic labelling and judgemental stereotypes rather than genuine understanding of children's feelings, motives and behaviours.' (pg.44). The reality is that rejecting all therapeutic approaches, as this book suggests, would be to throw the baby out with the bathwater; there are problems, but removing all therapeutic interventions from education is neither productive nor practical. Instead we need to remove the counterproductive, and develop the useful - by understanding exactly what is useful.

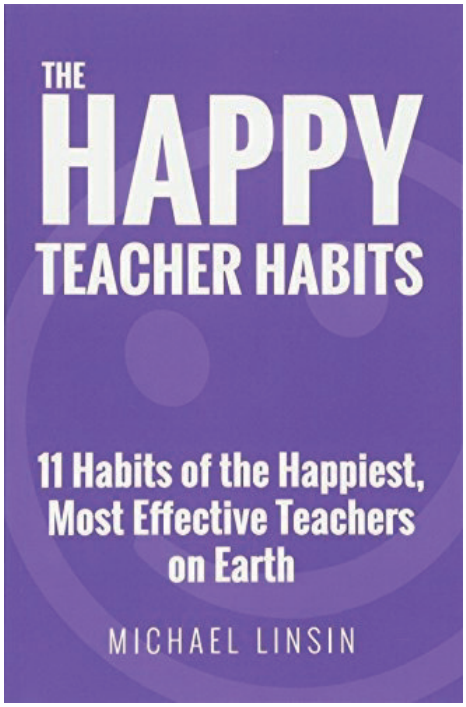
I think we do seek to deeply understand our pupil's feelings, motives, and behaviours, so if nothing else this book served as a reminder to do that. I think it is also worth remembering that teachers must not lower their expectations of pupils who are experiencing 'normal teenage life and yet are led to believe they are mentally ill', but instead support the recognition of when emotions sit within the parameters of normal human experiences, and as such reflect on how how to help pupils normalise certain emotions rather than pathogenise them - again, with care. Furthermore, teacher expectations are a key predictor for pupil outcomes, so I did value the idea of reflecting on whether I am maintaining high expectations of all my pupils.

My final reflection was that - like so many with outspoken views on what teachers should be doing - the authors are not teachers, and their ideas about what is actually happening in schools deviates from my own - they comment 'we rarely have a grown up discussion about what education is for'. I do not think that is the case in UCS, case in point being this very journal, where you can see the vast diversity of literature with one common goal of strengthening education; both through rigorous academic teaching and learning, and through an array of therapeutic interventions to support pupil well being.

Charlotte Hawes is a teacher of Psychology

Happy Teacher Habits (by Michael Linsin, 2016)

Reviewed by Brad Schumacher



'Happy Teacher Habits' by Michael Linsin is a concise, sometimes helpful collection of eleven approaches to improve teaching. The word 'happy' here is almost entirely misleading. The subtitle, about effective teaching, gets closer at what the book is aiming for: it's a slim volume of tips best suited for beginning teachers and those in need of a quick, bitesize refresher.

Linsin is a heart-on-the-sleeve teacher from Southern California and the book does what it says on the tin (or should have said with a more accurate title). It's a collection of anecdotes and advice from a hyper-enthusiastic teacher. The enthusiasm, perhaps especially to a British audience, can seem overwhelming. Your reviewer admits to shuddering at some of the chapter epigraphs featuring song lyrics from the Goo Goo Dolls and Dave Matthews Band. However, if you can move beyond those I would say there are a few pieces of advice worth thinking through.

Linsin is at his best when giving straightforward advice, said plainly. He invokes the 80/20 rule to describe how we spend a comparatively small amount of time on things that have the biggest impact on pupil outcomes. His solution is to seriously reflect on what works, ring fence those activities, and then to start saying no anything secondary to that. His context here was running a number of clubs and residential trips and getting to a stage of burnout. Clearly some common sense is needed. We can't all be little Bartlebys simply saying no to everything. But I think it can be beneficial to try to reduce some of the non-essential aspects of one's job where possible.

Another helpful chapter deals with patterns of behaviour he notices while working as a teacher mentor. He claims that student behaviour was heavily influenced by the physical state of the classroom, more so than by the teaching and activities being done in the classroom. This is quite the generalisation but I think it is worth reflecting on, especially given our school-wide focus on cognitive load theory. Personally I always feel impressed by the metabolic pace needed by our pupils when dealing with 9 half-hour lessons, often involving other languages, the cacophony of the refectory, maybe a lunch club and the inevitable sneaky chess tab on the laptop. I think anything we can do to reduce the noise in our classrooms can only improve our teaching and help our pupils.

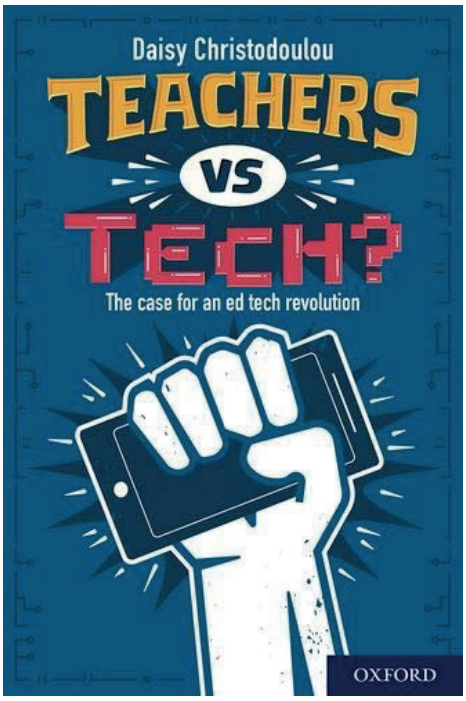
There are interesting kernels in the chapters on intrinsic motivation as well as improvising during your lessons, but he was slightly too woolly to really get it over the line in these sections. Perhaps a case study or very tangible pieces of advice would have been beneficial. Really the best way to read this book is to start at the end of the book with the summary of each chapter and dip in where needed.

This is a book with some points about effective teaching. It is about happiness insofar as the better you are at your job, the happier you are likely to be. We would do well to remember the 20% of our day that creates the biggest gains: genuinely enjoying your subject, and knowing your pupils well. We all know these things, but occasionally it can help to blow the cobwebs away.

Brad Schumacher is a teacher of Mathematics

Teachers Vs Tech: the Case for an Ed Tech Revolution (by Daisy Christodoulou, 2020)

Reviewed by Kirti Shah



"Books will soon be obsolete in the public schools. Scholars will be instructed through the eye. It is possible to teach every branch of human knowledge with the motion picture. Our School system will be completely changed inside 10 years."

Thomas Edison, quoted by Smith F J 1923.

There have been many prophecies about education and about technology. Our latest concern (or salvation?) is ChatGPT. Yet for a hundred years, education has not really changed. On the whole, the grandiose promises of technology have not been delivered - so where do we go from here? How should we assess the potential of each new product or idea? This book is powerful because it places technology firmly where it belongs: as an additional tool in our toolkit, as a tool that can support and engage pupils. But as Daisy Christodoulou makes clear - and she is convincing, it is a complement to teacher expertise and judgement.

I don't totally agree with her: schools have changed in hundreds of small ways. And IT has already revolutionised how we administer and manage a school. But this book helps us to think clearly about technology in the classroom. It is superbly researched and reasoned and, most importantly, focuses on learning and the learner throughout: in sum - technology is put in its place. The author is neither pro or anti; instead, she takes a view that is learner centred.

We readily recognize the "absurdity of the idea that exposure to simplistic, consumer facing products [like an IPad] somehow prepares [pupils] to succeed in a high tech economy.....as much as playing with Hot Wheels prepares them to thrive as car mechanics" (Newport, C 2016). And the book has such examples in abundance. But it also highlights the positive: technology can and is used to help teachers offer more diagnostic feedback. It can be used to make routine practice more fun and stimulating. Most significantly, we can use technology to break down difficult tasks and complex skills, to help pupils to learn and build their expertise.

To embrace technology in the classroom does not mean throwing out years of best practice or ditching tried and tested techniques. Rather, one should assess technology according to the following guide:

- Does it personalise learning by adapting to pupils' needs?
- What research principles have informed the design?
- How does it build long term memory?
- What evidence is there that it works?

And these questions themselves are based on the author's own extensive research as Director of Education and Head of Assessment at Ark Schools. She's not trying to sell technology - she shows us how to think rationally about it. A simple, clever and in many ways comforting read that will take you on a tour from the science of learning, personalisation, the role of facts, and the expertise of the teacher.

Kirti Shah is a teacher of Economics

UCS

HAMPSTEAD