

Teaching schools as teacher education laboratories



Authors:

Sarah Gravett¹ 
Sarita Ramsaroop¹

Affiliation:

¹Department of Childhood Education, University of Johannesburg, South Africa

Corresponding author:

Sarita Ramsaroop,
saritaram@uj.ac.za

Dates:

Received: 02 Mar. 2017

Accepted: 23 Oct. 2017

Published: 08 Dec. 2017

How to cite this article:

Gravett, S. & Ramsaroop S., 2017, 'Teaching schools as teacher education laboratories', *South African Journal of Childhood Education* 7(1), a527. <https://doi.org/10.4102/sajce.v7i1.527>

Copyright:

© 2017. The Authors.
Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

This study emanated from the *Integrated Strategic Planning Framework for Teacher Education and Development in South Africa*. This Framework proposes that teaching schools should be established in the country to improve the teaching practicum component of pre-service teacher education. A generic qualitative study was undertaken to explore the affordances of a teaching school to enable student teacher learning for the teaching profession. The overarching finding of the study is that a teaching school holds numerous affordances for enabling meaningful student teacher learning for the teaching profession. However, the full affordances of a teaching school will not be realised if a teaching school is viewed merely as a practicum site. Foregrounding a laboratory view of practice work in a teaching school could enable true research-oriented teacher education. A teaching school as a teacher education laboratory would imply a deliberate inclusion of cognitive apprenticeship and an inquiry orientation to learning in the school.

Background and focus of the inquiry

The issue of a perceived disjuncture between theory and practice in teacher education receives wide attention in the teacher education literature. Many educationists note the prevalent view that teacher education does not prepare student teachers well for 'life in schools and classrooms' (Flores & Day 2016:189) because teacher education programmes are too theoretical, with insufficient links to practice (Darling-Hammond & Baratz-Snowden 2005; Darling-Hammond et al. 2005). It is not always clear as to what is meant when the theory–practice disjuncture claim is made, but the coursework component of teacher education is often equated to 'theory' and the fieldwork (practicum) component to 'practice' (Barrow 1990; Gall & Acheson 2011; Gordon 2007). Although this is a simplistic way of describing theory and practice in teacher education, this conceptualisation is widespread. The implications seem to be that the coursework and fieldwork components of teacher education are not sufficiently coordinated or integrated and that the coursework does not sufficiently prepare student teachers for the complexities of teaching.

South African teacher education has also not escaped the criticism of being too theoretical. It was claimed at the Teacher Development Summit (Education Labour Relations Council 2009) that initial teacher education gives preference to theory at the expense of practice. It was also claimed that teacher education programmes were not aligned with the needs of schools. The Summit called for the development of a national plan for teacher development. Stakeholders who were involved in this Summit collaborated to develop the Integrated Strategic Planning Framework for Teacher Education and Development in South Africa 2011–2025 (Departments of Basic Education and Higher Education and Training [DBE & DHET] 2011).¹

The Framework responds to the criticism that teacher education should be more practice focused. It proclaims the strengthening of the teaching practice or school experience component of teacher education programmes in South Africa through the establishment of 'teaching schools' and 'professional practice' schools. Teaching schools are described in the Framework as 'teaching laboratories where student teachers can engage in learning-from-practice' (DBE & DHET 2011:18) and as centres for research into teaching and learning which can be used to strengthen teacher education programmes. Learning from practice is described in the Minimum Requirements for Teacher Education as the study of practice using discursive resources to analyse practices in order to theorise practice (DHET 2015). The Framework envisages that these schools will be located close to teacher education delivery sites. Professional practice schools are envisaged as 'sites at which student teachers are placed for the actual practical components of their programmes, including school observation visits and WIL² experiences' (DBE & DHET 2011:18). It is mentioned that student teachers will spend extended periods of time at the schools.

1. Hereafter referred to as the Framework.

2. The term 'work-integrated learning' (WIL) is used in South Africa to refer to placing of student teachers in schools for practicum. It refers to 'learning-in-practice', taking place in classrooms and school settings. The terms 'teaching practice' and 'school experience' are often used interchangeably with the term WIL.

Read online:



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

Teaching schools as per the Framework do not as yet exist in South Africa. However, there is a primary school situated on the Soweto campus of the University of Johannesburg (UJ), which fulfils functions similar to those envisaged for a teaching school. This school was founded in 2010, through a memorandum of agreement with the provincial department of education in the Gauteng province. Two of the main objectives for establishing the school were to 'develop a practice learning site for the education of young children' and to enable 'longitudinal child development studies and research on children's performance in the school curriculum' (Gravett, Petersen & Petker 2014:108). Through the memorandum of agreement, the school is given some leeway to experiment, but it remains a public school, which implies that the university's direct influence is somewhat curbed (Gravett et al. 2014).

Based on the work UJ had done at its school, the DHET invited the UJ Faculty of Education to conduct research on the proposed establishment of teaching schools in South Africa. The broader research project was guided by the following research question: 'What are the views of school teachers, school management teams and the teacher education sector on the proposed establishment of teaching schools at South African teacher education institutions?'

This article draws on a sub-study of this broader research project, placing the spotlight specifically on the affordances of a teaching school to enable student teacher learning for the teaching profession. The majority of the participants from schools and universities had no direct experience of working with a teaching school. Thus, the views they expressed were based on informed conjecture based on their understanding and experiences of current teacher education practices. In addition, we explore the views of participants who have been involved in the school at the UJ Soweto campus, also including student teachers and recent graduates of the foundation phase³ teacher education programme. This article gives a brief overview of the confluences and divergences that emerged in the data from these two participant groups, but we discuss only the most prominent themes. The main argument of the article is that the full affordances of a teaching school will not be realised if a teaching school is viewed merely as a practicum site.

Powerful teacher education

It is widely claimed in the teacher education literature that successful teacher education enables student teachers to learn knowledge for teaching and knowledge of teaching in an integrated manner (Feiman-Nemser 2008). Knowledge for teaching is associated with the coursework component and knowledge of teaching with the fieldwork (the practicum) component, also sometimes referred to as 'clinical experiences'. The implication is a complementary relationship

³Foundation phase' is the South African term used to refer to the first four years of schooling.

between what student teachers learn in coursework and in school practicum.

In the literature, many different terms are used to denote the ideal complementary relationship between coursework and fieldwork. For example, Ariail et al. (2011:55) use the term 'connection' to signify congruence between coursework and clinical experiences at professional development schools. Other terms used are 'mutually reinforcing' (Darling-Hammond 2006:111) and 'integrated' (Darling-Hammond et al. 2005:392). Levine (2006) uses the term 'integrated' to mean 'linking' when describing the relationship between academic and clinical instruction to be attained through field experiences that link theory to real classroom situations.

Yet, the teacher education literature also abounds with references to student teachers experiencing a fragmentation between the coursework and fieldwork components of teacher education programmes, resulting in student teachers being unable to connect their coursework learning to the reality of the school classroom (Gordon 2007; Grossman, Hammerness & McDonald 2009; Korthagen 2001; Lampert 2009).

One of the characteristics of powerful teacher education programmes, as identified by Darling-Hammond (2006:41) from an in-depth study of seven successful programmes, is the integration of coursework and practicum through a 'common, clear vision of good teaching' that 'permeates all coursework and clinical experiences'. Darling-Hammond et al. (2005:392) explain that having a shared understanding and vision of teaching and learning would mean that key ideas are mutually reinforced in coursework and practicum. In so doing, the 'discrepancies between advocated practice and situated practice' are minimised, increasing the 'congruence of messages between the school and university contexts' (Clift & Brady 2005:331 cited by Ariail et al. 2011).

A common vision of good teaching that permeates coursework and school practicum requires a strong and meaningful collaboration between schools and universities. To this end, some countries use a special type of school for the practicum component in order to link coursework meaningfully with practical experiences. For example, in the United States, many teacher education institutions have joined forces with local school districts to create professional development schools, also referred to as partner schools (Darling-Hammond 2008; Mule 2006; Neapolitan & Levine 2011). In the Netherlands, some universities place student teachers in specific schools called training schools or *opleidingscholen*, as is done in Leiden and Amsterdam (Hammerness, Van Tartwijk & Snoek 2012). In Finland, universities have special practice schools attached to them, also referred to as normal schools, university training schools, university practice schools or teacher training schools. The students do the bulk of their school-based work at these schools with the intention of integrating theory, research and practice (Kansanen 2014). Student teachers' learning in these special types of schools is supported and enhanced by the conceptual connectedness of clinical

experiences and coursework. The Finnish teacher education system is an example of the successful integration of theoretical knowledge, practical training and research-based thinking. This is done in a spiral sequence with the result that pre-service teachers develop professional knowledge from numerous perspectives (Kansanen 2014; Sahlberg 2012).

Research methods

Merriam and Tisdell (2016:23) term a qualitative study that does not fit any specific design genre a 'generic qualitative inquiry'. The purpose of a generic qualitative study is to find out how people interpret their experiences, how they construct their worlds and the meaning that they attach to their experiences. Although all forms of qualitative research seek to explore participants' understandings of experiences, Merriam and Tisdell (2016) argue that some types of qualitative research have an additional dimension. For example, phenomenology seeks to understand the basic underlying structure of the meaning of an experience while ethnography seeks to understand the interaction of an individual with the culture of the group under study. A generic qualitative study does not have the added dimensions. The research we conducted falls within the realm of a generic qualitative inquiry. We used a combination of qualitative methods to inquire into the understanding of the meaning that a teaching school holds for participants, pertaining to its affordances for enabling student teacher learning.

The research sites for the project involved six teacher education institutions in the country and one primary and secondary school linked to each institution. The sampling of teacher education institutions was purposive and the criteria used were the inclusion of both rural and urban institutions that offer both primary and secondary initial teacher education ($n = 6$). The deans or their representatives at the selected institutions were asked to identify teacher educators in their institution involved in initial teacher education to participate in the research ($n = 59$). The selected institutions were asked to identify one primary school and one high school in close proximity to the institution ($n = 10$). Network sampling (Merriam & Tisdell 2016:98) was therefore employed in selecting schools as the sample was selected through participant referrals. Principals of the selected schools invited all teachers ($n = 168$) in their schools and school management teams ($n = 33$) to participate in the study.

Prior to collecting data from the selected teacher education institutions and schools that formed part of the project, a brief information session was conducted with the participants on the notion of a teaching school, using the information in the Framework verbatim.

In addition to the above, participants were purposefully sampled from the UJ Soweto campus: teacher educators ($n = 4$); second-, third- and fourth-year student teachers ($n = 6$); and recently graduated novice teachers ($n = 2$). Table 1 summarises the data collection.

TABLE 1: Summary of data collection process.

Research participants	Data collection methods
Participant group – no personal experience of a teaching school [†]	
Deans or their representatives	Semi-structured, open-ended individual interviews
Teacher educators	Open-ended structured questionnaires and group discussion
School principals	Semi-structured, open-ended individual interviews
School management teams	Open-ended structured questionnaires and group discussion
Teachers	Open-ended structured questionnaires and group discussion
Soweto campus participant group [‡]	
Student teachers, novice teachers recently graduated, teacher educators	Semi-structured, open-ended individual interviews

[†]Examples of questions asked to this participant group are: What do you think are the possible reasons for the establishment of teaching schools linked to teacher education institutions in South Africa? What role could teaching schools play to enhance the preparation of student teachers for the profession?

[‡]Examples of questions asked to this participant group are: Teacher educators: Based on your experience with the teaching school – what are student teachers learning through their involvement in the teaching school? Student teachers: What is your learning through your involvement in the teaching school?

TABLE 2: Themes and categories.

Themes	Categories
The coordination of coursework and student teachers' experiences at the teaching school	<ul style="list-style-type: none"> • TEI training is out of touch with school reality • Teaching schools could provide opportunities to align teaching and learning experiences between the TEI and schools • Student teacher learning for the profession is strengthened when there is equal commitment between the teaching school and the TEI • Student teacher learning is enabled when there is collaboration within modules in the teacher education programmes
Student teachers observing how children learn and develop	<ul style="list-style-type: none"> • Teaching schools can develop and strengthen skills to enable teaching diverse learners • Student teachers' learning about child development

TEI, teacher education institutions.

Informed consent was obtained from all research participants with participants being notified of the general nature and purpose of the investigation, their role in terms of time and effort, and procedures to be used to protect their anonymity and confidentiality. Research participants were also informed that their participation was voluntary.

The data were analysed using qualitative content analysis, as described by Henning, Van Rensburg and Smit (2004:chapter 6). First, we worked through the whole data set to get a sense of the data as a whole and to note 'big' ideas from the data. Thereafter, the data from participant groupings was grouped into different data sets. Each data set was analysed through identifying units of meaning and labelling these (open coding). Related codes were grouped and named (categorising). The categories from the different sets of data were combined conceptually into (1) across-data set categories and (2) themes, resulting in final 'thematic patterns' (Henning et al. 2004:106). See Table 2.

Findings

The overarching finding of the study was that a teaching school holds numerous affordances for enabling meaningful student teacher learning for the teaching profession.

Four core affordances were distilled that were prevalent in the data gathered from both participant groups. A teaching school, in terms of these themes, enables (1) student teachers to experience good teaching practice in a model environment, (2) coordination of coursework learning and school-based (practicum) learning, (3) student teachers to observe the school curriculum in action and (4) student teachers to learn about the daily work life of a teacher.

In these themes, the areas of convergence were strong, even though the Soweto campus participants' views were more nuanced. However, two themes were prevalent in the Soweto campus generated data only, namely that a teaching school enables student teachers to learn, firstly, how children learn and develop, and, secondly, how to collaborate and the benefits of collaboration.

In this article, we report on the two strongest themes emanating from both participant groups. We also report on the Soweto campus theme of student teachers learning about how children learn and develop. We focus on the latter theme because of its prominence in the Soweto campus data and because the theme is conceptually connected to the theme of coordination of coursework learning and school-based (practicum) learning.

Both participant groups: Student teachers experiencing good teaching practice in a model environment

Both groups of participants envisaged that a teaching school would serve as a model school environment in which student teachers can learn about good classroom teaching by observing teachers who are 'role model[s] to the student teacher regarding best teaching practice' so as to get 'more exposure in the right way of teaching'. Learning about good teaching practice in a model environment can 'expose student teachers to diverse teaching approaches' and also simultaneously 'assist them in developing more teaching strategies that attempt to attend to each individual learner'.

Both groups of participants raised the importance of having teachers in the teaching school who would have the traits to serve as role models for student teachers. Teachers and teacher educators with no experience with a teaching school assumed that the development of student teachers would happen through teachers who would be 'leading by example', 'have a wealth of teaching experience', are 'highly competent and experienced' and have 'good work ethics' and 'a passion for the profession'. Moreover, they should be able to 'guide, monitor and supervise student teachers effectively' and have the 'ability to share expertise and life experience, what works ... what doesn't work'.

Similar sentiments were expressed by Soweto campus participants: 'If you have excellent teachers, you have excellent role models'. Pre-service and novice teachers who have had first-hand experience with mentor teachers at the

teaching school explained that some teachers serve as role models to be emulated. For example, student teachers were learning about 'how to be professional' and they opined that 'if problems arise in the class, which always happens, we view how the teacher deals with it and it gives us an insight how to deal with it one day'. However, not all teachers model good practices at the Soweto campus school, and, as expressed by a teacher educator, 'what they are learning' is often also something 'which they shouldn't be learning'. A similar view was expressed by a student teacher who indicated that 'you learn of what not to do when it comes to teaching as well'.

Thus, there was a shared view that a teaching school needs to epitomise exemplary practice and that student teachers' learning can be compromised if teachers do not model, preferably exemplary, but at a minimum, good practice.

Both participant groups: Coordination of coursework learning and school-based learning

Both groups of participants agreed that coordinating teaching and learning experiences between the teacher education institution and the teaching school would contribute significantly to student teacher learning for the teaching profession. Those with no experience contended that coordination would 'fill up the gap between university curriculum and school curriculum' and 'between theory taught at university and practical experience at schools'. Student teachers at the Soweto campus indicated that their learning becomes more meaningful when coursework and fieldwork are coordinated 'because if you are doing it practically you are able to grasp it better than just learning knowledge'. A third-year student teacher describes the experience at the Soweto campus school as 'like literally a walking talking textbook ... you see your textbook in action'.

A student teacher gives an example of the benefit of coursework and student involvement in the school, which is purposefully coordinated:

Learning about the daily program me in Grade R ... actually that didn't make sense to me until I went to Soweto campus school and there, I witnessed myself how the daily program me works.

A university staff member notes that when the coursework deals with how children learn and develop, student teachers 'get specific observation tasks related to the module content that they have to do when they visit the school related to this child'. Though the Soweto campus teacher educators were clearly committed to coordinating coursework and the students' experience at the school, they mentioned that this was difficult or tricky to achieve. A view from a teacher educator is that 'unfortunately it is not always followed through by all lecturers that are teaching courses' which 'goes back to us lecturers not working together as a team' and 'not all colleagues go with the same enthusiasm with it'. Initially, 'everything was new to all of us and to the school

and to the lecturers'. 'Now what we have done, because we have a practicum focus group, we get all the teaching school teachers together, all the methodology lecturers, the educational studies lecturers ... and talk about telling issues ... what are the difficulties they are encountering'. Working as a team has resulted in 'more confidence in the colleagues ... and the students are also saying that we are all moving in the same direction'.

Soweto campus participants: Student teachers learning about how children learn and develop

This theme was a strong theme prevalent only in the Soweto campus data. The Soweto campus participants were of the view that the student teachers' involvement in the teaching school significantly enables learning about children and how they learn and develop.

The data show that 'the central organising principle of the programme in the foundation phase', namely that student teachers 'would learn how children learn and develop', is indeed foregrounded in the programme, not only in the coursework but also through student teachers' involvement in the school. This central organising principle of the teacher education curriculum, according to a teacher educator, is 'premised on the idea that teachers of young children need to understand how children they are going to teach move through their developmental stages, how they learn, what they struggle with, what influences their learning, etc., and how they compare with what is supposed to be the norm at that age'. It is based on the idea that 'if they [student teachers] know a child really well, they will be able to teach really well, regardless of what they are teaching'.

The views from student teachers verify that their involvement in the school reinforced the central organising principle of the curriculum and that student teachers saw the benefit. Student teachers are learning about how children develop over four years and indicate it as 'one of the most important things that I have learnt as a foundation phase teacher, I am dealing with very, very small children from different backgrounds'. A third-year student teacher, when first assigned to a child in Grade R, found him 'a very shy child so in the beginning it was very hard to ask him questions because he, like he feels a bit apprehensive about talking to you', but staying with the same child, 'it's so nice to see the children progress'. Closely observing a child helped this student teacher to 'identify strengths and weaknesses very early'. A novice teacher also acknowledged that coming 'straight from high school' his exposure at the Soweto campus school taught him to see 'how young children are like, what they do, [what] they get up to during the day'.

Discussion

The responses of those research participants who do not have first-hand experience of a teaching school inevitably reflect their views on current practices related to work-integrated learning (school practicum). Thus, generally speaking, the

participants see a teaching school as a practicum site. The difference, and distinct advantage, is that a teaching school, in comparison with other schools where students are placed for practicum, would have an explicit focus on student teacher learning and development, which is not the case in schools where student teachers do school practicum.

The views of those without experience of a teaching school and the views of Soweto campus participants converged on the affordance of a teaching school to enable the experiencing of good teaching practice in a model environment. It is likely that participants' experience of many schools where student teachers are placed for practicum is not favourable. An in-depth ethnographic study conducted by Robinson (2001) into the institutional factors that promoted or hindered the work of mentor teachers at five South African schools showed that student teacher involvement in the school programme was insufficiently planned. Opportunities for teachers to engage with student teachers or university-based teacher educators with the aim of guiding student teachers' development were limited. Reasons put forward for this were restricted time during the school day and too heavy workloads (Robinson 2001). More recently, Robinson (2015) points to the challenges faced by teachers to mentor student teachers such as lack of time, limited space, increased workloads and overcrowding. Another study reports that teachers were unwilling to mentor trainee teachers and the partnership between teacher education institutions and schools was often very weak (Mutemeri & Chetty 2011:514).

Given these constraints, participants obviously see the advantage of student teachers doing practicum in a model school environment with teachers who are capable and committed to serve as school-based teacher educators. They envisage a model school environment as a setting that has sufficient resources to support student teacher learning and which provides a safe and supportive environment for student teachers to learn from and with teachers who embody 'best practice'. We agree that student teachers need to be exposed regularly and in particular during the initial stages of their education to examples of 'powerful practice' (Darling-Hammond 2010) that can be emulated. Also, a teaching school presents a learning space conducive to apprenticeship learning of powerful practice through student teachers observing and interacting with expert teachers (Hattie 2003) at work. The apprenticeship learning that we refer to here goes beyond 'traditional apprenticeship'. Four aspects of traditional apprenticeship, namely modelling, scaffolding, fading and coaching, are indeed relevant to the learning of student teachers at practicum sites. However, the complexity of teaching and learning to teach necessitates moving beyond traditional apprenticeship to include cognitive apprenticeship learning (Collins, Brown & Holum 1991). Observing an expert teacher at work, even when accompanied by modelling, scaffolding, fading and coaching, is inadequate unless the student teacher also gains access to the reasoning that underlies expert teachers' actions. We argue that the modelling of powerful practice must be coupled with making the thinking

and tacit processes underlying teachers' actions explicit to student teachers. Modelling in cognitive apprenticeship mode requires teachers who have the inclination, skill and time to move purposefully into the role of teacher educator. This would be challenging to achieve in other schools where students are placed for work-integrated learning.

Another prominent theme is that a teaching school enables the coordination of coursework learning and school-based practicum learning. We concur that this is a strong affordance of a teaching school, necessitating close collaboration between the school and the teacher education institution. Coordination also denotes to us that mentor teachers must be able to invoke applicable aspects of coursework during the mentoring process. They must be able to move comfortably between the world of school practice and of educational ideas which student teachers encounter in coursework. This type of coordination would be difficult to accomplish in other schools where student teachers are involved in practicum. The Soweto campus data show that student teachers' involvement in the school is integral to the curriculum of the teacher education programme. The theme of the teaching school enabling learning about children, their development and learning is very prominent in the Soweto campus data, collected from teacher educators, student teachers and novice teachers alike. The data confirm that the 'central organising principle' of the teacher education programme, namely 'how children learn and develop' (Gravett et al. 2014:108) is indeed also central to the student teachers' learning in the school. This is significant as it signals that the programme 'embodies its own priorities' (Kosnik & Beck 2009:11).

Inherent to this finding of the affordance of a teaching school to integrate coursework learning and school-based learning is the notion of the teaching school serving as a bridge between theory and practice. We have discussed this notion of the teaching school as a bridge in another article (Gravett & Ramsaroop 2015). In this article, we claim that none of the intended benefits of a teaching school as a site to bridge theory and practice will ensue unless 'teacher education programmes are developed with the teaching school as integral to the programme design' (Gravett & Ramsaroop 2015).

This brings us to the core of our argument about the affordances of a teaching school. We contend that the affordances discussed above are valid and important. We agree that a teaching school could enable powerful student teacher learning through modelling, particularly if cognitive apprenticeship learning is prevalent and if there is congruence between what is taught in coursework and student teacher experience in the teaching school. However, we are of the view that if the role of a teaching school is restricted to this, the full affordances of a teaching school would not be realised. We argue for the teaching school as teacher education laboratory.⁴ The notion of the teaching school as laboratory denotes to us a site for purposeful observation, experimentation, inquiry and investigation for both teacher

educators and student teachers, although we focus in this article on student teacher learning.

The laboratory idea is reflective of our questioning of a theory–practice disjuncture in teacher education – theory belonging to coursework and practice to the school practicum. We draw here on the 'knowledge of practice' conception of teacher learning and the concomitant 'inquiry as stance' construct for understanding teacher learning as put forward by Cochran-Smith and Lytle (1999). They note that the term 'practice' is often equated with that which is practical – 'to refer to doing, acting, carrying out, and/or performing the work of the profession' (Cochran-Smith & Lytle 1999:290). From the perspective of inquiry as stance, however:

Neither the activity of teaching nor inquiry about teaching are captured by the notion that practice is practical. Rather, teaching and thus teacher learning are centrally about forming and reforming frameworks for understanding practice. (Cochran-Smith & Lytle 1999:290)

We are of the view that a teaching school provides a distinct space for the development of frameworks to understand and appropriate teaching practice through purposeful observation, experimentation, inquiry and investigation.

In making this argument, we find the work of Dewey (1904) on 'practice work' (school practicum) instructive. He made the case at the beginning of the 20th century for practice work with a laboratory focus. He argued that practice work may be 'of the nature of apprenticeship', aiming mainly to equip student teachers with the 'necessary tools of their profession', including teaching and classroom management strategies and skills. The aim is ultimately practical. On the contrary, practice work can be of the laboratory kind, with the main intent to 'do theoretical instruction' and 'supply intellectual method', with the aim of provoking 'intellectual reactions'. Dewey indicated that the apprenticeship and laboratory perspectives on practice work are not mutually exclusive but that there is a 'fundamental difference in the conception and conduct of the practice work according as one idea or the other is dominant and the other subordinate' (Dewey 1904:10). He also contends that practice work with a strong apprenticeship focus is appealing to role players in teacher education because the results of such work are immediate and observable. We agree with his caution that the immediate results may be to the detriment of long-term growth and development of teachers. It is possible for a student teacher to 'acquire outward form of method' through imitation of a master teacher 'without capacity to put it to genuinely educative use' (Dewey 1904:13).

We argue that a broadening of the notion of apprenticeship to include cognitive apprenticeship already moves practice work into the realm of a laboratory approach. Therefore, we are of the view that apprenticeship learning sits comfortably within practice work at a teaching school in which the laboratory notion is foregrounded. The Soweto campus data show that there is evidence of a laboratory approach being followed, with promising results. All role players view the

⁴The notion of a teaching school as laboratory is also mentioned in the Framework. The term 'teaching laboratory' is used. We broaden the laboratory notion here.

inquiry-focused observations of children and their development in the school as resulting in significant student teacher learning. The 'Education Studies' component of the coursework becomes 'real' to student teachers through the observation-based assignments at the school. Thus, the practice work at the school moves into the realm of 'theoretical instruction'. The assignments require that student teachers use aspects from coursework as theoretical lenses when reflecting on the observations. In the words of Dewey (1904), the student teachers learn 'intellectual method' and 'intellectual reactions' are elicited. This type of practice work truly addresses the perceived theory–practice disjuncture dilemma in teacher education, also prevalent in the data from the participants with no experience of a teaching school.

Henning, Petker and Petersen (2015) argue that teaching schools should be purposefully defined as spaces of learning to conduct practitioner research, as part of learning to be a reflective practitioner. This assertion also tallies with the idea of the teaching school as laboratory. As noted above, the notions of investigation and inquiry are integral to the laboratory view of practice work. Henning et al. furthermore say that the success of teacher education and teaching schools in Finland can be largely attributed to the fact that teachers are viewed as researchers *in or for* the profession and *of* the profession. They quote Toom et al. (2010:333) about the aim of research-oriented teacher education: 'the aim is not to produce researchers, but rather to provide students with skills and knowledge to complete their own studies, observe their pupils, and analyse their thinking'. We assert that foregrounding a laboratory view of practice work in a teaching school could enable true research-oriented teacher education.

Conclusion

This inquiry revealed that participants agree that a teaching school is well suited for modelling of good practice to student teachers and for enabling coordination of coursework learning and school-based learning. If these two affordances of a teaching school were fully exploited, it would go a long way to deepen student teacher learning for the teaching profession and also to address the perceived theory–practice disjuncture. However, we are of the view that another affordance needs to be considered seriously, namely the teaching school as laboratory, which to us implies a deliberate inclusion of cognitive apprenticeship learning and an inquiry orientation to learning in the school.

Acknowledgements

This project is funded by the Department of Higher Education and Training and supported by European Union funding, to conduct research on establishing teaching schools in South Africa.

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

S.G. led the project and S.R. was part of a team of researchers in the teaching school project.

References

- Ariail, M., Dooley, C.M., Swars, S. & Smith, L., 2011, 'Possibilities for clinical teacher education. Four stories of field-based courses taught at professional development school sites', in C.H. Bohan & J.E. Many (eds.), *Clinical teacher education. Reflections from an urban professional development school network*, Information Age Publishing, Charlotte, NC.
- Barrow, R., 1990, 'Teacher education: Theory and practice', *British Journal of Educational Studies* 38(4), 308–318. <https://doi.org/10.1080/00071005.1990.9973859>
- Cochran-Smith, M. & Lytle, S.L., 1999, Relationships of knowledge and practice: Teacher learning in communities', *Review of Research in Education* 24, 249–305.
- Collins, A., Brown, J.S. & Holum, A., 1991, 'Cognitive apprenticeship: Making thinking visible', *American Educator* 15(3), 6–11.
- Darling-Hammond, L., 2006, *Powerful teacher education: Lessons from exemplary programs*, Wiley, Hoboken, NJ.
- Darling-Hammond, L., 2008, 'Teacher learning that supports student learning', in B.Z. Presseisen (ed.), *Teaching for intelligence*, pp. 91–100, Corwin Press, Thousand Oaks, CA.
- Darling-Hammond, L., 2010, 'Teacher education and the American future', *Journal of Teacher Education* 61(1–2), 35–47. <https://doi.org/10.1177/0022487109348024>
- Darling-Hammond, L. & Baratz-Snowden, J., 2005, *A good teacher in every classroom. Preparing the highly qualified teachers our children deserve*, Jossey-Bass, San Francisco, CA.
- Darling-Hammond, L., Hammerness, K., Grossman, P., Rust, F. & Shulman, L., 2005, 'The design of teacher education programs', in L. Darling-Hammond & J. Bransford (eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do*, pp. 390–441, Jossey-Bass, San Francisco, CA.
- Department of Basic Education and Department of Higher Education and Training (DBE & DHET), 2011, *Integrated strategic planning framework for teacher education and development in South Africa*, Government Printer, Pretoria.
- Department of Higher Education and Training (DHET), 2015, *Revised policy on the minimum requirements for teacher education qualifications*, National Qualifications Framework Act 67 (2008), Government Gazette (Vol. 38487 No. 596.), Government Printer, Pretoria.
- Dewey, J., 1904, *The relation of theory to practice in the education of teachers. The third yearbook of the National Society for the Scientific Study of Education*, University of Chicago Press, Chicago, IL.
- Education Labour Relations Council, 2009, *Resource document. Teacher development summit*, 29th June–2nd July.
- Feiman-Nemser, S., 2008, 'Teacher learning. How do teachers learn to teach?', in M. Cochran-Smith, S. Feiman-Nemser & D.J. McIntyre (eds.), *Handbook of research on teacher education. Enduring questions in changing contexts*, 3rd edn., Routledge, New York.
- Flores, M.A. & Day, C., 2006, 'Contexts which shape and reshape new teachers' identities: A multi-perspective study', *Teaching and Teacher Education* 22(2), 219–232. <https://doi.org/10.1016/j.tate.2005.09.002>
- Gall, M.D. & Acheson, K.A., 2011, *Clinical supervision and teacher development. Preservice and inservice applications*, Wiley, Hoboken, NJ.
- Gordon, M., 2007, '“How do I apply this to my classroom?” Relating theory to practice', in M. Gordon & T. O'Brien (eds.), *Bridging theory and practice in teacher education*, pp. 119–132, Sense Publishers, Rotterdam.
- Gravett, S., Petersen, N. & Petker, G., 2014, 'Integrating foundation phase teacher education with a “teaching school” at the University of Johannesburg', *Education as Change: Journal of Curriculum Research* 18(1), S107–S119.
- Gravett, S. & Ramsaroop, S., 2015, 'Bridging theory and practice in teacher education: Teaching schools – A bridge too far?', *Perspectives in Education* 33(1), 131–146.
- Grossman, P., Hammerness, K. & McDonald, M., 2009, 'Redefining teaching: Re-imagining teacher education. *Teachers and Teaching: Theory and Practice* 15(2), 273–290. <https://doi.org/10.1080/13540600902875340>
- Hammerness, K., Van Tartwijk, J. & Snoek, M., 2012, 'Teacher preparation in the Netherlands. Shared vision and common features', in L. Darling-Hammond & A. Lieberman (eds.), *Teacher education around the world. Changing policies and practices*, pp. 44–65, Routledge, Abingdon.
- Hattie, J., 2003, *Teachers make a difference: What is the research evidence?* Australian Council for Educational Research Annual Conference on Building Teacher Quality, Melbourne.
- Henning, E., Petker, G. & Petersen, N., 2015, 'University-affiliated schools as sites for research learning in pre-service teacher education', *South African Journal of Education* 35(1), 01–08. <https://doi.org/10.15700/201503070014>
- Henning, E., Van Rensburg, W.A. & Smit, B., 2004, *Finding your way in qualitative research*, Van Schaik, Pretoria.
- Kansanen, P., 2014, 'Teaching as a master's level profession in Finland: Theoretical reflections and practical solutions', in O. McNamara, J. Murray & M. Jones (eds.), *Workplace learning in teacher education. International practice and policy*, pp. 279–292, Springer, London.
- Korthagen, F.A.J., 2001, 'Linking practice and theory: The pedagogy of realistic teacher education', paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA, April.

- Kosnik, C. & Beck, C., 2009, *Priorities in teacher education. The 7 key elements of pre-service preparation*, Routledge, New York.
- Lampert, M., 2009, 'Learning teaching in, from, and for practice: What do we mean?', *Journal of Teacher Education* 61(1–2), 1–14.
- Levine, A., 2006, *Educating school teachers*, The Education Schools Project, Washington, DC.
- Merriam, S.B. & Tisdell, E.J., 2016, *Qualitative research. A guide to design and implementation*, 4th edn., Jossey-Bass, San Francisco, CA.
- Mutemeri, J. & Chetty, R., 2011, 'An examination of university-school partnerships in South Africa', *South African Journal of Education* 31(4), 505–517. <https://doi.org/10.15700/saje.v31n4a325>
- Mule, L., 2006, 'Preservice teachers' inquiry in a professional development school context: Implications for the practicum', *Teaching and Teacher Education* 22(2), 205–218. <https://doi.org/10.1016/j.tate.2005.09.011>
- Neapolitan, J.E. & Levine, M., 2011, 'Approaches to professional development schools', *National Society for the Study of Education* 110(2), 306–324.
- Robinson, M., 2001, 'Teachers as mentors: A critical view of teacher development in South African schools', *Perspectives in Education* 19(2), 99.
- Robinson, M., 2015, *Teaching and LEARNING together: The establishment of professional practice schools in South Africa*, research report for the Department of Higher Education and Training, Stellenbosch University, Stellenbosch.
- Sahlberg, P., 2012, 'The most wanted. Teachers and teacher education in Finland', in L. Darling-Hammond & A. Lieberman (eds.), *Teacher education around the world. Changing policies and practices*, pp. 1–21, Routledge, Abingdon.
- Toom, A., Kynaslahti, H., Krokfors, L., Jyrhama, R., Byman, R., Stenberg, K. et al., 2010, 'Experiences of a research-based approach to teacher education: Suggestions for future policies', *European Journal of Education* 45(2), 331–344. <https://doi.org/10.1111/j.1465-3435.2010.01432.x>