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Education Researchers Respond to The COVID-19 Pandemic

Research Proposal

Theme 11:

How do South African pre-service teachers
interpret classroom teaching
during their initial teacher education?

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JET EDUCATION
SERVICES

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Summary

The closure of schools during the COVID-19 pandemic has plunged arrangements for the compulsory sessions of Teaching Practice (TP) into uncertainty. It is unlikely that HEIs will secure sufficient safe school-based placements for all pre-service teachers during the 2020 academic year. Indeed, it would be reckless for HEIs to place students with declared or undeclared underlying health conditions in school-based TP placements until after the COVID-19 pandemic. There is an urgent need to consider alternatives to Teaching Practice (TP) that do not involve a school-based placement. A group of teacher education experts, drawn from a range of HEIs, has formulated a practice-based study of distance teaching as an authentic, viable alternative to a school-based TP. The module introduces pre-service teachers to choices that teachers need to make in every lesson they design and teach. Aside from its immediate practical value, this intervention provides a unique opportunity for investigating how South African pre-service teachers develop expertise through initial teacher education. The findings of this research would be invaluable in strengthening the value of TP in the teacher education sector.

Introduction

Pre-service teachers need to undertake compulsory periods of TP as part of their initial teacher education (ITE). HEIs must ensure that pre-service teachers are able to meet these curriculum obligations. Disruption to the basic education system from the COVID-19 pandemic means it is highly unlikely that thousands of pre-service teachers who must complete a session of Teaching Practice (TP) during 2020 will be able to safely do so. Indeed, it would be reckless for HEIs to place students in schools for the duration of the pandemic, particularly for those with underlying health conditions. Besides, there remains uncertainty whether schools will be re-opened for the TP 'season' in 2020, will be able to accommodate pre-service teachers or will be able to accommodate them for the duration required. A proposal for an educationally sound, authentic TP has been conceptualised by a team of expert teacher educators drawn from a range of HEIs. This practice-based module provides an alternative to a school-based TP placement across the sector, as and where required. This intervention presents a unique opportunity to conduct systematic research into how pre-service teachers, at various stages of their ITE programmes, interpret the teaching they observe. This proposal attaches a research dimension to an alternative Teaching Practice session for cases where pre-service teachers (by choice, logistics or due to concern about their health and well-being) cannot be placed in a school-based context during 2020. Findings will offer insight into how student learning during the TP component of ITE programmes can be better supported and strengthened.

Through ITE programmes, pre-service teachers should develop more specialist ways of thinking and understanding classroom practice. Ideally, university coursework should inform how students make sense of what happens in classrooms. Their experiences in the classroom should enrich and extend their theoretical learning. However, insights from university-based coursework do not always directly translate into classroom practice. And, research shows that simply spending time in a classroom does not always lead to valuable learning experiences for pre-service teachers. Working alongside a practising teacher should enable pre-service teachers to understand the choices teachers make as they teach. When pre-service teachers focus their attention only on the visible actions of a teacher, they miss the pedagogical



reasoning that informs expert practice. The danger is that they come to understand teaching as a set of routines to be used irrespective of the knowledge to be taught and the learners they teach.

To make decision-making in practice more visible, an alternative TP module has been conceptualised by teacher educators from several HEIs. It enriches what pre-service teachers have learnt or will learn in their pedagogy courses. The module draws on national and international studies of classroom practice to introduce pre-service teachers to a set of choices that the proficient teacher makes for every lesson. The modules help pre-service teachers see how concepts they have learnt (or will learn, in time) are enacted in practice, and see the less visible aspects of teaching practices. Various lesson design options are considered upfront, and then how teachers make these choices are demonstrated using recorded lesson clips, case studies and teaching artefacts. In a set of learning tasks, pre-service teachers use the questions to guide their analysis of lessons relevant to their phase and subject specialisations. Pre-service teachers draw on their current levels of educational, content, pedagogical knowledge and experiences to consider how through their design choices teachers construct coherent learning pathways through the knowledge to be learnt. The intervention is offered to HEIs and can be used with pre-service teachers at different stages in their professional preparation. There is an opportunity for systematic, cross-sectional research to investigate the development of pre-service teachers' reasoning in practice.

Research questions

A cross-sectional, national research project seeks to investigate how pre-service teachers analyse the lessons they observe. The primary research question guiding this study is:

How do South African pre-service teachers make sense of classroom teaching during their initial teacher education programmes?

The study will be framed around answering the following sub-questions:

1. What concepts do South African pre-service teachers use to analyse teaching?
2. How do students in different stages of their ITE analyse teaching differently
3. How did pre-service teachers' analysis of lessons shift after a module on pedagogical reasoning in practice?
4. How can findings of this study be used to strengthen the teaching practice component of initial teacher education programmes?

Existing focus of research and identified literature gap

Three large-scale research projects in pre-service teacher education have been conducted in recent years. The first was the Council for Higher Education's study of professional teacher education qualifications offered across South African HEIs (CHE, 2010). The second was the Initial Teacher Research Project (ITERP) that was led by JET Education Services in conjunction with the Education Deans' Forum, DBE and DHET (Deacon, 2016). These studies conducted a comparative analysis of the BEd and PGCE curricula offered by



five HEIs offering teacher education. Both studies showed that there was great variability in the conceptualisation of ITE curricula and in teaching practice in terms of the academic depth and rigour of the coursework, credits and time allocated to different key areas, and the conceptualisation of TP. The study also tested the content and pedagogical knowledge of final year pre-service teachers and tested and interviewed a sample of newly qualified teachers from across the institutions. The conceptualisation of work-based experience was declared a “significant challenge to quality in the sector” (CHE 2010, 94). Another systematic study into pre-service teacher education was conducted by the Centre for International Teacher Education (CPUT). This study focused on the beliefs, perceptions and experiences of pre-service teachers regarding different aspects of their initial teacher preparation programme, including TP (Sayed, Carrim, Badroodien, MacDonald & Singh, 2018).

A preliminary literature survey taken for the purposes of this research project has identified 110 academic papers written about TP and pre-service teaching in the South African context. Of the papers analysed thus far, 50% of this research is dominated by small, context-bound case studies. The data collected in 94% of papers analysed thus far consists of surveys, questionnaires, individual interviews or focus group discussions that generate descriptions of stakeholder perspectives and perceptions. Many of these small-scale case studies point to ways in which the learning of pre-service teachers during TP can be substantially strengthened. Some of these findings are as follows:

- The design of some TP assessment rubrics is highly variable: while some rubrics value strong content knowledge, reasoned pedagogical action and incisive reflection, others adopt a technical approach to teaching with scoring systems that appear arbitrary (Deacon, 2016; Rusznyak & Bertram, 2015). Furthermore, not all provide pre-service teachers with explicit criteria for their rating or make visible what is needed to strengthen their practice. Secondly, lesson planning demands are variable.
- Lesson planning is sometimes presented as an administrative task, with paperwork to complete in a bureaucratic compliance manner. In other cases, pre-service teachers are required to articulate their rationale for the design of the lessons they plan (Rusznyak & Walton, 2011).
- Student teachers’ reflections during TP tend to describe the visible aspects of classroom activity rather than offer an analysis and interpretation of learning processes (Rusznyak, Forthcoming). With such variable expectations, it is unsurprising that a recent small scale-case study showed great variability in how newly qualified teachers interpret a lesson, with some drawing on conceptual insights to interpret their observations, but others describing only the more visible outer routines of practice (Langsford, 2020).
- In addition, some mentors in learnership programmes tend to give pre-service teachers tips rather than providing them with access to the inner logic of their pedagogical practices (Borello, 2019). This research supports international studies that show that teachers find it difficult to explain their practice (Mulhall, Berry & Loughran, 2007).
- While most pre-service teachers in a study perceived their classroom experiences to be beneficial, they reported high levels of teacher absenteeism during their TP sessions (Moodley, Sadeck & Luckay, 2018).

It is exceedingly difficult to research the development of teaching expertise. Because of the vastly different contexts, studies of pre-service teachers’ learning during TP are highly variable. This is one of the reasons



why the research on learning to teach during TP may be limited to small-scale case studies. The conceptualisation of TP continues to operate on a very thin empirical research base. What has not been done yet is a large-scale systematic cross-sectional study of how pre-service teachers respond to practice during their initial teacher education programmes. The need to introduce a new, across the country TP intervention during the COVID-19 pandemic and beyond, presents the opportunity to undertake a large-scale research project where many of the variables mentioned above are 'evened' out. There is thus now a need to look beyond ITE curriculum designs and stakeholder perceptions, and study how pre-service teachers draw on their ITE learning and experiences to make sense of their own teaching and the classroom practices they observe. This research project seeks to fill this gap.

Research Methodology

This research project is a cross-sectional, large-scale study of the ways in which pre-service teachers describe, analyse and interpret teaching practice. It is part of an intervention module that has two purposes: firstly, to solve an immediate need of the higher education sector for a viable, educationally sound alternative to school-based TP placements for the duration of the COVID-19 pandemic. Secondly, it also has a long-term intervention purpose of addressing concerns about the cognitive depth at which pre-service teachers are engaging with the teaching they observe during TP sessions. The project will collect both qualitative and quantitative data, and study how pre-service teachers analyse and interpret the teaching practices they observe.

Participants

The alternative TP programme will be offered to the 28 HEIs in South Africa offering teacher education. They will also be invited to participate institutionally in the research project, although individual participation will be accepted by pre-service teachers themselves. HEIs may decide to participate in the programme either with the particular HEI's identifying details made available to the research team or with no identifying details made available to the research team. Participation in the research will not be a condition for their participation in the alternative TP programme. Upon entry into the TP module, students will be invited to participate in the research component of the programme. and given assurances of confidentiality in all arising publications. It will not require any additional work or time from students aside from the completion of the learning tasks already required by their participation in the alternative TP programme. Participants in the study will therefore be drawn from the HEIs who decide to be part of the alternative TP programme, and whose students complete the programme as a supplement to or replacement of a school-based TP session. Student participants will therefore be registered pre-service teachers at higher education institutions in South Africa. They may be doing a Bachelor of Education (BEd) degree, or completing their Post-graduate Certificate of Education (PGCE), already in possession of an academic Bachelor's degree. All participants will be at least 18 years old. Participants will reflect the diversity of the teacher education sector in the South African higher education landscape.

HEIs and the pre-service teachers who accept invitations to participate in the research project, will be guaranteed anonymity and their identifying details will not be revealed in any publication or conference paper arising from the study. Basic biographical data, and individual student conceptions of him/herself as a teacher will be collected with due regard to confidentiality and anonymity.



Data collection and analysis:

The empirical data collected in the study will be pre-service teachers' responses to various tasks in the alternative TP module. These include their biographical details, descriptions and analysis of recorded lessons they observe, and a rationale for the design of a lesson that they produce. All tasks are submitted as an e-portfolio during their engagement with the alternative TP module.

To answer the first Research Question, 'What concepts do South African pre-service teachers use to analyse teaching?' the research team will collect two kinds of data from participants.

- The first dataset is the biographical details of participants, and their conceptions of themselves as teachers, and teaching as a practice.
- Second, each participant will view a recorded lesson and respond in writing to the questions:
 - a. *What principles of good teaching does this teacher use in this lesson?*
 - b. *If there are aspects of the lesson that could be improved, what are they, and how would you improve them?*

The dataset will be thematically analysed, with the focus on different aspects of classroom activity, such as classroom management routines; knowledge selection; sequencing; teaching strategies; teacher/learner interactions; the representations of knowledge; communication; cognitive demand of learning tasks; use of inclusive pedagogies and opportunities for literacy and language development and so on. The thematic analysis of pre-service teachers' responses will reveal the aspects of classroom practice that they focus on as well as those aspects that are less visible.

Their selection of what to respond to needs to be understood in relation to participants' images of themselves as teachers, and their conceptions of the nature of teaching. The researchers will correlate the focus of their responses to a recorded lesson(s) in relation to their articulated conceptions of what is important in teaching practices. We envisage using appropriate inferential statistics (e.g. t-tests) to see if there are statistically significant relationships between these two datasets. This analysis is important to understand the transfer between university-based coursework and pre-service teachers' interpretation of classroom teaching practices.

Question 2 looks at differences in how more junior and more senior pre-service teachers make sense of classroom teaching.

This research question will also draw on the datasets described above, but will analyse them in different ways. It is expected that the responses of first year BEd students would be fairly similar across different participating institutions. The responses will provide a baseline for the kinds of responses that can be expected before the development of a more specialist gaze on teaching. A comparative analysis between the focus of responses between first and final year students in the same institution would reveal the development of a more specialist pedagogical gaze on practice.

The research team would be analysing how the scope, depth and complexity of the responses of final year pre-service teachers are different to that of first year participants. The Semantics Dimension of Legitimation



Code Theory (Maton, 2014) provides a useful set of analytic tools that allows a comparison of the complexity and abstraction of different participant responses.

The findings of this part of the study should reveal the influence of increased teacher knowledge and classroom experience on pedagogical reasoning.

Research Question 3 investigates how pre-service teachers' analysis of lessons shift after a module on pedagogical reasoning in practice?

To answer this research question, participants will respond to series of lessons observed, towards the end of the alternative TP module. Pre-service teachers will use their original response as a means of prompting them to consider a response to the question:

What do they notice in the lesson design that they did not notice at the start of the alternative TP programme?

Through this meta-cognitive task, pre-service teachers relate their own shifts in how they observe, analyse and interpret the teaching they observe. The research team will analyse differences in the focus and complexity between participants' first and final lesson observations.

The implications of this research finding, together with others, will form a set of policy and practice recommendations from the research team to the DHET, the Education Deans' Forum, as set out in Research Question 4. The findings of this study will add empirical evidence to recommendations made by the working group of the PrimTed Project, as the latter develops a set of practice standards for HEIs regarding the organisation, support and resourcing of work-based learning, led by Prof Carisma Nel.

Envisaged benefits and outputs of the research

The proposed research has both tangible deliverables and intangible collaboration and capacity-building benefits. Envisaged deliverables include publications, paper presentations at national and international conferences and Teaching Practice/Teacher Education policy recommendations. There are also opportunities for capacity-building of emerging academics to participate in a cross-institutional national research project, build their publication outputs, develop their supervision capacity, and work towards an NRF rating. In addition to this, details of the expected outputs are listed below:

1. Five peer-reviewed, empirical and conceptual journal papers produced for peer-reviewed journals over a 3-year cycle. Journal papers are planned on the following topics:
 - A full literature review of TP in the South African context
 - Shifts in the pedagogical reasoning of South African pre-service teachers over the course of their ITE programmes
 - The conceptual tools that preservice teachers draw on to make sense of classroom practice
 - The potential of a guided classroom analysis programme to enhance the pedagogical reasoning of pre-service teachers



- Conceptual paper: Learning to see knowledge in classroom practice: A priority for teacher education in South Africa.
2. Collaboration between the project researchers, drawn from different South African HEIs (including the University of the Witwatersrand, University of Johannesburg, University of KwaZulu-Natal; Stellenbosch University, North West University, University of Mpumalanga). An invitation to other HEIs will be made through the Education Deans Forum.
 3. Participating institutions shall receive feedback from the research team regarding the findings. They may use the findings to review coursework, their TP model or undertake staff development initiatives, depending on their individual needs.
 4. International partnerships with scholars in overseas institutions, such as the University of Nottingham (United Kingdom) and the University of Sydney (Australia), who will act as International Advisors for the project.
 5. The mentoring of emerging academics by more established academics.
 6. Post-graduate research possibilities attached to this project, with students doing research projects in their Honours, Masters and PhD programmes that address the various research questions. Over its roll out, the researchers will supervise one post-doctoral research fellow, 3 PhD students and 5 Masters in Education / Honours in Education students who will use data from the study for their post-graduate research projects.
 7. The findings of this research could provide a baseline for further research into the training of mentor teachers, and in-service teacher development at a later stage. The proposed module shall be considered as a professional development course in which in-service teachers could earn Continuous Professional Training Development points through a SACE endorsement.
 8. Collaboration with the DHET (2011) towards achieving goals specified in Activity 4.5 of the *Integrated strategic planning framework for teacher education and development in South Africa: 2011-2025*, which seeks to strengthen the TP/school experience component of teacher education programmes.

Plan of Action:

May – June 2020:

- Development of the resources for the alternative, authentic TP module, outlined in the accompanying course proposal.
- Sector consultation about the alternative TP module and research project.
- Formal establishment of the research team.
- Liaison with Director: Teacher Education of the Department of Higher Education.
- Invitation to participate in the alternative TP module and the research project will be extended through the Education Deans Forum



- Invitations to participate
- Ethics approval for the study through participating institutions' Ethics Committees.

July 2020 – September 2020

- Implementation of the alternative TP module
- Data collection phase: Year 1 of rollout, with options for subsequent data collection phases in 2021, 2022.
- Continuation of review of relevant literature.

August 2020 – December 2022:

- Data analysis and interpretation.
- Write up of literature review, findings and drafting of journal papers, conference papers and research reports.

June 2021 – December 2022:

- Consultation with DHET, Education Deans' Forum and SACE regarding the use of the module in subsequent years and as a means of in-service teacher professional development. .
- Dissemination of preliminary and final findings:

To reach policy makers we plan:

- Reports to the Director: Teacher Education, DHET, on the findings of the study.
- Presentation of findings to stakeholders at DHET workshops and at Education Deans' Forum meetings.

To reach an academic audience we plan:

- Articles in peer reviewed journals.
- Presentations at national and international conferences in 2021 and 2022.

December 2022: Conclusion of Research Project

Research team

The project has been designed to maximise collaboration within and across contexts. The research team is drawn from five higher education institutions, all with differently structured ITE curricula and TP requirements. The strength of the team is that the researchers have contributed innovative ideas to the design of the alternative TP module. In addition, they bring along a range of scholarship and research interests, including teacher knowledge, pedagogy, the development of pedagogical reasoning, inclusive teaching, teacher identity, TP placements, social justice and contextual responsiveness. Furthermore, across the researchers, and advisory panels, we have a diverse team of different nationalities, genders and ethnic backgrounds, and are confident that the project is strengthened by the insights of this diverse group.

We envisage that the group of researchers will supervise cohorts of post-graduate students whose research projects are attached to various parts of this study.



Lead Researcher

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Co-Researchers

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- Prof Maureen Robinson (Professor: Curriculum Studies, Faculty of Education, Stellenbosch University)
- Prof Carisma Nel (Research Professor, Faculty of Education, North West University)
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- Dr Jackie Batchelor (Programme manager: Initial Teacher Education Faculty of Education, University of Johannesburg)
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- Mrs Michelle Mathey (Director: Teacher Education, Department of Higher Education & Training)
- Initial Teacher Education Community of Practice, Bridge (Meeting held on 2020-04-21)
- Mrs Ella Mokgalane (CEO: South African Council of Education)
- A/Prof Francis Faller (TP Coordinator, University of the Witwatersrand)
- Prof Karl Maton (Director of LCT Centre for Knowledge-Building, University of Sydney, Australia)
- A/Prof Elizabeth Walton (Director of Equality, Diversity and Inclusion, Faculty of Social Sciences, University of Nottingham, UK)
- Prof Hilda Israel (Dean of Education, University of Mpumalanga)



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