Research in primary geography education

The Register of Research in Primary Geography has led to the publication of numerous research articles through a series of Occasional Papers. The content is varied and together the articles provide an excellent introduction to action research in primary geography.

Rachel Bowles has written a short piece about the lack of research into primary geographical and environmental education and how the collection of articles presented here can help teachers get started with active classroom research.

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1. Action research in the classroom: why and how

Action Research in the Classroom: what is to be done?
Anthea Millett (2000)
Written by the CEO of the Teaching Training Agency at the time, this article puts together a compelling case for observing how children learn. Though delivered in 1999, the extracts highlight the basic principles of classroom research and its relevance to raising professional esteem.

Conducting research: starting classroom based research in geography education
Patrick Wiegand (2000)
What questions to ask, how to collect answers and how to use the outcomes.

The teacher as researcher
Margaret Mackintosh (2000)
The management, context and exemplification of three forms of action research which improved practice.

The importance of classroom research in primary geography
Simon Catling (2000)
Clear guidelines, criteria and focii for successful classroom research in relation to the curriculum, teaching and learning. Exemplification is given for children's ideas, teachers' strategies and planning with knowledge of children's understanding.
Action Research in the classroom: notes for a seminar
Jean McNiff (2002)
A common sense view of action research.

Conducting Research: good practice turned into research
Simon Catling (2002)
Examples of good practice and the strategies used to identify the elements needed to underpin further good practice.

Teachers engaging with and in research
Leone Burton (2004)
Extracts describing the process of collaboration and the time scale from beginning serious research to producing a useful review.

Using research to inform the development of a Waste Action Project in a Primary School
Sandra McLeod (2004)
Description of involving an inner city school and multicultural local community in a national ESD project. The gardening element still survives in 2011.

2. Early Years and Key Stage 1

Early Years Geography: outdoor play areas in nurseries
Jane Graham (2000)
Initial thoughts and actions on research into outdoor play areas in nurseries

Young children using aerial photographs in a treasure hunt
Beverly Plester (2000)
Analysing young children's mapping ability and spatial awareness, contesting Piagetian beliefs.

Where has all the wonder gone?
Paula Owens (2000)
Part of an examination of the development and progression of children's environmental attitudes.

Young children's perceptions of their immediate environment
Laraine Poulter (2000)
A pilot investigation of reception children's ideas of their immediate environment including teacher annotated children's maps.

Young children using aerial photographs as maps
Beverly Plester (2002)
Further research by a psychologist on infants' understanding of aerial photographs, maps and real space.
Using ICT to support the teaching of 'place' in geography
Colin Storey (2002)
The progress of eleven Year 1 children was followed throughout one academic year for learning the concept of 'place' in geography. Fieldwork, use of digital photography, email and literacy tasks were all employed to achieve the full range of curriculum expectations. This amplifies the exemplifications given in this document.

Multiple perspectives on perception and use of outdoor areas
Paula Owens (2002)
Urban nursery children's perspectives on outdoor areas - adds to previous research by Owen and Graham.

The nursery child and environmental education
Reflections upon the place of environmental and ESD education for the infant child.

Voices from an inner city school
The main aim of this research was to examine how children related to and valued aspects of their environment within the early school years. The purpose of this study was to compare data from an inner city school with data from rural schools because of two identified key differences in the contextual learning environment: location and English as an additional language. This is the full study tabulated in the 2002 article.

Teaching Place: developing early understanding of 'nested hierachies'
Colin Storey (2004)
An exploration of the teaching of place through two theoretical approaches - the methodology connected with the idea of nested hierarchies and the use of symbolic representations of language and learning. The practical study is clearly described followed by a discussion of the implications for the two theoretical approaches. The focus of the study is 'what can young primary age children understand?'

Environmental values in the early years
An investigation into how children's environmental values developed during the early school years within school contexts.

Small People Thinking about Big Spaces: young children's navigational use of aerial photographs
A developmental cognitive psychology view of infants' ability to use aerial photographs in real situations. Continues work begun in 2000 - see above.
3. Children and place

**Urban children's perceptions of rural villages in England (1)**
Greg Walker (2000)
Greg worked with two groups of lower junior pupils from an inner London school to explore their understanding of a rural village. This was investigated using photograph sorting, concept mapping, drawings, word associations and interviews using a questionnaire. Only one of the groups visited the village they were studying.

**Children's perception of a place**
Paula Richardson (2000)
The main aim of this small scale project is to find out what Year 2 pupils know about, and their perceptions of, firstly the notion of a city and secondly London in particular.

**Children's perceptions of Europe**
Stephen Scoffham (2000)
Brief research findings in unpublished and published writings.

**Researching children's geographies using a multi-method approach**
Nichola Ross (2004)
A multi-method approach showing the relationship of children to their locality.

**Indian children’s images of England**
Explores what school pupils in southern India know about England. The study is based on interviews with pupils aged between twelve and seventeen years old with whom it was possible to communicate in English.

**Aerial photographs and understanding places**
Chris Spencer (2004)
The use of aerial photographs with children of all ages.

**Exploring children's geographies at KS2**
Original evidence of two aspects of children's emerging geographic learning, namely spatial hierarchy and knowledge of other countries.

**Children’s understanding of locality**
A longitudinal study of children's geographies.

**Comparing children's and adults' understanding of locality**
The evidence for the discrepancy between children’s and adults' understanding of the geography of localities.

**Student teachers' understanding of locality**
The development of student teachers' understanding of locality in order to complete curriculum requirements.
Urban children's perceptions of rural villages England (2)
Evidence about how children come to know and understand distant places.

Children's geographical understanding: the perception of landscape and sites of representation
Ana Francisca de Azevedo (2004)
A geographical investigation into the different meanings primary children attribute to geographical sites.

Children's developing images and representations of the school link environment
Anna Disney (2004)
Evidence of the relationship between particular geographical activities such as mapping and representing places, and the process of developing and changing attitudes through geography and global citizenship.

4. Children and the process of learning

Graphic Skills

Developing geographical skills of field sketching with Y3/4 pupils: reflection and starting points for classroom research
Fran Martin (2000)
Field sketching with Year 3/4 pupils - reflection and starting points for action research.

Analogical reasoning and map skills
Evidence to support the way young children relate reality to symbolism and analogy.

Building the image: using Lynch's concepts of imageability to teach about the features of localities
Philip Maudesley (2004)
A study of Y3/4 maps drawn of the locality using three categories - paths, nodes and landmarks.

The skills children use when encoding and decoding spatial information about the environment: a case study
Di Wilmot (2004)
An investigation of graphicacy as a form of communication in a South African primary school.

Thinking Skills

Geography, questions and thinking skills
Richard West (2000)
A curriculum example of developing enquiry questions with ideas for development and consideration.

Frameworks for thinking specific to geography
Fran Martin (2002)
Used as a basis for discussion on the development of thinking skills by primary children.
**Developing thinking skills in the primary classroom**  
Steve Higgins (2002)  
The principles and practical strategies of teaching thinking to raise achievement.

**Thinking skills and developing understanding about place**  
Fran Martin (2002)  
How thinking skills can help pupils make sense of their place in the world.

**Maps from memory**  
Caroline Mathews (2002)  
Exploring the 'maps from memory' thinking skills strategy.

**Philosophical enquiry as an approach to environmental education**  
Exemplification of philosophical thinking in geographical terms. Includes an extensive bibliography.

**Geography, learning and the brain: an example of literature based research**  
How the brain works and its implications for learning primary geography.

**ICT Skills**

**Children's use of CD-Roms and the WWW as sources of information to support learning at KS1 and KS2**  
Ruth Kershner (2000)  
A consideration of the difficulties and processes of classroom research in ICT.

**Using ICT to raise achievement in global thinking and understanding**  
Looks at the process through which schools develop the application of ICT and the extent to which the use of ICT can develop pupils' and teachers' understanding of the wider world.

**What does this picture show?**  
Tony Pickford (2004)  
Description of a small research project which endeavoured to determine what children see in an image with the aid of photographs and QuickTime VR.

**Some informal observations on the use of ICT to help accurate weather data collection for supporting locality studies**  
Alan Rodgers and Angella Streluk (2004)  
Using ICT to collect, analyse and disseminate local weather information.

**Computer supported collaborative mapmaking and children's talk: developing a research focus**  
David Owen (2004)  
How children represent their local geography using ICT.
Literacy Skills

What might it feel like to wash an elephant?
A report on the development of active teaching and learning strategies aimed at supporting the development of literacy through geography.

5. Children and the environment

Methods used in researching children’s perceptions of farmers & farming
Anne Wilson (2000)
An action research project to investigate children’s perceptions of farmers and whether these change after visiting a working farm.

‘Living today with tomorrow in mind’: a local and global approach to sustainability
Maxine Howell (2000)
Exemplification of a successful ESD process in an inner city school as part of a literacy through geography campaign.

Children’s geographies in botanic gardens Or... putting botanic gardens in their place
Research into the suitability of botanic gardens as a site for geographical learning.

Young people and the circulation of environmental knowledges: a summary document
Dr Verity Jones (2004)
This research looked at the different types of environmental knowledge obtained by different classes visiting the Birmingham Botanic Garden and compared it to theoretical models of communication.

Agenda 21, education for sustainability and school partnerships: Gardening, a case study
Peter Bloomfield (2004)
The chronology and benefits, both geographical and for the whole school, of developing a school allotment garden.

Education for sustainable development and citizenship through outdoor education: Gardening as a focus
Peter Bloomfield (2004)
The process of integrating sustainability and citizenship into three schools and the community. The research methods and findings of an ongoing project.

Developing geography through eco school activities
Sue Bown (2004)
The process and progress of creating an eco school, including curriculum plans.

Student teachers’ attitudes towards education for sustainable development
Alison Ryan (2004)
The methods and results of a qualitative investigation into trainee teachers’ views on education for sustainable development.
Children's understanding of rivers: Is there need for more constructivist research in primary geography?
Margaret Mackintosh (2004)
Research into children's understanding of every day terms used to describe the world around them.

6. Geographical concerns

The Subject of Geography

The state of research in primary geography
Fran Martin and Simon Catling (2004)
An overview of the sources of information for primary geography education, a consideration of the context and reasons for developing research in primary geography and a discussion of the range and quality issues in primary geography research. Finally, a perspective on the current state of research.

Future developments and directions for primary geography research
Fran Martin and Simon Catling (2004)
Following on from an earlier paper, this article sets out to establish what might be appropriate future developments and directions for geography, as this will, in part, determine possible developments and directions for research within it.

Geography subject leaders' perceptions of the state of primary geography
Some findings from interviews with 25 subject leaders from a balanced selection of schools in England.

Out of place in school geography
Diane Swift (2004)
An explanation of the thinking behind the Geographical Association's DFID funded Valuing Places project which explored the possibilities of teaching place as a contested concept. The project was concerned with raising the quality of 'geographical thinking' for 7-14 year old pupils and some of the strategies are outlined in this paper.

Teacher Development

Primary student teachers' world map knowledge
There has been limited research in the England and elsewhere into primary student teachers' world map locational knowledge, though several studies have examined college students' and adults' knowledge. The purpose of this study was to consider whether primary student teachers were any less or better informed than previous research indicated.

Knowledge bases for effective teaching: A case study of one beginning teacher's development as a teacher of primary geography
Fran Martin (2004)
This paper identifies student teachers' conceptions and values about geography, explores the impact of student teachers' conceptions and values on their development as teachers of primary geography and considers the impact of the findings for ITE course design and implementation.
Student teachers' perceptions of geographical enquiry
An investigation into student teachers' level of understanding of geographical enquiry in order to make some assessment of the effectiveness of the geography modules taught in the 3-year programme. It was considered important to investigate how the students understood, defined and explained the nature of geographical enquiry.

Professional Development

Good practice, research and professional development
Jeremy Krause (2002)
Ideas, information and exemplification resulting from a collaboration and active classroom research amongst Cheshire teachers, HEI and LA staff in 2001. Essentially a guide in active research to developing thinking skills in order to create links between different learning styles. A useful model for current school networks.

To what extent can shared reflective practice aid geography teaching?
Helen Martin (2004)
This piece of research was completed as part of an MA(Ed) degree at University College Chichester. The researcher is a primary practitioner and Geography co-ordinator. The research was undertaken within East Sussex schools, working with a shared practice group of teachers. This 'Leading Geographers' group met throughout the year of research to discuss lessons, share ideas and reflect on their own practice.

Transition Concerns

Continuity, progression and cross-phase liaison between key stages 2 & 3
Simon Chapman (2002)
This article considers the difficulties and needs for liaison between primary and secondary schools.

Pupils' perceptions of geography: KS2/3 transfer issues
This paper explores pupils' perceptions of geography and is intended to provide an insight into their views about the subject from Key Stage 2 to Key Stage 3. It contributes to the debate about the development of geography and emphasises the need for good geographical provision within and across key stages.

Resource and Curriculum Development

Researching the development of a primary geography resource: Why, how, issues and implications
Exemplification of the theoretical and practical issues involved in making a resource which exemplifies an enquiry approach. Stresses the importance of children raising their own questions and uses evidence to seek to answer them.

Developing a locality resource using ICT to support staff development and primary children's geographical thinking
The progress, issues and outcomes of the development of a locality resource with a local school.
Locality (from section 3)

Comparing children's and adults' understanding of locality
The evidence for the discrepancy between children's and adults' understanding of the geography of localities.

Student teachers' understanding of locality
The development of student teachers' understanding of locality in order to complete curriculum requirements.