SCIENCE AND RELIGION ENCOUNTERS IN THE CLASSROOM

A GLOBAL CITIZEN ITE MODULE AND SCIENCE ITE: SUPPORTING CONFIDENCE AND COMPETENCE OF BEGINNING TEACHERS

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SCIENCE RELIGION ENCOUNTERS TOOLKIT





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ABOUT NICER

The National Institute for Christian Education Research

NICER is a University Research Centre at Canterbury Christ Church University. It undertakes research to inform the contribution of faith to the public understanding of education, to aid the mission of church schools, universities and Christian education in communities, to develop and improve religion and worldview education, and to support the work of Christians in education and leaders in education. It uses qualitative, quantitative and mixed methods research approaches in that work, and has developed novel approaches to investigating school ethos, character and curriculum in Christian schooling.

NICER receives funds from charities and other grant-making research bodies, supported by the University's commitment to the centre. NICER collaborates with specialists from other leading institutions, schools and research centres, including institutions of other religions and worldviews, across the country and from around the world. It acts as a hub to promote international Christian education research at the highest level, through seminars and conferences.

For more information about our work and to download recent reports visit our website www.nicer.org.uk

This project is being funded by Templeton World Charity Foundation as part of a wider scheme of research titled Big Questions in Classrooms.

Although studies have explored school pupils' attitudes concerning science and religion, there has been little research on beginning teachers' experiences in their development and formation and not much is known about how big questions are framed in classrooms or the extent of teachers' experiences of the science/religion encounter. This project addresses the gap, develops informed responses for teacher education and finds some preliminary understandings of the impact of the use of that knowledge in teacher education programmes.

Find out more at: www.nicer.org.uk/science-religion-encounters





HOW CAN THEMES FROM A GLOBAL CITIZEN ITE MODULE FEED THROUGH INTO SCIENCE ITE TO SUPPORT THE CONFIDENCE AND COMPETENCE OF STUDENT TEACHERS?

Science Religion Encounters Toolkit 9

In the Science Religion Encounters (SRE) research project, focus groups with primary student teachers and the survey findings from primary ECTs revealed many aspired to teach science/religion encounters or other sensitive issues, but felt various barriers stood in the way of planning such lessons. Barriers included fears over negative responses from parents, or poor reactions from mentors/senior leaders and also a concern over how to respond to issues of diversity in religious beliefs.

Student teachers can be prepared for such challenges, though, if they are given time to discuss them in university sessions, with roleplaying and rehearsing opportunities to practice appropriate responses to challenging situations and learning how to establish a classroom ethos of respect. Time is needed to understand why overcoming barriers is necessary.

One university primary ITE team has chosen to tackle this issue through making Global Citizenship one of the core themes of their teacher education vision, threaded from a core module to influence the teaching in subject sessions. Extracts from a conversation with two tutors are included below to exemplify some of the thinking behind this approach:

Tutor 1: Equality and diversity, inclusion and Global Citizenship are embedded in our undergraduate and postgraduate program. That is why I think it has been possible to empower some of the students, not all by any means, but many of them. In Year 1 and the PGCE primary courses in week 1 we run compulsory Equality and diversity sessions. We say, this is central to what we're doing here. And we've got a progression through the undergrad three year and the PGCE one year courses. But we also have these central modules on Global Citizenship and Inclusion. In Global Citizenship we include social justice, identity and diversity, globalization, independence, peace and conflict and sustainability.

This approach is integrated throughout the primary education courses as a science tutor explained:

Tutor 2: We pick that up in science. Like we do a lot on science capital. We build on what the Equality and Diversity ideas from day one, and again build on what they're doing in global citizenship – examples of practical action, so Bangladesh floating gardens... We might look at Chilean farmers and how they get their tomatoes down the hillside. How we're representing science is a big theme that we do all the time. We interweave global citizenship into science. There's a really lovely book about an African scientist who was an environmentalist and planting trees, improving the soil and so on. So we use that narrative

The tutor was explicit about how sessions on these modules prepared student teachers to approach sensitive issues in the classroom:

Tutor: We actually rehearse. What are you going to do in a classroom when a parent says this? When your colleague says this? We rehearse different aspects of this for three years. This is what you're going to say... For their final Equality and Diversity session in May, I said to Year 3, last time you were in school, what were the most difficult, contested, awkward things you heard or that were said to you that you weren't sure what to do? Write them down. Let's talk about them. So we did and they were things like, you shouldn't be talking about LGBT in this class because I don't like my child hearing about that. So we went through that, and said well, we've got the Equalities Act. The school need to go back to that. This is legal. This is what it says. Plus it's real life, plus the children already know. We discussed all the arguments...some of the students came up with great suggestions Let's talk about this very scary stuff and then talk it through with each other altogether in a non-judgmental way. And here are some strategies, some things you can say... We have to make sure people really are confident, because if they are half confident and they speak up and then someone smacks them down and they don't know what the answer is, they're never going to do it again. And that's what we have to avoid. We have to make sure they absolutely know what they are going to say next and actually that they have a very secure knowledge.

Tutors therefore teach a very precise knowledge of the Equalities Act 2010, discuss appropriate language to use with pupils and parents and roleplay possible challenging scenarios to boost student teachers' confidence in approaching potentially sensitive topics in the primary classroom. Prioritising global citizenship in the ITE curriculum has had an impact on partnership schools, influencing curriculum development priorities:

Tutor 2: It's part of our vision statement. It's central to everything we do. It's part of the backbone of our course. We want our students to become knowledgeable in this area. And now we notice that our partnership schools have global citizenship in their vision statement. So it's starting to weave into subjects. This whole notion of decolonizing the curriculum and the way in which schools organize their science.... I've noticed schools are doing units of work on energy, which isn't actually in the national curriculum. So they are putting in these things that matter.

Tutor 1: And that's partly because we now have heads, deputies, senior leadership who have been through these courses and they're doing it in schools. And that is unbelievably brilliant!

DISCUSSION QUESTIONS FOR EDUCATORS INVOLVED IN INITIAL TEACHER EDUCATION (ITE) IN UNIVERSITIES AND SCHOOLS

- 1. What is the vision that runs through your ITE course? What outcomes do you want for your student teachers at the end of their course? How might you find out the extent to which student teachers and tutors can articulate the vision and values underpinning your ITE courses? How do the vision and values thread through particular course modules?
- 2. How confident/ competent are your student teachers in approaching sensitive issues in the classroom? How do you know? How would you organise a session where you ask students to share their experiences of tricky situations? Where would this best fit in your ITE courses?
- 3. Do your ITE courses include sessions on what it means to be a global citizen? How might ideas of global citizenship underpin your broader ITE curriculum?
- 4. How confident are your tutors and students in using appropriate language around sensitive issues, particularly in terms of different cultures and religious beliefs? Where, in your ITE course, are the opportunities to share experiences and learn about appropriate language use?
- 5. What is your student's experience of teaching sensitive topics in partnership schools? How might you work with partnership schools to influence their work and their language in this area? What would you need to do, if anything, to improve your students' experience confidence and competence in these partnership schools?
- 6. Are your students able to recognise and challenge stereotypes that may arise in outdated resources or from pupil discussion? How do you know? How might you support them to become more aware of stereotypes and the damage they can cause?
- 7. What is your student teachers' experience of teaching pupils of colour, pupils from different cultures, religious backgrounds, abilities, genders and sexualities?
- 8. How are such diversities represented in the science curriculum? How might student teachers be encouraged to investigate this issue and use curriculum resources that show an awareness of diversity?

OTHER RESEARCH AND RESOURCES

Carson, R. (2000: 1st published 1962) *Silent Spring.* Folio Society Edition.

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Kendi, I.X. (2019) How to be an Antiracist

Klein, N (2015) This Changes Everything; Penguin

Krznaric, R, (2014) Empathy: A Handbook for Revolution. Rider

Oxfam (2015) *Education for Global Citizenship: a guide for schools.* Oxford: Oxfam. (Free download) https://www.oxfam.org.uk/education/resources/education-for-global-citizenship-a-guide-for-schools

Peterson, A. and Warwick, P. (2015) *Global Learning and Education*. Abingdon: Routledge.

Raworth, K. (2017) *Doughnut economics: seven ways to think like a 21st-century economist.* Cornerstone Digital

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WEBSITES

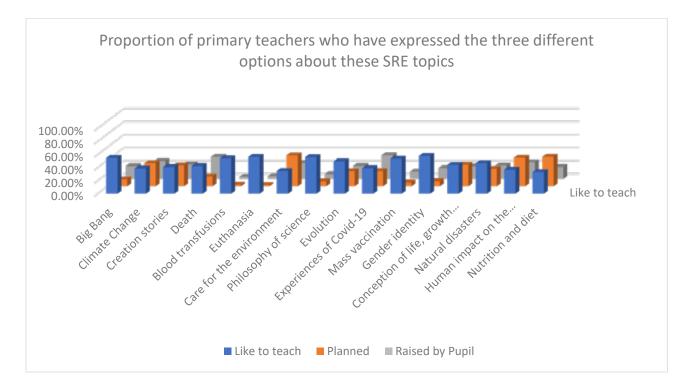
- Ethical Consumer Magazine: http://www.ethicalconsumer.org/
- Intergovernmental Panel on Climate Change: http://www.ipcc.ch/
- New Internationalist Magazine: http://newint.org/
- Oxfam Resources https://oxfamilibrary.openrepository.com/bitstream/ handle/10546/620105/edu-global-citizenship-teacher-guide-091115-en.pdf
- The Story of Stuff https://www.storyofstuff.org
- UNICEF Convention on the Rights of the Child: https://www.unicef.org.uk/what-we-do/ un-convention-child-rights/
- UNESCO Global Citizenship Education: https://en.unesco.org/themes/gced
- UNHCR United Nations Human Rights Commission : http://www.unhcr.org/

RESEARCH SUMMARY

ASPIRATIONS

Compared to secondary RE and secondary science early career teachers, primary teachers consistently showed the lowest engagement with the planning of Sciecen Religion Encounters (SRE) topics. It seems as though primary teachers have the highest aspirations, but the lowest realisation in engagement with SRE. Clearly something very interesting was going on here; primary teachers would really like to engage with SRE, but something was preventing them getting to the point of planning and delivering lessons including SRE. Primary teachers are shows in blue in the graph below.

Figure 1: Percentage of the three types of teacher who expressed a wish to teach various topics.



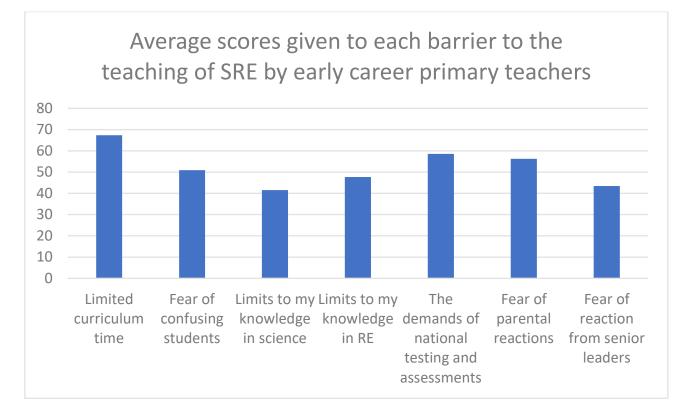
BARRIERS

In our online survey, accessed by xxx primary teachers, we asked about various barriers that prevented the planning or teaching of science/religion encounters. Results are shown in Table 1 below. 56%, or over half, of early career primary teachers responding to the survey suggested that 'fear of parental reactions' acted as a barrier to the teaching of science/religion encounters. 43%, or two in five, early career primary teachers suggested that 'fear of reaction from senior leaders' acted as a barrier to the teaching of science/religion encounters.

Table 1: Average scores given to each barrier to the teaching of SRE by different kinds of teacher

	PRIMARY	
	Mean	s.d.
Limited curriculum time	67.30	21.38
Fear of confusing students	50.91	25.74
Limits to my knowledge in science	41.56	23.85
Limits to my knowledge in RE	47.64	26.23
The demands of national testing and assessments	58.54	23.39
Fear of parental reactions	56.23	27.10
Fear of reaction from senior leaders	43.48	26.36

Figure 2: Average scores given to each barrier to the teaching of SRE by early career primary teachers



MODULE OUTLINE: CHICHESTER UNI.

Module code	PTGC5
Title	Global Citizenship
Programme	BA (Hons) Primary Teaching
Level	Five
Credits	15
ECTS*	7.5
Contact time	30 hours
Acceptable for	All routes as a core module
Excluded combinations	All students at L5 take this module
Mandatory / Optional	Mandatory
Module Co-ordinator	Mary Young

Description

This module is about raising current global issues and finding out how these can be addressed, age appropriately in the primary classroom. We draw specifically on the curriculum areas of Citizenship, PSHE and geography, and introduce the students to international agreements such as the United Nations' SDGs, and the Convention on the Rights of the Child. We also continue discussions from earlier modules in the areas of justice and injustice, equality and diversity. The module aims to enable student teachers to critically engage with some of the key global issues our times and prepare them to think beyond their immediate locality to appreciate how they are connected with, and have an impact on, people and environments across the world. It seeks to examine the ways in which whole school ethos can be underpinned by skills, values and knowledge of rights, fairness, empathy and intercultural understanding – traits highly sought after by employers around the globe because of their usefulness in building co-operation, communication and compassion in our diverse and interconnected world. This module resonates with the aspiration in our vision statement that our student teachers should become Global Citizens.

Outline Syllabus & Teaching & Learning Methods

The module will look at aspects of five areas of Global Citizenship: social justice and equity, diversity and identity, globalisation and interdependence, environmental sustainability and peace and conflict.

The teaching and learning methods will be based on active participation and discussion in response to a range of interesting and contemporary stimuli with a global dimension. There will be a mixture of whole cohort and smaller group sessions.

The content of this module may differ from above in order to reflect government policy or national priorities.

Intended Learning Outcomes	How assessed	
 Critically engage with some of the key issues of our times which have local and global dimensions, such as Climate Change, inequality and resources distribution. Gain knowledge of the National Curriculum areas of Citizenship, PSHE, and geography as well as some international agreements such as the UN SDGs and the Convention on the Rights of the Child. Appreciate how global issues, empathy and rights can be introduced age appropriately in the primary school. Become more aware of the interconnectedness of people locally and globally and the links between people and the environment. Transferable skills: Analyse, synthesise, evaluate and identify problems and solutions. Construct and communicate informed arguments Collaborate and plan as part of a team to carry out roles and fulfil agreed responsibilities 	Resource and commentary	
Assessment Scheme	Weighting %	
Formative: Full attendance, participation in sessions and completion of intersession tasks which will inform student teachers' preparation for the summative assessment.	0%	
Assessment Scheme	Weighting %	
Summative: 3500-word equivalent. Student teachers will devise and make a resource/game for a primary year group of their choice which introduces a global issue, connects it with a core National Curriculum subject area and/or commonly taught topic and shows how it could be used with pupils. Resource and commentary required. Assessment Criteria Students will be assessed based on the relevance of their work against the intended learning outcomes of the module; the strength and validity of their argument; the evidence base; and the quality of presentational and structural devices (including standard English).	100%	
Re-assessment Scheme	Weighting %	
Assessment Criteria Students should find 3 activities to educate pupils on a particular aspect of GC and do a commentary on these. Students will be assessed based on the relevance of their work against the intended learning outcomes of the module; the strength and validity of their argument; the evidence base; and the quality of presentational and structural devices (including standard English).		
Indicative Reading Lists/Key Texts/Websites/other resources		
Reading lists are available via the library online and access through Moodle.		

EXEMPLAR MODULE SESSION

Introduction to the Module: The what, why and some of the how of Global Citizenship.

Intended Learning Outcomes:

- To develop intercultural understanding
- To enable the setting of learning in its broadest global context
- To promote critical thinking
- To engage with the moral, ethical and educational rationale for Global Citizenship
- To consider the implications of what some pupils think about issues of Global Citizenship

Content: lecture and activities on:

- What is the political and global context in which we are living?
- What is Global Citizenship? Why is it important? Beginning to look at what it looks like.
- What do pupils think about Global issues?
- Overview of course.

Session details:

10 - 11.45 What is Global Citizenship and why is it important?

11.45 – **12.15** On your tables, pool information on finding out what these acronyms stand for and be able to explain what they mean and/or do: UN; UNESCO; UNDP, WFTO, GDP, GNP, NGO, ASEAN Countries, G7 countries, BRIC countries.

These will be 3 parallel workshops (You will all do the same activities in each workshop), rooms as below.

6 Activities: Maps, If you visited a country in Africa, How to save the planet, What are the connections? Picture Detectives, Boy reading. In groups of 5/6. Aprox.4 mins on each.

1.30 - 2.15 Debrief/discussion of activities from earlier including how to address misconceptions. How can we tackle these ideas?

2.30 - 3.30 the political and ethical background of Global Citizenship and an example of GC in the classroom.

3.45 - 4. Brief assignment overview

Intersession task: Please read one of the myths about Africa. (See below - we will let you know which one to read during the session today) You will be explaining what you have read to a group of others next time so that everyone benefits from pooling of knowledge.

Thanks

Particular thanks are given to Mary Young and Deborah Wilkinson at Chichester university for their support and work.

NATIONAL INSTITUTE FOR CHRISTIAN EDUCATION RESEARCH Canterbury Christ Church University nicer@canterbury.ac.uk www.nicer.org.uk

