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Science and RE teachers' perspectives on the purpose of RE on the secondary school curriculum in England

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Abstract

Renewed interest in curriculum in English schooling over the past decade has emanated from a particular focus on the place and role of knowledge in the classroom. Significant changes in policy and examination specifications have led to changes in religious education (RE). However, little is known about teachers' perspectives on the purpose of RE. We asked teachers of science and RE what they understood as the purpose of RE on the school curriculum. Data from 10 focus groups and a survey with 276 secondary teachers demonstrated that many secondary teachers of science have a different understanding to RE teachers of the purpose of RE on the school curriculum. Findings also show a lack of consensus from RE teachers on the purpose of RE, suggesting the impact of the knowledge turn in RE is not as strong as the Ofsted Research Review implies. Findings are significant as little is known about how knowledge works across disciplinary boundaries in schools. If students are to come to a full understanding of how knowledge works, teachers need to have some understanding of how knowledge is being constructed and utilised in other curriculum subjects. Knowledge of the intended purpose of RE is important for respectful co-existence of subjects on the curriculum and essential when RE is declining as a subject in secondary schools.

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KEYWORDS

inter-disciplinary learning (IDL), knowledge of curriculum, Ofsted research review, purpose of religious education, religious education

INTRODUCTION

This paper describes current perspectives on the purpose of religious education (RE) within the secondary school curriculum in England, with specific focus on the views of RE teachers in comparison with the views of science teachers. In recent years, in both England and elsewhere, there has been a renewal of interest in the nature of the curriculum, in particular the place of knowledge on the curriculum and the disciplinary nature of school subjects (Ashbee, 2021; Cuthbert & Standish, 2021; Young, 2008). Academically, this 'knowledge turn' (Lambert, 2011) emerged from a group of social realists concerned about the general neglect of knowledge in educational research (Hoadley et al., 2019). A persuasive distinction between 'powerful knowledge' and 'knowledge of the powerful' (Young, 2008) led to social realist ideas influencing both policy and pedagogy (Hoadley et al., 2019), with an impact on the demands of Ofsted, examination specifications and curriculum planning and resources. In parallel to this renewed focus on knowledge in curriculum subjects, various academic research projects have explored how the discrete curricular school subjects, science and RE, might work together in a rigorous, interdisciplinary way to explore important topics, such as medical ethics or artificial intelligence, that may fall across established curriculum subjects (see Billingsley et al., 2018; Guilfoyle & Erduran, 2021; Pearce et al., 2021). Within current debates on the place of knowledge in the curriculum in England and beyond (Muller & Young, 2019; Niemelä, 2020), less is known about how knowledge works across disciplinary boundaries. Rigorous interdisciplinary education is of increasing interest in educational contexts beyond England. The OECD Education and Skills 2030 project (OECD, 2019) recognises disciplinary, interdisciplinary, epistemic and procedural as four different types of knowledge. This paper provides empirical insights to the less explored field of how knowledge works across disciplinary boundaries. We argue that a shared understanding of purpose between subject teachers is a necessary precondition for any interdisciplinary work. The authors of this paper acknowledge that purpose can be complex and multi-faceted, but use the singular form 'purpose' with that complexity in mind. The way a teacher defines the purpose of a subject influences the knowledge that is privileged in the classroom.

RE, as a school subject, can suffer from an undeserved image which may have contributed to a diminishing place on the school curriculum in many schools (CoRE, 2018). There have been significant changes to examination specifications and policy documents in RE as part of the more general curriculum 'knowledge turn' (Lambert, 2011), but also as a response to concerns about declining numbers accessing the subject. In this time of considerable curriculum change in the subject, however, there is little empirical research on RE teachers' perspectives on the purpose of RE. Even less is known about the perspectives of other subject teachers on the purpose of RE although concerns have been raised about mutual respect between teachers of science and RE (McKinney et al., 2014). Focus groups with 50 pre-service teachers and an online survey with responses from 276 teachers revealed that secondary science teachers hold quite different views to secondary RE teachers about the purpose of RE in schools. This paper is significant as it offers empirical research on not only the perspectives of RE teachers about purpose of the subject, but also the perspectives of science teachers. While the views of any other curriculum subject teacher on RE would be of interest, science is of particular note due to the historical and contemporary lines of tension

between the subjects, especially as they relate to the nature of knowledge. Such empirical research is critical to provide insight into current debates around knowledge on the curriculum, the status of curriculum subjects and the place and construction of knowledge within each subject. If students are to understand how knowledge works differently in different disciplines, then teachers need some understanding of how knowledge works in comparative disciplines.

Topics covered in both science and RE include ultimate ones such as the Big Bang and evolution, and issues of critical contemporary concern such as climate change and sex and gender. The impact of such teaching will be limited if teachers do not know what is being taught on the same topic in the same school to the same pupils. Purpose frames teachers' selection of and approach to knowledge in the classroom. Furthermore, knowledge of the intended purpose of other subjects is important in terms of respectful co-existence on the curriculum and particularly important in an era when the status and place of RE on the curriculum is at risk.

In this paper, we explore different perspectives on the purpose of RE as a subject on the school curriculum. A summary of literature sets out the shifting debate around the purpose of RE, a subject beset by demands from government and the wider community. A section on materials and methods explains the development of focus group protocol, online survey, and analytical approach to qualitative and quantitative data. Findings are presented in relation to three key themes: the perspectives RE teachers hold of the purpose of RE on the school curriculum, the perspectives science teachers hold of the purpose of RE on the school curriculum and finally, the potential impact of these findings for curriculum planning and teacher education. This study adds useful findings for RE teachers and educators striving to improve the status of the subject on the wider curriculum. Crucially, the data in this paper provide insights in a field that deserves more exploration, the place and nature of knowledge on the curriculum, particularly in relation to topics that fall across disciplinary boundaries. We conclude that, to enable more effective interdisciplinary approaches and a meaningful experience of the curriculum for students, early career teachers in RE need support to share a clear purpose of their subject with other subject teachers.

CONTEXT

Knowledge across subject boundaries

Teachers understanding of the purpose of their subject underpins their selection of knowledge and their approach to knowledge. The place and nature of knowledge on the school curriculum has become a hotly debated topic in recent years. Where the first decade of the twenty-first century witnessed a fashion for cross-curricular approaches in secondary schools to promote 21st century skills and competencies (Woolley, 2019), more recent years have seen a firm reestablishment of subject discipline boundaries in schools. Each discipline has 'legitimate, shared and stably reliable means' for generating truth (Young & Muller, 2010, p. 12). In Young and Muller's 'Future 3' model of education, which sets out a curriculum where powerful, disciplinary and substantive knowledge is valued, differentiation of knowledge is recognised; concepts, skills and content must all be made explicit in the curriculum in order to equalise 'epistemological access' (p. 23). In this model, boundary crossing is possible; but it requires boundary maintenance as a precondition (p. 16). What powerful boundary crossing means has been under-theorised (Niemelä, 2020). There are theoretical examples in the literature of how knowledge compares between two subjects, for example in construction of argumentation in history and physics. Where in history, the quality of argumentation, the fidelity of the evidence and judgement-making are critical, physics relies on

laws, theorems and scientific regularities (Muller & Young, 2019). How far history and physics teachers are aware of, and utilise, comparisons between the construct of argumentation in the two subjects, in order to clarify the particular nature of their discipline, is another matter (Chan & Erduran, 2022). Ashbee (2021) argues that school leaders need an understanding of the 'comparative natures' (p. 30) of subject specialisms. If students are to come to a full understanding of how knowledge is constructed differently within different disciplines then it is also necessary for teachers to have some understanding of how knowledge is being constructed or utilised in other curriculum subjects. Teachers need awareness and understanding of the differences in knowledge construction and disciplinary framing in order to help pupils understand the comparative nature of different disciplines.

In some ways curriculum is at the core of recent government policy. Ofsted (2019) has a focus on 'curriculum intent', a framework including the aims, knowledge and skills for each stage (Ofsted, 2019). However, government policy on teacher education and development has tended to promote generic, rather than subject-specific, approaches to teaching and learning, with the Core Content Framework (DfE, 2019a), and the Early Career Framework (DfE, 2019b), a new approach to the induction of early career teachers (Healy et al., 2019). As a result, there have been calls for teachers to engage with conceptual debates about their subject and its contribution to the curriculum (Lambert, 2018). Building on the work of Young and Muller, Lambert's work on curriculum leadership suggests teachers need to know the students and their prior knowledge. This could include prior knowledge of the same topic in other lessons. Lambert also suggests teachers need to know why a subject is taught and how it can justify curriculum space. This paper goes a step further in suggesting that, in order for teachers to share the unique knowledge offer of their subject on the curriculum, they need to have some understanding of the knowledge offered by other curriculum subjects.

Status of RE in schools

There have been concerns over the last decade about the status of RE on the school curriculum in England. Despite the 1944 Education Act making it a compulsory subject for school-age children in England, RE stands outside the National Curriculum, taught according to locally agreed syllabuses. The subject has suffered a period of decline in terms of uptake and place on the curriculum (Freathy & John, 2019). One analysis showed almost 40% of community schools and 50% of 'Academy schools without a religious character' not meeting 'their legal or contractual requirements for the subject' (NATRE, 2019, p. 2). Although there have been some improvements since, concerns remain over the number of pupils taking full-course GCSE, and numbers of GCSE entries in comparison with similar subjects such as history and geography (NATRE, 2021). In the context of status concerns, an 'urgent debate' developed over the future of RE (Dinham & Shaw, 2017, p. 119). The Commission for RE called for reform in the subject. Reports concluded that RE had suffered from being treated very differently to other subjects on the curriculum (Clarke & Woodhead, 2015) and would benefit from being nationally rather than locally determined, in line with other curriculum subjects (Dinham & Shaw, 2015). The importance of academic excellence at the centre of RE teaching was highlighted (Clarke & Woodhead, 2018) alongside the need for 'religious literacy' as an appropriate ambition 'for all education, rather than being held as the main task for religious education' (Biesta et al., 2019, p. 30). A national plan for RE was launched in 2018 with 11 recommendations including a national entitlement for all pupils in publicly funded schools and use of the term 'religion and worldviews' as a possible way of reframing the content of the subject. This emphasis on reform in the subject, alongside changes to external examination specifications, resulted in shifts in the way the purpose of RE is portrayed and articulated in policy documents. Less, however, is known about how far such shifts in policy intentions have affected practice in the classroom.

Purpose of religious education on the school curriculum

The purpose of RE has long been contested. It is a subject tasked with multiple expectations (Parker & Freathy, 2011), serving many extrinsic purposes (Conroy et al., 2013). Debates over the purpose of RE in England have evolved over time from a starting point of Christian confessionalism. From the 1970s there was a steady move towards a multi-faith phenomenological approach to the subject (Parker & Freathy, 2011). Various pedagogical approaches to RE over the last thirty years reveal a subject underpinned by a complex set of purposes. Grimmit introduced a new pedagogical approach in the 1970s focused on 'learning about and learning from religion' (Grimmit, 1987), restated in 2004 in the *Non-Statutory National Framework for RE*. A sense of moral or personal improvement underpinned this pedagogical approach. Wright (2007) among others, offered an approach to RE which used the idea of 'religious literacy' as part of his argument for 'critical religious education.' There are competing definitions of religious literacy, but for Wright, a combination of knowledge about beliefs, practices and traditions, alongside an awareness of diversity within traditions and a critical awareness, mean that 'a religiously literate person is able to engage in sophisticated conversations about religion and with religious believers' (cited in Biesta et al., 2019, p. 26). RE has frequently been expressed as having a moral aim, particularly in government documentation on the purpose of the subject. The Second World War gave RE a purpose as a source for resistance against the threat of fascism and communism, as a carrier of national values (Copley, 1997). The connection with national values returned most explicitly in the government Home Office funded 2009–2011 *REsilience*, project which was devised to use RE as a vehicle to minimise violent extremism, promoting community cohesion and respect for difference and addressing controversial issues (Miller, 2013). There have been recent demands for the RE community to renew its focus on the status of knowledge within the subject (Kueh, 2017) with the idea of building an RE-distinct form of knowledge (Ofsted, 2021). Ofsted's research report refers to the emerging development of 'ways of knowing' in RE. This includes knowledge of the methods and processes used to make sense of religion, knowledge of the types of conversations academic communities have about religion, and the awareness of value-laden assumptions carried in conversations about religion and non-religion generally (2021, p. 17). This emerging approach raises important epistemological questions for how subject teachers in other disciplines deal with religion and religious issues.

MATERIALS AND METHODS

This paper draws on an empirical, mixed-methods research project undertaken by NICER, (a Canterbury Christ Church University Research Centres that contributes to the university's Anglican foundational purpose to pursue educational research) investigating the early career teacher (ECT) and the science/religion encounter in the classroom. The focus on ECTs intended to establish the values and experiences teachers were bringing with them into the profession, hoping to contribute to a nuanced picture of how and why teachers might engage with or avoid science/religion encounters. In the pilot focus groups for this broader project we identified that student teachers offered a range of perspectives on the purpose of the two subjects on the school curriculum. The research question informing this paper is therefore:

- How do teachers of science and RE describe the purpose of RE on the school curriculum?

Focus groups

Ten Focus groups were carried out with 50 secondary initial teacher education (ITE) students from 6 universities; 7 with student RE teachers and 3 with student science teachers. (RE

and science students were recruited in the same way, through ITE tutors, with more RE students answering the call, hence the discrepancy in numbers). The focus group protocol was drawn up from a review of relevant literature, exploring five main aspects of science/religion encounters in the classroom. A robust ethical framework was agreed by the university ethics committee to ensure the informed consent and anonymity of participants alongside appropriate safeguarding of data (BERA, 2018). Ethical approval was received in advance of the data collection. Focus group participants were required to agree not to disclose the contributions of other participants. Three focus groups took place face to face; lockdown led to the remaining focus groups moving online. Student teachers were invited to participate by their university tutors. Book vouchers were used to attract a wider range of student teachers, including those without prior interest in science/religion encounters in the classroom. The data from the focus groups were analysed and coded. This process identified a variety of codes related to purpose which were then grouped into themes. For the purposes of this paper, the themes identified were a collection of similar data on similar topics, often semantic and explicitly expressed in the data (Braun & Clarke, 2022). While findings from the focus groups influenced the construction of the online survey, the themes on purpose identified in the focus groups were not enough by themselves to offer a series of options on purpose, possibly due to only student teachers being included in the focus groups, therefore literature on the purpose of RE (e.g. Biesta et al., 2019; Grimmit, 1987; Kueh, 2017; Miller, 2013; Wright, 2007) was also used to refine the different 'purpose options' in the online survey items.

Development of the online survey instrument

A semi-structured online survey, with over 70 items, was shared with ITE providers across England between March 2021 and June 2021. It was also disseminated to practising teachers through alumnae networks and social media. The survey was aimed at early career teachers of science and RE, defined as either in pre-service training or in their first 2 years post-qualification. 949 teachers accessed the survey. 486 early career teachers completed over 50% of the survey (324 primary; 76 secondary science; 86 secondary RE), which it was decided was the appropriate level to be included in the analyses for this paper. As the survey was shared through a range of networks there were also 154 unexpected responses from experienced teachers (96 secondary RE and 18 secondary science), with over 2 years since qualification. This further data set, outside the initial boundaries of the project, will be referred to for comparative purposes. Online survey participants agreed they had read an information sheet about how data would be used, stored and reported. On completion of the online survey, participants could choose to be entered into a draw to win vouchers, an incentive intended to publicise the survey in a period when teachers were under pressure due to lockdown. A structured, multiple-choice item asked participants to rank a variety of pre-defined purposes of the subject. The purpose statements in these questions were established and refined following a review of the literature and an analysis of focus group data (see Tables 1 and 2). This structured item led to a quantitative data set, enabling a comparison to be made between what science teachers and RE teachers ranked as the most important purpose of RE.

There are methodological limitations to this approach. Higher numbers of participants would have contributed to stronger claims, but the pandemic limited initial plans for recruitment of survey participants. Responding to a pre-defined list of purposes has limitations, as does ranking, but the different sub-groups of teachers faced the same list of purposes and responded in different ways. The sample may have been skewed towards a certain subset of teachers who were more likely to complete a survey and take interest in educational

TABLE 1 Percentage of early career teachers who ranked each RE purpose first

	Secondary RE (%) (n = 86)	Secondary science (%) (n = 76)
To support the personal development of students	10.47	3.95
To encourage spiritual development (psychologically, emotionally, aesthetically, culturally)	9.30	13.16
To provide values education which combats discrimination	20.93	40.79
To develop skills of questioning, critical education and tools for debate	20.93	9.21
To educate children in a particular religious/faith life	4.65	6.58
To acquire knowledge about religions and worldviews	20.93	17.11
To develop flexibility of mind and make the familiar unfamiliar	12.79	9.21

TABLE 2 Early career teachers' views on purpose of RE with top three purposes ranked by points system (5 for first, 3 for second, 1 for third)

	Secondary RE (n = 86)	Secondary science (n = 76)
To support the personal development of students	1.02	0.57
To encourage spiritual development (psychologically, emotionally, aesthetically, culturally)	0.92	1.08
To provide values education which combats discrimination	1.76	2.70
To develop skills of questioning, critical education and tools for debate	2.07	1.34
To educate children in a particular religious/faith life	0.36	0.47
To acquire knowledge about religions and worldviews	1.85	1.57
To develop flexibility of mind and make the familiar unfamiliar	1.02	1.28

research. However, the findings retain validity and raise interesting and significant points for teacher educators and school curriculum leads.

FINDINGS

And 38 student RE teachers were interviewed in 7 focus groups during 2020, across two academic years. The majority were PGCE students undertaking a traditional university-based course, but a small number were following other ITE pathways.

Early career RE teachers on the purpose of religious education

There was a broad range of responses when student RE teachers were asked about the purpose of RE as a subject on the school curriculum, with no obvious consensus across participants. Themes could, however, be identified. For a significant proportion of RE participants, the emphasis was on substantive knowledge of religions:

In the timeframe that we have every week...I want to tell the children about religion...because I feel very passionately about pupils and children understanding religion in that hour.

The term 'religious literacy' was used to describe a similar, but perhaps more precise purpose:

Religious literacy I think primarily for me would be the important thing... I echo the thoughts about diversity and inclusion and it's raising that awareness about other faiths and no faiths.

Some RE participants chose to delineate knowledge of religions from knowledge of people and belief:

I feel like being a Religious Studies teacher doesn't necessarily mean you're teaching about religion, and whilst it's a big part of it I feel like more often than not you're teaching about people and lived experience and belief and faith.

A small number of the student RE teachers also believed there was an additional purpose of pupils' spiritual development through the subject:

I think the purpose of RE is definitely for the students' spiritual development as well as the academic side...to sort of understand their own views and beliefs and why they do things and help them to grow spiritually.

For some, a philosophical purpose, and a focus on intellectual enquiry and critical engagement came to the fore:

I think that fundamentally it's religious education so half of it is learning about religions. But I think, for me, more important is developing the self and teaching pupils how to critically engage with their own beliefs and material... giving them the tools for proper intellectual enquiry... So critical thinking, sort of looking at premises, looking at evidence, looking at how a logical argument is formed and how the premises interlink. What is sufficient evidence. What isn't.

There was a tendency for some responses to move towards a broader purpose of humanities and citizenship, rather than a distinctive purpose of RE. However, the themes centred around knowledge of religions, students' spiritual development, skills for critical debate and providing a broader understanding of humanity and culture.

Early career science teachers on the purpose of RE

And 12 student secondary science teachers were interviewed in 3 focus groups during 2020, across two academic years. Science student teachers in the focus groups were asked about the purpose of RE on the school curriculum. In describing the purpose of RE teaching, the science teachers did not mention teaching about religions. This is in contrast with the findings for student RE teachers presented above. The student science teachers described RE as a subject for teaching values, sharing debates and opinions; a place for discussion of controversial or sensitive issues. Despite the small numbers of science teachers in the focus groups, teaching for tolerance was mentioned far more by science teachers than RE

teachers as a purpose of RE. This student science teacher believed it was important for RE to focus on such fundamental values:

I think it's really important for teaching those kind of like key fundamental values of like tolerance and being able to listen to others and being able to make appropriate debate, kind of thing, about different concepts and different ideas.

Several of the student science teachers perhaps confused the purpose of the subject with Citizenship or showed the knowledge of 'Fundamental British Values' they may have received in teacher education:

Well I think that for me, for RE it's maybe instilling... the British values about respecting culture ... upholding of the law and stuff like that. For me, I suppose RE is teaching aspects of that... about morality and stuff.

There were several examples of science teachers admitting they were not sure what happened in RE lessons or referring back to their experience of RE when they were at school:

And when I think back to when I was at school and I had RS lessons, it was more about what are people's views about abortion for example. Or animal testing or a load of those sorts of things.

I'm not particularly knowledgeable myself of religion apart from the RE education that I had at school...at my school that I went to, the kind of RE was taught in a very debated manner so we did a lot of kind of for and against of different ideas and stuff like that.

One science student teacher was able to draw an effective contrast between the two subjects, having observed an RE lesson in school, knowing he was going to take part in the focus group:

But it, mainly it's [science] about providing knowledge... And the one lesson that I kind of stepped into for RE, it's very much more of a "What do you think?" as the core component of gaining that knowledge.

This quotation is revealing for several reasons. First, in terms of the way knowledge is compared between the two subjects. There is an underestimation here of the substantive knowledge that can be included in religious education lessons (Kueh, 2017; Ofsted, 2021) and the validity of knowledge construction within RE. Although many religions may view values as having eternal significance, the responses from science teachers do not seem to suggest this definition of values education. Rather, values in these focus groups were associated with 'Fundamental British Values' such as tolerance and respect for others' opinions, reminiscent of the REsilience project, intent on promoting community cohesion (Revell & Bryan, 2018). It is possible that the limited conception of the other subject prevented the student teachers seeing where powerful connections might have been made between science and RE. Several of the science teachers were explicit that their subject was about facts and laws, but one contrasted this with RE which, to him, was about 'creatively making an argument'.

Online survey data comparing perspectives of early career and experienced teachers of science and RE

The findings from the online survey support the qualitative findings above, that teachers of science and RE hold quite different perspectives on the purpose of RE on the school curriculum. The tables and figures below reveal two findings: the relative importance of each

defined purpose of RE for the secondary RE teachers and secondary science teachers respectively, and secondly, a comparison of the importance given to each purpose of RE by the two groups of subject teachers. We can reach similar conclusions looking at the percentage of respondents who ranked each purpose first or looking at the average points gained by each purpose after transforming the first three ranks from each teacher into a points system.

Exploring first the prioritisation results shown in Table 1 and Figure 1, the majority of early career RE teachers (63%) prioritised three different purposes for the subject: values education, critical thinking and knowledge of religions and worldviews. The remaining RE teachers prioritised a second set of three purposes: personal development, spiritual development and flexibility of mind. The education of children in a particular faith/religion is given the least importance among this cohort, but those that prioritised it may have worked in faith schools. Early career science teachers on the other hand were more unified in prioritising values education as the primary purpose of RE (41%) with a smaller group (17%) prioritising 'knowledge of religion and worldviews' as the primary purpose of the subject. The percentage of science teachers who prioritised the purpose of RE as 'to develop skills of questioning, critical education and tools for debate' (9%) is less than half the proportion of RE teachers who prioritised this purpose (21%).

This evidence suggests early career science teachers have a different view of the purpose of RE in comparison with RE teachers. The other related conclusion we can make is that more early career science teachers attach importance to the role of values education than RE teachers. The reverse is true for 'developing skills of questioning, critical education and tools for debate' which is considered a much more important purpose of RE by RE teachers than by science teachers. As RE is a complex subject, covering several disciplines, considering only the first-ranking purpose could give misleading results. The top three purposes given by the two sets of subject teachers were therefore also ranked. The results (set out in Table 2 and Figure 2) are, however, reassuringly similar to the first set of results. Values education shows up as even more important to science teachers when describing the purpose of RE ($2.7 > 1.7$). However, RE teachers are significantly above science teachers in their ranking of 'acquiring knowledge about religions and worldviews' ($1.9 > 1.6$) and 'to develop skills of questioning, critical education and tools for debate' ($2.1 > 1.3$) as purposes of RE. These latter purposes fit the view of RE as an academically rigorous subject, rather than the more moral focus on values and reducing discrimination.

These differences in the views of science and RE teachers concerning the purposes of RE were not, however, limited to early career teachers. Table 3 and Figure 3 show that, for the limited sample of more experienced teachers, the differences were even more stark, with values education again proving more important for science teachers than RE teachers as a primary purpose of RE ($50\% > 15\%$), and 'to acquire knowledge about religions and worldviews' being prioritised more by RE teachers ($33\% > 22\%$). It is necessary to be careful with these data as only 18 experienced secondary science teachers completed the survey (compared with 96 experienced RE teachers); however, Table 4 and Figure 4 show the second form of analysis where the first three ranks were given points, as above. Here, the priority given to values education by experienced secondary science teachers in comparison to RE teachers ($2.78 > 1.39$) is even more marked than with early career teachers ($2.70 > 1.76$). In this small sample, more experienced science teachers were more likely than early career science teachers to recognise the role of acquiring knowledge about religions and worldviews as one of their top three priorities for RE ($2.33 > 1.57$), but Table 3 shows more were likely to give values education higher priority than learning about religions ($50\% > 22\%$). Discrepancies in understanding the purpose of RE could therefore be seen to continue as teachers become more experienced, rather than to dissipate as teachers spend more time in schools.

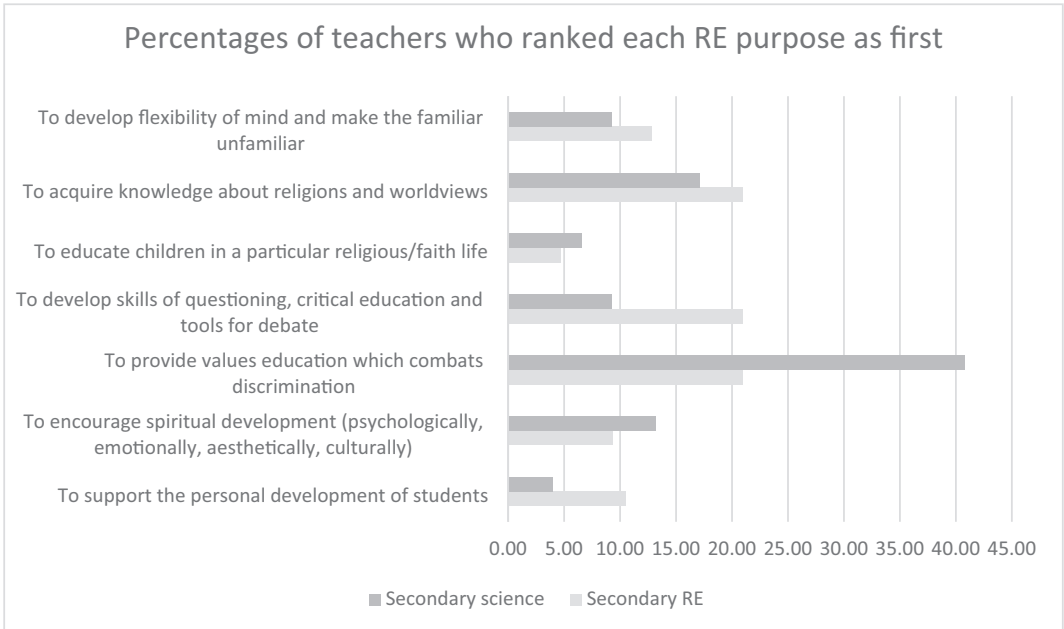


FIGURE 1 Percentage of early career teachers who ranked each purpose of RE first

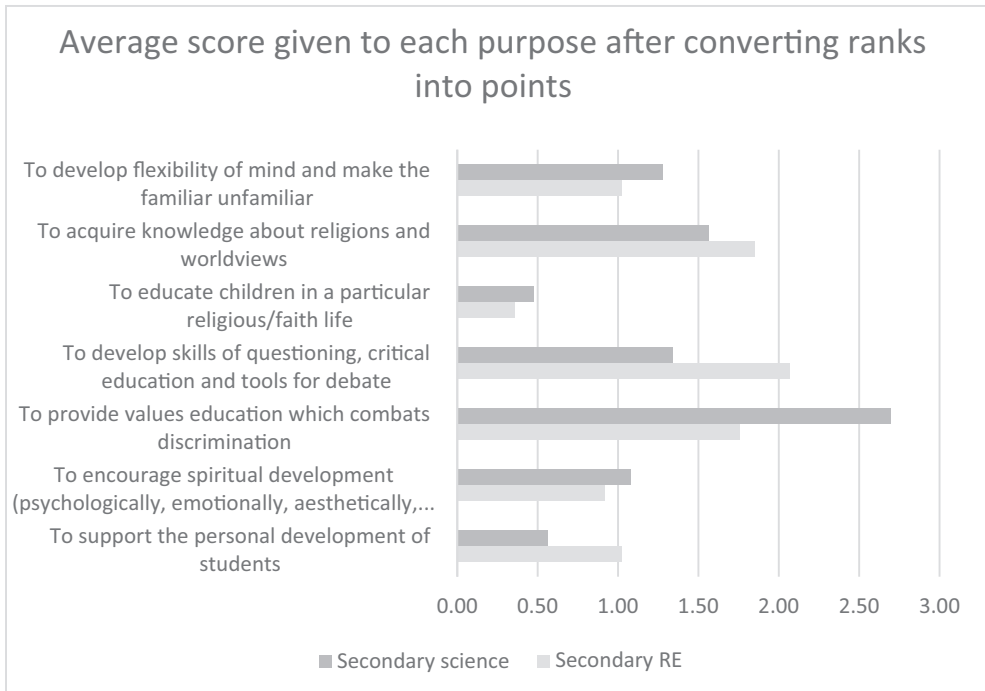


FIGURE 2 Early career teachers' views on purpose of RE with top three purposes ranked by points system (5 for first, 3 for second, 1 for third)

TABLE 3 Percentage of experienced teachers who ranked each purpose of RE first

	Secondary RE (%) (n = 96)	Secondary science (%) (n = 18)
To support the personal development of students	5.21	0.00
To encourage spiritual development (psychologically, emotionally, aesthetically, culturally)	12.50	0.00
To provide values education which combats discrimination	14.58	50.00
To develop skills of questioning, critical education and tools for debate	22.92	16.67
To educate children in a particular religious/faith life	5.21	5.56
To acquire knowledge about religions and worldviews	33.33	22.22
To develop flexibility of mind and make the familiar unfamiliar	6.25	5.56

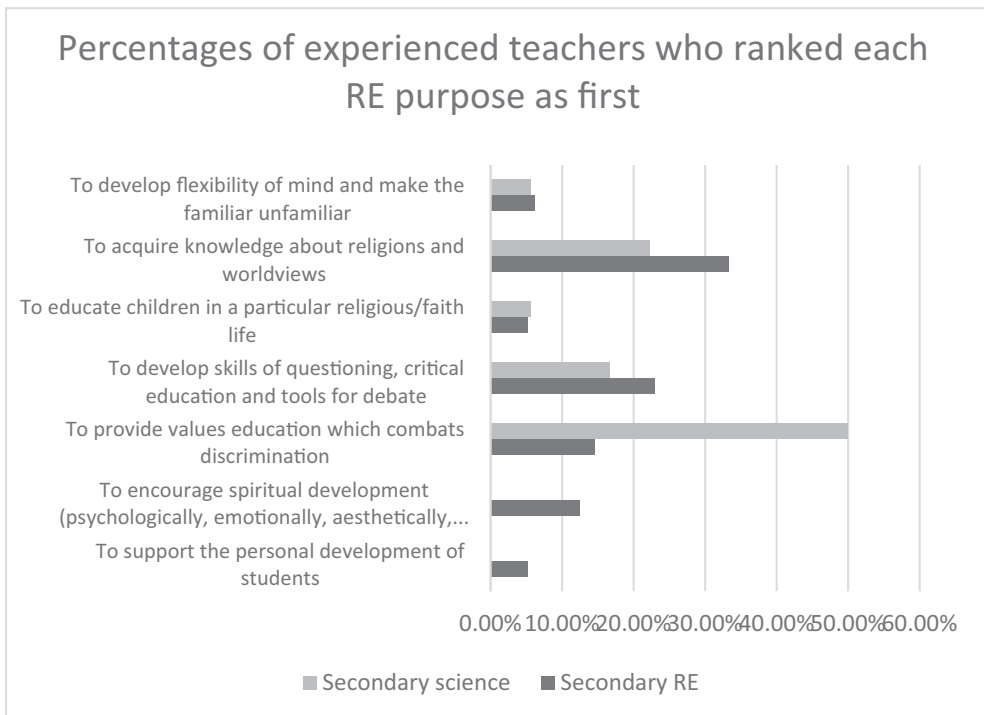


FIGURE 3 Percentage of experienced teachers who ranked each purpose of RE first

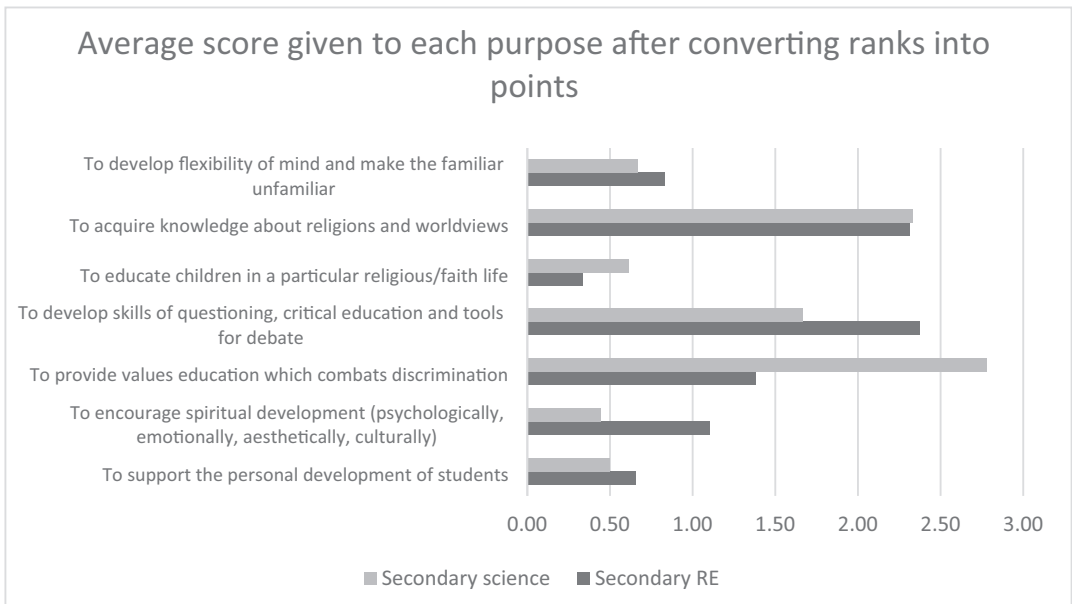
DISCUSSION

RE teachers and the purpose of RE

Defining the purpose of RE as a school subject is complex, even ‘nightmarish’ (Kueh, 2017, p. 54). The empirical findings presented here support the existing literature in showing a lack of consensus between RE teachers on the purpose of RE as a curriculum subject. The evidence shows such divergence exists for both early career teachers of RE

TABLE 4 Experienced teachers' views on purpose of RE with top three purposes ranked by points system (5 for first, 3 for second, 1 for third)

	Secondary RE (n = 96)	Secondary science (n = 18)
To support the personal development of students	0.66	0.50
To encourage spiritual development (psychologically, emotionally, aesthetically, culturally)	1.10	0.44
To provide values education which combats discrimination	1.39	2.78
To develop skills of questioning, critical education and tools for debate	2.38	1.67
To educate children in a particular religious/faith life	0.33	0.61
To acquire knowledge about religions and worldviews	2.31	2.33
To develop flexibility of mind and make the familiar unfamiliar	0.83	0.67

**FIGURE 4** Experienced teachers' views on purpose of RE with top three purposes ranked by points system (5 for first, 3 for second, 1 for third)

and more experienced teachers. While it is possible that simplistic statistical approaches restrict participants' ability to convey complex perspectives, they can still point to the lack of a clear message on the purpose of the subject, particularly when supported by findings from the focus groups. This lack of consensus is a significant finding as purpose underpins the concepts, skills and content that are made explicit in the curriculum. Purpose also underwrites the messages pupils receive about the importance of the subject (Haydn & Harris, 2010). A clear, articulated purpose for the subject of RE would inform knowledge selection and enable 'epistemological access' (Young & Muller, 2010, p. 23). If, as the data suggest, RE teachers prioritise argumentation as a purpose for the subject, then 'ways of knowing' could be privileged more in the RE classroom.

The consequences of the 'knowledge turn' can be identified in RE teachers' responses, but the impact of such reforms are not as strong as the Ofsted research review (, 2021)

implies. A third of experienced teachers (33%) and a fifth of early career teachers (21%) ranked 'acquiring knowledge about religions and worldviews' as the most important purpose of the subject. Such results suggest some impact of recent government-led curriculum reform which prioritises a knowledge-rich curriculum and the place of 'powerful knowledge' (Young, 2008). However, a majority of RE teachers do not rank acquiring 'knowledge about religions and worldviews' as the primary purpose of the subject. There could be various explanations for this finding. Policy reforms take time to filter through to teaching practice; differences may exist in the subject community, as RE teachers are graduates of a broad range of subjects (Nixon et al., 2021). Although purpose is more complex than these statements suggest, the critical argumentation inherent within the subject is clearly of great value to RE teachers.

Both qualitative and quantitative data show that knowledge of religions and critical education are currently more representative to teachers of RE than a purpose centred around values. This could be, in part, due to the influence of Wright (2007) and his work on critical RE, but also due to negative connotations with a government imposed 'Fundamental British Values' and RE being used as a vehicle to establish those values in pupils. The focus on values, community cohesion, and respect for difference, as promoted by the government around 2010 (Miller, 2013), is less significant as a purpose of RE for current teachers of the subject. This may always have been the case; teachers do not necessarily share the changing priorities of government ministers. Or the findings could represent a shift in teachers' priorities as government policy moved from a focus on values education to more of an emphasis on the place of knowledge on the curriculum.

Science teachers and the purpose of RE

Science teachers' perspectives of the purpose of RE on the school curriculum were noticeably different from those of RE teachers. Where there was a lack of consensus among RE teachers about the purpose of RE, science teachers gave prominence to 'providing values education which combats discrimination' as a primary purpose for the subject. This dissonance was supported by the language used in the focus groups. It is worthy of note that the science teachers were not recycling traditional narratives about RE being confessional, suggesting new narratives exist in the public sphere concerning the purpose of RE. The early career science teachers tended towards a more moral view on the purpose of RE, perceiving more of a focus on values and less on the, arguably more academically rigorous, options of critical debate or knowledge of religions. There are various possible explanations for this difference in perspective. It could relate to the shifting focus in RE, to the number of science teachers who take RE GCSE, or to publicly-held views of the purpose of RE. There has also been research (Smith et al., 2018) suggesting RE teachers can sometimes offer a simplified view of religion, but the findings in this paper show a difference in perspective between science and RE teachers. The different perspective raises questions about mutual respect of subject teachers for other subjects (McKinney et al., 2014). Young and Muller point out that each discipline has 'legitimate, shared and stably reliable means' (p. 12) for generating truth, but if science teachers suggest RE is based on opinions, rather than argumentation, they are misunderstanding the truth claims, and the way knowledge is constructed within the disciplines underpinning RE. If certain topics that fall across both subjects require boundary crossing, boundary maintenance is a necessary precondition (Young & Muller, 2010, p. 16). However, another precondition for boundary crossing would appear to be teachers' shared understanding of the purpose of each subject.

Wider implications for the curriculum and teacher education

There are two contexts within which these findings are significant for curriculum planning. The first, and perhaps more obvious finding, relates to interdisciplinary work between science and RE departments. For those schools taking such an approach to curriculum planning, holding a limited view of RE may prevent science teachers from having the respect and understanding necessary to engage in effective interdisciplinary work with the RE department (McKinney et al., 2014). Prospective interdisciplinary work on, for example, argumentation in science and RE (see Chan & Erduran, 2022) is unlikely to take place if few science teachers see 'developing the skills of questioning, critical education and tools for debate' as an essential purpose of RE. Different perspectives minimise the chances of teachers working together to develop such approaches to argumentation.

The second context is in schools where curriculum is separated by traditional subject boundaries. In such a context, teachers perhaps have less opportunity for dialogue with those in different departments. If science teachers believe RE is primarily about 'values education' then they are misunderstanding the concepts, skills and content present in the RE curriculum. This would then limit opportunities for accurate epistemological contrast between the way knowledge works in science and RE. Students are left to discover such epistemological contrasts independently and crucial opportunities for learning about different ways knowledge is constructed can be missed. If being explicit about concepts, skills and content enables 'epistemological access' in a single discipline, pupils will only gain understanding of epistemological contrast if explicit contrast is made between the way knowledge works in different subjects. Such explicit contrast requires teachers to have an awareness of how knowledge works across as well as within subject boundaries.

There are policy implications for ITE and early career frameworks of this research. There is a current emphasis in England on all early career teachers developing detailed knowledge of generic 'evidence-based' approaches to pedagogy, cognitive science and behaviour management (DfE, 2019b). However, an ability to frame and articulate the purpose of the subject being taught is fundamental to early career teachers. If early career teachers struggle to articulate the purpose of RE, there is little evidence this will improve through experience. Time and space need to be created to support dialogue between teachers of different subjects so that current thinking about subject purpose can be shared along with ideas about the nature of knowledge in each subject. Careful work can be structured on ITE courses to bring student teachers together, improving awareness of purpose, knowledge of curriculum content, contrasting epistemologies in the two subjects and therefore building respect and dialogue between the two subjects.

There are broader implications for this research beyond the curriculum boundaries of England. As global education systems experience rapid change (Sahlberg et al., 2016), the taught curriculum may well differ from that which teachers experienced themselves as pupils at school. Where teachers train as subject specialists, opportunities need to be built into training and development programmes for teachers to begin a conversation about how the knowledge explicit within their own subject compares and contrasts with that in other curriculum subjects. As the OECD plans for 2030 (OECD, 2019) explore 'types of teacher competencies and teacher profiles that can help all students realise their potential,' (p. 17), there may be an additional need to focus on teacher knowledge, particularly how teachers develop and use substantive and disciplinary knowledge to support pupils in crossing traditional disciplinary boundaries. School leaders and subject associations need to provide opportunities for teachers from different disciplines to come together and share the discrete purposes of their subject teaching in order to develop effective interdisciplinary approaches to tackling contemporary and potentially contentious issues such as climate change, energy crises or migration.

CONCLUSION

This research reveals a limited knowledge underlying science teachers' perspectives about the purpose of RE. This omission may always have existed; it makes sense that science teachers know more about science education than they do about RE. In a time of significant curriculum change however, school leaders and teacher educators should not be content with teachers holding misconceptions about the purpose of other subjects on the curriculum. Pupils' development of knowledge and access to epistemological contrasts would be best supported by teachers who have a holistic understanding of how knowledge works across the curriculum. If, as Biesta et al. (2019) argue, religious literacy is the responsibility of teachers across the curriculum, then there is a need for teachers of RE to share their understanding of the purpose of the subject with colleagues in other subject departments. Colleagues across the school need to support students to understand how the status and construction of knowledge differs across disciplines. In a coherent curriculum, whether integrated, interdisciplinary or with boundaries clearly established and maintained, students' experience of the curriculum needs further consideration. There is a need for curriculum makers, both teachers and senior leaders, to understand how students make progress in their understanding of how knowledge works, both within and across subject boundaries.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on reasonable request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ETHICS STATEMENT

This research was granted ethical approval by Canterbury Christ Church University Faculty of Education Research Ethics Committee (Ref: 19/EDU/015).

GEOLOCATION INFORMATION

The data for this research were collected from a series of focus groups held either face-to-face or online with university students across England and an online survey advertised through universities, subject associations and teacher social media in England.

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