

Searching for research results to inform the design of an initial professional teacher education programme for the foundation phase: A systematic review



Authors:

Lucinda du Plooy¹
Mphumzi Zilindile¹
Zubeida Desai¹
Benita de Wet¹
Lorna Holtman²
Cyril Julie¹
Nadine Moolla¹
Vuyokazi Nomlomo¹

Affiliations:

¹Faculty of Education,
University of the Western
Cape, South Africa

²Director of Postgraduate
Studies, University of the
Western Cape, South Africa

Corresponding author:

Lucinda du Plooy,
lduplooy@uwc.ac.za

Dates:

Received: 20 May 2015
Accepted: 07 Apr. 2016
Published: 30 June 2016

How to cite this article:

Du Plooy, L., Zilindile, M.,
Desai, Z., *et al.*, 2016,
'Searching for research results
to inform the design of an
initial professional teacher
education programme for the
foundation phase: A
systematic review', *South
African Journal of Childhood
Education* 6(1), a285. [http://
dx.doi.org/10.4102/sajce.
v6i1.285](http://dx.doi.org/10.4102/sajce.v6i1.285)

Copyright:

© 2016. The Authors.
Licensee: AOSIS. This work
is licensed under the
Creative Commons
Attribution License.

Read online:



Scan this QR
code with your
smart phone or
mobile device
to read online.

This article reports on a systematic review conducted to inform the development of a professional teacher education programme for the foundation phase of schooling. The research question was: What do quality research studies identify as the components and/or characteristics of quality teacher education for the foundation phase programmes that allow new teachers to begin to teach for epistemological access. A search for systematic reviews on educational programmes related to foundation phase for initial teacher education was conducted for the period between 1980 and 2011. The researchers added Stage 0 as a fifth step to the traditional four-step systematic review process. Stage 0 or quasi-tertiary review allowed us to present substantive findings of the identified systematic reviews and to explore their methodological quality. From the initial 2876 hits (mostly health and medical studies), only 19 studies were related to the educational field. Only three of the 19 studies were finally accepted as eligible at Stage 0. None of the reviews directly addressed programme design but contained elements that were considered as useful when designing programmes. The present study makes it clear that there is a dearth of research on entire programmes related to initial teacher education for foundation phase teachers.

Introduction

Much concern is expressed about the return on investment of research in education. Pring (2000) refers to investments to the tune of approximately \$1 billion in the United States and approximately £100 million in the United Kingdom, but many believe that this money is not well spent. The criticisms are primarily based on the following:

- Research not providing answers to questions of importance to government.
- Research not helping professional practice.
- Research being fragmented – bits and pieces on the same issue, different philosophical underpinnings.
- Research being highly political, driven at overt and covert levels, and 'political' with a small 'p' and a big 'P' (Pring 2000:1).

Burkhardt and Schoenfeld (2003) share Pring's concern about the usefulness of educational research as it pertains to providing practitioners and policy makers with better-informed and less speculative information for decision-making for practice. They refer to the U.S. Department of Education's Strategic Plan for 2002 and 2007 (2002), which insists on educational policies and practices being more evidence driven. Focussing on science and mathematics education, Yore and Lerman (2008) refer to the state of maturity reached by these disciplines, which does allow for the plethora of research results to be subjected to systematic reviews as is, for example, done in nursing education (Bowman 2007) to inform policy and practice. It is our contention that the design of a degree programme for the initial professional education of teachers for the foundation phase (Grades R–3) should also be evidenced based. A systematic review is a mechanism to gather best evidence to inform such programme design.

Systematic reviews

A systematic review is an investigation of the findings related to studies in an area of interest (Bowman 2007; Pawson 2004). It seeks to identify, evaluate, and summarise the findings of all relevant individual studies (Centre for Reviews and Dissemination (CRD) 2009). A systematic review is driven by a review question. It analyses the results forthcoming from research by assessing whether the results were obtained by credible and appropriate methods. In addition to

providing policy makers, decision makers and practitioners with the best available evidence emanating from research, systematic reviews are also conducted to, amongst other things, create new knowledge and theory building related to the topic under scrutiny, produce 'midrange' theory dealing with inconsistencies and variability in studies and facilitate the accessibility of best evidence to researchers.

A systematic review is not a conventional background literature review which normally seeks for results pertaining to forthcoming research, highlights the theoretical and/or conceptual frameworks and suggests how the study that is being embarked upon can benefit or not benefit from the insights emanating from the extant literature. Nor is it a re-analysis of the original data used in a particular study. Finally, a systematic review is not the organisation of a set of studies, conducted in a domain over a period of time either appearing in one particular journal (e.g. Lerman, Xu & Tsatsaroni 2002) or for a specific location (Rolnick, Adler & Setati 2009), according to a pre-specified template. Such studies are often presented as systematic reviews but they do not assess the results of the studies, evaluate methodological appropriateness or consider the appropriateness of the underlying theoretical stance of the studies included in their corpus. Jablonka (2009), for example, brings to the fore that although the exemplar study used by Lerman *et al.* (2002) claimed to be ethnomethodological in orientation and was accepted as such by the review authors, there is little evidence in the exemplar study that the tenets of ethnomethodology were adhered to. The special issue of the *African Journal of Mathematics, Science and Technology*, sponsored by the Marang Centre of the University of Witwatersrand, similarly lays claim to having conducted a systematic review, but there is very little evidence of a systematic review question, assessment of results, methodological evaluation or consideration of the appropriateness of underlying theoretical frameworks. These kinds of reviews serve to systematically organise studies to provide some report card on who does what and the current status of things. Despite their not being systematic reviews, they do provide useful information for researchers.

As is obvious from the above, a systematic review is therefore conducted in some procedural manner. The procedural steps and its application for this study are discussed in the next section.

Methodology

As mentioned above, a systematic review is driven by a review question or interrogative statement. More broadly, a systematic review commences with a systematic review protocol which, in addition to declaring the review question, also contains modalities such as the time period of the studies to be selected, inclusion and exclusion criteria to be employed, the methods to be followed, the kinds (qualitative or quantitative or both) of studies to be included and the review

participants. For this study, an initial review protocol was developed and after consideration by the systematic review group, it was distributed to project members of the Cape Foundation Phase Research Programme at Rhodes University, Walter Sisulu University, the Nelson Mandela Metropolitan University and a member of the teacher education section of the Department of Higher Education and Training (South Africa) for comments on clarity and suggestions for improvement. Recommendations were received from only one of these requestees and these were included in the systematic review protocol which is presented in Appendix 1. The review question for this systematic review is given as 'What do quality research studies identify as the components/ characteristics of quality teacher education for foundation phase programmes that allow new teachers to begin to teach for epistemological access?'

Normally, the systematic review process is based on a four-stage process with the first stage being the identification of potential studies. This is followed by the second stage which entails the application of the inclusion and exclusion criteria pertinent to the review. The third stage is the characterisation and the final stage is the in-depth review process (Cordingley *et al.* 2003).

For the first stage, it is recommended that:

it is necessary to check whether there are already existing or on-going reviews, and whether a new review is justified. It starts with the search for conducting systematic reviews of the topic under scrutiny. (CRD 2009:3)

For this study, an initial search was conducted to ascertain whether or not any systematic reviews on educational programmes relating to foundation phase for initial teacher education were conducted covering research studies published between 1980 and 2011. For our purposes, we label this search for completed systematic reviews on a topic as Stage 0. Our Stage 0 is a quasi 'tertiary' review which is defined as:

a systematic review where the included studies are themselves systematic reviews. The tertiary review fulfils two purposes: it presents the substantive findings of the identified systematic reviews and it explores their methodological quality. (Torgerson 2007:287)

To start the process, a research team consisting of seven members attended a presentation by the primary reviewer on what a systematic review is and how systematic reviews are done. Following this, an advance search on Google and Google Scholar, and other online library databases were done to ascertain whether or not there were any systematic reviews done in the period between 1980 and 2011 relating to our research question. This search (Stage 0) was conducted in April 2011 using the following keywords (search phrases):

- Systematic review + teacher education programmes + 1980–2011.
- Systematic review + education programmes + pre-service and in-service teaching.

- Systematic review + teacher education programmes + primary education.
- Systematic review + teacher education programmes + South African primary schools.
- Systematic review + teacher education programmes + elementary schools.
- Systematic reviews + teacher training programmes + primary schools.
- Systematic review + teacher training programmes + foundation phase schooling.

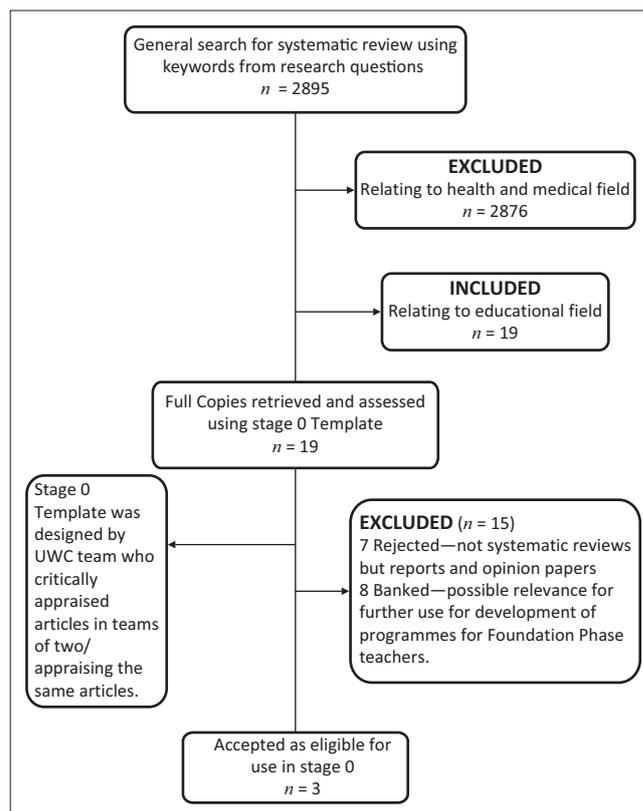
It should be noted that other concepts were also used interchangeably, such as 'INSET', 'teacher training', 'education' and 'primary school'. Both the American and British spellings of the word 'programmes' were used in the search.

From this initial search for systematic reviews, we got 2895 hits. What we discovered was that most of these systematic reviews were related to the fields of medicine and health. Only 19 hits were related to the field of education. Of the 19 publications, 13 were international publications, 2 cross-national and only four studies were related to the South African context.

For systematic reviews, the assessment and evaluation of identified studies is driven by an appraisal template. An appraisal template (Appendix 2) was designed by the University of the Western Cape (UWC) project members. It was inspired by a checklist suggested by the CRD (2009:4) and was used to appraise the 19 publications in terms of whether or not they were systematic reviews, whether they spoke directly to the research question or whether they should be banked for later use in this research process. The 19 publications (Appendix 3) were divided amongst the UWC project members (the reviewers). Two reviewers reviewed the same publication in order to eliminate personal biases. From the review process, seven publications were rejected since these were either opinion pieces or reports based on literature reviews and not systematic reviews. A further nine also fell into this category (they were not systematic reviews) but these were banked for possible usefulness to the foundation phase research project. A screening of the publications of the remaining three publications indicated that they were not as specific with respect to Grades R–3 as specified in the review question. However, two of them dealt with more generic issues related to teacher education and one focussed on early childhood development programmes.

The three publications that were deemed useful systematic reviews and that were accepted for conducting the Stage 0 appraisal were Evans, Harden and Thomas (2004), Nordenbo *et al.* (2008) and Chambers *et al.* (2010). Figure 1 diagrammatically presents the process followed to arrive at the three systematic studies.

Before commenting on whether or not these publications could be used to inform the design and development of an initial professional teacher education programme for the foundation phase, an elucidation of the review question of



Source: Adopted from Centre for Reviews and Dissemination (CRD), 2009, *Systematic Reviews: CRD's guidance for undertaking reviews in health care*, CRD, University of York, York

FIGURE 1: Flow chart of selection process for Stage 0.

each publication is given. All three systematic reviews had clearly defined review questions.

Evans *et al.* (2004) had as review question 'What are effective strategies to support pupils with emotional and behavioural difficulties (EBD) in mainstream primary schools?'

The focus is on:

What is known about the effectiveness of different strategies currently advocated for supporting children with emotional and behavioural difficulties. (Evans *et al.* 2004:2)

The review question for the systematic review conducted by Nordenbo *et al.* (2008) was: 'Which dimensions of teachers' manifest competencies could contribute to pupil achievement?' The focus is on 'manifest competence' (competencies which are manifested during the execution of professional activity) and not 'formal competence' (competencies acquired during formal education and training). Chambers *et al.* (2010) reviewed early childhood education programmes, and their focus was on the effectiveness of these programmes.

An initial assessment of the three systematic reviews was done to ascertain whether they could inform an initial professional teacher education programme for the foundation phase. Each publication was reviewed by two members of the team, both reviewing and reporting on how these publications were of use to our particular project (an example of a review report by a team member is given in

Appendix 4). Each of the systematic reviews was appraised using the criteria for critically appraising systematic reviews. This appraisal process formed part of the initial Stage 0 template (Appendix 2). Two of these reviews met all eight criteria. Nordenbo *et al.* (2008) only met seven of the eight required criteria. In the next section, a summary and the results of the three selected systematic reviews for Stage 0 are presented.

Findings

Table 1 summarises the three systematic review studies that were found relevant for the pursuit of the review question.

The quality of the selected systematic reviews

The assessment of the quality of the studies included is a crucial part of the systematic review process. For the CRD (2009), the quality assessment of studies is the key:

to assess the risk of bias in included studies caused by inadequacies in the study design, conduct or analyses that may have led to the treatment effect being over or underestimated. (p. 44)

An assessment tool adapted from the tool used by the CRD (2009) and Torgerson (2007) was used to assess the three systematic reviews. Table 2 presents the outcomes of the application of the tool. It is clear from Table 2 that the three systematic review studies comply with the quality criteria for systematic reviews.

Findings of relevance for programme design

An analysis of the three included systematic reviews indicates that none of these reviews directly addressed the programme design. Each of them, however, contains elements which could be considered when designing a programme. Evans *et al.* (2004) focus on classroom-based research. Their empirical field is learners between the ages of 6 and 9, which fall within the scope of this project. They found that effective strategies for supporting young children (aged between 6 and 9 years) with EBD include a system of rewards such as:

Teachers [*using*] visual aids such as graphs or symbols (e.g., smiley faces, red ribbons) to show children how well they were progressing towards receiving a reward. (Evans *et al.* 2004:6)

TABLE 1: Summary of three systematic reviews.

Author(s), date	Evans, Harden & Thomas (2004)	Nordenbo <i>et al.</i> (2008)	Chambers <i>et al.</i> (2010)
Title of report	What are effective strategies to support pupils with emotional and behavioural difficulties (EBD) in mainstream primary schools? Findings from a systematic review of research	Teacher competences and pupil achievement in pre-school and school	Effective early childhood education programs: A systematic review
Organisation/Centre who conducted the review	School of Educational Foundations and Policy Studies, Evidence for Policy and Practice Information and Coordinating Centre (EPPI-centre), Social Science Research Unit (SSRU) at the Institute of Education, University of London	Danish Clearinghouse For Educational Research, School of Education, University of Aarhus	University of York and John Hopkins University, The Centre for Reviews and Dissemination (CRD)
Number of studies used in the review	96 studies were found to be within the scope of the review topic, 48 described primary research and 28 studies were included in the study	70 studies initially accepted, worked with 55 studies because 15 were found to have a 'low quality of research reporting' (2008:31)	A total of 40 studies evaluating 28 different programmes of which 25 met the inclusion criteria. A few longitudinal studies were included
Design of studies used in the review	Qualitatively and quantitatively designed studies included	Qualitatively and quantitatively designed studies included	Quantitative measures were used
Time period of studies included	1975–1999	1998–2007	1960–2010
Languages of publication of studies used	Used mostly English publications	English (64) Spanish (1) Portuguese (1) German (1) Chinese (1) Danish (2)	English (40)
Countries involved in studies	United Kingdom (4), United States (18), Other European countries, Australia, Canada (6)	United States (34) Great Britain (10) Germany or German-speaking countries (4) Nordic countries (5) Other European countries (9) Australia, New Zealand, Canada (7) Other countries (7)	All countries were included as long as the studies were in English

Source: Authors' own work

TABLE 2: Quality assessment.

Assessment criteria	Evans, Harden and Thomas (2004)	Nordenbo <i>et al.</i> (2008)	Chambers <i>et al.</i> (2010)
Has a clearly defined review question	✓	✓	✓
The aims and purposes of the review, as well as the rationale are clearly stated	✓	✓	✓
The search procedures are clearly stated (names of databases, hand searches, use of accredited journals, grey area searches included)	✓	✓	✓
Inclusion and exclusion criteria stated	✓	✓	✓
Set guidelines for data abstraction procedure	✓	✓	✓
Criteria for reducing potential bias in the reviews were discussed	✓	✓	✓
Inclusion of quality assessment process	X	✓	✓
Report how data was combined – data synthesis	✓	✓	✓
Synthesis of studies in the light of all evidence (attempts made to justify the conclusions drawn from the findings is evident)	✓	✓	✓

Source: Authors' own work

Although this finding relates to special education needs of learners in mainstream schools, it is more likely than not that, when prospective foundation phase teachers enter the profession, they will be confronted with learners displaying disruptive behaviours and hence a component of their pre-service programme should include training on dealing with learners and on systems of rewards for any form of progress they make towards shared goals.

Nordenbo *et al.* (2008) focus is on 'which dimensions of teachers' manifest competencies' could contribute to pupil achievement. They concluded that 'three competences contribute to learning in children' (2008:73). These three competences are relational competencies (the teacher possesses the competence to enter into social relations with respect to the individual pupil), rule management competencies (the relation to the whole class, encouraging pupils to establish and maintain classroom rules – the teachers' role is that of a visible leader) and didactic competencies (in relation to the context of teaching, the teacher possesses the competence in the teaching and learning process in a general sense and in individual subjects taught). They suggest that the strong evidence emanating from the systematic review points in the direction:

that teacher training should focus on the development of these three basic competences and that all other details of teacher training should be able to be associated organically with one or more of these competences. (Nordenbo *et al.* 2008:74)

Chambers *et al.* (2010), who evaluated the effectiveness of early childhood education programmes, however, place emphasis on:

whether particular programmes produce positive outcomes and whether elements of these programmes contribute to effectiveness. (p. 2)

Their focus was on 'programs for young children who are at risk of school failure due to poverty' (2010:3) and on 'academic and cognitive outcomes' (2010:6). Six of the 28 early childhood development programmes showed strong evidence of effectiveness, especially relating to improved student outcomes. Of the six, three showed strong evidence at the end of kindergarten. These three are of particular interest for designing a foundation phase teacher education programme since they provide guidance on what can be included in such a programme in the South African context. The focus must be on Grade 1, where learners enter without a strong background of what is offered in a pre-school setup. The characteristics of the three programmes which indicated strong evidence for effectiveness are a strong focus on language and literacy skills development, sequential thematic structuring of the programme, strong teacher-child relationships and encouragement of parental involvement in children's learning. The particular strong evidence of improved cognitive outcomes makes it imperative that pre-service teacher education programmes for foundation phase pay attention to skilling prospective teachers for the realisation of these features in practice.

Conclusion

A first issue which needs a response is the extent to which the review question has been answered. To recap the review question: *What do quality research studies identify as the components/ characteristics of quality teacher education foundation phase programmes that allow new teachers to begin to teach for epistemological access?* The paucity of research studies targeting entire programme effectiveness lead us to conclude that the question can only be partially answered. The partial answer pertains to some components of foundation phase programmes as is made clear below. With respect to teaching for epistemological access, there is less clarity, except perhaps the strong evidence of effectiveness, especially relating to improved student outcomes forthcoming from the systematic review of Chambers *et al.* (2010). For systematic reviews of educational research, it is conventional to provide recommendations for different role players affected by the educational enterprise. These are those involved in practice, policy and research. The domain of practice of this study is teacher education. With respect to practice, it comes through from this tertiary review that initial teacher education programmes should take cognisance of incorporating the following features:

- the notion of goal-sharing with young children and the value of systems of rewards for any form of progress they make towards these goals
- a strong focus on the development of relationship building, rule management and didactic competencies
- the prioritisation of language and literacy skills development
- structuring of learning programmes, both thematically and sequentially
- the skills to encourage parental involvement in children's learning, both in and out of school.

With regard to research, an issue coming through strongly from this study is that there is a dearth of research on entire programmes related to initial teacher education for foundation phase teachers. There are evaluation reports, such as the HEQC reports, on programmes in their entirety. These evaluations are executed by quality assurance agencies or they are commissioned by institutions for internal quality assurance purposes. Although they can be helpful, they are however not research reports in the strict sense of research as is evident from the limited specification of the underlying methods employed and a lack of in-depth literature reviews. They seldom focus entirely on the effectiveness of programmes. However, research does exist for components such as, for example, the teaching practicum and mentoring, content and approaches to subject matter comprising programmes, and so forth. It seems that the design of a programme will benefit more if systematic reviews of these components are undertaken. This will require large systematic review teams and the necessary resourcing of such teams. If one, for example, considers the components for the Bachelor of Education (B.Ed) (foundation phase) degree being designed, for which this tertiary review was conducted, then a minimum of five systematic review teams – one each for literacy, numeracy, practice teaching, life skills and educational studies – will be needed. We recommend that such a project be

embarked upon. Recommendations for policy emanating from this study are that (1) there should be insistence from approval bodies for new programmes that submissions should indicate the research evidence which was taken into account for the design of programmes and (2) a similar insistence should be exercised for programme quality assurance. Such insistence will contribute towards the design of quality programmes and reviewing of existing programmes, since they will be driven by the best available research evidence.

Acknowledgements

Competing interests

The authors declare that they have no financial or personal relationships which may have inappropriately influenced them in writing this article.

Authors' contributions

L.D. corresponding author and lead writer; M.Z. lead writer; C.J. lead writer; Z.D., B.D.W., L.H., N.M. and V.N. collaborators and reviewers.

References

- Ashby, P., Hobson, A.J., Tracey, L., Malderez, A., Tomlinson, P.D., Roper, T. *et al.*, 2008, *Beginner teachers' experiences of initial teacher preparation, induction and early professional development: A review of literature*, Department for Children, Schools and Families, University of Nottingham.
- Bowman, K.G., 2007, 'A research synthesis overview', *Nursing Science Quarterly* 20, 171–176. <http://dx.doi.org/10.1177/0894318407299575>
- Burkhardt, H. & Schoenfeld, A.H., 2003, 'Improving educational research: Toward a more useful, more influential, and better-funded enterprise', *Educational Researcher* 32(9), 3–14. <http://dx.doi.org/10.3102/0013189X032009003>
- Centre for Reviews and Dissemination (CRD), 2009, *Systematic Reviews: CRD's guidance for undertaking reviews in health care*, CRD, University of York, York.
- Chambers, B., Cheung, A., Slavin, R., Smith, D. & Laurenzano, M., 2010, *Effective Early Childhood Education Programs: A systematic Review*, viewed n.d., from files.eric.ed.gov/fulltext/ED527643.pdf
- Cordingley, P., Bell, M., Rundell, B. & Evans, D., 2003, 'The impact of collaborative CPD on classroom teaching and learning', in *Research evidence in Education Library*, Social Science Research Unit, Institute of Education, University of London, EPPI-centre, London, viewed n.d., from <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=133&language=en-US>
- Evans, J., Harden, A. & Thomas, J., 2004, 'What are effective strategies to support pupils with emotional and behavioural difficulties (EBD) in mainstream primary schools? Findings from a systematic review of research', *Journal of Research in Special Educational Needs* 4(1), 2–16. <http://dx.doi.org/10.1111/j.1471-3802.2004.00015.x>
- Hobson, A.J., Malderez, A., Tracey, L., Giannakaki, M.S., Pell, G. & Tomlinson, P.D., 2006, 'Student teachers' experiences of initial teacher preparation in England: Core themes and variation', paper presented at the European Conference on Educational Research (ECER), University of Geneva, Switzerland.
- Jablonska, E., 2009, Unpublished seminar presented at University of Agder.
- Lerman, S., Xu, G. & Tsatsaroni, A., 2002, 'Developing theories of mathematics education research: The ESM Story', *Educational Studies in Mathematics* 51(1/2), 23–40. <http://dx.doi.org/10.1023/A:1022412318413>
- Nordenbo, S.E., Sjøgaard Larsen, M., Tiftikici, N., Wendt, R.E. & Østergaard, S., 2008, 'Teacher competences and pupil learning in pre-school and school – A systematic review carried out for the Ministry of Education and Research, Oslo', in *Evidence base*, pp. 1–96, Danish Clearinghouse for Educational Research, School of Education, University of Aarhus, Copenhagen.
- Pawson, R., 2004, *Mentoring relationships: An explanatory review*, viewed 27 September 2012, from <http://www.ccsr.ac.uk/methods/publications/>
- Pring, R., 2000, *Philosophy of educational research*, Continuum, London.
- Rolnick, M., Adler, J. & Setati, M. (eds.), 2009, *African journal of research in mathematics, science and technology education*, Special Edition November, pp. 115–130.
- Torgerson, C.J., 2007, 'The quality of systematic reviews of effectiveness in literacy learning in English: A "tertiary" review', *Journal of Research in Reading* 30(3), 287–315. <http://dx.doi.org/10.1111/j.1467-9817.2006.00318.x>
- Vozzo, L., Abusson, P., Steele, F. & Watson, K., 2004, 'Mentoring retrained teachers: Extending the web', *Mentoring and Tutoring* 12(3), 335–351. <http://dx.doi.org/10.1080/030910042000275945>
- Yore, L.D. & Lerman, S., 2008, 'Metasyntheses of qualitative research studies in Mathematics and Science Education', *International Journal of Science and Mathematics Education* 6, 217–223. <http://dx.doi.org/10.1007/s10763-008-9128-9>

Appendices starts on the next page →

APPENDIX 1

Systematic Review Protocol – UWC EU/DHET Foundation Phase Research Group

Name and affiliation of primary reviewer

Cyril Julie*

Names and affiliations of co-reviewers

Zubeida Desai, Vuyokazi Nomlomo, Nadeen Moolla, Lucinda du Plooy, Mphumzi Zilindile, Lorna Holtman Benita De Wet

*All reviewers and co-reviewers, except Ms De Wet who is a librarian at UWC, are members of the Faculty of Education, UWC

Provisional title

Programmes that prepare prospective foundation phase teachers for quality teaching.

Objective

The objective of the review is to systematically search for, identify, locate and narratively synthesise high-quality evidence that can inform us about the effectiveness of programme modalities for graduating beginner teachers for the foundation phase equipped to engage in quality teaching.

Rationale for review / background

This systematic review is part of a research and development project by a consortium consisting of the Walter Sisulu University (WSU), University of the Western Cape (UWC), Rhodes University (RU) and the Nelson Mandela Metropolitan University (NMMU). Broadly, the aims of the research and development project are research which will inform the delivery and the design of foundation phase teacher education programmes. This systematic review is concerned with the latter.

Review question

What do quality research studies identify as the components/ characteristics of quality teacher education foundation phase programmes that allow new teachers to begin to teach for epistemological access?

Method

The methods of the review are informed by both the meta-analysis of quantitative studies and meta-synthesis of qualitative

studies. The types of studies included are those that adequately address the review objective. The focus will be on research results from quality studies. The sources to be used are academic journals, conference proceedings, evaluation reports and hard-to-locate 'grey' literature such as unpublished theses. The review will access studies over the range of subjects taught in the foundation phase and focus on both initial teacher education and continuous professional development programmes.

Given an initial assumption that there will be few studies dealing with the review objective, the period will be 1980 to 2010.

Studies reporting results on both holistic programme design and subsets such as the results from research on specific components or subjects of foundation phase programme and their effects will be included.

Appraisal for inclusion of studies will be template driven with a negotiated agreed template developed by the systematic UWC review team and circulated to members of the consortium for possible revision and comprehensiveness. The proposed codes of the template for appraisal will be mined from existing systematic reviews and will be particularised for the review.

Relevant data from the included studies will initially be country, setting, aims and objectives, research design, participants, inclusion criteria, interventions and control or comparison conditions and results.

In order to ensure quality assurance, the procedures of independent double screening for data extraction, quality appraisal and extraction of outcomes will be undertaken.

Procedures to internally and externally assure the quality of each stage of the review will be set up.

Appropriate software will be used to organise and manage the titles, abstracts and bibliographic details of the sources retrieved through the searches.

Where deemed appropriate the Evidence for Policy and Practice Information (EPPI) of the Institute of Education, University of London will be approached for use of software for data extraction and coding tools for education studies.

APPENDIX 2

Foundation phase project systematic review

Stage 0 Template

Publication

Title	Author	Systematic Review (Yes / No)
-------	--------	---------------------------------

Criteria for appraising systematic review articles in Stage 0
(Mark with 'X')

Clearly defined review question (PICOS)	Search strategy (adequate and appropriate?)	Minimisation of bias and errors in the selection process	Minimisation of bias and errors in the quality assessment process	Minimisation of bias and errors in the data extraction process	Presentation of adequate details for each primary study	Methods used for data synthesis (assessed, pooled and meaningful?)	Evidence authors' conclusions accurately reflect the evidence reviewed
---	---	--	---	--	---	--	--

Decision: Reject

Accept for FPP

Criteria for judging publication: Relevance to the Foundation Phase Project (FPP)

Bank	Usefulness (citations for further searches)	Relevance in terms of the FPP
Procedure	Programme design	

General comments:

APPENDIX 3

TABLE 1-A3: Nineteen reviewed articles.

Author(s), date	Title	Systematic review		Accept/Reject for FFP	Comment
		Yes	No		
Leask (2004)	Using research and evidence to improve teaching and learning in the training of professionals – an example from teacher training in England.		√	Reject	
Wong and Wong (2003)	The evaluation of a teacher training programme in school management: The case of Hong Kong.		√	Reject	
ETUCE – European Trade Union Committee for Education (2008)	Teacher education in Europe: An ETUCE policy paper.		√	Accept	The paper deals with pre-service and in-service teachers. It also focuses on recruitment and retention of teachers.
Nordenbo <i>et al.</i> (2008)	Teacher competences and pupil achievement in pre-school and school.	√		Accept	
Council on Higher Education (CHE) (2010)	Report on the national review of academic and professional programmes in education.		√	Accept	The report is most relevant in programme design because of the qualification structure for a BEd programme being discussed.
Chowdhury (1995)	Literacy and primary education.		√	Reject	
Guskey (1995)	International perspective teacher preparation – new paradigm in teacher education, what do teachers need to know?		√	Reject	
Chambers <i>et al.</i> (2010)	Effective early childhood education programs: A systematic review.	√		Accept	
Pontiveros (2001)	Pre-service and in-service teacher education in the Philippines.		√	Reject	
Nkumbi, Warioba and Komba (2006)	Capacity of primary school management for professional development in selected primary schools in Tanzania.		√	Reject	
Ashby <i>et al.</i> (2008)	Beginner teachers' experiences of initial teacher preparation, induction and early professional development: A review of literature.		√	Reject	The publication is an extensive, in-depth literature review.
Adeosun (2010)	Teacher education programmes and the acquisition of 21st century skills: Issues and challenges in Nigeria.		√	Accept	Relevance for programme design.
Musset (2010)	Initial teacher education and continuing training policies in a comparative perspective: Current practices in OECD countries and a literature review on potential effects.		√	Accept	This publication is more of a literature review although drawing on results from research for recommendations.
Centre for Education Policy Development (CEPD) Centre for Evaluation and Assessment (CEA) Human Sciences Research Council (HSRC) South African Institute for Distance Education (SAIDE) and University of Pretoria (2005)	Teacher education in South Africa: A collaborative programme.			Accept	
Evans, Harden and Thomas (2004)	What are effective strategies to support pupils with emotional and behavioural difficulties (EBD) in mainstream primary schools? Findings from a systematic review of research.	√		Accept	This publication is useful to assist in conducting a proper systematic review; it deals with primary school children but only on issues of behavioural problems; the appendix shows how the data could be presented.
Boaduo, Milondzo and Gumbi (2011)	Teacher education and training for Africa in the 21st century: What form should it take?		√	Accept	It is an opinion piece.
Council on Higher Education (2010)	Report on the National Review of Academic and Professional Programmes in Education.		√	Accept	This publication could inform programme design because it deals with higher education programmes in South Africa.
Thoman (1995)	International perspective teacher preparation – new paradigm in teacher education, what do teachers need to know?		√	Accept	Usefulness (citations for further searches), literature review, focuses on teacher professionalism.
Nind (2006)	Conducting systematic review in education: a reflexive narrative.		√	Accept	This publication offers a reflexive narrative on the process of conducting systematic reviews.

APPENDIX 4

TABLE: 2-A4: FPP – Version 2 screening template.

Criteria	Include (tick)	Exclude (tick)	Reason/comment
Scope	✓		Deals with methods used and findings of a Systematic Review
School level	✓		Relevant to foundation phase pre-school and school
Paper (empirical research, editorial, book review, policy doc, resource guide, LTSM, opinion paper, theoretical paper, research methodology paper, description/design of courses, etc.)	✓		Systematic Review report
Research focus (original data)	✓		Relevant – Systematic Review: Methods and Findings
Time period (post 1980)	✓		Recent publication – 2008
Geographical context	✓		Exposure to international literature
Bank?? Accept			A good source to inform the Systematic Review of current project

Source: Nordenbo, S.E., Sjøgaard Larsen, M., Tiftikiçi, N., Wendt, R.E., & Østergaard, S., 2008, *Teacher competences and pupil learning in pre-school and school – A systematic review carried out for the Ministry of Education and Research, Oslo*. In: Evidence base. Copenhagen: Danish Clearinghouse for Educational Research, School of Education, University of Aarhus