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Establishing a research agenda for Foundation Phaseⁱ initial teacher education: A systematic review (1994–2014)

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Poor literacy and numeracy levels in schools have raised questions in South Africa, as they have internationally, on the quality and appropriateness of initial teacher education for preparing teachers for the complexities faced in schools generally and for the mediation of literacy and numeracy in the early years in particular. This paper profiles empirical research relating to initial teacher education over two decades of South African democracy, derived from a systematic review of journal articles, with the aim of proposing an agenda for research into foundation phase initial teacher education. It concludes that in the period between the birth of South Africa's democracy and the present, there is little evidence of sustained research on initial teacher education in general, and a dearth of research focused on teacher preparation for the foundation phase in particular. The paper argues for the development of a research agenda that better takes account of the iterative relationship between researching classrooms and researching initial teacher education, especially as it relates to the foundation phase, where research is patchy and unsystematic. Evidence from such research might not only provide a base for policy and curriculum decisions but also lead to more responsive and contextually relevant teacher preparation.

Keywords: diversity; foundation phase; literacy; numeracy; research agenda; teacher education

Introduction: Initial Teacher Education and the Foundation Phase Challenge

The history of initial teacher education before and during apartheid is well-rehearsed in the South African literature (Christie, 1992; Cross & Chisholm, 1990; Welch, 2002). In brief, initial teacher education prior to the first South African democratic election of 1994 mirrored the separatist frameworks of the apartheid government, taking place in racially and ethnically segregated teachers' colleges and universities. Teacher education for 'whites'ⁱⁱ was situated in post-matriculation colleges or universities (Cross & Chisholm, 1990:52) and was not only of longer duration, with entrance requirements higher, but was also offered in better resourced environments than those for other races.

Preparation for the few secondary teachers in the 'black' system took place in universities, with Fort Hare initially being the only university open to 'black'ⁱⁱⁱ students (Kerr, 1968). Those aspiring to teach in primary schools for 'African' and 'coloured' children could enrol in colleges of education for a two-year certificate after completing Grade Eight or 10^{iv} schooling (Welch, 2002). While three-year diplomas were later introduced, the National Teacher Education Audit (Hofmeyr & Hall, 1995) found that large numbers of poorly qualified teachers emerged from teachers' colleges in the 1980s and early 1990s. Subsequent to this Audit (1995), the post-1994 democratic government chose to locate all initial teacher education in higher education institutions (HEIs), closing teachers' colleges or incorporating them into HEIs.

The shift of initial teacher education from colleges to universities brought with it choices that compromised foundation phase teacher provisioning, many universities having little or no experience or expertise in Early Childhood Education and therefore opting not to offer foundation phase programmes. Table 1 shows that only 13 of the 23 universities chose to service the education of foundation phase teachers at the outset.^v

Green, Parker, Deacon and Hall (2011) identify three interrelated challenges in this regard. First is the supply and demand of foundation phase teachers, with the system in 2009 producing only 30% of the number of foundation phase teachers needed, and .05% of African language speaking teachers needed. As policy requires that children learn through their mother tongue in the foundation phase, this creates a serious crisis; teachers are needed who are not only African language speakers, but also trained to teach through children's first language.

A second concern relates to the current low literacy and numeracy levels of children in the primary school. In this regard, Green et al. (2011:119) comment that if foundation phase challenges are not addressed, this "... will have a domino effect on learning and achievement at all levels of the system".

The third concern relates to the dearth of research into teaching and initial teacher education practices relating to the foundation phase, the issue at the heart of this study. Whereas universities appoint staff who are in possession of an advanced postgraduate degree or in the process of working towards one, the key criterion for employment in colleges was teaching experience. The incorporation of college staff into universities therefore meant that fewer staff had the qualifications and experience to conduct research.

Table 1 Foundation Phase (FP) teacher supply and demand: 2009

Provincial Foundation Phase teacher provision and demand in 2009							
Foundation Phase teacher need			2009 supply (expected graduations)				
	Need for FP teachers yearly	Need for AL FP teachers yearly	Universities	FP African languages	FP Afrikaans	FP English	FP Total
EC	808	707 (87.5%)	UFH	1	0	11	57
			NMMU	2	15	16	
			RU	1	–	11	
FS	208	183 (88%)	UFS	–	63	9	72
GP	618	456 (73.8%)	UP	2	92	41	179
			WITS	2	9	33	
KZN	963	817 (84.9%)	UKZN	34	3	89	213
			UZULU	87	–	–	
			UNIVEN	19	–	–	19
LP	520	506 (97.2%)	–	–	–	–	–
MP	337	311 (92.4%)	–	–	–	–	–
NC	94	33 (35%)	–	–	–	–	–
NW	270	247 (91.5%)	NWU	–	143	34	177
WC	330	88 (26.7%)	CPUT	7	91	83	234
			US	–	35	18	
			UNISA	13	107	204	324
TOT	4,147	3,275		168	558	549	1,275

Adapted from Green et al. (2011:117)

While these concerns relate specifically to the South African context, they are by no means peculiar to it. Results of recent international benchmark tests in mathematics, science and literacy suggest that other developing countries are also challenged in these areas. Ghana, Saudi Arabia, Botswana, Indonesia, Qatar and the Philippines are some of the countries having similarly low scores to those of South Africa in the 2003 Trends in International Maths and Science Study (TIMSS) (Reddy, Kanjee, Diedericks & Winnaar, 2006) and the 2011 Progress in International Reading Literacy Study (PIRLS) (Howie, Van Staden, Tshele, Dowse & Zimmerman, 2012). The United Nations (2015) reports that in spite of progress towards the Millennium Development Goals, there are still concerns over the quality of education for the poorest and the most disadvantaged children, and this links to the quality of teacher preparation, particularly for early years' teachers.

In South Africa, disquiet over foundation phase teacher preparation has given impetus to national initiatives such as the Strengthening Foundation Phase Teacher Education Programme (SFPTEP) established by the Department of Higher Education and Training (DHET) and funded by the European Union. This programme focused on foundation phase teacher education research and aimed to establish new or revitalised initial teacher education programmes for teachers of children at

foundation phase level (Green et al., 2011). Associated with this, the South African Research Association for Early Childhood Education (SARAECE) (www.saraece.org.za) was founded in 2014 and the *South African Journal for Childhood Education (SAJCE)*, (www.sajce.co.za) was affiliated to the SFPTEP in 2011, with the aim of creating a publication for new researchers in the field of childhood education. This multi-pronged initiative placed the foundation phase at the centre of recent educational debates in South Africa.

One response to the SFPTEP challenge was the establishment of a research consortium^{vi} by four institutions, focusing on understandings of quality reflected in teachers' practices, and change and improvement of such understandings through initial teacher education practices involving critical reflexive engagement. Enquiries about the quality of training raised questions on what we know about initial teacher education for foundation phase teachers. This required a preliminary literature analysis of research carried out in South Africa on initial teacher education generally and for the foundation phase specifically. Hence this study.

The systematic review which forms the basis of the study analyses peer-reviewed (and accredited)^{vii} articles written during the first twenty years of South Africa's democracy, all of which may be assumed to have the role and function of knowledge creation in the area of initial teacher education. The process aimed at: (1) gaining insight

into the nature and form of research into initial teacher education in general and the foundation phase in particular over the post-1994 period, which witnessed substantial changes in the initial teacher education landscape; and (2) recommending a research agenda for future work on initial teacher education for the foundation phase.

Methodology

The Evidence for Policy and Practice Information (EPPI) Centre has noted that “systematic reviews aim to find as much as possible of the research relevant to the particular research questions, and use explicit methods to identify what can reliably be said on the basis of these studies” (2015:n.p.). The EPPI Centre (2015) indicates that such a review synthesises findings in an accessible form to facilitate the making of policy or practice decisions. By implication, such findings also provide the impetus for research agenda setting, such as is the case in this paper.

For the purpose of this systematic review, several major on-line databases of journals on the Rhodes University library system were sourced.

Conference papers, theses, research reports and books written between 1994 and 2014 were not included in the review. Certain studies which were unrelated to the specific subject under scrutiny were excluded.

The *South African Journal for Childhood Education* was not included in the search because, while established in 2011, it only became an accredited journal early in 2014. This notwithstanding, we review articles from it which relate to initial teacher education for foundation phase in a separate section of the paper.

The systematic review process implemented for the purposes of this paper is outlined in Table 2. The results of such a process are of necessity incomplete, but should be representative. While the larger study of all 110 articles reflected in the table included an analysis of authors and the journals in which articles were published, this article reflects only on the nature of the studies and the areas of research covered in the 72 articles which included an empirical element, i.e. experience, observation or experiment.

Table 2 Systematic review methods and process

Database	Search date	Keywords	Limiters	No. before exclusions	Final No. included
Sabinet Index to South African periodicals	8-8-2014	“teacher education” AND “South Africa”	<ul style="list-style-type: none"> • Exact word/ phrase • 1994–2014 	147	58
Wiley online library	8-8-2014	“teacher education” AND “South Africa”	<ul style="list-style-type: none"> • Abstract • 1994–2014 	22	1
Taylor and Francis	11-8-2014	“teacher education” AND “South Africa”	<ul style="list-style-type: none"> • Journals • Abstract • 1-1-1994 to 31-8-2014 	40	6
JStor complete	11-8-2014	“teacher education” AND “South Africa”	<ul style="list-style-type: none"> • Articles • 1994–2014 • English (lang) • Education (disc) • No links to external content 	131	2
EPSCO Academic Search Premier	19-8-2014	“teacher education” AND “South Africa”	<ul style="list-style-type: none"> • All search terms • Periodical • 1994–2014 	198	43
Totals				540	110

Findings

Nature of the Studies: Methodologies and Theoretical Frameworks

When the articles are disaggregated by decade and by article type, the results show a substantially higher number (56: 73%) of empirical articles during the second decade of democracy than during the first (16: 48%) (see Figure 1). In the first decade of democracy, 44% of articles, mostly con-

ceptual or theory-building, dealt with policy or philosophical aspects of teacher education, issues central to debate in the opening years of the democratic era. Changes to the funding formulae as well as greater stability in the Higher Education sector after the mergers in 2002 may account for the increase in empirical work during the second decade.

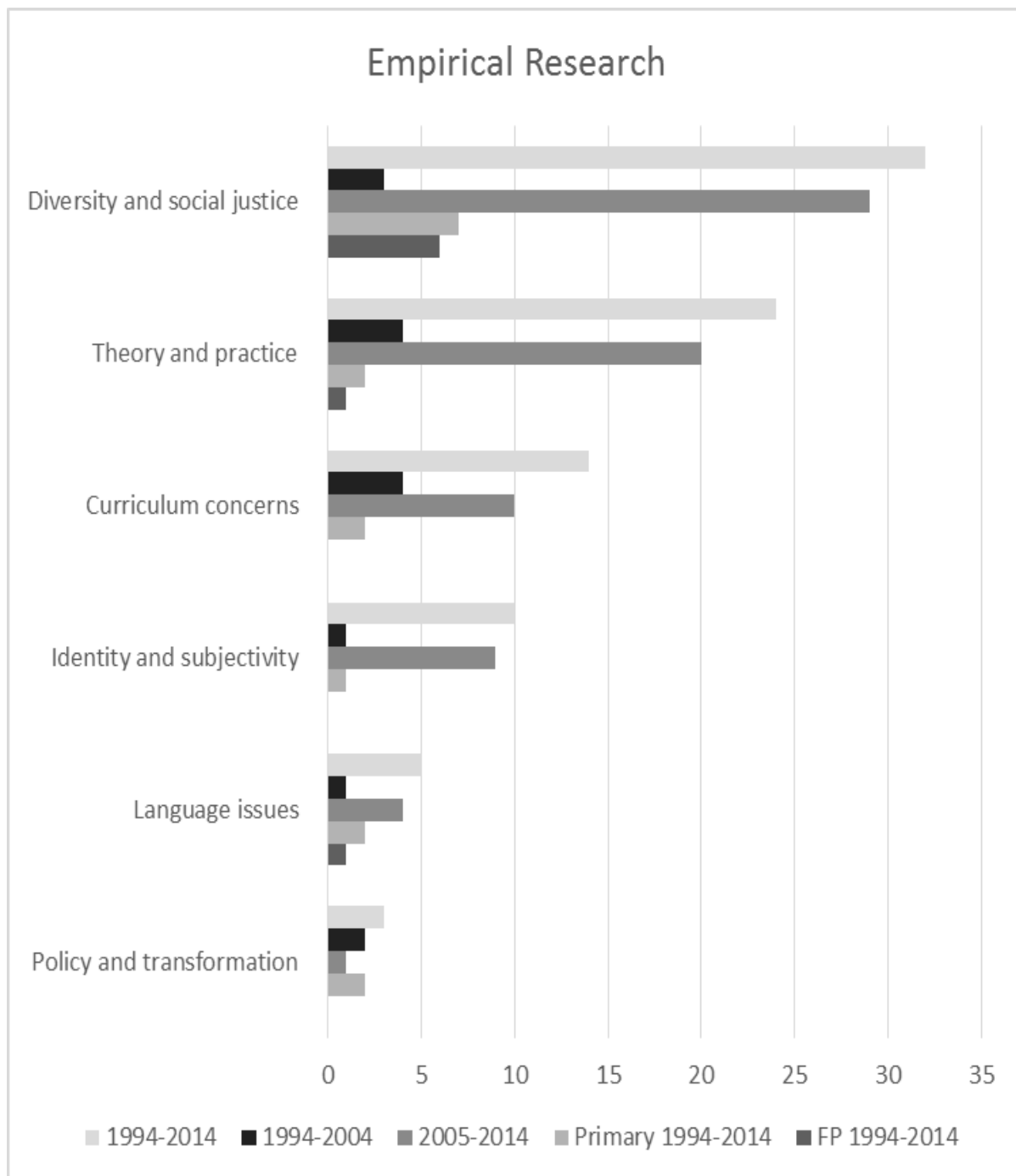


Figure 1 Areas of Empirical Research, 1994-2014

The majority of the 72 empirical studies (59) were small in scale. For the purposes of this paper, large-scale studies were defined as those with 450+ subjects, or those extending for periods of two or more years and involving a wide range of data. Most small scale studies, on the other hand, used qualitative methods, were of short duration and involved “a single teacher or small groups of teachers ($n < 20$) within individual programs or courses” (Adler, Ball, Krainer, Lin & Novotna, 2005:368), offering insight into an issue in a specific context rather than examining how it plays

out systemically. Only 23% (17) of the 72 empirical studies were identified as large scale, and not all of these were equally broad in scope and significance. Eleven (11) of the large-scale studies made use of South African data only, while six (6) spanned several countries. Eight (8) of the 11 articles were written after 2004.

With regard to methodological orientations, across the twenty-year period, 67% of all the empirical studies made use of qualitative orientations and concomitant methods. Large-scale research programmes, on the other hand, often used

mainly quantitative or mixed methods. This finding echoes those in reviews by Adler et al. (2005), Adler, Pournara, Taylor, Thorne and Moletsane (2009) and Deacon, Osman and Buchler (2010) who found small-scale qualitative work, carried out in localised, specific contexts predominating in the Teacher Education (TE) research which they surveyed (e.g. Adler et al., 2005:368), something which often limits generalisability.

As far as theoretical frameworks are concerned, the extent to which social justice orientations,^{viii} particularly critical theory,^{ix} framed articles written across the two decades is noteworthy. Such orientations not only addressed the constitutional imperatives and educational ideals after Apartheid but also offered a critical lens through which to understand how past and present histories intertwine in complex ways to shape the establishment of an equitable education system. Specific examples of the trends outlined above are given in the next section.

Areas of Research

A number of research themes emerged as the authors examined the corpus of 72 articles, finally crystallising into seven areas: diversity and social justice, theory and practice, curriculum concerns, identity and subjectivity, language issues, policy and transformation, and systematic reviews. Some articles were listed under more than one theme heading. In most areas, articles were further subdivided into strands, and then analysed to highlight content, the nature of the study, phase focus, field or discipline, and the decade in which they were written. Figure 1 shows the frequency of occurrence^x of themes in articles overall, as well as articles on primary and foundation phase teacher education, across the 20-year period, highlighting differences in emphasis across the two time periods.

The analysis which follows focuses on the articles relating to the education of teachers for the foundation phase against a background of the broader spread of articles within each theme.

Diversity and social justice

The largest area of research relates to different conceptions of diversity and social justice. Race, language, culture, religion, ability, geographic situation and socio-economic conditions were among the aspects of diversity represented. Of the 32 empirical articles in this area, all but three were written post-2003.

Four strands of research were identified, the first, comprising 15 studies, relating to student experiences of diversity (e.g. James, Ralfe, Van Laren & Ngcobo, 2006), conceptions of diversity held by student teachers (e.g. Vandeyar, 2008), or diversity in student identity constructions (e.g. Le Roux, 2014). Studies in the second strand (nine

articles) reflect on the appropriateness of initial teacher education programme and curriculum design in preparing students for the diverse school contexts they might face (e.g. Amin & Ramrathan, 2009). The six studies in Strand 3 report on research on social aspects of diversity, specifically human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) awareness (e.g. Wood & Rens, 2014), while the two studies in the fourth strand deal with notions of inclusion, framed by White Paper 6 (Department of Education (DoE), 2001), a policy replacing 'special needs education' (e.g. Forlin & Engelbrecht, 1998).

Against a fairly comprehensive survey of approaches to diversity in schools and a description of various understandings of multicultural education theory and practice, Marais and Meier (2008) (Strand 1) analyse responses in the workbooks of 90 randomly chosen foundation phase teacher education students, in which they document their experiences and views on multicultural education and its aims. Having analysed the data into themes, the authors conclude, on the basis of attitudes and understandings evident in the data, that it is essential for teacher education programmes to include explicit preparation for practice in multicultural contexts.

Robinson and Zinn's (2007) article, in the second strand, focuses on pre-service teacher preparation for diversity in the primary school environment. Using a social justice orientation and semi-structured individual and focus group interviews with teacher educators in three HEIs, it finds that systemic factors such as the demographics at institutions impact greatly on the success with which a respect for diversity is inculcated in pre-service teachers. It points to the vital role played by teacher educators and argues for a coherent framework for action in this regard, making a useful contribution to future policy and practice.

Harris and Steyn's (2014) work, also in Strand 2, explores the experiences of 'black' students entering the Early Childhood Education programmes at the University of Pretoria, with a view to better recruitment and retention. Having used critical race theory to analyse transcripts from semi-structured focus group interviews, they express a conviction that the perspectives and voices of all students can only find a space in teacher education courses, opening the way for greater 'black' recruitment and retention, if strong relationships are built between staff and students from all backgrounds. The issue of barriers and supports for 'black' teacher education students preparing for foundation phase teaching in institutions which are often geared towards the 'white' middle class is crucial from the point of view of the current supply and demand challenge, with respect to foundation phase teachers who speak African languages.

Evans and Cleghorn's Strand 2 article reports on "the complexity of encounters between student teachers and foundation phase learners when neither are first language speakers of English, the instructional language" (2010:141), using a "critical yet reflective ethnographic and socio-linguistic perspective" (2010:142). They highlight many teachers' lack of multilingual competence, and also show how unaware they often are of the difficulties learners face when the language of learning and teaching is not a familiar one. They make the recommendations, vital for both policy and practice, that teachers be prepared more effectively: (1) to understand the integral role of language in learning; (2) to confront the challenges that multilingual contexts present; and (3) to use and value learners' multiple language repertoires as a resource. It is notable that this is one of only two articles in the whole corpus which deals with multilingualism, in spite of the policy imperative that in the foundation phase learners learn through their mother tongue (Department of Basic Education (DBE), 2011; DoE, 1997).

Taylor and Coetzee have noted that "about 60% of children in Grade Three learn in a language other than English or Afrikaans. By Grade Four, this proportion is only about 5%" (2013:n.p.). This early shift from home language medium for most of South Africa's learners has vast implications for teacher preparation. Evans and Cleghorn (2010) show the way towards further indispensable research on ways of ensuring that teachers can cope with linguistically diverse environments, something which language in education policy (DoE, 1997) takes for granted.

All six studies on HIV/AIDS awareness appeared in the second decade of democracy, an outcome, perhaps, of the introduction in 2010 of the integrated education strategy on HIV/AIDS (DBE, 2010). Three of the six HIV/AIDS articles emanate from a single research project (Van Laren, 2007, 2008, 2011), and focus on foundation phase teacher preparation. Van Laren's small-scale project makes use of self-study research and a social justice framework to explore the integration of HIV/AIDS awareness into early mathematics learning, researching collaboratively with seven volunteer pre-service teachers (out of a group of 145). Insights were gained into her own teacher-educator practice and ways of developing pre-service teachers' skills. The value of the study notwithstanding, the fact that it was conducted with a small group of volunteer students out of her large class suggests that it may not have wide generalisability.

Instructive in the diversity area is the sharp increase of studies from the first decade to the second, indicating the pervasiveness of diversity concerns twenty years into South Africa's democracy. Indeed, recent research reflecting on the

South African schooling system calls it 'bi-modal': a system where only 25% of schools offer learners an education which enables them to pass, while the quality of education in 75% of schools (mostly rural and in 'black' and 'coloured' townships) virtually condemns learners to failure (e.g. Fleisch, 2008; Spaul, 2012). That such disparity exists in the current education system has important implications for the preparation of teachers to adequately teach in contexts where racial, cultural, linguistic or geographic homogeneity cannot be assumed.

The contribution of the work reported notwithstanding, the small scale and isolated nature of the research projects, particularly notable when one considers that only seven studies relate to teacher education for primary schooling, underlines the need for more integrated and broad-based research on: (1) the implications of various dimensions of diversity for initial teacher education programme and curriculum design; and (2) ways to better prepare teachers for the diversity that currently reflects in South African schools. These are priorities throughout the teacher education system including that for foundation phase teachers, where research into preparation for linguistic diversity is a particularly urgent need.

Theory and practice

Articles debating the relationship between theory and practice in initial teacher education as well as articles on field experience of various kinds have been included within this field, which comprises 24 empirically-based studies, divided into five strands.

The most recent policy document outlining requirements for teacher education qualifications (Department of Higher Education and Training, Republic of South Africa, 2015) brings together theoretical and practical aspects of TE knowledge in the concept of integrated and applied knowledge, which incorporates disciplinary, pedagogical, practical, fundamental and situational learning. 'Practical learning', the document states,

...must be appropriately structured and fully integrated into overall learning programmes, while including structured supervision, mentoring and assessment. Time spent in the actual workplace is very important and should provide an authentic context within which student teachers can experience and demonstrate the integration of the competences they developed during the learning programme as a whole. It is also important for students to be exposed to concrete experience of the varied and contrasting contexts of schooling in South Africa (p. 18).

Work included in the first strand of this area explores the interface between experience in the field (WIL)^{xi} and teaching efficacy, student motivation, development and/or perception of roles (e.g. Junqueira & Matoti, 2013). Four studies comprise the second strand, which examines situations relating to the pressure recently experi-

enced by faculties and schools of education to involve themselves and students in community engagement projects (Council for Higher Education (CHE), 2010) and service learning (Bender, Daniels, Lazarus, Naude & Sattar, 2006). These articles examine student commitment to such projects (e.g. Osman & Petersen, 2010), and tensions which emerge during them (e.g. Maistry & Ramdhani, 2010). Two studies on learnerships (Mawoyo & Robinson, 2005; Potgieter, 2003), a structure no longer used for TE, comprise a third strand, and the fourth consists of two studies on school-university partnerships (Mutemeri & Chetty, 2011; Pennefather, 2008), vital in facilitating positive and useful learning experiences during WIL. In a fifth strand, seven studies revolve explicitly around the relationship between theory and practice in TE curricula (e.g. Ensor, 2000).

Most of the studies on theory and practice are small in scale and use qualitative methods. Twenty of the 24 studies were published after 2003. These factors are an indication, perhaps, that once teacher educators were stimulated to carry out research, post-2004, through a new funding formula, one of the most immediate, interesting, practical and also problematic programme components to explore was teaching practice (WIL).

Marais and Meier (2004) and Mawoyo and Robinson (2005) were the only two of these 24 articles which were carried out with primary or foundation phase student teachers. Analysing responses to unstructured open-ended questionnaires and workbook activities reflecting the views on teaching practice of 135 foundation phase and early childhood development student teachers, Marais and Meier (2004) conclude areas needing attention to be: consistency between theory and practice, discipline and the influence of supervisory teachers.

Mawoyo and Robinson (2005) use situated learning theory in their study, conducting structured interviews with five student teachers and six mentors participating in learnerships at three primary schools. Their highly systematic analysis concludes that the benefits of the learnership model can be compromised by a separatist relationship between the HEI and the school and lack of support for mentors.

The document on minimum standards cited above (DHET, Republic of South Africa, 2015:8) "...encourages teacher educators to become engaged with curriculum design, policy implementation and research". This policy thus constitutes a challenge to the staff of education faculties and schools to extend research such as that described in this paper, in order to develop programmes which bridge the endemic divide between theoretical and practical components of initial teacher education programmes. The vital field of research into WIL for foundation phase

student teachers in particular is wide open for future researchers.

Curriculum concerns

Four strands are evident in the 14 empirically-based articles on curriculum concerns, which include those on quality and assessment. The first strand focuses on curriculum reform, and consists of five articles, three of which, unsurprisingly, were written pre-2004, when new curricula were being developed and implemented (e.g. Samuel, 2002).

Lewin and Stuart's (2003) article, included in strand one, makes contributions to a number of the themes identified, and has been included under policy as well as curriculum. It gives an account of the Multi-Site Teacher Education Research (MUSTER) project, aimed at enhancing understandings of how primary teachers acquire skills and exploring types of TE provision for primary schools in five developing countries (Ghana, Lesotho, Malawi, Trinidad and Tobago and South Africa). A rigorous process involving quantitative and qualitative methods and a wide range of evidence types (e.g. surveys, interviews, observations, diaries, financial analysis), produced a number of reliable and useful findings. Across all five countries they found inconsistencies in TE curricula, a transmission approach to teacher education, a disjunction between theory and practice, and incomprehension of the difficulties of learning through a second language. Other important insights were that students were being trained for primary schools as they should be, using Western models, rather than for schools as they are, and that lecturers have too little understanding of their students and their contexts.

Curriculum innovation is the theme of the second strand, its four articles reporting on small-scale, qualitative studies geared towards improving pedagogic practices in initial teacher education (e.g. Roux, 2009). The two articles in the third strand deal with teacher education discourses (e.g. Ensor, 2004) and the fourth strand comprises articles with a specific discipline focus (e.g. Essien (2010) mathematics; Stears (2012) biology).

Vithal (2008) (strand four) uses a critical perspective in a reflexive account of her project work curriculum for primary mathematics student teachers, developed and implemented over a decade. This work was introduced as a way of integrating mathematics and the social, cultural and political world. She recommends a useful analytic framework of 'imagined praxis', 'actual praxis', where student teachers experience the methodology through simulations and own projects, and 'arranged praxis', taking place in micro-teaching and teaching practice environments. She suggests that experimenting with the balance of these three praxes can help to bring theory and practice together in TE.

The empirical studies in this area of research offer some critique of curriculum reforms, and give some insights into desirable innovations and approaches. Lewin and Stuart's (2003) study offers very useable findings and recommendations for the improvement of primary TE curricula, but apart from this MUSTER project, the research is non-programmatic and isolated, and none has an explicit foundation phase focus. Findings such as those of MUSTER should be used as a launching point for further research related to curriculum reform in initial teacher education in general and in the foundation phase in particular.

Identity and subjectivity

Ten studies were brought together under this heading, only one of which relating to TE for primary teachers. These have been divided into three strands.

Studies in the first strand relate to teacher educator identity. Robinson and McMillan's (2006) article establishes a theoretical perspective on the relationship between change and identity, then uses semi-structured interviews to examine the understandings of a group of primary teacher educators of their work, where new policies expect them to be researchers. Drawing on the participative action research paradigm, they argue that the identity of teacher educator as teacher and that of teacher educator as enquirer are not incompatible. This clear and well-argued article tackles the challenge of achieving the vital identity shift which can enable more foundation phase research to be carried out.

Strand two on student identity contains articles describing teacher preparation as a space of being and becoming and emphasising the nexus between identity and developing professional roles (e.g. Fataar, 2010). In strand three, five articles deal with affective and cognitive aspects of initial teacher education such as teachers' sources of inspiration (e.g. Wolhuter, Van der Walt, Potgieter, Meyer & Mamiala, 2012).

The recent focus on capabilities and on "well-being" (Sen, 1999:190) has raised awareness of the importance of giving the requisite attention to students' and teacher educators' "desired functionings" (Baxen, Nsubuga & Botha, 2014:98); to their humanity, their subjectivity and their inner worlds. Such a focus in initial teacher education might contribute to the recruitment and retention of suitable and committed teacher-educators, as well as students, and increase the likelihood that they will flourish and enrich the contexts in which they work (Baxen et al., 2014).

Language issues

Five studies directly relating to language issues and the teaching of language were empirical in nature, with only one written in the first decade of

democracy. Two of the five have already been referred to under 'diversity and social justice', with the other three (e.g. Murray, 1997) being focused on research into various aspects of English and literacy teaching.

Two of the five studies relate specifically to the foundation phase. One is that of Evans and Cleghorn (2010), discussed earlier. The other is that of Condy, Chigona, Chetty and Thornhill (2010), who investigate the perceptions of fourth-year Bachelor of Education (BEd) students about the THRASS^{xii} system of teaching literacy. They analyse the THRASS system and how it fits into their institution's broader approach to teaching literacy, concluding that it can contribute to decoding skills, but conflicts somewhat with the institution's support for contextualised literacy teaching. Responses to a questionnaire and focus group discussions highlight students' views about literacy teaching in general and THRASS in particular. Students see positive aspects to THRASS but feel their preparation to use it was inadequate. While the paper's aims and findings could have been more sharply focused and theorised, research such as this, which explores the interface between TE and different approaches to teaching literacy, is urgently needed.

Policy and transformation

Only three studies on policy and transformation were found to include empirical elements. Two were written in the first decade, when policies were new and being developed or reviewed, one of them being that of Lewin and Stuart (2003), also referred to under curriculum. This systematic and thorough paper, based on extensive research which produced a variety of evidence-based conclusions, highlights "the importance of adopting approaches to policy that are more, rather than less, 'evidence based'" and notes the heavy costs, made evident through their research, "of misguided policy founded on untested assumptions and casual empiricism" (Lewin & Stuart, 2003:705).

These researchers also found in all the countries they researched that the needs of teacher educators tended to be overlooked. This finding lends significance to the fact that the other two policy-related articles (Robinson, 2003 and Robinson & McMillan, 2006, also dealt with under identity) explore teacher educators' understandings of new teacher education policy, with a view to developing better support structures for them.

Such research provides a useful starting point for future research aimed at providing evidence for policy review and development.

Systematic reviews

There were two research reviews among the 110 studies, both concurring with a number of the findings of the current paper. Deacon et al. (2010)

reviewed teacher education scholarship in South Africa between 1995 and 2006 while Adler et al. (2009) reviewed research on science and mathematics teacher education in South Africa. The former, whose work was part of a larger review of literature on education in South Africa, note the small, classroom-based nature of most studies and observe that “issues of social justice, diversity, dialogue and context loom large” (Deacon et al., 2010:8). While finding evidence that South African researchers are engaging some of the issues dominating international studies, Adler et al. (2009) identify important gaps in South African research. On the basis of these gaps, they propose an agenda for Maths and Science Teacher education research which focuses on initial teacher education, particularly for primary schools, for Life Sciences, and for rural contexts. They advocate identifying propositions that can be empirically tested and exploring “what ‘works’ ..., why, how, and under what conditions” (Adler et al., 2009:39). Both reviews advocate a more coherent and co-ordinated research agenda for the future.

Having outlined articles in the seven research areas and subjected those dealing with primary teacher preparation to a somewhat more detailed analysis, we give an overview of contributions made to initial teacher education research in the foundation phase by the *South African Journal of Childhood Education (SAJCE)*, using the same categories.

Contributions to Research into Initial Teacher Education for the Foundation Phase in the *South African Journal of Childhood Education*

Since the establishment of the SAJCE in 2010, it has published 16 articles on topics relating to initial teacher education for foundation phase teachers. While two (Petersen, 2014; Van Laren, 2011) are based on research which was also reported in the main review above, others represent real forward movement in initial teacher education research. Green et al.’s (2011) analysis of foundation phase teacher provision referred to earlier appears in the SAJCE. Another eight SAJCE papers deal with aspects of curriculum development, four with aspects of theory and practice, and three with language.

Studies in which the curriculum and theory and practice areas combine are those reporting on attempts to create programmes characterised by integrated and applied knowledge at Nelson Mandela Metropolitan University and the University of Johannesburg. Zinn, Geduld, Delpont and Jordaan (2014) offer an account of ‘Learning Walks’, the inquiry-based process informed by humanising pedagogy employed at the Nelson Mandela Metropolitan University to create a renewed BEd (Foundation Phase) programme

which integrates theory and practice through work-integrated learning (WIL). Gravett (2012) looks into the model of ‘teaching schools’ as a way of restoring unity between theory and practice, Loock and Gravett (2014) explore government and management models for such schools and Petger and Petersen (2014) propose an integrated curriculum design to accommodate service learning opportunities in the ‘teaching school’ established by the University of Johannesburg in Soweto.

An example of studies in the language area is that by Nomlomo and Desai (2014), who reflect on the development of a language and literacy curriculum for the BEd (Foundation Phase).

Establishing a Research Agenda for Initial Teacher Education for the Foundation Phase

The above findings, reflecting the number of contributions and their spread over the 20 years, the form of research and theoretical lenses used, illustrate that, in spite of an increase in research output since 2005, the initial teacher education research landscape in South Africa is nascent, offering opportunity for the development of a research agenda that widens the scope of contributors, uses a wider range of methodologies and theoretical frameworks, and gives useful and usable insights to inform the programme and curriculum design of initial teacher education in and for a complex South African education context.

The process used in this review has thrown up 72 articles with an empirical element, which includes two reviews. In concluding remarks to most of the six areas of research, in what is recounted above, the isolated and uncoordinated nature of the research projects has been noted. While research output on preparation for primary and foundation phase teachers is very low (11 and eight articles respectively), there are a number of admirable studies using various methodologies and theoretical perspectives, most common being frameworks related to critical theory. The authors have identified key problem areas which might form the basis for a more coherent and systematic research agenda. Robinson and McMillan (2006) have also tackled the critical issue of researcher identity among primary teacher educators.

We recommend that a research agenda be drawn up based in part on the key findings from these 11 studies, using action research and other practice-oriented methodologies and focusing on solutions to the dilemmas facing teacher education, which have been highlighted in the reviewed research, as well as a couple which are conspicuous by their absence. Areas identified in the 11 studies which require further research are as follows:

Curriculum; theory and practice

- The inconsistency of most teacher education

- curricula (Lewin & Stuart, 2003).
- A disjunction in most curricula between theory and practice (Lewin & Stuart, 2003; Marais & Meier, 2004; Vithal, 2008).
- A transmission approach to teaching in most TE curricula (Lewin & Stuart, 2003).
- The influence, training and support of mentors in field experience (Marais & Meier, 2004; Mawoyo & Robinson, 2005).
- A separatist relationship between HEI and school in various kinds of field experience (Mawoyo & Robinson, 2005).

Diversity

- Education for primary schools as they should be, using Western models, rather than for schools as they are (Lewin & Stuart, 2003).
- Systemic factors which inhibit preparation for diversity (Robinson & Zinn, 2007).
- The need for explicit preparation for handling diversity in schools (Marais & Meier, 2008).
- The vital importance of the attitudes and contributions of teacher educators in preparing teachers for diversity in schools (Robinson & Zinn, 2007).
- The need for teacher educators to relate more closely to and have an understanding of their students and their contexts (Harris & Steyn, 2014; Lewin & Stuart, 2003).
- The lack of comprehension among teacher educators and their students of the difficulties of learning through a second language (Lewin & Stuart, 2003). Their need to: (1) understand the role of language in learning; (2) confront the challenges that multilingual contexts present; and (3) use and value learners' multiple language repertoires as a resource (Evans & Cleghorn, 2010).

Teacher education for literacy and numeracy teaching

Given South African learners' performance on international mathematics and literacy tests such as TIMSS (Reddy et al., 2006) and PIRLS (Howie et al., 2012), as well as the South African Department of Basic Education's Annual National Assessment (ANA) (DBE, 2014), the importance of and the challenges involved in educating pre-service foundation phase teachers in the fundamentals of literacy and numeracy teaching in South Africa and in certain other developing countries, cannot be over-emphasised. Condy et al. (2010), who analyse pre-service teachers' experience of THRASS, are the only researchers touching on one of these cardinal themes. Van Laren's (2007, 2008, 2011) and Vithal's (2008) research is carried out in the area of primary mathematics, but though valuable and innovative, it does not engage with the challenges of teaching early numeracy.

It is imperative that the international teacher education community, and South Africa in particular, establish a sustained, coordinated and coherent research agenda to tackle the literacy and numeracy challenge, as well as the other challenges

listed above, premised on an understanding of the interface between teacher education practices and what happens at the chalk-face in classrooms. The success of this agenda will depend on its being applied to teaching on both sides of the 'bi-modal' divide in South African schools, the 75% of schools where students have little chance of succeeding as well as the 25% where students are almost guaranteed to pass. In other words, a concern with diversity is fundamental to progress in tackling the numeracy and literacy crises. These critical areas, together with other curriculum issues, should be researched in an integrated fashion.

Notes

- i. Foundation Phase: The first four years of formal and compulsory schooling (the General Education and Training Band) in South Africa. Foundation Phase comprises Grade R (the reception year) and Grades One to Three. It is followed by the Intermediate Phase, Grades Four to Six and the Senior Phase, Grades Seven to Nine, and then by the Further Education and Training Band.
- ii. While it would be preferable not to use racial terminology such as 'white', 'black', 'coloured', and 'Indian', we use them because these were, and still are, powerful categories of social organisation in South Africa, with very real material effects.
- iii. This initially included 'Africans', 'coloureds' and 'Indians'.
- iv. Known as Standard 6 or 8 in pre-1994 terminology.
- v. Two more public institutions, Mpumalanga University and Sol Plaatje University, were established in 2013 and began operating in 2014.
- vi. The Cape Consortium (2011) was part of the SFPTEP, and involved Rhodes University, Nelson Mandela Metropolitan University, Walter Sisulu University and the University of the Western Cape.
- vii. The analysis is done against an understanding that peer-reviewed articles have been subjected to criteria for research articles such as those set up by the American Educational Research Association (AERA) (<http://www.aera.net/>).
- viii. An orientation to research which aims to expose injustice and inequality and promote human rights and the empowerment of individuals.
- ix. A social theory which aims both to critique and to change society.
- x. Some articles were included in more than one area, resulting in a total larger than 72.
- xi. WIL: Work-Integrated Learning; known until recently as Teaching Practice or School Experience, or more rarely as the Practicum.
- xii. Teaching Handwriting, Reading and Spelling Skills.

References

- Adler J, Ball D, Krainer K, Lin FL & Novotna J 2005. Reflections on an emerging field: Researching

- Mathematics teacher education. *Educational Studies in Mathematics*, 60(3):359-381. doi: 10.1007/s10649-005-5072-6
- Baxen J, Nsubuga Y & Botha LJ 2014. A capabilities perspective on education quality: Implications for foundation phase teacher education programme design. *Perspectives in Education*, 32(4):93-105.
- Bender CJG, Daniels P, Lazarus J, Naude L & Sattar K 2006. *Service-learning in the curriculum: A resource for higher education institutions*. Pretoria, South Africa: Higher Education Quality Committee (HEQC).
- Council for Higher Education (CHE) 2010. *Community engagement in South African higher education*. Johannesburg, South Africa: Jacana Media (Pty) Ltd. Available at http://www.che.ac.za/sites/default/files/publication_s/Kagisano_No_6_January2010.pdf. Accessed 19 August 2016.
- Christie P 1992. *The right to learn: The struggle for education in South Africa*. Johannesburg, South Africa: SACHED/Ravan Press.
- Cross M & Chisholm L 1990. The roots of segregated schooling in twentieth century South Africa. In M Nkomo (ed). *Pedagogy of domination: Toward a democratic education in South Africa*. Trenton, NJ: Africa World Press, Inc.
- Deacon R, Osman R & Buchler M 2010. Scholarship in teacher education in South Africa, 1995-2006. *Perspectives in Education*, 28(3):1-12.
- Department of Basic Education (DBE) 2010. *Integrated strategy on HIV and AIDS 2011-2015*. Summary report. Pretoria, South Africa: Department of Basic Education.
- DBE, Republic of South Africa 2011. *Curriculum and Assessment Policy Statements (CAPS) English First Additional Language Foundation Phase Grades 1-3*. Pretoria: DBE. Available at <http://www.education.gov.za/Portals/0/CD/National%20Curriculum%20Statements%20and%20Vocational/CAPS%20ENGLISH%20FAL%20GR%201-3%20FS.pdf?ver=2015-01-27-155321-957>. Accessed 24 August 2016.
- DBE, Republic of South Africa 2014. *Report on the Annual National Assessment of 2014: Grades 10 to 60 and 9*. Pretoria: DBE. Available at <http://www.education.gov.za/Portals/0/Documents/Reports/REPORT%20ON%20THE%20ANA%20OF%202014.pdf?ver=2014-12-04-104938-000>. Accessed 24 August 2016.
- Department of Education (DoE) 1997. *Language in education policy*. Pretoria, South Africa: Government Printer. Available at <http://www.education.gov.za/LinkClick.aspx?fileticket=XpJ7gz4rPT0%3D&tabid=390&mid=1125>. Accessed 20 May 2015.
- DoE 2001. *Education White Paper 6. Special Needs Education: Building an inclusive education and training system*. Pretoria, South Africa: DoE. Available at <http://www.education.gov.za/Portals/0/Documents/Legislation/White%20paper/Education%20White%20Paper%206.pdf?ver=2008-03-05-104651-000>. Accessed 20 August 2016.
- Department of Higher Education and Training, Republic of South Africa 2015. National Qualifications Framework Act (67/2008): Revised policy on the minimum requirements for teacher education qualifications. *Government Gazette*, 596(38487). Pretoria: Government Printer. Available at http://www.dhet.gov.za/Teacher%20Education/National%20Qualifications%20Framework%20Act%2067_2008%20Revised%20Policy%20for%20Teacher%20Education%20Qualifications.pdf. Accessed 19 August 2016.
- Evidence for Policy and Practice Information Centre 2015. *What is a systematic review?* Available at <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=67>. Accessed 20 April 2015.
- Fleisch B 2008. *Primary education in crisis: Why South African schoolchildren underachieve in reading and mathematics*. Cape Town, South Africa: Juta & Co.
- Green W, Parker D, Deacon R & Hall G 2011. Foundation phase teacher provision by public higher education institutions in South Africa. *South African Journal of Childhood Education*, 1(1):109-122. doi: 10.4102/sajce.v1i1.80
- Hofmeyr J & Hall G 1995. *The national teacher education audit: Synthesis report*. Johannesburg, South Africa: Edupol.
- Howie S, Van Staden S, Tshele M, Dowse C & Zimmerman L 2012. *Progress in International Reading Literacy Study (PIRLS) 2011: South African children's reading literacy achievement*. Summary report. Pretoria, South Africa: Centre for Evaluation and Assessment, University of Pretoria. Available at http://www.up.ac.za/media/shared/Legacy/sitefiles/file/publications/2013/pirls_2011_report_12_dec.pdf. Accessed 19 August 2016.
- Kerr A 1968. *Fort Hare 1915-48: The evolution of an African college*. Pietermaritzburg, South Africa: Shuter & Shooter.
- Reddy V, Kanjee A, Diedericks G & Winnaar L 2006. *Mathematics and Science achievement at South African schools in TIMSS 2003*. Cape Town, South Africa: Human Sciences Research Council (HSRC) Press.
- Sen A 1999. *Development as freedom*. Oxford, UK: Oxford University Press.
- Spaull N 2012. *Poverty & privilege: Primary school inequality in South Africa*. Stellenbosch Economic Working Papers: 13/12.
- Taylor S & Coetzee M 2013. Mother-tongue classrooms give a better boost to English study later. *Mail & Guardian*, 18 October. Available at <http://mg.co.za/article/2013-10-18-mother-tongue-classrooms-give-a-better-boost-to-english-study-later>. Accessed 25 June 2015.
- The Cape Consortium 2011. *Quality teaching and teacher education practice: The Cape Foundation Phase Research Programme*. Grahamstown, South Africa: Rhodes University.
- United Nations 2015. *The Millennium Development Goals Report*. New York, NY: United Nations. Available at [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%2015\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%2015).pdf). Accessed 20 August 2016.
- Welch T 2002. Teacher education in South Africa before, during and after apartheid: An overview. In J Adler

& Y Reed (eds). *Challenges of teacher development: An investigation of take-up in South*

Africa. Pretoria, South Africa: Van Schaik.

Appendix A: Articles in Systematic Review Cited in this Article

- Adler J, Pournara C, Taylor D, Thorne B & Moletsane G 2009. Mathematics and science teacher education in South Africa: A review of research, policy and practice in times of change. *African Journal of Research in Mathematics, Science and Technology Education*, 13(S1):28-46.
- Amin N & Ramrathan P 2009. Preparing students to teach in and for diverse contexts: a learning to teach approach. *Perspectives in Education*, 27(1):69-77. Available at https://www.researchgate.net/profile/Nyna_Amin/publication/290869499_Preparing_students_to_teach_in_and_for_diverse_contexts_a_learning_to_teach_approach/links/56ebbf7608ae9dcdd82afecd.pdf. Accessed 18 August 2016.
- Condy J, Chigona A, Chetty R & Thornhill C 2010. Final-year teacher training students' perceptions of THRASS. *South African Journal of Education*, 30(2):261-275. Available at <http://www.sajournalofeducation.co.za/index.php/saje/article/view/343/201>. Accessed 18 August 2016.
- Deacon R, Osman R & Buchler M 2010. Scholarship in teacher education in South Africa, 1995-2006. *Perspectives in Education*, 28(3):1-12.
- Ensor P 2000. Knowledge and pedagogy in initial teacher education. *Journal of Education*, 25:161-191.
- Ensor P 2004. Modalities of teacher education discourse and the education of effective practitioners. *Pedagogy, Culture & Society*, 12(2):217-232. doi: 10.1080/14681360400200197
- Essien AA 2010. Mathematics teacher educators' account of preparing pre-service teachers for teaching Mathematics in multilingual classroom: The case of South Africa. *International Journal of Interdisciplinary Social Sciences*, 5(2):33-44.
- Evans R & Cleghorn A 2010. 'Look at the balloon blow up': Student teacher-talk in linguistically diverse Foundation Phase classrooms. *Southern African Linguistics and Applied Language Studies*, 28(2):141-151. doi: 10.2989/16073614.2010.519105
- Fataar A 2010. Student being and becoming at the university: A response from the perspective of a reflexive sociology of teacher education. *South African Journal of Higher Education*, 24(2):318-330.
- Forlin C & Engelbrecht P 1998. Pre-service teacher education for inclusive education in Australia and South Africa. *South African Journal of Higher Education*, 12(2):215-223. Available at http://reference.sabinet.co.za/webx/access/journal_archive/10113487/592.pdf. Accessed 17 August 2016.
- Harris T & Steyn M 2014. From your perspective: Black pre-service early childhood education students share their stories. *Australasian Journal of Early Childhood*, 39(1):4-11.
- James A, Ralfe E, Van Laren L & Ngcobo N 2006. Reacting, adopting and responding to change: Experiences of multicultural and anti-racism teacher education post 1994. *South African Journal of Higher Education*, 20(5):679-690.
- Junqueira KE & Matoti SN 2013. A comparative study of pre-service teachers' teaching efficacy beliefs before and after work-integrated learning: Part two. *Africa Education Review*, 10(S1):S28-S46. doi: 10.1080/18146627.2013.855423
- Le Roux A 2014. 'We were not part of apartheid': rationalisations used by four white pre-service teachers to make sense of race and their own racial identities. *South African Journal of Education*, 34(2): Art. # 778, 16 pages. doi: 10.15700/201412071137
- Lewin KM & Stuart JM 2003. Insights into the policy and practice of teacher education in low-income countries: the multi-site teacher education research project. *British Educational Research Journal*, 29(5):691-707. doi: 10.1080/0141192032000133703
- Maistry SM & Ramdhani J 2010. Managing tensions in a service-learning programme: Some reflections. *South African Journal of Higher Education*, 24(4):555-567.
- Marais P & Meier C 2004. Hear our voices: Student teachers' experiences during practical teaching. *Africa Education Review*, 1(2):220-233. doi: 10.1080/18146620408566281
- Marais P & Meier C 2008. Student teachers' understanding of multicultural education in public schools. *Africa Education Review*, 5(2):184-198. doi: 10.1080/18146620802449431
- Mawoyo M & Robinson M 2005. The organisation of pedagogy in a learnership model of teacher education. *South African Journal of Education*, 25(2):109-114.
- Murray S 1997. Exploring the possibilities of using an outcomes-based approach in English teacher education. *Southern African Journal of Applied Language Studies*, 5(2):21-37. doi: 10.1080/10189203.1997.9724665
- Mutemeri J & Chetty R 2011. An examination of university-school partnerships in South Africa. *South African Journal of Education*, 31(4):505-517. Available at <http://www.sajournalofeducation.co.za/index.php/saje/article/view/325/269>. Accessed 13 August 2016.
- Osman R & Petersen N 2010. Students' engagement with engagement: The case of teacher education students in higher education in South Africa. *British Journal of Educational Studies*, 58(4):407-419. doi: 10.1080/00071005.2010.527665
- Pennefather J 2008. 'Rural' schools and universities: The use of partnerships as a teaching strategy in enhancing a positive response to rurality. *Perspectives in Education*, 26(2):81-94.
- Potgieter F 2003. Phantom ship or ferryboat? Understanding the mystery of learnerships and assessing the realities. *Perspectives in Education*, 21(1):167-187. Available at http://www.repository.up.ac.za/dspace/bitstream/handle/2263/4390/Potgieter_Phantom%282003%29.pdf?sequence=1&isAllowed=y. Accessed 12 August 2016.
- Robinson M 2003. Teacher education policy in South Africa: The voice of teacher educators. *Journal of Education for Teaching*, 29(1):19-34.
- Robinson M & McMillan W 2006. Who teaches the teachers? Identity, discourse and policy in teacher education. *Teaching and Teacher Education*, 22(3):327-336. doi: 10.1016/j.tate.2005.11.003

- Robinson M & Zinn D 2007. Teacher preparation for diversity at three South African universities. *Journal of Education*, 42:61-81. Available at http://reference.sabinet.co.za/webx/access/journal_archive/0259479X/38.pdf. Accessed 12 August 2016.
- Roux C 2009. Holistic curriculum development: tutoring as a support process. *South African Journal of Education*, 29(1):17-32. Available at <http://www.sajournalofeducation.co.za/index.php/saje/article/view/229/147>. Accessed 12 August 2016.
- Samuel M 2002. Working in the rain: pressures and priorities for teacher education curriculum design in South Africa: a case study of the University of Durban-Westville. *International Journal of Educational Development*, 22(3-4):397-410. doi: 10.1016/S0738-0593(01)00061-X
- Stears M 2012. Exploring biology education students' responses to a course in evolution at a South African university: implications for their roles as future teachers. *Journal of Biological Education*, 46(1):12-19. doi: 10.1080/00219266.2011.560171
- Vandeyar S 2008. The attitudes, beliefs and anticipated actions of student teachers towards difference in South African classrooms. *South African Journal of Higher Education*, 22(3):692-707.
- Van Laren L 2007. Using metaphors for integrating HIV and AIDS education in mathematics curriculum in pre-service teacher education: an exploratory classroom study [Special issue]. *International Journal of Inclusive Education*, 11(4):461-479. doi: 10.1080/13603110701391451
- Van Laren L 2008. Exploration of strategies to integrate HIV and AIDS education in pre-service teacher education. *African Journal of Research in Mathematics, Science and Technology Education*, 12(S1):47-61. doi: 10.1080/10288457.2008.10740641
- Van Laren L 2011. Integrating HIV&AIDS education in pre-service Mathematics education for social justice. *South African Journal of Education*, 31(3):333-344. Available at <http://www.sajournalofeducation.co.za/index.php/saje/article/view/539/255>. Accessed 8 August 2016.
- Vithal R 2008. An analytical framework for mathematics teacher education from a critical perspective. *Perspectives in Education*, 26(2):29-40. Available at http://www.eranet.co.za/zenex/files/375_Vithal,%202008.pdf. Accessed 24 August 2016.
- Wolhuter C, Van der Walt H, Potgieter F, Meyer L & Mamiala T 2012. What inspires South African student teachers for their future profession? *South African Journal of Education*, 32(2):178-190. doi: 10.15700/saje.v32n2a570
- Wood L & Rens J 2014. Treating 'AIDS blindness': A critical pedagogical approach to HIV education at tertiary level. *African Journal of AIDS Research*, 13(1):65-73. doi: 10.2989/16085906.2014.886604

Appendix B: Articles in SAJCE Cited in this Article

- Gravett S 2012. Crossing the “theory-practice divide”: Learning to be(come) a teacher. *South African Journal of Childhood Education*, 2(2):1-14. doi: 10.4102/sajce.v2i2.9
- Green W, Parker D, Deacon R & Hall G 2011. Foundation phase teacher provision by public higher education institutions in South Africa. *South African Journal of Childhood Education*, 1(1):109-122. doi: 10.4102/sajce.v1i1.80
- Loock C & Gravett S 2014. Towards a governance and management model for teaching schools in South Africa. *South African Journal of Childhood Education*, 4(3):174-191. Available at <http://www.scielo.org.za/pdf/sajce/v4n3/12.pdf>. Accessed 7 August 2016.
- Nomlomo V & Desai Z 2014. Reflections on the development of a pre-service language curriculum for the BEd (Foundation Phase). *South African Journal of Childhood Education*, 4(3):87-102. Available at <http://www.scielo.org.za/pdf/sajce/v4n3/07.pdf>. Accessed 7 August 2016.
- Petersen N 2014. Childhood education student teachers responses to a simulation game on food security. *South African Journal of Childhood Education*, 4(1):1-16. Available at <http://www.scielo.org.za/pdf/sajce/v4n1/02.pdf>. Accessed 7 August 2016.
- Petger G & Petersen N 2014. Service learning in foundation phase teacher education: Experiential learning opportunities for student teachers. *South African Journal of Childhood Education*, 4(3):122-135. Available at <http://www.scielo.org.za/pdf/sajce/v4n3/09.pdf>. Accessed 7 August 2016.
- Zinn D, Geduld D, Delpont A & Jordaan C 2014. ‘Learning walks’: Dialogic spaces for integrating theory and practice in a renewed BEd foundation phase curriculum. *South African Journal of Childhood Education*, 4(3):103-121. Available at <http://www.scielo.org.za/pdf/sajce/v4n3/08.pdf>. Accessed 7 August 2016.