

The Initial Teacher Education Research Project

**Newly Qualified Intermediate Phase Teachers in South
Africa**

Final Report on the ITERP NQT Symposium, July 2015

Roger Deacon

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Acronyms and abbreviations

ADHD	Attention deficit hyperactivity disorder
ANA	Annual National Assessment
BEd	Bachelor of Education degree
CAPS	Curriculum and Assessment Policy Statements
CEMIS	Central Education Management System
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DoE	(Former) Department of Education
FET	Further Education and Training Phase
FP	Foundation Phase
HoD	Head of Department
ICT	Information and communication technologies
IEP GEP	Individualised Education Plan/Group Education Plan
IP	Intermediate Phase
IQMS	Integrated Quality Management System
ITE	Initial teacher education
ITERP	Initial Teacher Education Research Project
JET	JET Education Services
LoLT	Language of learning and teaching
LSEN	Learners with special educational needs
LTSM	Learning and teaching support materials
MCQ	Multiple choice question
MRTEQ	Minimum Requirements for Teacher Education Qualifications
NEEDU	National Education Evaluation and Development Unit
NQT	Newly qualified teacher
PCK	Pedagogical content knowledge
PGCE	Postgraduate Certificate in Education
SA-SAMS	South African School Administration and Management System
SP	Senior Phase

1 Introduction

How do newly qualified teachers (NQTs) in South Africa today conceive of teaching, teachers, and the teaching profession? What do they think about the theoretical and practical components of their university teacher education programmes, and how useful or valuable have these turned out to be? How do they feel and what were their expectations about the schools in which they are now teaching, how were they initiated into their new careers, and how well are they coping with teaching? Not least, how are they applying what they learnt at university with regard to the teaching of key subjects such as Mathematics and English, and how proficient are they at teaching these subjects?

Seeking to answer these questions, the Initial Teacher Education Research Project's Newly Qualified Teachers Symposium was held in Johannesburg from 16 to 18 July 2015. During the symposium, selected NQTs who had graduated from five selected universities were asked to reflect – through individual interviews, focus group discussions, questionnaires, and English and Mathematics content and pedagogy assessments – on their experiences of the transition from being a student-teacher to beginning to teach in a school.

2 Background

The Initial Teacher Education Research Project is investigating the nature and quality of initial teacher education (ITE) programmes offered by universities and the extent to which these programmes are meeting the needs of the South African schooling system. To date ITERP has undertaken:

1. A literature review pertaining to: the initial professional development of teachers, including teacher professional identity formation, motivation to teach and student-teachers' perceptions of teaching; teacher standards; teacher knowledge; teacher education programmes; student-teachers' experiences of teacher education; mentoring of student-teachers; student-teacher retention; new teacher placement and early teaching experiences; beginner teacher reflections on their teacher education; school culture and context; new teacher attrition; teacher induction; and early professional development (Deacon, 2012);
2. A comparative analysis of all initial teacher education i.e. Bachelor of Education (BEd) and Postgraduate Certificate in Education (PGCE) programmes at five selected public universities,¹ including: teacher educators' conceptualisations of teacher professional identity; programme structure and purpose; admission criteria; curriculum content and coherence; the structure and function of teaching practice; and forms of assessment (Deacon, 2013);

¹ These five universities were selected in discussion with the DHET and the DBE to represent a wide range of institutional types, modalities, sizes, and locations, including advantaged and disadvantaged, contact and distance, and rural and urban. Together, in 2012, the five produced just over half of all new teacher graduates in the country.

3. A comparative analysis of the BEd Intermediate Phase (IP) programmes, curricula, and modules for Mathematics (Bowie, 2014) and English (Reed, 2014) at the five universities;
4. A comparative analysis of the form and content of BEd teaching practice assessment instruments used by the five universities (Rusznyak and Bertram, 2014);
5. A survey of all final year ITE students at all public universities in 2013, including their educational backgrounds, motivations for becoming teachers, perceptions of teacher education programmes, confidence in readiness to teach, teaching practice experiences, and career plans (Deacon, 2015a);
6. A survey in 2014 of all respondents to the 2013 survey, following up on their post-graduation status (employed as a teacher, studying, unemployed or employed but not in teaching), including: how those employed as teachers were placed in or found posts, the nature and length of their appointments, and the characteristics of their schools; their teaching activities, professional development needs, experiences, and future plans; what those who chose to study further were studying, why they decided to study, and their future plans; whether those currently unemployed had briefly taught, and if so, what and for how long; and the nature of the work of those employed but not in teaching and why they had chosen not to teach (Deacon, 2015b).

ITERP research has found that ITE programmes in South Africa generally aspire to produce knowing, caring, and committed teachers armed with strong subject content knowledge; however, most of these programmes seem to lack a strong underlying logic and coherence, and have low entrance requirements compared to most other degree programmes and low expectations of the academic quality (especially subject content knowledge and general English proficiency) of entering students (Taylor, 2014).

ITERP has also found very wide variations in all dimensions of ITE programmes and curricula on offer for students specialising in IP teaching, including in key areas such as English, Mathematics, and teaching practice. IP students at several institutions are being provided with little to no in-depth exposure to either subject knowledge or pedagogical knowledge in English and Mathematics. Students receive limited exposure to the diversity of the country's schools, university overseers are seldom specialists in the subjects of the students they are supervising, and, in some cases, it is possible for students to pass teaching practice without being assessed or despite performing poorly in a classroom.

Given these findings, further ITERP research, including the Newly Qualified Teachers Symposium which is documented here, focused on seeking additional qualitative and quantitative evidence with which to assess both the readiness and the actual ability of South Africa's NQTs to teach in the schools in which they are located.

3 Methodology

Participants were purposively selected on the basis of lists supplied by the five case study universities of all student-teachers who had specialised in the IP and graduated in 2013. The original target was to select 50 such IP graduates, 10 from each institution, who had specialised in Mathematics and/or English; however, since some of the institutions had fewer than 10 such

graduates, the selection was extended to include IP/SP graduates, i.e. those who had specialised in both the IP and the Senior Phase (SP).

The total number of 2013 IP/SP teacher graduates (in all specialisations) from the case study universities, together with the numbers of those graduates who had specialised in Mathematics and/or English, are listed below.

Table 1: Number of IP/SP graduates in 2013, by university

University	No. IP/SP graduates	No. IP/SP Mathematics	No. IP/SP English
A	38	9	17
B	58	35	3
C	195	43	189
D	82	1	34
E	84	7	19

Source: Figures supplied by the universities. *Notes:* IP = Intermediate Phase; SP = Senior Phase.

All IP/SP graduates were contacted telephonically and invited to participate in the symposium, and 55 of them indicated their willingness. In February 2015, these 55 NQTs were sent formal invitations to the symposium, with a reminder sent in May. They were also contacted telephonically during the course of May, June, and early July to check that they had received the invitation. Only 35 had confirmed their attendance by the time of the symposium, and five of these offered their apologies at the last minute.

A total of 30 newly qualified IP teachers thus participated in the three-day symposium. At the start of the symposium, each participant was provided with a workbook containing all the various written, interview, and focus group questions, apart from the English and Mathematics content and pedagogy assessment questions. The English content and pedagogy assessment took place on the afternoon of the first day, followed by the focus group discussions. The Mathematics content and pedagogy assessment took place during the following morning. Individual interviews also started on the first day and continued at intervals over the next two days.

The English and Mathematics content and pedagogy assessments were each allocated two hours and 15 minutes, taking into account the number and complexity of the questions. The tests had been piloted at the end of 2014 with final-year BEd students at four of the five case study institutions. Although the numbers of pilot testees from three of the institutions were small, and there was a large majority from just one institution, the overall number of pilot testees was sufficient to enable Rasch analyses of the responses; on the basis of these analyses, some of the items in both tests were adjusted so as to render them more fit for purpose.

Some texts and test items for the English test were drawn from the Independent Examination Board's 2013 Grade 12 examination paper for English First Additional Language and from JET Education Services' 2011 Primary Proficiency English Test; the remainder were originated specifically for the symposium and the preceding pilot test. Mathematics test items included those sourced and/or adapted from, *inter alia*, the Wits Maths Connect Project Test, Ball and Hill's Mathematical Knowledge for Teaching Measures (Ball and Hill, 2008), the Annual National

Assessments for Grade 6, the SACMEQ² 2007 Mathematics Test for Teachers, and JET Education Services' Intermediate Phase Mathematics Test as well as questions created specifically for this test.

There was no time limit on completing the questionnaires in the workbook; participants were asked to work through them at their own pace and in their own time over the course of the symposium and to hand in the completed workbooks on the final day. They were also asked to read through the interview and focus group questions in advance, to think about their responses, and, if they liked, to make notes for themselves. Individual interviews took approximately 30 minutes on average, while the focus group discussions, each consisting of four or five participants grouped according to the university from which they had graduated,³ lasted for around 75 minutes. In each case, an ITERP researcher recorded responses and afterwards wrote up the interview or discussion, seeking to capture both the sense and the letter of what participants said without necessarily producing a verbatim report.

All responses, together with the completed written questionnaires and the results of the English and Mathematics assessments, were collated, coded, and analysed, and several draft reports were circulated amongst all ITERP researchers for correction, clarification, and revision before being finalised and then consolidated into the present document.

Apart from completing these questionnaires, interviews, discussions, and assessments, the 30 NQTs participated in various professional development workshops coordinated by ITERP and outside experts on English and Mathematics teaching and on the use of tablets in teaching and in classrooms (having been presented with iPad-minis at the start of the symposium) and also attended a cultural evening.

It must be noted that since symposium participants, in part, selected themselves on the basis of being contactable and willing and available to attend; they thus do not in any way constitute a representative sample. Arguably, newly qualified professionals who are willing to give up three days of their midyear vacation and subject themselves to probing questions and tests of their knowledge and skills could be said to be amongst the keenest, most committed, and most self-confident of new teachers and may also have been more invested and possibly excelled more in their ITE studies than many of their fellows. (On the other hand, the attraction of participating in a professional development symposium led by experts, with all expenses paid (including air fares, hotel accommodation, and food) and receiving a free iPad-mini cannot be discounted). Either way, the findings presented here on the basis of this small group cannot be generalised to encompass the views of all new IP teachers, let alone all NQTs who graduated at the end of 2013 or in any other year.⁴ Apart from the fact that most of the information provided was self-reported and often involved respondents' perceptions or beliefs, an additional limitation is that

² The Southern and Eastern Africa Consortium for Monitoring Educational Quality.

³ Exception: one focus group consisted of just two NQTs, being the only two participants from University D (see Table 3).

⁴ Nevertheless, it is worth noting that among the 30 symposium participants were substantial (albeit non-random) proportions of some universities' subject-specific graduates of 2013 (compare Tables 1 and 3).

the entire symposium, including the tests, questionnaires, interviews, and discussions, was conducted in English, the primary language of only a minority of participants.

Even so, the rich and varied data emanating from the symposium, in conjunction with the information gathered through the other phases of ITERP, provide valuable and useful insights into the perceptions, reflections, concerns, expectations, and experiences, and Mathematics and English subject and pedagogical knowledge of some of the newly minted entrants to the South African teaching profession.

4 Findings

4.1 The NQTs and their studies

All of the thirty newly qualified teachers who participated in the symposium had graduated in 2013 with a BEd degree. Table 2 breaks the participants down by gender, age, race, and home language.

Table 2: NQTs' biographical details

Biographical details	No. NQTs	
Gender	Male	12
	Female	18
Age	25 or younger	17
	26-29	7
	30-35	3
	36 or older	3
Race	African	13
	Coloured	10
	Indian	0
	White	7
Home language	Afrikaans	4
	English	13
	isiNdebele	0
	isiXhosa	2
	isiZulu	6
	Sepedi	0
	Sesotho	1
	Setswana	2
	siSwati	0
	Tshivenda	1
	Xitsonga	1

Of the 30 NQTs, most were female (18) and 25 years of age or younger (17). The largest single proportion was African (13).

The majority (17) indicated that English was not their home language. Most listed either English (15) or Afrikaans (13) as their first additional language, but six listed up to four additional languages, amongst which isiZulu predominated (5).

Participants were drawn from all five ITERP case study universities, albeit unevenly, where, during their studies, they had specialised in either the IP only or the IP and SP combined. Table 3 below presents the breakdown of the number of participants from each institution as well as the phase/s in which the participants had specialised to teach, and whether they had also specialised in teaching Mathematics and/or English.

Table 3: NQTs by university, phase and selected subject specialisation

University	No. NQTs	No. NQTs who specialised in:		No. NQTs who specialised in:	
		IP	IP and SP	Mathematics	English
A	9	4	5	3	4
B	4	1	3	3	2
C	6	0	6	4	6
D	2	1	1	0	2
E	9	5	4	2	2
Total	30	11	19	12	16

Notes: IP = Intermediate Phase; SP = Senior Phase.

Of the 30 NQTs, just over half (18) had completed their teacher education studies at two of the five case study institutions, namely, University A and University E. The smallest single proportion of participants (2) had studied at University D.

Eleven NQTs had specialised in the IP (only), with the remainder (19) having completed programmes that qualified them to teach in both the IP and the SP.

With regard to subject specialisations, most (22) participants indicated that they had specialised in just two subjects. Seven, however, had specialised in three subjects and one in four subjects.

Around half of the participants had specialised in teaching either Mathematics (12) or English (16) in the IP (including six participants who had specialised in both these subjects at the IP level). Among the 15 subjects (other than Mathematics or English) in which participants had also specialised, Technology stood out in being a specialisation of eight of the NQTs, followed by Life Orientation (four NQTs), Physical Education (three NQTs), and Social Science (three NQTs).

Eight participants had specialised in neither Mathematics nor English. Of these, four had specialised in Technology, with Biology, Physical Education, and Art being among their other specialisations.

Most of the participants had started teaching early in 2014. Hence, by the time of the symposium, most had been teaching for approximately a year and a half. Three had, in fact, left the schools at which they had started teaching and were already in their second teaching posts. Another three had been learners at the schools at which they were now teaching.

4.2 The schools where NQTs were teaching

Table 4 indicates various characteristics of the schools in which symposium participants were currently teaching, including type of school (ordinary, full service, or special needs), whether public or independent, province in which located, fee status, quintile, socio-spatial location, range of grades offered, and Language of Learning and Teaching (LoLT).

Table 4: Characteristics of NQTs' schools

School characteristics		No. NQTs
Type	Ordinary	24
	Full service	2
	Special needs (LSEN)	4
Governance	Public	27
	Independent	3
Province	Eastern Cape	2
	Gauteng	11
	KwaZulu-Natal	3
	Mpumalanga	1
	North West	3
	Western Cape	10
Fee status	Fee-paying	16
	No-fee	12
	Don't know/no response	2
Quintile	Quintile 1	2
	Quintile 2	4
	Quintile 3	0
	Quintile 4	2
	Quintile 5	1
	Don't know/no response	21
Socio-spatial location	Village or rural area	4
	Rural township	2
	Urban township	6
	Town suburb	9
	Inner city	2

	City suburb	7
Grades offered	Grades R/1 to 7	19
	Grades 8 to 12	6
	Grades R/1 to 12	2
	No response	3
LoLT	English	22
	English and Afrikaans	6
	English and Setswana	1
	Sign Language	1

Note: LoLT = Language of Learning and Teaching; LSEN = Learners with Special Educational Needs

Most participants were teaching in ordinary (24) public (27) schools, with more than two-thirds (21) teaching in either Gauteng or the Western Cape. (Indeed, most (24) NQTs were teaching at schools in the same province in which they had completed their studies.)

The majority (19) of respondents were teaching in primary schools, i.e. schools offering Grade R or Grade 1 through to Grade 7, with a few more teaching in schools offering the full range of grades.

The socio-economic status of the schools in which participants were teaching cannot be precisely determined. Although fairly evenly divided between fee-paying and no-fee schools, two-thirds (21) of participants did not know in which quintile their schools were located, including a few participants (5) who did not respond to the question.

However, there was a distinct urban bias in the locations of participants' schools, with more than half of these NQTs teaching in suburban schools and another six in urban township schools. Only four participants were teaching in schools in villages or rural areas and only two in rural townships.

The predominant LoLT at participants' schools was English (22); another six NQTs were teaching at English-Afrikaans dual medium schools, one at an English-Setswana dual medium school, and one at a special school where the LoLT was South African sign language.

4.3 Teaching appointments and responsibilities

Table 5: NQTs' teaching appointments and responsibilities

Teaching appointments and responsibilities		No. NQTs
Nature of appointment	Permanent	21
	Temporary/contract	7
	Substitute/volunteer	2
Are your classes single grade or multi-grade?	Single grade	19
	Multi-grade	8
	No response	3

Do you teach ALL subjects to one class?	Yes	12
	No	18
Are there learning materials (e.g. textbooks) for each learner in your class?	Generally yes	20
	Sometimes	6
	Generally no	4

Two-thirds (21) of these newly qualified teachers had been appointed to permanent posts; and almost as many (19) were teaching single grade classes.

While most (18) were teaching a limited number of subjects to classes across more than one grade, more than a third (12) were teaching all subjects to a single class in a single grade. Of these 12, four each were teaching at Grade 4 and Grade 5 levels, three at Grade 1 level, and one at Grade 6 level.

Asked whether in their classes there were sufficient learning materials for each learner, most (20) responded that this was generally the case.

Table 6: NQTs' teaching activities, by phase, grade, and selected subjects

Phase (no.)	Grade (no.)	No. English	No. English who specialised in English	No. Mathematics	No. Mathematics who specialised in Mathematics
FP (3)	Grade 1 (3)	3	1	3	1
	Grade 2 (1)	1	0	1	0
	Grade 3 (1)	1	0	1	0
IP (20)	Grade 4 (8)	7	3	6	3
	Grade 5 (10)	7	5	9	4
	Grade 6 (10)	7	3	4	1
SP (12)	Grade 7 (7)	4	3	1	0
	Grade 8 (6)	3	3	0	N/A
	Grade 9 (4)	2	2	0	N/A
FET (3)	Grade 10 (3)	2	2	0	N/A
	Grade 11 (2)	2	2	0	N/A
	Grade 12 (1)	1	1	0	N/A

Note 1: Phase (no.) = number of NQTs teaching in the specified phase; Grade (no.) = number of NQTs teaching in the specified grade; No. English/No. Mathematics = number of NQTs teaching English/Mathematics in the specified grade; No. English/No. Mathematics who specialised in English/Mathematics = number of NQTs teaching English/Mathematics who had specialised in that subject at university; N/A = Not applicable; FP = Foundation Phase; IP = Intermediate Phase; SP = Senior Phase; FET = Further Education and Training Phase.

Note 2: The sum of all those teaching across all phases does not total 30 because most (18) respondents were teaching more than one class across more than one grade (see Table 5).

According to Table 6 above, two-thirds (20) of the respondents were currently teaching in the IP and just over one-third (12) in the SP. Six NQTs were teaching entirely outside of their phase specialisation, in either the FP (3) or the FET Phase (3).

Of the 20 NQTs currently teaching in the IP, most (11) were teaching across two or more IP grades (i.e. Grades 4-6) – including some who were also teaching one or more grades in the SP (i.e. Grades 7-9) – while the remainder's classes were all in the same IP grade (i.e. they were teaching all subjects to the same grade).

Eight of the respondents currently teaching in the IP were teaching Grade 4s, 10 were teaching Grade 5s, and 10 were teaching Grade 6s.

With regard to those currently teaching Grade 4s, almost all (7) were teaching English, although, only three of these had specialised in the subject; six were teaching Mathematics, but again, only three had specialised in teaching that subject.

Among those currently teaching Grade 5s, seven were teaching English, but only five had specialised in teaching it; of the nine who were teaching Mathematics, only four had specialised in teaching Mathematics.

Seven respondents were teaching English to Grade 6s, but only three of these had specialised in teaching the subject; of the four respondents who were teaching Mathematics to Grade 6s, just one had specialised in Mathematics teaching.

The 12 NQTs currently teaching in the SP were all teaching across two or more SP grades, including some who were also teaching one or more grades in the IP.

Seven of the respondents currently teaching in the SP were teaching Grade 7s, six were teaching Grade 8s, and four were teaching Grade 9s.

With regard to the (few) respondents currently teaching English in the SP and FET Phase, all except one had specialised in teaching the subject, and all except one of these English specialists currently teaching English in the SP had specialised in teaching the subject at that (SP) level; however, one of the NQTs teaching English to Grade 11s and 12s had only specialised in teaching it up to SP level and not at FET level.

Only one respondent was currently teaching Mathematics in the SP, to Grade 7s; however, the respondent had not specialised in teaching the subject, not even at IP level. No respondent was currently teaching Mathematics in the FET Phase.

Lastly, while all three of the NQTs who found themselves teaching in the FP were teaching all subjects, including English (or literacy) and Mathematics (or numeracy), none had specialised in teaching either subject at the level of that phase (with only one having specialised in teaching English at the IP level and one other having specialised in teaching Mathematics at the IP level).

Tables 7 and 8 below provide a breakdown of how those NQTs who had specialised in teaching Mathematics and/or English for the IP were being utilised in their schools.

Table 7: NQTs who specialised in IP Mathematics, by teaching activities

Specialists' teaching activities	No.
IP Mathematics specialists currently teaching IP Mathematics	7
IP Mathematics specialists currently teaching Mathematics in another phase	1
IP Mathematics specialists currently not teaching Mathematics	4
Total IP Mathematics specialists	12
(Total all NQTs currently teaching Mathematics in any phase)	(18)

Table 8: NQTs who specialised in IP English, by teaching activities

Specialists' teaching activities	No.
IP English specialists currently teaching IP English	8
IP English specialists currently teaching English in another phase	7
IP English specialists currently not teaching English	1
Total IP English specialists	16
(Total all NQTs currently teaching English in any phase)	(25)

Of the 12 NQTs who, during their university studies, had specialised in teaching Mathematics for the IP, only seven were currently teaching IP Mathematics, one was teaching Mathematics in another phase, and four were not teaching Mathematics at all. Eighteen NQTs, regardless of whether they had specialised in the subject, were teaching Mathematics in one or other phase.

Of the 16 NQTs who, during their university studies, had specialised in teaching English for the IP, only eight were currently teaching IP English, seven were teaching English in another phase, and one was not teaching English at all. Twenty-five NQTs, regardless of whether they had specialised in the subject, were teaching English in one or other phase.

Three key issues arise from these findings with regard to what Tables 6, 7 and 8 reveal about the phases, grades, and subjects in which respondents were currently teaching as compared to the phases, grades, and subjects in which they had specialised to teach.

First, and bearing in mind that all respondents had, during their studies, specialised in either IP alone or IP and SP combined, it is somewhat disconcerting to find that some of these NQTs (6) were not teaching at all in the phase/s in which they had specialised. Of these six NQTs, two were teaching all subjects to Grade 1s; one was teaching all subjects to a multi-grade class consisting of Grade 1s, 2s, and 3s; and three were teaching across two or more FET grades, with a couple of these also teaching one or more grades in the SP. None of these six respondents had been trained to teach any subjects at the level of either the FP or the FET Phase. (In addition, two respondents who had specialised only in the IP were teaching in the SP).

Second, half or fewer of the NQTs teaching English or Mathematics to any of the IP grades (with the sole exception of Grade 5 English) had specialised in teaching those subjects. The situation with regard to the teaching of English to the SP grades seems far better, with almost all of these NQTs having specialised in the subject; but with regard to the teaching of Mathematics across

both the IP and SP grades, the situation is decidedly worse: after eliminating any double-counting (i.e. counting each NQT once regardless of the number of grades to which they were teaching the subject), out of 15 NQTs teaching Mathematics to Grades 4 to 9 learners inclusive, only 6 had specialised in the subject during their university studies.

Third, only half of those who had specialised in IP English and just over half of the IP Mathematics specialists were actually teaching those subjects at the level of the phase for which they had been trained, if they were teaching those subjects at all.

It follows that while most (but far from all) NQTs were teaching in the phase/s for which they had specially trained, most of those teaching English or Mathematics had not been specially trained to teach those subjects; and some of those who had been trained in those subjects were not teaching them at all.

4.4 Use of languages for teaching

Table 9: NQTs' use of languages for teaching

	Language used	No. NQTs
What language do you speak mostly when you teach subjects (other than language subjects)?	English	22
	Setswana	1
	Sesotho	1
	Sign Language	1
	DNR	5
If you sometimes use more than one language when you teach, which other language(s) do you use?	Afrikaans	12
	isiZulu	7
	Sesotho	2
	isiXhosa	1
	English	4
	DNR	4

Note: DNR = Did not respond.

Most participants (22) indicated that they mostly spoke English when teaching (other than when teaching language subjects). Five, however, particularly (but not only) those teaching at dual medium schools, did not respond to the question properly, indicating more than one language rather than just the language they speak mostly.

Asked if they sometimes used more than one language while teaching, almost all participants responded in the affirmative, listing mainly Afrikaans (12) and isiZulu (7) as languages they used in addition to the language they spoke mostly. (Three of the respondents also indicated that they sometimes used more than two languages when teaching.)

4.5 Induction, mentoring and assistance

Table 10: Induction, mentoring and assistance for NQTs

Induction, mentoring and assistance		No. NQTs
Did you undergo an induction process at your school when you started teaching?	Yes	15
	No	15
If so, who led the induction?	Principal	9
	HoD	3
	A senior teacher	3
Is there a mentor teacher who is supporting you?	Yes	19
	No	11
If so, who is the mentor teacher?	Principal	1
	HoD	10
	Subject head teacher	3
	A senior teacher	4
	Other	1
If you need assistance, who would you be most likely to approach?	Principal	2
	HoD	9
	Subject head teacher	2
	A senior teacher	2
	A teacher teaching same grade or subject	11
	DNR	4
What kind of assistance have you asked for? (Check all that apply.)	Understanding content knowledge	6
	Subject planning	18
	Administrative tasks and responsibilities	22
	Setting assessment tasks	19
	Managing children's behaviour	18
	Dealing with parents	19
	Approaching school management	11
	Personal matters	6

Note: DNR = Did not respond. HoD = Head of Department.

Only half (15) of the participants indicated that they were inducted into their schools. Of these, most (9) were inducted by the principal of the school, with the remainder being inducted by a Head of Department (HoD) or another senior teacher.

The majority of participants (19) said that they were being supported by mentors in the schools, and for just over half (10) of these, their mentors were HoDs. Of the 19 being mentored, 10 had also received induction.

If they needed assistance, just over one-third of participants (11) indicated they would approach another teacher teaching the same grade or subject, while nine indicated they would approach a HoD. (Four NQTs did not respond in the manner expected, instead indicating more than one possible source of assistance.)

With regard to the kinds of assistance that respondents had asked for, the largest single proportion (22) had sought help with administrative tasks and responsibilities. Similar numbers had requested assistance with subject planning, setting assessment tasks, managing children's behaviour, and dealing with parents. At the other end of the spectrum, only six had asked for assistance with understanding content knowledge; six also listed personal matters. In addition, four indicated that they had asked for assistance with regard to every category.

4.6 Views on learning to teach and teaching

The participants were asked whether they agreed or disagreed with 25 statements pertaining to what characterises or constitutes a teacher, ranging from how they, as student teachers, had learnt and been taught to teach, to their initial career experiences and expectations.

Table 11: Learning to teach and teaching: Part 1: Necessary aptitudes

Statement	SD	D	N	A	SA
i. Teachers need to learn special kinds of <i>knowledge and skills</i> before they teach.	0	1	1	10	18
ii. Teachers need to have <i>natural talent</i> to do their work effectively.	1	14	0	13	2
iii. Teachers need to have a special kind of <i>personality</i> to do their work effectively.	1	7	2	10	10
iv. Teachers need <i>theoretical knowledge</i> before they can teach.	0	0	0	17	13
v. Teachers need <i>practical experience</i> before they can teach.	0	1	0	10	19
vi. Teachers need <i>theoretical knowledge</i> to understand the practical work that teachers do.	0	1	0	11	18
vii. Only those with a special <i>calling</i> can really learn to teach.	10	12	3	5	0

Notes: SD = Strongly disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly agree. All italics appeared in the original questionnaire.

Statements (i) to (vii) focused in the main on what qualities or aptitudes one needs or ought to acquire in order to teach; in this regard, all or almost all respondents indicated that they believe that teachers need special kinds of knowledge and skills (28), including theoretical knowledge (30), practical experience (29), and theoretical knowledge to understand the practical work (29) before they can teach. Delving a little deeper, it might appear that on the one hand respondents gave slightly greater emphasis to practical experience, with 19 'strongly agreeing' on the need for practical experience, compared to only 13 'strongly agreeing' on the need for theoretical knowledge; on the other hand, such an interpretation should be tempered by the fact

that of all 25 statements, the only one with which all respondents agreed, without exception, was on the need for theoretical knowledge.

Two-thirds of respondents felt that effective teachers need 'a special kind of personality'. However, this 'personality' was not associated with treating teaching as a vocation, since most (22) disagreed with the idea that only those with a special calling can really learn to teach. Respondents were equally divided as to whether teachers need to have 'natural talent' to do their work effectively.

Table 12: Learning to teach and teaching: Part 2: Acquiring aptitudes

Statement	SD	D	N	A	SA
viii. With <i>proper training</i> , anyone can to [Sic] <i>learn to teach</i> .	2	4	1	14	9
ix. It is important for student teachers to 'get a feel' for how to teach by real life classroom experience.	1	0	0	5	24
x. A lot of learning to teach happens through <i>personal experience</i> in the classroom.	1	2	1	8	18
xi. A lot of learning to teach happens through <i>working with more experienced teachers</i> .	0	6	2	13	9
xii. A lot of learning to teach happens through <i>feedback on my lessons</i> from mentor teachers/supervising lecturers.	0	1	2	11	16
xiii. As I teach, I find myself often thinking back to what I learnt during <i>university-based coursework</i> .	0	9	2	11	8
xiv. The theory I learnt at <i>university</i> is more important than I thought it would be.	0	6	4	14	6
xv. A lot of what I learnt during my university-based coursework is relevant in the context where I am teaching.	0	12	3	7	8
xvi. The knowledge I learnt at university makes it possible for me to reflect meaningfully on my classroom experiences.	0	6	4	13	7
xvii. My teacher education programme prepared me well for the work I do.	1	10	2	10	7

Notes: SD = Strongly disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly agree. All italics appeared in the original questionnaire.

Another set of statements, statements (viii) through to (xiv), focused on how one might learn, develop, or obtain the necessary qualities or aptitudes to become a teacher. Three-quarters (23) of the NQTs agreed that, 'with proper training, anyone can learn to teach'. Coupling this emphasis on the need for 'proper training' with respondents' previously indicated equivocation over whether 'natural talent' is required, it would seem that, for these NQTs, teachers are made much more than they are born.

A glimpse of what this 'proper training' might entail is shown by most NQTs' stress on the importance of getting 'real life classroom experience' (29), receiving 'feedback on lessons' from mentors (27), and learning from 'personal experience in the classroom' (26) as well as – but to a somewhat lesser extent – 'working with more experienced teachers' (22) and the 'theory' (20) and 'coursework' (19) learnt at university.

Reflecting further on their university experiences, in statements (xv) through to (xvii), exactly half (15) of the respondents agreed that what they had learnt from their university-based coursework had turned out to be relevant to their current contexts. It is no doubt partly because of this relative lack of contextual fit that over a third of respondents (11) felt that they had not been well-prepared by their teacher education programmes.

Table 13: Learning to teach and teaching: Part 3: School and classroom life

Statement	SD	D	N	A	SA
xviii. The actual realities of classroom and school life were a <i>huge shock</i> to me when I started to teach.	3	6	1	6	14
xix. The school staff <i>supported me</i> as a newly qualified teacher.	4	5	2	10	9
xx. Other teachers encourage me to teach and assess my classes in the <i>ways that I believe</i> are best.	3	9	1	10	7
xxi. I sometimes feel pressure from other teachers not to give of my best in my teaching.	4	10	4	8	4

Notes: SD = Strongly disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly agree. All italics appeared in the original questionnaire.

The limited relevance of these respondents' ITE programmes to their current school contexts probably also exacerbated the 'huge shock' (long attested in educational research) that two-thirds (20) of these new teachers experienced when they started teaching (statement xviii). Statements (xix) to (xxi) further drew out NQTs' initial experiences of school and classroom life, finding that, notwithstanding their initial shock, 19 felt supported by school staff and 17 felt encouraged by other teachers to teach and assess as they deemed fit. The extent of this support and encouragement, however, did not quite match up with the high premium most (27) NQTs had placed on feedback and mentoring (statement xii).

A more disquieting finding is that a substantial proportion of these NQTs sometimes felt pressurised by other teachers not to give of their best in their teaching (statement xxi): 12 stated that they did feel such pressure, 14 disagreed, and four remained neutral.

Table 14: Learning to teach and teaching: Part 4: Career expectations

Statement	SD	D	N	A	SA
xxii. I am pleased that I became a teacher.	1	1	1	11	16
xxiii. I am motivated to stay in the teaching profession for the foreseeable future.	1	4	3	9	13
xxiv. I plan to leave teaching within the next five years.	8	9	6	4	3
xxv. I plan to have a long career within education.	1	3	4	6	16

Notes: SD = Strongly disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly agree.

On a highly positive note, almost all (27) respondents were pleased that they had become teachers, with more than half (16) strongly agreeing. Moreover, over two-thirds (22) felt motivated to stay in the teaching profession for the foreseeable future, with the same number intending to have a long career within education. However, approximately one quarter (7) nevertheless planned to leave teaching within the next five years.

4.7 Conceptions of and attitudes to professionalism

Participants' conceptions of and attitudes to professionalism were drawn out through three specific questions. First they were asked, 'What does it mean TO YOU to be a professional teacher?' (with the words in upper case in the original). Thereafter they were asked if they regarded themselves as professional teachers, and to explain their answers.

For many, being a professional teacher meant having and/or applying knowledge, skills, and expertise (mentioned explicitly by 8 NQTs). For example:

'You need to have a high level of knowledge [and] you need to apply what you know'.

'A professional teacher is one who is knowledgeable about the content they teach'.

'A professional teacher understands the content that needs to be taught and various methods of teaching'.

'Being a professional teacher means knowing your content knowledge and being able to share it with the learners in a way they understand it'.

But even more important in terms of the frequency of responses was the need to prepare and plan carefully (11 NQTs). For example:

'Being a professional teacher to me means that I have to be prepared at all times'.

'A professional teacher plans ahead'.

'[Being a professional teacher means] to be prepared for class'.

'It means to be prepared every day during lessons'.

Most important of all, however, being mentioned by just under half (14) of the respondents, was the need to act ethically, ranging from how one conducted oneself in relation to learners and colleagues to deliberately promoting equality and fairness. For example:

'[Being a professional teacher] means to conduct yourself with decorum and put forth the values and determination you want to inspire in your learners'.

'Always be professional, i.e. dress appropriately, act accordingly'.

'Being a professional teacher means ... that I need to practice what I preach'.

'A professional teacher promotes learning and equality for all learners [and] is fair and consistent when it comes to discipline'.

Closely associated with, although distinct from, this emphasis on principled conduct were occasional references to 'respect self, learners, parents and colleagues' and 'treat work, and work space, and the people you work with, with respect' (6 NQTs); being diligent, responsible and committed to one's work (5 NQTs); 'providing a good example' or 'being a role model' for

learners (4 NQTs); and being punctual and, separately, 'going the extra mile' for learners (3 NQTs each).

Finally, one or two NQTs also suggested that being a professional teacher meant being passionate ('love what you do'), caring (make 'learners feel safe and cared for'), or transformative ('try make a change in a child's life').

For the majority of participants, then, principled conduct or ethical action defined the professional teacher, in conjunction with, although a little more so than, being knowledgeable or prepared.

Table 15: Professional status assessment

	Response	No. NQTs
Do you regard yourself as a professional teacher?	Yes	18
	Sometimes	12
	No	0

Asked if they considered themselves to be 'professional teachers', most (18) responded entirely in the affirmative, and none at all responded entirely negatively.

In explaining their answers, those who responded in the affirmative largely restated their own views of professionalism, indicating that they felt they were professionals because they were like or did the things described by their definitions. So, for example, one who stated that being a professional teacher meant 'being at school on time, doing the right thing, teaching learners [as well as] earning respect [and] being there for learners', felt that:

'I can say yes [i.e. I regard myself as a professional teacher] because I make sure that I do what I'm getting paid to do and that is teach. I respect myself. I do not do anything that will [put] my profession in danger or [make it] a joke'.

Another who had said that a professional teacher is 'prepared every day during lessons and shows commitment towards their work' considered herself to be 'a professional teacher because I am qualified to be a teacher and perform the duties of being a teacher'.

A third had defined a professional teacher as 'all about applying a certain level of knowledge and expertise to teach learners. It's all about empowering students and diligently executing all your teaching responsibilities'. Accordingly, this respondent felt that, having been 'trained and taught how to professionally organise lessons and learning environments', she⁵ was a professional teacher.

Most (8) of the 12 NQTs who indicated 'Sometimes' generally provided a reason internal to themselves for not considering themselves always or fully 'a professional teacher', and, in so

⁵ For the sake of simplicity, she/her/herself are taken to represent all genders.

doing, accepted their own agency, implication in, and responsibility for this state of affairs. For instance:

'There is still much I need to learn, I always try ..., but there are times I still fail.'

'I feel I have the knowledge to be able to become a professional teacher, but it will take time to learn.'

'Most of the time, frustration gets to me'.

'I teach Foundation Phase learners, [and] I sometimes feel like I am failing the learners because I was not trained to teach Grades 1-3, so I have to adjust to their level with whatever knowledge I found at [university].'

There were, however, a few (4) instances where NQTs who indicated 'Sometimes' supplied reasons external to themselves:

'Sometimes learners' home status or life at the school [hinders] the learning progress so I tend to reach out too much [with] emotions attached to how I try to help or solve the problem, which I know is not always possible'.

'Sometimes my planning does not go according [to plan], ... because of the response that I get from the pupils'.

'Due to unforeseen and sometimes expected circumstances I am not always prepared'.

'There are times I feel that upholding this image is not a true reflection of me. Speaking properly is a constant awareness and I tend to adopt my dialect according to my social group'.

Such explanations of one's limited professional status in terms of external, albeit often indirect, factors (learners' status or responses, unforeseen circumstances, or social groups) tend to deflect agency and responsibility away from the self.

4.8 Estimations of and responses to learners' needs

The participants were asked a set of questions about the characteristics and needs of the learners in their classrooms, ranging from learners' learning, physical and emotional difficulties through their home circumstances, to their ability to read, write, and speak in the LoLT.

These questions were themselves grouped under three overarching rubrics:

- a) What proportions of these NQTs' learners displayed these characteristics? (see Table 16 below);
- b) What classroom practices or strategies had their BEd programmes encouraged them to use to support learners with such characteristics? and
- c) How often, if at all, had NQTs been able to implement such practices or strategies to support learners? (see Table 17 below).

Table 16 Proportions of NQTs' learners with particular characteristics

Learners who:	Proportion of learners				
	Most	Many	Some	None	DNR
Take longer to grasp concepts	2	14	13	0	1
Have short attention spans	5	6	18	0	1
Have physical disabilities	0	1	6	22	1
Have challenging home circumstances	8	13	8	0	1
Have emotional/psychological problems	3	7	18	1	1
Are high-achievers	0	6	21	2	1
Are aggressive towards others	0	8	19	1	2
Struggle to understand the LoLT	3	10	14	2	1
Struggle to speak the LoLT	1	10	12	5	2
Are not yet able to read	1	10	13	5	1
Do not yet comprehend what they read	2	14	11	2	1
Are not yet able to write their own sentences	1	6	15	6	2

Note: DNR = Did not respond; LoLT = Language of Learning and Teaching.

With regard to the proportions of learners in NQTs' classes with particular characteristics and needs, many or most of NQTs' learners were said to take longer to grasp concepts (16) and to not yet comprehend what they read (16), with the greatest proportion of respondents indicating that many (13) or most (8) of the learners in their classes experienced challenging home circumstances.

Just under a quarter of NQTs (7) had learners with physical disabilities in their classes.

Half or more of NQTs had at least some learners in their classes with short attention spans (18), with emotional/psychological problems (18), who were not yet able to write their own sentences (15), who were aggressive towards others (19), or who were high-achievers (21).

Some learners in the classes of over a third of these NQTs struggled with speaking and understanding the LoLT.

Given the above characteristics and needs, participants indicated that they were aware of and attempting to engage and support learners using a similarly wide range of classroom practices or strategies.

With regard to supporting the high proportion of learners whom they considered to be taking longer to grasp concepts, NQTs listed 'social constructivity theory' associated with their BEd 'inclusive education' modules as the main formal classroom practice or strategy they were attempting to implement. Elements of NQTs' approaches in this regard included using

repetition, elaboration, simplification, and scaffolding as well as direct or one-on-one instruction.

In order to manage learners with short attention spans, NQTs mentioned having been encouraged by their BEd programmes to use 'activity-based approaches' and 'ADHD strategies'. They commonly described engaging such learners in short, varied, practical, and interesting activities as well as direct or one-on-one instruction.

Assistance for learners with physical disabilities was seen as falling formally under the rubric of 'inclusive education' strategies, with NQTs (more than two-thirds of whom had no such learners in their classes) commonly seeking to provide various forms of (technological and other) support and inclusion.

With regard to learners with challenging home circumstances, NQTs referred to 'inclusive education', 'educational psychology', and 'Bloom's taxonomy' as the main formal classroom practices they were attempting to implement. They mentioned trying to motivate the many such learners they found in their classes, offering them trust and respect as well as speaking to their parents and/or referring the learners to social workers.

Similarly, with regard to learners with emotional or psychological problems, NQTs described the formal strategies their BEd programmes had encouraged them to use in terms of 'social constructivism', 'inclusive education', and 'educational psychology'. Common classroom practices included offering support and referring learners to professional psychologists or counsellors.

No formal classroom practices or strategies were mentioned in relation to high-achieving learners, although one NQT recounted having been encouraged by her BEd programme to 'keep such learners "wanting" more PCK [Pedagogical Content Knowledge]'. Most NQTs said they supported high-achieving learners by giving them extra and more challenging work, rewarding them, and letting them assist their peers.

In order to deal with learners who were aggressive towards others, NQTs had recourse to formal classroom management, 'anger management', and 'assertive discipline' strategies. They commonly described their own interventions in support of such learners as involving time-outs, speaking to their parents, and 'getting to the root of the problem'. However, seven (or just under one quarter of) respondents stated that their BEd programmes had not provided them with any classroom practices or strategies in this regard.

With regard to supporting learners who struggled to understand the LoLT of their schools, NQTs mentioned 'social constructivism' and using the 'sandwich method, e.g., 'dog/hond/dog' and the 'buddy system' as the main formal classroom strategies they used. Their approaches in this regard typically included providing more reading and speaking practice, offering encouragement, using code-switching, and allowing such learners to learn from their peers as well as 'letting them express themselves with their home languages, then translating'.

Just one formal classroom practice or strategy was mentioned in relation to learners who struggled to speak the LoLT: 'IEP GEP [Individualised Education Plan/Group Education Plan]'.

NQTs commonly sought to address this issue by providing these learners with more reading and speaking practice, including learning from their peers.

In order to assist learners who were not yet able to read, NQTs – few (5) of whom said they had no such learners in their classes – commonly mentioned having been encouraged by their BEd programmes to use 'phonetics', 'phonics', and 'paired reading'. They commonly prescribed much more reading practice for such learners.

In order to help learners who did not yet comprehend what they read, NQTs drew on their BEd 'inclusive education' modules as well as 'IEP GEP'. Common classroom interventions in this regard included more reading practice (including easier texts), using dictionaries, and learning from peers as well as additional direct or one-on-one instruction.

Finally, NQT support for learners who were not yet able to write their own sentences also elicited mention of 'inclusive education' modules as well as the 'burger writing method'. They commonly described providing such learners with more writing practice (including copying sentences) as well as sentence construction and spelling exercises.

It should be noted that while the various classroom practices or strategies indicated above were NQTs' most common responses to the each of the specified learner characteristics and needs, in each case some (between 3 and 7) NQTs explicitly stated that their BEd programmes had not encouraged them to use any particular strategies. Also in each case, a few NQTs left the section on classroom strategies blank.

Table 17: Frequency of NQTs' implementation of classroom strategies

Learners who:	Implementation of classroom strategies				
	Daily	Occasionally	Not yet	Unworkable	DNR
Take longer to grasp concepts	11	9	2	1	7
Have short attention spans	10	9	1	1	9
Have physical disabilities	2	3	2	2	21
Have challenging home circumstances	8	5	3	2	12
Have emotional/psychological problems	2	10	4	1	12
Are high-achievers	8	8	0	2	12
Are aggressive towards others	4	10	3	1	12
Struggle to understand the LoLT	7	7	1	1	14
Struggle to speak the LoLT	5	7	1	1	16
Are not yet able to read	9	5	3	1	12
Do not yet comprehend what they read	4	6	3	1	16
Are not yet able to write their own sentences	4	6	4	1	15

Note: DNR = Did not respond; LoLT = Language of Learning and Teaching.

Between one third and two thirds of NQTs felt that at least occasionally, if not on a daily basis, they were able to implement classroom strategies taught to them during their BEd programmes in order to support learners.

Moreover, almost all NQTs thought that received classroom strategies were workable in their school contexts. (Note, however, that almost half of the participants did not respond to these particular questions on how frequently they implemented strategies; in addition, a few stated that they had not yet been able to implement one or other strategy).

4.9 Feelings about early teaching experiences

In order to respond to the question, 'Which emotions best depict your feeling during your experiences of early career teaching?' NQTs were asked to place emoticons indicating a wide range of possible emotions into boxes numbered '1' through '5'. In columns adjacent to the boxes they were also asked to write down any word or words they would use to describe each emotion, along with any associated places, incidents, or events. They were also asked to indicate, on scales of 1-10, the intensity of these emotions (from '1. Barely there' to '10. All-consuming'); their frequency (from '1. Once or twice' to '10. Nearly every day'); and, lastly, to state a specific time when they felt each emotion the most (primarily, whether it occurred during or after their first few months/term of teaching).

Table 18: Emotional responses to first teaching experiences

Box	Nature		Intensity	Frequency	Time	Example	
	No. NQTs indicating <i>positive</i> emotion	No. NQTs indicating <i>negative</i> emotion	No. NQTs indicating <i>strong</i> emotion (i.e. >5/10)	No. NQTs experiencing this emotion <i>daily or often</i>	No. NQTs experiencing this emotion during their <i>first term</i>	Positive emotion	Negative emotion
1st	16	13	23	17	25	'Excited to change lives'	'Learner unwillingness to learn'
2nd	10	19	19	19	24	'When learners grasp concepts'	'When learners misbehave'
3rd	6	23	10	12	18	'Confident and prepared for my lessons'	'Other teachers say things will never change'
4th	11	18	13	13	18	'Learners tried their best and most passed'	'At times not knowing which way to turn'

5th	9	20	15	15	13	'When learners who could not read, can read'	'When I was thrown into the deep end with no assistance'
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Note: One NQT did not complete this section of the questionnaire; all totals in the table above are therefore out of 29.

In the first box, 16 participants placed emoticons indicating positive emotions (which they described, for example, as 'excited', 'happy', 'blessed', 'bliss', and 'eager') with regard to their early career teaching experiences; and the other 13 indicated negative emotions (e.g. 'sad', 'angry', 'frustrated', 'disappointed', and 'afraid'). More than two-thirds (23) of NQTs considered these emotions to be above-average in intensity, with the vast majority (25) experiencing them during their first few months of teaching, for the most part (17) often or daily.

In the second box, 10 NQTs indicated positive emotions (including, in addition to some of the above, 'laughing', 'satisfied', and 'joyful'), while the rest indicated negative ones (including, in addition to some of the above, 'shocked', 'confused', and 'overwhelmed'). They considered these emotions to be above-average in intensity, with most again experiencing them often or daily during their first few months of teaching.

In the third box, only 6 NQTs indicated positive emotions. All emotions (both positive and negative), although experienced by most during their first term of teaching, were felt to be below-average in intensity and were experienced only sometimes.

In the fourth box, 11 indicated positive emotions, while the rest indicated negative ones. Fewer than half (13) of NQTs considered these emotions to be above-average in intensity; they experienced them during their first few months of teaching, but not often.

In the fifth and final box, 9 NQTs indicated positive emotions. None of these emotions were considered to stand out in either intensity or frequency, and most NQTs experienced them after their first term of teaching.

Participants were not required to complete this exercise in any particular order, but it is likely that most would have placed an emoticon into the first box first. In turn, this suggests that descriptions of this first emoticon and its associated emotion most faithfully represent what was at the forefront of their minds when initially responding to the question. Given that just over half indicated positive emotions here, it could be said that the majority of these NQTs were pleasantly and constructively introduced to their new careers.

Overall, however, and considering all emotions across all five boxes, the 29 NQTs who completed this section of the questionnaire logged only 52 positive emotional experiences out of a possible total of 145 (or just under two positive emotions per NQT out of a possible total of five). In this broader sense, these NQTs' initial career experiences were not particularly heartening.

Also, considering all responses across the board, the number of these NQTs who experienced intense or frequent emotional responses to their early career teaching experiences does not

appear to be significant. What does stand out, however, is that the vast majority of the emotional experiences that NQTs chose to describe took place during their first few months of teaching.

4.10 Reflections on teacher education vis-à-vis current classroom practice

This section analyses what the participants had to say in focus group discussions about their BEd programmes in general and their preparation to teach English and Mathematics in particular and how they were putting their ITE into practice. The section draws substantially on a previous ITERP report which consolidated and analysed all the focus group discussions into a single document (Deacon, 2015d).

Specifically, the NQTs were asked:

- What they would change about their BEd programmes, if anything;
- What they would definitely *not* change about their BEd programmes;
- What kinds of approaches to teaching Mathematics were encouraged in their BEd programmes, and how these approaches were working out for them as teachers;
- What the main challenges they faced in teaching Mathematics were, whether they had been expecting these challenges, and the extent to which their BEd programmes had prepared them to address these challenges;
- Which challenges about teaching Mathematics they felt completely unprepared to address;
- What kinds of approaches to teaching English (language, literacy, and literature) were encouraged in their BEd programmes, and how these approaches were working out for them as teachers;
- What the main challenges they faced in teaching English (both as a subject and as a language of learning and teaching) were, whether they had been expecting these challenges, and the extent to which their BEd programmes had prepared them to address these challenges; and
- Which challenges about teaching English they felt completely unprepared to address.

4.10.1 General reflections on BEd programmes

Aspects of BEd programmes that NQTs would change

Asked if they would change anything about their BEd programmes, focus groups across all five institutions were concerned, first and foremost, about the manner in which the teaching practice component of their degrees was managed and implemented, making particular reference to the contrast between their teaching practice experiences and their subsequent experiences as newly qualified teachers. In addition, many respondents would change aspects of what they learnt at university so as to render this learning more directly applicable to classroom teaching situations. Individuals within all focus groups commented on the general quality and quantity of what they had been taught and how they had been taught it; and a few raised various other issues, such as the coherence of a programme or the manner of its certification.

Teaching practice

With regard to teaching practice, respondents from most of the universities made specific reference to what they considered to be two clear gaps in their preparation, namely, the inadequacy of their training in and exposure to administrative tasks, on the one hand, and to classroom management techniques, on the other. Given these gaps, several would change their BEd programmes to include more time spent on teaching practice in schools and especially more practice in relation to these two aspects: 'Practicals didn't simulate real life enough: you don't realise as a student teacher that you will have so much admin work to do until you are actually at the school teaching'.

Respondents from the same institution did not always agree on the extent of the gaps, however: where one felt that she needed more training with regard to classroom management and discipline, another disagreed, saying that she had been taught how to respond to aggressive learners.

Some graduates likened the difference between the 'theory' they received at university (including their teaching practice experiences) and what they actually needed to do once they were appointed to a school as 'the difference between Coke and Coke Light':

'During our teaching practice sessions, we didn't feel the pressure. Mainly, we stressed about crit [formal assessment] lessons. The teachers really gave us everything [but] we should have had total control of all admin responsibilities. The first year of teaching was quite a shock because the stress was much more than on teaching practice'.

Respondents also suggested increasing the number of days allocated to teaching practice as well as introducing formal teaching practice assessments right from the start, in first year (and not only in the fourth year, which is what some experienced), while others called for clearer and more detailed indications of what students need to do to improve (more than just a bland percentage mark) and for an improvement in the quality and consistency of supervising lecturers and mentor teachers.

Some graduates stated that while they had been given many useful opportunities to engage in micro-teaching, they would have liked to have taken those lessons into school classrooms and repeated them with actual children to see whether they were pitching the lessons at the right level. One also found that the school principal expected her to have mastered and be able to rigorously apply certain technical skills, like writing on a chalkboard, although she had not been taught these skills during her studies; another NQT from the same institution, however, said that her principal had given her the freedom to teach in whatever way she wanted.

Other NQTs commented on an apparent lack of coordination between their universities and the schools to which they were assigned to practice their teaching. Their teaching practice lecturers/supervisors expected them to follow fixed lesson plans, with little flexibility allowed; but this requirement often clashed with schools' procedures and expectations of students. Two complained that the schools to which they were sent had not been informed that students would be arriving; moreover, some schools, close at hand and with existing relationships with the university, were seldom utilised, while the use of other, more distant schools increased students' travel costs and travel time.

Two graduates from one institution felt that they were not given sufficient opportunities to practice their teaching in schools (including, apparently, little if any formal teaching practice for Level 4 (or final year) students in 2013); and that some supervising lecturers seldom observed them teaching an entire lesson or provided constructive criticism. As a result, 'We didn't learn from the lecturers, but we learnt from the school environment'.

Most of the focus group participants who studied via distance education complained about a lack of support while on teaching practice: one had seen a tutor or supervisor only twice in four years of study; two saw a tutor just once in that time; and two never saw a tutor at all. Nevertheless, three of these graduates who had gone through school-based learnership programmes found those programmes to be very helpful in situating their coursework learning in the context of the classroom.

Applicability of university studies to classroom teaching

Many focus group respondents indicated a desire for certain aspects of what they had learnt at university to be more directly applicable to classroom teaching situations. Some stated that while they had learnt about children with different special needs, they had not learnt how to take account of these needs in a context of whole class teaching; and while the idea of Bloom's taxonomy was touched on theoretically in an English module, students were not able to practise setting a test embodying its principles. Three graduates from the same institution felt that their degrees had been too light in both subject content knowledge and teaching strategies – indeed, one felt that she had such 'shallow knowledge' of her subjects that 'if I'm teaching Maths I only know what learners know, [which is] a problem'.

Several respondents felt that some subjects (particularly Afrikaans, History, and English) were not taught in a way which was sufficiently specific to teaching and had too much content and not enough classroom-focused methodology or pedagogy. Some Afrikaans language modules in particular were said not to prepare student-teachers to teach first additional language learners. Furthermore, some modules (such as Business Management) assessed student-teachers only through multiple choice, providing them little opportunity to apply their knowledge related to context. Most (but not all) respondents from a particular institution also felt there was little engagement with national curricula, including the Curriculum and Assessment Policy Statements (CAPS), with half saying that they had had no training with regard to long-term lesson planning.

Other respondents would have liked their modules to be more practical and specialisation-focused, while one currently teaching in a special school believed that although she learnt enough during her IP qualification 'to help' these learners, the BEd could devote an entire year to ways of teaching learners with special needs.

Nevertheless, three graduates who had specialised in Mathematics at the same institution were confident that they had the content knowledge and methodology needed to teach their present classes. All three had been mentored during at least one year of their teaching practice by a Mathematics specialist who was also their Mathematics lecturer.

Quality and quantity of university coursework

Individuals within all focus groups expressed concerns about the quality and demeanour of lecturers and lecturing at their respective institutions and labelled some modules (and in one

case, even the entire fourth year) as unnecessary or 'a waste of time'. One NQT felt a need for more content knowledge (i.e. four rather than three years of study) in their second teaching subject or sub-major, although she and her fellow graduates from that institution also felt that they had been expected to do too much in some modules, particularly in their first year. A graduate from a different institution felt that they had not been taught enough about the teaching of English literature; by contrast, some graduates from a third institution stated that they had read a great deal of literature during their English modules, but had not spent enough time on language and grammar; and still others felt that they should have but did not study any Mathematics in the first year of their degree.

Individual respondents from all institutions were often scathing about the quality of (some of) the lecturing. Some respondents found some lecturers to be discourteous and disorganised, adding that the institution tended to admit large numbers of student-teachers (with over 800 students said to be specialising in English and Life Orientation alone), but could not seat them properly in available venues, and that lecturers' teaching and feedback and students' opportunities to engage and practice were consequently limited. Respondents called for better admissions policies and practices, including 'interviews with prospective students to check whether they should be teachers at all'.

Other graduates echoed these views, referring to some lecturers as 'harsh', 'rude', 'discouraging', and tending to treat students like schoolchildren, with 'personality clashes' between individual students and lecturers mentioned in the case of three institutions. All of the graduates from one particular institution griped about the apparent absence of supervision while they were on teaching practice. At all five of the institutions, however, at least one if not more teacher educators were lauded for their commitment, openness, assistance, and knowledge (even if, in one case, the outstanding quality of one lecturer's teaching meant that other lecturers were deemed poor by comparison).

Other aspects that NQTs would change

Some respondents raised certification issues, such as a mismatch between having formally qualified as a 'primary school' teacher (and thus being ineligible for an FET Mathematics post) and nevertheless possessing the requisite knowledge in that the respondent had studied four years of pure Mathematics (i.e. Mathematics 1-4) rather than the three-year 'Concepts and Literacy in Mathematics' module. Another issue graduates pointed out was that despite their certificates indicating that they could teach a particular first additional language, they could do little more than exchange basic greetings in that language and this, in turn, had misled schools which had assumed that their certification signified full teaching competence.

Graduates from two institutions called for more and more visible relevance and coherence in the BEd programmes they had completed. Those from the one institution felt that modules needed to pay more attention to the demographics, locations, resources, and social and cultural contexts of the schools in which their graduates are likely to teach; these respondents also wanted students to be provided with a clear overall coursework plan (and hence knowledge of the 'big picture') and for there to be greater integration between modules and across the degree as a whole. Those from the other institution agreed: 'We didn't really see the connections between courses within our degree'.

Aspects of BEd programmes that NQTs would *not* change

Across all institutions, the teaching of content knowledge was said to be generally adequate, even though the quality of the lecturing was said to have varied widely. At one institution, for instance, the physical education and educational theory modules were considered good, and the inclusive education modules particularly so. One respondent considered the theoretical content of a module on teacher identity to be irrelevant, but another found it useful.

Respondents from several institutions emphasised the importance of being exposed to actual schools and going on teaching practice from their very first year, in that doing this would provide all students with an opportunity to judge whether they were suited to a teaching career.

All NQTs from one institution commended their programme's compulsory modules, also making special mention of the Mathematics and English content knowledge modules, and of the Mathematics methods modules (the last deemed useful even by those not majoring in it). Graduates from other institutions enjoyed the classroom pedagogy, assessment, computer literacy, inclusive education and education law modules. One group of graduates found the study guides supplied by their institution to be very good, particularly the guide which focused on how children learn.

For one NQT the English modules were good largely because they were offered by lecturers from a Faculty other than the Faculty of Education. A fellow graduate felt that despite and even because of what she saw as the overall poor quality of teacher education at that institution, 'I learnt to be an independent learner, to stand on my own feet'.

4.10.2 Reflections on Mathematics teaching and learning

Approaches to teaching Mathematics

Practical, problem-based approaches to teaching Mathematics seemed to predominate across most of the institutions at which these NQTs had studied, even though few of the focus groups agreed amongst themselves on any single label that might be given to how they were encouraged to teach the subject. In part, perhaps, this was because certain respondents were taught that since different learners think and learn in different ways, a range of different approaches needed to be used so that different learning styles could be accommodated. When prompted, respondents from one institution recognised terms for approaches like 'problem-based' and 'constructivist', but didn't see any one of these as standing out above the others; instead, several described the overall approach within their Mathematics programme as 'balanced'. Only one of another institution's graduates was able to name an overall approach to teaching Mathematics, also identifying it as 'problem-based'.

A respondent in another focus group used the term 'learner-centred': 'Learners', they explained, 'must be active participants in finding, working out, justifying and giving reasons for answers to problems'. This Mathematics approach was described by another respondent from the same institution as 'problem-based': 'It was normally a case study, and then you had to work out the answer'. Two respondents from a different institution said that they had disliked their Mathematics course, being 'allergic to the lecturer'; neither was currently teaching Mathematics.

Another institution's focus group did not suggest any label, with respondents instead saying that they were taught to 'motivate learners not just to do one method; we needed to work

around different procedures, so that if children used a different method, we wouldn't mark it wrong if the mathematical reasoning was correct'.

Similarly, a graduate from a different group indicated that learners could choose methods that worked best for themselves and would be marked according to the steps they followed, 'even if the answer is wrong'.

The Mathematics approaches at the fifth institution were described as practical, concrete, and varied; as applicable to classroom contexts; as identifying and diagnosing possible learner questions, misconceptions, knowledge gaps, and problems in advance; and as constantly testing the work done.

Individual respondents from two institutions' focus groups mentioned being taught to use pictures and objects to 'bring abstract concepts to life'; to 'start with basics and the concrete'; and to encourage learners first to play with numbers before concepts are introduced.

The Mathematics modules at one institution were criticised by most of that institution's graduates for not focusing sufficiently on the methodology of teaching Mathematics or on preparing students to apply what they had learnt in a classroom situation. On the other hand, respondents from a different institution stated how useful it had been that their Mathematics specialisation module had gone 'through each and every part of CAPS, in detail: the common problems in understanding each section, how to address these problems, the general mistakes children make and why they make these mistakes'.

Challenges in teaching Mathematics

Participants were asked how these approaches were working out for them, and also what the main challenges they were facing in teaching Mathematics were. The general impression they gave was that the approaches were not working out quite as expected, and also that the main reasons for this were less about Mathematics as such and had more to do with broader school, curriculum, and learner contexts. (A few NQTs did, however, refer to specific areas of Mathematics they found a challenge to teach, such as multiplication (including finding it difficult to insist that learners practise their times-tables), long division, word problems – attributed to many learners' poor English language proficiency – and algebra in general).

Time and curriculum challenges

According to three graduates who had specialised in Mathematics, the 'learner-centred' and 'problem-based' approaches require a lot of time and are difficult to properly implement in the context of a packed CAPS Mathematics curriculum and the associated heavy administrative load. One of these graduates reported having been able to base lessons on 'constructivism', but that it was too time consuming. Another added: 'The Department requires that you cover a range of methods/approaches to problem solving, but there is too little time. The learners are slow, and to cover all the CAPS content is highly pressurised'.

To keep up with the syllabus, according to these and other respondents, teachers were said to be constantly moving on, even though some learners had not yet mastered everything; in turn, this meant that teachers in subsequent grades often have to try to teach what should already have been learnt.

Curriculum-related time constraints, compounded by the need to conduct Annual National Assessments (ANAs), and exacerbated by the slowness of some learners to grasp concepts were mentioned repeatedly by several respondents, who often placed more emphasis on learner understanding than on curriculum coverage. For example:

‘Time constraints are a major factor, yet what is more important is that the learners need to grasp the concept. It is important for the learner to know and apply what they have learned because application is a skill’.

In view of this, said one respondent, ‘teachers [should] make sure that the learners can apply what they have been taught; it is not useful to rush through the curriculum while learners don’t understand and they can’t apply that knowledge’.

Some respondents argued that too often the current emphasis on school performance, and especially on improving learner results, is such that school managers place teachers under so much pressure to complete the curriculum and assess learners that teachers ‘teach on the surface only’, without all learners fully grasping what was taught.

Four participants said that the requirement to complete the CAPS curriculum for each year prevented them from planning lessons that differentiated strong from weak learners. One commented: ‘Learners come with so many gaps it does not matter what method you use as you can’t build. There is no time to consolidate so when do you fill gaps?’

Learner-related challenges

Apart from the difficulties being experienced in bringing weak or slow learners up to speed (with several NQTs candidly admitting that they did not know how to deal with children ‘who need remediation – those kids who are struggling’), learners’ attitudes towards Mathematics and towards schooling more generally were further obstacles faced by some NQTs in teaching the subject. Individual participants from across most focus groups noted that some learners are disruptive, others struggle to concentrate or ‘don’t even try because they are scared of making mistakes’; sometimes they ‘just sit there. And then they don’t do homework either’.

One graduate found it difficult to even identify what specific Mathematics problems her learners were having, because ‘my children don’t know how to speak. They are scared. You ask them ‘what is the reason’, but children don’t answer. I don’t know where the problem lies’.

Her colleague offered an answer to her question: ‘[The problem is] language. You can’t do it if they don’t have the vocabulary. Vocabulary needs to be given so I have to use rote’.

Said another respondent:

‘I wish [our university’s] programme had prepared us well enough to address discipline with troubled children. We received knowledge on what could help, but it was not enough practically for us to be able to apply it to real circumstances. We got the theory yet not the practice Each learner is an individual and behaves differently’.

Large class sizes added to the difficulties: ‘I’ve got 66 learners in Grade 1’. It was also a challenge, added several participants, to shift learner attitudes that ‘Maths is hard’.

School-related challenges

Some graduates said they found it difficult to implement their BEd programmes' emphasis on utilising different procedures and accommodating different learning styles, mainly because their schools used just one preferred, tried-and-tested approach – 'you are going to confuse children if you try to use different approaches together' – and insisted that new teachers conform to this.

Also mentioned as part of the broader school contexts in which participants found themselves teaching was the manner in which the school management decided who would be teaching which subjects and the politics around who gets given preference, the resolution of neither of which cases favoured the newer, younger, less experienced members of staff. One NQT had been 'looking forward to using my [first year's worth of] experience to improve the way I taught Maths to Grade 6', but 'the school said you're a primary school teacher and must be able to teach all subjects' and allocated this teacher to Social Science and Creative Arts instead.

Resource challenges

Another concern was the lack of teaching resources and technologies in a number of schools, resources which some NQTs considered essential in order to 'illustrate abstract concepts'. Some respondents were firm advocates of 'paperless schooling', suggesting that technology can make content more accessible and classroom management easier: 'you don't have to flip through textbooks or turn your back to write on the chalkboard giving learners a chance to make a noise'. One NQT managed to procure five tablets for her classroom, enthralling the learners, but others found that the availability of games on the tablets distracted their learners from Mathematics. While many schools in South Africa lack such basic facilities – like water and electricity – that having audiovisual aids, whiteboards, tablets, and other technologies would be comparatively low on their list of priorities, most of these NQTs were focusing, understandably, solely on their particular contexts. The respondent who had managed to scrounge up a few tablets said that

'The main challenge I am facing now is a lack of resources at school. I would have to teach about 2D [two-dimensional] and 3D [three-dimensional] objects and find that I don't have anything to show them. It is important for learners to observe what you are teaching about in order for them to understand and remember'.

This respondent said she was not expecting this particular challenge. In fact, having specialised in isiZulu and Life Orientation, she was not even expecting to be teaching Mathematics.

Unexpected challenges

While most of the challenges discussed above appeared to have been unexpected to some degree, some seemed more unexpected than others, including the degree to which some school management decisions (particularly those related to appointments and workloads) seemed (in these NQTs' opinions) to favour vested interests, foster inequalities between teachers based on gender, race, age or even the institution where one had studied, or were just poorly thought through. Other unexpected challenges included having to deal with fellow teachers and with parents. One felt that teachers already at a school 'expect us to come as new educators with solutions to the problems'; another was of the opinion that some current teachers felt threatened by new teachers' enthusiasm and up-to-date knowledge and would try to put them down. The retort from some NQTs was for the older teachers to 'get with the programme'.

One graduate said she 'knew parents would be a challenge, [but] some parents are really difficult'. According to one of her peers, 'parents preach rights to their children, yet they don't explain to their children that rights come with responsibilities'. For another NQT, 'parents [in my school] pay a lot of money – and expect us to bring up their kids'.

While one said that she was expecting the kinds of challenges she's facing 'but did not expect so many to struggle', another 'thought it [teaching in general, and Mathematics teaching in particular] would be easier than it is. [During teaching practice] we didn't have to take [full] control of the learning process'. Managing the learning process includes identifying and acting appropriately to develop or address learners' varying abilities and levels of competence and it was this large range of learner abilities that several other participants said they had not expected.

Preparedness to meet challenges

Despite the general unexpectedness of most of the challenges these new teachers were facing, most focus groups felt that their ITE programmes had adequately prepared them to address the challenges. This applied as much to one institution whose graduates were generally confident in their knowledge of different teaching methods as to another institution whose graduates spoke of being proactive and developing coping strategies (notwithstanding certain differences between what they had been taught at university and what was required in the schools or by CAPS), as well as to graduates from a third institution who considered themselves adaptable and able to adjust to vastly varying aptitudes amongst learners, not to mention the whims of school management. Graduates from one particular institution, however, were not very positive about their ITE programme, stating that it had not prepared them for the range of classroom contexts in which they found themselves. (A respondent from the fifth institution, although not teaching Mathematics at the time, confidently asserted 'I could teach it', but a colleague from the same institution, also not teaching Mathematics, confided 'I could never teach it').

However, the participants' tendency to respond with greater reference to the broader context than to subject specifics was still apparent. When one graduate highlighted a strength of Mathematics training at her institution, namely that

'the course gave us tools for working things out at different levels. So we have the flexibility that enables us to adjust to different levels and different grades',

a fellow graduate qualified this by adding:

'The course can train us to teach Maths, but no course can train us to cope with poor school management and the problems we experience with the way schools are run In a good environment we'd be thriving as Maths teachers'.

Despite the challenges posed by a lack of teaching resources, some respondents felt sufficiently prepared by their programmes to learn to teach in another way. Said one, who had completed a voluntary practical at a rural school in a different province from where their university was located: 'all we had was a roof and a chalkboard and that taught me that resources should not limit you to teach children the information they need to know'.

Finally, asked whether in teaching Mathematics they had encountered any problems that they had felt completely unprepared to address, focus group participants largely repeated what they had said before with regard to challenges both expected and unexpected, such as those related to weak and unmotivated learners, curriculum and time constraints, school decision-making, and intrusive parents.

4.10.3 Reflections on English teaching and learning

Approaches to teaching English

All except two focus groups indicated that their institution utilised either a communicative approach and/or a text-based approach to teaching English. Two institutions were said to teach both of these approaches.

Graduates from one institution said that they had not focused much on English language, while a respondent from another institution suggested that more importance was placed on 'using groups as a way of teaching'.

A third institution's graduates said that in their English modules a great deal of emphasis had been placed on literature and thus had required a lot of reading (including books for children and young adults). These modules were faulted by some for failing to teach students how to teach reading and for not focusing sufficiently on problems to be expected in an actual classroom, particularly with learners at different levels of proficiency. By contrast, students at a fourth institution were said to be taught both 'to read and analyse the reading such as a novel' (in an English content knowledge module) and to 'teach learners how to read the novel' (in an English methodology module).

Challenges in teaching English

As much as many of the participants tended to focus on broad contextual rather than subject-specific challenges affecting their Mathematics teaching (see above), so too did they say relatively little about subject-specific English teaching challenges per se. This applies both to the teaching of English as a subject and to teaching other subjects through English (or using English as the LoLT). As they did for Mathematics, respondents regularly made mention of school, curriculum, and learner issues, but the sheer communicative mismatch between most learners' home languages and the need for them to be taught and taught through a first additional language, namely English, was what many NQTs saw as their – and, indeed, the education system's – greatest challenge.

Language competence

Respondents from several institutions felt, as one of them expressed it, that 'language is a huge problem'. Many learners 'struggle with answering comprehension questions because they don't have good basic English understanding and learning'. One graduate currently teaches English as a first additional language at a school in a deep rural area where, she said, learners 'never speak English outside the school' and were also taught all their other subjects in isiZulu: 'Learners have no competence in English, they cannot speak or read or construct a basic sentence in English'. Another respondent found not only that 'many children don't like to read', but they appeared to like reading in a first additional language even less: 'They are scared and they don't want to try, and don't practice English at home'. (Dictionary work, although time-consuming, was the solution proposed by a fellow NQT).

Furthermore, the change to English as medium of instruction in Grade 4 was considered to be very difficult for learners, not least because 'there aren't enough [first additional] language [teachers]', and teaching learners at home language level was a major challenge: 'Last year we taught from a [first additional] language textbook from the DBE, and this year we went to a home language; the learners were shocked and asking why it is so advanced'.

Some (African) learners' language difficulties were said to be even worse in Afrikaans, 'because most of the kids have no experience with Afrikaans and they can't do a single thing in Afrikaans and they fail'. Afrikaans-speaking learners, on the other hand, were often in the same boat when it comes to learning English: 'a lot of the learners I teach are Afrikaans-speaking' and in English class they 'look at me like I am teaching an alien language'.

One graduate who was teaching in a rural school had 'to translate between Setswana and English' and 'read a text through twice with learners, but they still don't understand'. While code-switching would appear to be commonplace, there seemed to be differing views about its value and role in learning: on the one hand, two NQTs felt that they were 'forced' to code-switch all the time because their learners struggle with English; on the other hand, there were five respondents who considered code-switching to be both routine and accepted by schools. A third view, from another graduate, cautioned that code-switching itself can lead to miscommunication.

Time and curriculum challenges

Curriculum-related time and workload issues seem as common in the teaching of English as they were said to be in relation to Mathematics:

'We struggle with the workload. We are required to do ten formal tasks per term [which leaves] no space in the two week cycle for assessment, lesson preparation and preparation of resources'.

Two participants who reported that they were applying both a communicative and a text-based approach in their schools also found that there was insufficient time to cover the English curriculum:

'a key struggle is with the scope of the curriculum. CAPS is very extensive [and] there is not enough time to focus on each of the four components'.

'Keeping up with the curriculum 'is especially difficult when classes are overloaded, like 50+ learners in a class'.

One NQT said that while she was using a text-based approach to promote language development as a whole, this was not always feasible because

'CAPS wants us to teach one language skill (e.g. reading/writing) separately. The Department workbook doesn't allow us to do everything all together – we are required to ensure that children complete four entries per week in the Department workbook, so we can't always use a text-based approach'.

Apart from these issues, CAPS and the ANAs drew other intermittent criticisms and varied interpretations. 'CAPS is a nice programme yet it does not accommodate everyone ...

Monitoring should be done to make sure the program is implemented as it should', suggested one participant, while another interpreted CAPS as saying 'pass one, pass all. A learner cannot fail a phase more than once, [and they] know they will be condoned'. The fact that 'ANA comes in English' compounded the difficulties of learners who 'don't understand a single word' of the instructions.

Resource and learner-related challenges

A lack of resources and learner ill-discipline were mentioned, but on comparatively fewer occasions than in relation to Mathematics. One graduate who had trained as an English specialist was faced with 'no readers, no story books, no posters, no school library and no ICT'. Yet even in some better resourced independent schools, the learners were held to struggle with written English.

Despite one of the institutions having been said to encourage use of the communicative approach, both respondents from this institution said that they were using a text-based approach in their teaching, which was useful to the extent that one could generate vocabulary, questions, and grammar from a single text; however, in some cases, learners who lack prior knowledge of parts of speech cannot identify them in a text.

Another graduate who teaches English as first additional language had boys aged 18 to 20 years old in her Grade 8 and 9 classes: 'They are very disruptive, they beat other learners, they don't want to learn'. Their mothers complain to her that she is not supporting their children, to which she responds that their children 'do not respect me as a teacher'. The boys accept whatever punishment is meted out, apparently because 'they just know they will be condoned [i.e. pushed through into the next phase, because policy does not permit them to fail a phase more than once]'.

Unexpected challenges

On the whole, it appears that participants had been anticipating the nature, if not the extent, of the challenges they indicated they were facing. One graduate said: 'I was expecting these challenges, did my practicals in rural schools, but didn't think it would be so bad'. Another felt her experiences during teaching practice had sensitised her to the challenges, while a graduate from the same institution felt that the time spent on teaching practice had been too short for her to become aware of the actual problems:

'My perception [during teaching practice] was that if learners responded to me in my lessons, they were learning; [and] in the first month and a half after I began teaching they [also] responded ..., but [then] they failed the exam and I was shocked'.

The graduates from one particular institution were not shocked. 'I expected the challenges, I am from the rural areas', said the one, adding that at school she had been taught all her subjects in isiZulu and couldn't speak (but could read and write) English when she matriculated. The other had been taught all her school subjects in English, but had had no English teacher.

Preparedness to meet challenges

Asked about the extent to which their ITE programmes had prepared them to address the English teaching and learning challenges they were encountering and which they seem largely to have expected (in contrast to their generally unanticipated Mathematics-related challenges), most focus groups felt unprepared by their university studies.

'They [i.e. the English modules] didn't help much', was the opinion of one participant, qualifying her statement to refer especially to her knowledge of and confidence to teach English language or grammar, as opposed to English literature in which she felt 'very confident'. She added: 'Lecturers should be exposed to these situations we are teaching in'.

Another group of participants was even more critical, being unanimous in their view that their English modules had not prepared them at all for the challenges of teaching across the curriculum in English (as LoLT) or for supporting learners who are weak or struggling.

Similar concerns were expressed by other focus groups in which the general opinion was that their university studies had not adequately prepared them to teach English in the schools in which they found themselves. Some participants from one institution noted that while they had been taught ways of helping learners who struggle to read, such remedial 'intervention plans' were time-consuming and also difficult to implement with large class sizes. Another added that the Afrikaans modules, too, had left them equally unprepared to teach that language.

Some of the NQTs seemed more unprepared for the strain and extra preparatory work required when 'expected to teach subjects [or phases] we didn't major in' and when confronted with weak or underprepared learners than for teaching the subject of English as such: one graduate said that having been assigned to teach a Grade 7 class after previously teaching Grade 6 led to the realisation that

'some Grade 6 concepts have not been covered. You can't start with Grade 7 concepts until the Grade 6 concepts are covered and that is time consuming. Our programme did not prepare us for these challenges'.

Another graduate from the same institution offered this broad summation of the matter:

'The South African education system does not know where it is standing at the moment because of language, because we are trying to accommodate everyone and it is not working. It seems like no one is taking accountability when it comes to language challenges'.

In contrast to many respondents, however, the two graduates from another institution considered themselves adequately prepared by their studies and seemed the least surprised by the challenges they were encountering. 'Yes, the programme prepared us', said one, referring in part to the specific challenges she had noted in response to a previous question (namely, overaged and undisciplined learners at her school), but also making explicit reference to the university's English modules which had taught her 'how to develop vocabulary [and] to pronounce words properly, so the learners can understand the words'. Her fellow graduate, whose learners 'cannot speak or read English', added that

'the best way to teach grammar is to construct sentences, and write them on a strip of paper. Then cut up the sentence into different words, and get learners to put the words into proper sentences'.

This technique, plus the use of audiovisual and other technologies, is what her learners enjoy and from which they learn.

Finally, asked which challenges about teaching English they had felt completely unprepared to address, focus group participants emphasised one challenge above all others: how to teach so many learners who have so little, if any, grasp or prior learning of English.

This challenge was echoed in various ways across the focus groups: 'how to teach learners who don't understand English at all'; 'how to teach learners to read'; and 'how to teach Grade 6 and 7 learners who simply do not know how to read or write'.

'They didn't tell me that I would find a learner in Grade 12 who cannot read', said one graduate. 'With a syllabus to finish, I have no time to help the learner to read from scratch. There is nothing much I can do for them'.

For the other graduate from the same institution, 'at least half' of whose grade can read, 'the problem comes with writing – learners can't distinguish between 'sad' and 'said'; however, the problem went beyond that: learners also lacked motivation: 'They don't want to read or write in class. They tell me that they will be condoned. They don't care to learn'. A respondent who does group reading found that 'those who can't read don't ask for help; they just sit and be quiet'.

The extent of what could be called these NQTs' unreadiness to teach English reading (or writing or speaking) – which is eclipsed by the extent and depth of learner unreadiness to learn (all subjects, not just English), notwithstanding their prior exposure to and nominal progress through several years of schooling – is reflected in a comment by a respondent who despaired of teaching her learners to read: 'Many of the learners in my class need to go to a special school – they should really turn my school into a special school'.

A group of participants from one institution indicated that they were unprepared to deal with the remediation that such learners need and blamed poor teaching in the FP as the key cause of many of their learners being underprepared. The majority of another institution's graduates concurred, adding that they did not know and had not been taught how to teach writing. Also, although they had been taught things like Bloom's taxonomy, they did not know how to apply it in practice.

Although clearly fighting an uphill battle against learners' severely limited English competencies, these new teachers were not standing idly by, but were looking for and trying out different strategies and potential solutions. Code-switching, as mentioned above, seems to be commonly used. Some NQTs were using a 'buddy system' or allowing some learners to explain to others; another graduate developed a reading programme; a third did group reading; a fourth brought magazines to school; a fifth bought books out of her own pocket; a sixth was 'trying to start with knowing the alphabet and making words'; and a seventh 'called a teacher and parent meeting to ask that learners start speaking English at home'. It may be too soon for them to tell if their efforts are meeting with any success, but – leaving aside their professed lack of preparedness, not to mention the systemic nature of the problem – these NQTs could be given more assistance than the one who 'tried to discuss the matter with my HoD, but got no support at all'.

4.11 Perceptions and experiences of teaching contexts

This section analyses participants' responses in individual interviews with regard to whether and how working in a school environment has matched their expectations and their experiences

of their schools, including their schools' learners, teachers, and school managers. The section draws substantially on a previous ITERP report which synthesised all the interviews into a single document (Deacon, 2015d).

Specifically, the NQTs were asked about:

- Their conceptions of an 'ideal' teacher, and whether they had found it possible to realise this ideal in their teaching context;
- Which aspects of their university coursework they found especially important or useful in their teaching;
- What skills, knowledge, and/or procedures they had learnt on the job, and how or from whom they learnt them;
- Whether anything about working in a school environment was surprising or unexpected, and whether their expectations about working in a school environment were realised;
- What surprised them the most about learners since they started teaching, and whether their expectations about learners were realised;
- What surprised them about the work teachers do;
- Whether they found themselves doing anything they were not expecting to do;
- Whether anything was more difficult/easier than they had imagined it would be;
- What they considered to be the strengths of their teaching, and whether there was something they knew they should be doing in their classroom practice, but weren't (yet) managing to do;
- Whether there was anything problematic with the way things were at their schools; and, if so, whether and to whom they had voiced their concerns and , with what response; or if not, what prevented them from doing so; and
- What they would change or build on about the way teaching and learning in their schools was managed or organised; whether they had made these suggestions; and, if so, to whom and with what response; or if not, what prevented them from doing so.

4.11.1 Imagining the 'ideal' teacher

Characteristics of the 'ideal' teacher

Asked to describe how they imagined an 'ideal' teacher, over two-thirds (21) of the interviewees mentioned 'knowledge'. This included references to subject content knowledge as well as to general knowledge and to being knowledgeable, learned, or well-studied; and, within this, participants appeared to favour (roughly in a 2:1 ratio) a view of knowledge as something which the teacher largely possessed and dispensed to others, as opposed to a view of knowledge as something more widely distributed and which the teacher facilitated, shared, and bridged among and between learners.

However, while either 'possessing' or 'facilitating' knowledge was the teacher characteristic agreed upon by the majority, for some individuals knowledge was not necessarily the most important characteristic. In this vein, some suggested instead that teaching is about 'instilling a way of life and values. It's not just all about knowledge', or 'The ideal teacher is not about teaching of knowledge, but about being there for the child emotionally' – and some interviewees did not mention knowledge at all.

The teacher as a role model, someone for learners to look up to and be inspired by, was mentioned by a third of participants, while almost as many (8) emphasised that the ideal teacher is organised, structured and planned, with good time management.

Other features of the ideal teacher mentioned by multiple participants were care (including being considerate, supportive, ethical, fair, and attending to learners' well-being) (8 NQTs) and respect (particularly the idea that if the teacher respects learners, they will respect the teacher) (4). Being passionate about teaching, learning or children was referenced by five, and being energetic or exciting was mentioned by another three. Finally, five respondents referred to teaching as a profession or to the teacher as a professional.

Approximating the ideal teacher

Most – two-thirds (21) – of the participants felt that it was at least somewhat possible to be or to approximate their ideal teacher in their particular teaching context. One, for instance, felt that she was living up to her ideal in some areas (such as classroom organisation), but not others (the strain of marking); another, in the face of learner disrespect, was trying to provide a positive, safe, and encouraging learning environment; a third refused to be deterred by challenges such as the rigidities of school management or some learners' miserable socio-economic circumstances; and a fourth thought that she could be like her ideal, but had to first overcome pressure from disbelieving colleagues.

Four NQTs felt that they were in a position to fully realise what they understood to be an ideal teacher, with two of them attributing it directly to their BEd training together with, in the case of the one, her own personality and, in the case of the other, the support, workshops and weekly meetings arranged under the auspices of a particular bursary programme. Elaborating further, the first of the two reported resisting standardised patterns like fixed seating arrangements for learners and permitting 'good [or productive] noise' instead of insisting on silence.

Finally, five NQTs thought that it was not at all possible to be like their ideal teacher in their context, which included, for some, large class sizes, overly prescriptive curricula (referring to CAPS), school micromanagement, unhelpful colleagues, and having to teach subjects or in phases for which they had not been trained.

4.11.2 Theory and practice

Appraising university coursework

For slightly under half (13) of the participants, the most important or useful aspects of their university coursework were modules on inclusive education and, more generally, educational psychology (including how children think, learn, and develop and how to identify and address barriers to learning).

One NQT, however, who had completed a learnership at a school while studying through a distance education provider, distinguished between the inclusive education modules and the educational psychology modules, deploring the quality of the latter because 'the course was poorly run – you only got feedback for assignments after you had written exams, when it was already too late'.

Several (8) mentioned a particular subject content module – making specific mention of English, Mathematics, Technology, Geography, and Physical Education – which they had enjoyed or that a lecturer had taught well, while some (6) also referred to the usefulness of subject method modules.

Three mentioned the importance of educational theory, while only two referred explicitly to learning about the national curriculum or CAPS.

While the aspect of teaching practice was not explicitly raised by interviewees, three respondents felt that this had been at least as, if not more, important than any of the university coursework, adding, however, that more support and feedback could be provided by both lecturers and teachers to students while in the schools.

On the down side, one NQT who had graduated from a university where several hundred students are routinely taught in the same hall at the same time said that she 'didn't gain that much from lectures' –, but did gain the 'confidence to stand on your own, to take responsibility to manage your work'.

Other participants commented that some of the teaching strategies that they were taught were too idealistic for real classrooms or didn't work with large classes (in Mathematics, for instance, constructivism was deemed too time consuming) (3 NQTs); that some aspects of their studies had involved too much theory and not enough practical application (3); that they had received little guidance with regard to administrative tasks or how to deal with parents (1); and that trying to do reflection after teaching seven subjects was simply overwhelming (1).

Learning on the job

Two areas in particular stand out from amongst the various skills, knowledge, and procedures that these NQTs indicated they had to learn during their first year of teaching in a school: administration and classroom management. Twelve respondents stated that they had been partly or completely unprepared for the various kinds and quantities of administrative tasks that they as teachers were required to undertake. These included preparing and taking registers, creating and maintaining a whole range of files, managing the distribution of learning and teaching support materials (LTSMs), developing and utilising various assessment rubrics, diagnostics and moderations, writing reports, and completing forms for the Integrated Quality Management System (IQMS) and various others required either by the school or by the province as well as entering data into the Central Education Management System (CEMIS) and the South African School Administration and Management System (SA-SAMS).

One NQT found that the lesson plans that she had been taught to use when at university did not correspond to those being used by the province. Two others came to realise that their administrative load increased proportionately to their marking load, given the need to capture and disseminate marks in various formats.

The second area in which almost half (13) of NQTs felt underprepared was classroom management and discipline: 'What do you do when you walk into school and there is no discipline system?', said one. 'Classroom management? – my university failed us on that', said another. 'We had had one or two classes on discipline at university [and] a set of notes from lecturers on disciplinary techniques used in overseas schools ..., but every school is different'.

Occasionally, NQTs encountered learners who were relatively well-behaved. More often than not, however, learners were found to be from disadvantaged socio-economic and family backgrounds, receiving little care or respect at home or school and giving little in return, prompting some NQTs to develop their own discipline rules.

‘The universities teach different philosophies, some schools want you to be more a guiding force, but ... I needed to be a force of nature in the classroom’.

For another NQT,

‘I got a bit of classroom management and planning from the university programme, but I wasn’t taught how to handle my emotions. There have been times when I became angry and didn’t know how to handle it, yet at that point you need to pull yourself together [because] learners are looking at you and learning from you’.

Other areas in which individual NQTs learnt on the job included having to undertake additional preparation upon finding themselves teaching a subject or in a phase for which they had not been trained (6 NQTs) or after being appointed to a special needs school (3) or one with multi-grade classes (1).

There were also areas in which new teachers were *either* required or themselves wanted to develop their skills, but had little foundation or support to do so; this was particularly the case when they had not been taught what was required, such as how to teach reading (3) or how to help learners struggling in mathematics (1). Finally, some participants stated that they learnt teamwork and about extramural activities (1) and about dealing with parents (2).

Learning from others

The majority – some two-thirds (21) – of NQTs learnt these new skills or knowledge from other teachers, including HoDs, albeit in only two or three cases from a specifically appointed mentor. Some had help from a sister, husband, or father who is also in the profession (3 NQTs); and one learnt from teachers from other schools while attending workshops and cluster meetings.

Occasionally the new teachers (also) worked some things out on their own or resorted to simple trial and error (6); much less often did they receive assistance from a principal or deputy principal. One response – from the teacher who had learnt how to handle her emotions – stood out from all the rest: while acknowledging and appreciating the strong support she had received from her fellow Grade 6 teachers, she ‘learnt her new skills from the learners before I learnt them from other colleagues. Learners teach you so much’.

4.11.3 Expectations and surprises

The school environment

Asked if they had found anything surprising or unexpected about working in a school environment, about learners or about the work teachers do, the vast majority of interviewees responded in the affirmative. Naturally, they had had expectations about what their first year in teaching would be like. As one put it:

'I expected to go home and plan and go to school and teach and that the kids would enjoy it and I would make a difference in their lives. I knew I could teach and my education gave me the confidence to teach'.

What this NQT had not expected, however, was the 'overwhelming' amount of work she had to do in order to begin to realise these expectations and, in the process, also manage her relationships with colleagues and with parents. The teaching workload, including the amount of administration and the marking load, coupled with the long hours, was what this and thirteen other participants had not anticipated. There was no match, they felt, between being a student teacher (not even when on teaching practice) and the pressures of actually working in a school: 'In TP [Teaching Practice] I prepared nice lessons based on research, but this is no longer possible because there is no time to do this for each subject. It is stressful doing all the admin, exams, and papers', said one.

Several NQTs (9) referred directly or in passing to the limited amount of resources for teaching and learning available at their schools. One had expected that 'the school environment would possess all the resources I would need to carry out my lessons' and 'never thought a school in Gauteng would look like a [poor, inadequately maintained] school situated in the rural areas'. Another mentioned that sometimes resources like sports equipment were available, but not utilised, and two said they put a lot of effort into making their own resources.

For some, the pressure of work was intensified, given that they found themselves teaching completely different subjects to those in which they had specialised, including, in some cases, being required to teach all the subjects in the IP or having to take on additional classes because a teacher had left the school (6 NQTs).

There were several (negative) references to staffroom politics (2 NQTs) and to some principals and school management being so autocratic, rigid, and unsupportive (4) that 'even the unions and the Department of Education can't help you'. Being new and young, one NQT nevertheless objected to being treated by other teachers as, in her words, 'a minor'; another said she is bullied by the older teachers into 'taking their lessons even if it is not my class or teaching period' and into 'marking their work if they are absent'. A third found herself to be the youngest staff member in a school where 'there is no communication between members of the staff. I don't speak to anyone'.

Dealing with parents and parent politics, including parents who phone to speak to them even during class time, was another issue which some (6) of these NQTs had not expected. Two, already in their second or third teaching post, found significant contrasts between the management styles, facilities, and ethos of the different schools at which they had taught. Another two said they had accepted their current posts only in order to gain experience and get better posts later.

Learners

While some NQTS (3) found learners to be well-behaved, respectful, with a good work ethic and a culture of reading and doing their homework, more (10) commented on learners' poor discipline, lack of respect, lack of motivation, low levels of learning, failure to do their homework, and absenteeism.

Several NQTs (7) said they were struck by the range of differences among learners in terms of their personalities, levels of cognitive development, learning styles, and social class, while others (9) expressed concern about the extent to which broken families (including absent or uncaring parents and orphaned children), poverty, hunger, and substance abuse affected learning. These factors in turn added to the pressures of workloads and expectations, not to mention taking an emotional toll: 'There is too much social work and not enough time for teaching'.

Nevertheless, some (5) NQTs were pleasantly surprised to find how bright and creative their learners were and even commenting in one case that learners had 'this belief that they were beyond help, ... if I pushed past that, they realised that they could actually do something'.

For a few (3), the greatest shock was finding out how 'streetwise' learners were, being older than their years (not to mention many being older than the average for their grade); they tended to associate this finding with these learners' disrespect for authority. One NQT mentioned being surprised by learners' maturity regarding issues of sex. Another spoke of the unexpected (to them) difficulties faced by many first additional language learners in relation to the switch to English as medium of instruction in Grade 4.

Teachers

With regard to their fellow teachers, several NQTs expressed a level of disquiet. Their comments included: 'I wasn't expecting for teachers to be so apathetic about the kids, about the kids' progress' (1 NQT); 'I expected there would be more working together for a common goal' and 'was surprised by the varying work ethic of the teachers' (2); 'some teachers didn't seem to care about their teaching' (2), with some teachers deemed to be 'just doing the minimum' (1) or even acting unprofessionally (2). Although most of the participants said they received assistance or support from other teachers when they needed it (see above in relation to learning on the job), there were times when they were told, 'you know more [than me] so ... you don't need [my] support'. In general, purely positive references to their fellow teachers were few and far between, with several NQTs' references to school management being especially negative.

One respondent, who had commented favourably on how disciplined she had found her school and learners, also saw this as a drawback in relation to staff: 'More discipline leads to better learning, but it is not pleasant to work in this environment. Teachers feel like learners in school'.

Finally, a couple of NQTs stated that they were not surprised about and were fully expecting the kind of work they and other teachers had to do, while another two felt that they did more administration than teaching.

4.11.4 Teaching strengths and weaknesses

Teaching strengths

Participants' perceptions of their teaching strengths were extremely varied, with only one area seeming to stand out: an ability to understand or relate to children, to which about a quarter (8 NQTs) subscribed. A few (4) felt that they had a knack for presenting knowledge in interesting and relevant ways or that they were innovative or creative (4); while others conceived of themselves as hard working (2), firm (4), patient (2), motivating (3), self-reliant (2), and/or funny (3).

However, one NQT responded to this question almost as if her workload allowed no time even to teach (in the manner she felt she ought to, i.e. creatively), let alone build on her strengths:

'I think I still need to teach, [like] I taught on teaching practice, where I planned special lessons, and pulled out all the stops., but now all the responsibilities mean that I hardly teach – it's like running a circus. We don't have discussions, we don't have time to read interesting books'.

Another offered a useful corrective to teachers who 'complain about what kids don't know':

'They shouldn't be shocked. What is teaching all about, but teaching kids what they don't know? We have to accept them as they are and try and do something about it.'

Other strengths included lesson preparation (3 NQTs), creating resources (2), and staying calm (2) as well as time management, classroom management, offering one-on-one explanations, being approachable, helping those who struggle, being open minded, having empathy, applying logic and structure, or a communicative personality. Finally, two simply identified their strengths with the subjects they most enjoy teaching (in their case, Mathematics and Economics).

Teaching challenges

In response to the question, 'Is there something that you know you *should* be doing in your classroom practice, but aren't (yet) managing to do?' a single item very slightly stood out from the range of responses, namely, 'including and assisting weaker learners more' (6 NQTs).

Other NQTs made reference to the following things they felt they should be doing, but were not (grouped below into three broad and overlapping categories):

(a) Teaching methodologies and strategies:

- teaching reading, writing, and/or speaking better (2 NQTs);
- implementing group guided reading (1); and
- learning more sign language (1).

(b) Teaching and learning resources and technology:

- using the DBE workbooks (1);
- using graded readers (1);
- using more interactive games and technology (1);
- using documentaries on technology (1);
- using technology more (3); and
- being more practical (i.e. utilising resources better) (1).

(c) Classroom organisation (including time management and curriculum coverage):

- engaging in weekly planning (1);
- having learners implement their morning classroom routines (1);
- providing more individual attention (1);

- knowing all learners' names (1);
- checking homework more (1);
- keeping up with or completing the curriculum (3);
- finishing marking in time (1);
- managing time better (1);
- being more organised (1); and
- being stricter (1).

From the above it appears that these NQTs felt, on average, that they could first of all be better classroom managers and thereafter make better use of teaching and learning resources and technology and more effectively employ strategies to teach reading, writing, and/or speaking.

Problematic areas

While some (7) interviewees found little or nothing problematic about the way things are at their schools – with a couple even going so far as to extol their respective schools, calling one 'the most friendly and inviting school' with 'most helpful, accepting staff' or saying in relation to the other that 'we all work together – we discuss everything' – the majority of participants took advantage of this question to voice a variety of gripes.

The most common of these criticisms, which generally consisted of calls for more consistent, more systematic, and better communicated school management and discipline practices (9 NQTs), could, if valid, be addressed by a school management team or governing body, if not by the DBE. Also falling under this category would be suggestions that school rules be less rigid or that more support or mentoring be provided to new teachers (2 NQTs).

Other issues raised, however, such as those pertaining to limited school resources, the amount of administration, a dysfunctional computer room, or an overemphasis on numeracy and literacy to the detriment of other subjects (5 NQTs), might require longer-term solutions and are not always under the control of the school. The remaining issues ranged from the personal – 'I don't have the knowledge or training to teach a subject I have been assigned to teach' – or the political – 'favouritism and tribalism are huge problems at the school' – through generational grumbles – 'The older teachers are stuck in the dark ages [when it comes to the internet and technology]' – to the minor – 'some teachers don't share their ideas or techniques' – and even the trivial – 'my group work is too noisy for the principal'.

Voicing their concerns

Just over a third of participants (11) indicated that they had voiced their concerns about these problematic areas, generally to their HoDs or their principals. Some had spoken only to another teacher: 'I am too scared to talk to [my HoD]'. Several had done nothing, in part because other teachers also tend to remain silent (1) or because 'it is difficult to tell a seasoned professional what to do' (1), or sometimes 'you just run into trouble' (4). One was 'waiting for the District Official to come'.

To those who had voiced their concerns to someone senior, the most common response was apparently for the latter to 'turn a deaf ear' and do nothing and even in one case to reprimand the new teacher for presuming to 'tell him what to do in his school' (3 NQTs).

In three cases, however, NQTs' concerns were positively addressed: some help was forthcoming from the subject head and the deputy principal for the teacher who was not trained to teach a subject assigned to her; a DBE intervention provided a group of disruptive learners with separate attention; and in the school where there was said to be a lack of communication between management and staff, the HoDs undertook a survey and scheduled a feedback session.

4.11.5 Improving the schools

Improving the organisation of teaching and learning

Given the opportunity to change or build on something about the way teaching and learning in their schools is managed or organised, many NQTs focused on those areas which, in response to the previous question, they had characterised as problematic.

Hence, quite a few (8) would like to improve management and overall discipline at their schools or promote communication – 'I would change the buildings around to see that teachers can communicate' (1 NQT) – or ensure that teachers are better trained and better qualified (2 NQTs): 'Teachers need to be better prepared for the range of tasks [with which] they need to engage', including being provided with better communication and coping skills. One felt that they themselves could improve as a teacher if all teachers were better monitored: 'Teachers are only monitored when they hear that the DBE will be visiting the school to monitor – that is when they begin to mark the learners' exercise books'.

One issue, prevalent across the schooling system and on which several of these kinds of suggestions – better school management, better teacher and learner discipline, better communication, better prepared teachers, and better monitoring – could be brought to bear is, arguably, that of overaged learners:

'We have learners [aged] 20 in Grade 8. They are bullies, they smoke and they perform poorly'.

In addition, it was suggested, smaller class sizes (or more teachers) would make more individual attention to learners possible (5 NQTs), while integrated teaching could combine different subjects (e.g. 'Mathematics, Science and History') into one research project (1 NQT).

The role of the school and its teachers in the community was also deemed important: 'At the academic level the school is doing what it can, but at the socio-economic level we could be doing more', said one. Another NQT, currently teaching in a special needs school, suggested radically changing the curriculum: 'I would take content learning out and spend much more time on general life skills, like how to open up a bank account'.

Schools could also make better or more organised use of technology (where they have it), such as tablets and laptops (2 NQTs). Not least, 'teachers need to know that learning is fun' (1); they 'need to be more confident and passionate in their teaching' (1); and this could be fostered in part by reducing teachers' workloads (1).

Making suggestions

A similar number of participants (12) as those who had voiced their concerns about things at their schools that they considered problematic (although not the identical individuals) had also

made suggestions about changing or building on the way teaching and learning at their schools is managed or organised. Of these, only three indicated that they had seen their suggestions positively acted upon in some way.

The majority of NQTs thus seemed to prefer not making suggestions of this kind, giving one or more of the following reasons: they feared victimisation (4 NQTs); they were new to the school (3); their opinions tended to be discounted by others (2); they expected a negative response (2); they were not confident of their own opinions (1); their suggestions were pre-empted by other developments (1); they would rather conform to established patterns (1); or they chose to approach things in a different way (in this last case, the respondent acted on her own suggestion for clearer communication between management and staff by speaking up herself).

4.12 Proficiency in Mathematics

The ITERP Mathematics test consisted of 68 questions (including sub-questions) totalling 77 marks and aimed to assess aspects of these NQTs' subject and pedagogical content knowledge (PCK) and skills in relation to the Mathematics curricula they will or are likely to be required to teach at primary school level. This includes not only the formal IP (Grades 4-6), but also Grade 7, which is offered by most primary schools and in which IP teachers (and of course IP/SP teachers) may be required to teach.

The CAPS curriculum for Grades 4-6 is heavily weighted towards the broad content areas of number and operations (50%) and geometry and measurement (30%), with patterns, functions and algebra, and data handling and probability weighted at only 10% each. The CAPS curriculum for Grade 7 is less weighted towards number (30%) and gives more emphasis to patterns (25%) and geometry (35%). Considering these weightings and the importance of number in the primary years, the Mathematics test was weighted approximately as follows: number and operations (40%); geometry and measurement (30%); patterns, functions and algebra (20%); and data handling and probability (10%).

Apart from covering the various content areas in this manner, the test included a spread of topics (such as whole numbers, fractions, decimals, percentages, patterns, understanding of variables, and beginning notions of the function idea) across various levels or domains of knowledge (of lower or higher cognitive demand or involving the pedagogical selection and design of learner-appropriate tasks and teaching strategies). Generally speaking, the test aimed to assess the extent to which NQTs were able not only to do the Mathematics in which Grade 4-7 learners can be expected to be competent, but also to understand how to teach it and to have a sense of how it connects more broadly to further Mathematics.

NQTs' overall and subject and pedagogical knowledge and skills in Mathematics are shown in Table 19 below. The table, along with the bulk of this section, draws substantially on a separate report on the Mathematics test (Bowie, 2015).

Table 19: NQTs' performance in the Mathematics test, by university

University	Total	No. NQTs	Subject knowledge	PCK	Overall
		<i>Specialists</i>	%	%	%

		Nonspecialists			
A	9	<i>3</i>	<i>66</i>	<i>54</i>	<i>63</i>
		6	48	35	45
B	4	<i>3</i>	<i>78</i>	<i>67</i>	<i>75</i>
		1	66	56	64
C	6	<i>4</i>	<i>62</i>	<i>40</i>	<i>57</i>
		2	39	33	38
D	2	<i>0</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
		2	35	14	30
E	9	<i>2</i>	<i>79</i>	<i>58</i>	<i>74</i>
		7	62	44	58
ALL	30	<i>12</i>	<i>70</i>	<i>53</i>	<i>66</i>
		18	52	37	49
		All	59	44	56

Notes: ***Specialists*** (i.e. in bold ***red*** italics) = NQTs who specialised in Mathematics at university; Nonspecialists = NQTs who did not specialise in Mathematics; PCK = pedagogical content knowledge. N/A= Not applicable.

Taken as a whole, the 30 NQTs achieved an average of 56% on the Mathematics test, including 59% for subject knowledge and 44% for PCK. One third (10) of all the participants obtained less than 50%, while the highest individual mark was 82% (shared by two NQTs) and the lowest was 12%.

The 12 Mathematics specialists achieved 66% on average; and the 18 NQTs who did not specialise in Mathematics achieved 49%. Both specialists and nonspecialists did considerably better on subject knowledge than on PCK.

The Mathematics specialists also outperformed their nonspecialist fellows in all areas (their overall mark, their subject knowledge mark, and their PCK mark) at all four institutions where the distinction can be made. Three of the five highest individual Mathematics marks were achieved by Mathematics specialists: two in joint 1st place (82% each) and the third in 4th place (79%). Nonspecialists took the 3rd and 5th places (81% and 77%).

The group who fared best achieved an average of 72%, while the group that fared the worst scored an average of 30%.

Table 20 below provides a further breakdown of how participants performed with regard to specific question subsets in the Mathematics test pertaining to phase-level subject knowledge and PCK, level of cognitive demand, and some of the broad content areas in the CAPS curriculum.

Table 20: NQTs' performance in specific areas of the Mathematics test

Mathematics question subset	Overall
IP subject knowledge questions	66%

SP subject knowledge questions	41%
Pedagogical content knowledge questions	44%
Lower cognitive demand questions	67%
Higher cognitive demand questions	50%
Number (whole number and rational numbers) questions	60%
Patterns and algebra questions	52%
Geometry and measurement questions	44%

Notes: IP = Intermediate Phase; SP = Senior Phase.

Generally speaking, participants did best on IP questions, lower cognitive demand questions, and number questions.

They performed better on the IP subject knowledge questions (where they averaged 66%) than on the SP questions (41%); this is unsurprising. (It should also be expected that the participants as a group should be somewhat better versed in the IP than in the SP CAPS curriculum: not only were the majority of these NQTs actually teaching on a daily basis in the IP (Grades 4-6) (see Table 6), but a third (11) of them were qualified to teach *purely* in the IP.)

Equally unsurprisingly, participants also did better on lower cognitive demand (67%) than higher cognitive demand questions (50%).

However, when it came to PCK, NQTs struggled almost as much with these questions (averaging 44%) as they did with SP subject knowledge.

Examining the testees' responses to particular Mathematics question subsets and to individual test items in more detail, it can be said that these NQTs were competent at, but did not excel in, either the stage (IP) or degree of complexity (lower cognitive demand) that could be expected of the university qualifications they had recently been awarded. In fact, considering these two categories together, the average mark for IP lower cognitive demand questions was only 72%. Since mathematical knowledge which is of lower cognitive demand (such as recall of facts or execution of basic procedures and calculations like adding two numbers or multiplying a decimal by 100) involves the kinds of questions that one would expect *learners* in the IP to be able to do routinely, newly qualified *teachers* ought to have far greater facility in answering such questions.

Delving a little deeper into the category of questions of lower cognitive demand, the testees did least well with regard to calculating perimeter and area and did best when working with whole numbers (and, to a lesser extent, decimals). The only question in the entire test answered correctly by all NQTs was an IP-level question of lower cognitive demand involving the rounding of whole numbers: 'Circle the number nearest in size to 181 (82? 180? 190? 200?)'.

In terms of the higher cognitive demand questions (so called because they required executing non-routine procedures, interpreting Mathematics in context, problem-solving, and/or a deeper understanding of the concepts involved), NQTs generally did best with decimals (e.g. obtaining an average of 90% for the question, 'What number is halfway between 14,6 and 14,7?'), but averaged below 50% on the (two) higher cognitive demand geometry questions, and did even

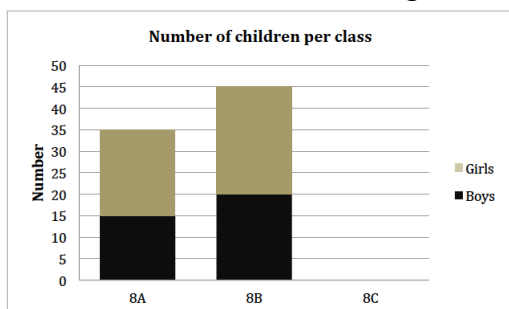
more poorly on algebra word problems and on rate and area. For example, only three (or 10% of the) testees could answer the following SP-level higher cognitive demand question on rate:

Two friends are walking around a field which is a rectangle 90m long and 50m wide. They leave the starting point at the same time and walk in the same direction. One friend walks $1\frac{1}{2}$ times as fast as the other. How many times will the slower friend have walked around the field before they meet again at the starting point?

To be fair, the examiner judged this question to be one of the 12 questions in the test that would be difficult for the respondents to answer correctly (Bowie, 2015). Yet – surprisingly – two of the three correct answers came from respondents who had not specialised in Mathematics at university.

While the NQTs were basically competent at the mathematics required (at least in the IP), they struggled (averaging 44%) with questions related to the teaching of that mathematics. Of the 10 questions on PCK, they managed to attain an average mark of over 70% on each of just two questions, one on data and the other on decimals. The data question was as follows:

A graph is used to summarise the number of boys and girls in Grade 8. The information for class 8C is missing.



There are 126 children in Grade 8 and 18 girls in 8C. How many boys are there in 8C?

On the basis of this graph and the related information, almost all respondents were able to at least partially demonstrate, in a set-by-step fashion, to a hypothetical IP learner how to determine the number of boys in the third class; only three NQTs got no marks at all out of the three marks allocated to this question, and 18 NQTs got full marks. Similarly, given the decimal problem, 'A learner in your class calculates that $2,6 + 3,7 = 5,13$ and that $4,5 + 12,6 = 16,11$ ', and asked to explain *what* the learner was doing incorrectly, the majority of NQTs (22) answered correctly, averaging 73%. However, when asked to provide, for two marks, a diagram, model, or explanation to convince that querulous learner *why* her approach was incorrect, testees managed an average of only 18%, i.e. only one NQT obtained full marks, and nine others obtained 1 mark each. This is an indication of how few of these NQTs both understood the mathematical principles involved and could explain why they work.

Finally, although participants did better on number questions (averaging 60%) than they did on the other broad content areas, the sub-category of fractions was an issue for most of them, particularly, but not only, in relation to the teaching thereof. NQTs achieved only 40% on average when asked to divide one simple fraction by another, as in: $1\frac{1}{4} \div \frac{3}{4}$; and they could express a simple decimal as a fraction only 50% of the time. They averaged over 80% in solving three word problems involving fractions of the sort, 'I want to divide 3 pizzas between two children fairly. How much pizza will each child get?', but they struggled to answer related questions requiring an application of pedagogical knowledge, such as whether or why the word problem above would be a good way of illustrating '3 divided by $\frac{1}{2}$ ' (in this particular instance, testees averaged only 27%). And just three respondents could generate a relatively clear, unambiguous, and realistic word problem that would lead to the calculation $\frac{1}{2} - \frac{1}{6}$.

4.13 Proficiency in English

Given the text-based nature of the current CAPS curricula for English as home language and as first additional language (with learners expected to learn to read and write a range of genres, become both visually and critically literate, and be communicatively competent in talking about texts), the ITERP English test was based on several short texts, including an extract from an autobiography, a poem, a cartoon strip, a review of a book written for primary school learners, a table reporting a survey, and a passage of prose together with a captioned photograph extracted from a children's book.

Part One of the English test (consisting of 26 questions and worth 48 of the total of 80 marks) aimed to assess aspects of NQTs' knowledge of English as a school subject, including knowledge of vocabulary and grammar, literal and inferential comprehension of information, literary and multimodal texts, understanding of literary terms, and ability to write a descriptive paragraph.

Part Two (17 questions, worth 32 of the 80 marks) sought to assess aspects of NQTs' PCK of how to teach IP learners to read and write a range of genres by phrasing questions appropriately, offering age appropriate explanations of elements of grammar and vocabulary, designing appropriate learning activities, understanding and using a range of strategies to assist learners to read texts for a range of purposes, designing a writing task in response to a prompt, and demonstrating understanding of a process approach to teaching writing and to giving feedback to learners on their writing.

NQTs' overall and subject and pedagogical knowledge and skills in English are shown in Table 21 below. The table, along with the bulk of this section, draws substantially on a separate report on the English test (Reed, 2015).

Table 21: NQTs' performance in the English test, by university

University	Total	No. NQTs	Subject knowledge	PCK	Overall
		<i>Specialists</i>	%	%	%
		Nonspecialists			
A	9	4	72.90	73.80	75.80
		5	43.80	43.00	47.25
B	4	2	69.80	68.75	69.40

		2	68.75	67.20	68.10
C	6	6	59.00	64.60	61.25
D	2	2	64.60	67.20	65.60
E	9	2	80.20	75.00	78.10
		7	68.50	67.50	68.00
ALL	30	16	67.83	69.53	68.51
		14	62.33	63.37	63.56
		All	65.21	67.50	66.25

Notes: **Specialists** (i.e. in bold **red** italics) = NQTs who specialised in English at university; Nonspecialists = NQTs who did not specialise in English; PCK = pedagogical content knowledge.

Taken as a whole, the 30 NQTs achieved an average of 66.25% on the English test, including 65.2% for subject knowledge and 67.5% for PCK. Individually, two of the participants obtained less than 50%, while the highest individual mark was 85% and the lowest was 26%.

Considered as a group, the 16 English specialists achieved 68.51% on average, while the 14 English nonspecialists together achieved 63.56%. Overall, both specialists and nonspecialists achieved slightly higher results for PCK than for subject knowledge.

In general, and also at all three of the institutions where the distinction can be drawn, English specialists outperformed nonspecialists in all cases in terms of their overall mark, their subject knowledge mark, and their PCK mark. Of the five highest individual marks for the English test (viz. 85%, 84%, 81%, 81%, and 79%), the top four were achieved by English specialists.

The average marks per institution ranged between 47% (for English nonspecialists from one institution) and 78% (for English specialists from a different institution). Respondents from two of the institutions did slightly better on PCK than on subject knowledge, in contrast to those from two other institutions where the reverse was true.

Examining the 30 NQTs' responses to individual test items in more detail, it can be said that they did well to very well on about a quarter (10) of the 43 English test questions, did rather indifferently on about half (20), and did poorly on the remaining quarter (13).

Amongst the ten questions on which respondents did well to very well were several multiple choice questions (MCQs), each with four options. For instance, the very first question was based on an extract from Nelson Mandela's *Long Walk to Freedom*, and most (26) of the testees showed that they could discriminate among the four possible answers and correctly identify that the book is an example of the genre known as autobiography. In a separate MCQ, the same number of respondents demonstrated their knowledge of another text genre, namely, a book review.

All 30 of the NQTs were able to answer a multiple choice vocabulary question correctly and to distinguish a factual statement from speculative information or opinion. All could also identify critique in the book review provided and write two words to correctly complete a related sentence.

Most (24) evinced knowledge of concord (or subject/verb agreement), which is often a problem for additional language speakers of English; and 26 understood the distinction between literal and figurative language and could correctly explain the figurative meaning of a line in a poem.

Most (22, together with 4 who were partially correct) demonstrated an ability to interpret poetic language and to respond to the mood of a poem; and 24 could explain the use of an expression central to an extract in a way that would be clear and appropriate to IP learners.

In addition, 24 testees knew the function of a specific punctuation mark (although only 9 could accurately name it), and 23 could identify, from among four MCQ options, an appropriate reading strategy to assist learners (although this does not necessarily mean that they would be able to implement the strategy).

With regard to questions on PCK – such as why learners might need an opportunity at the start of a writing lesson to discuss ideas about a topic and what vocabulary to use when they write or why teachers should give learners formative feedback on the *content* of their writing before they comment on the *form* (such as grammar or punctuation) – testees appeared to know how to 'talk the talk' (with most able to give at least partially correct responses), even if they were less certain about how to enact such support for writing (Reed, 2015).

Since language teachers need to be able to teach grammar in context, it was disappointing that over a third of testees (12) could not give a reason for the use of a particular verb tense (the present simple tense, as in the sentence, 'He plays wheelchair tennis'). Moreover, after completing a four year degree, all NQTs, not just 20 of them, should have been able to correctly complete the sentence, 'A table of contents is found at the ___ of a book. An index is found at the ___.' Lastly, although all except one (29) could give examples of good and bad habits, only 7 could think of appropriate activities (such as pair work) that could help learners to understand the meaning of the word 'habits'.

The number and range of items on which participants did poorly is worrying. More than half (16) of the testees, of whom 8 had specialised in English, could not identify the main idea in a paragraph drawn from Nelson Mandela's *Long Walk to Freedom*, despite the question being an MCQ with four options. Almost half (14) could not rewrite a sentence in the passive voice; and 12 could not explain a poem's title, with the same number unable to write a suitable heading or title for an extract they were asked to read.

Only half (15) could correctly transform direct speech into reported speech (where they were required merely to fill in the blanks in a given sentence); and only 15 knew the effect on meaning of the placement of an apostrophe and could explain the difference clearly (as in the difference in meaning between "the boy's parents" and "the boys' parents"). In fact, one-third of the NQTs appeared to have no knowledge of the use of the apostrophe to indicate possession (Reed, 2015). Only 10 clearly understood and could explain the concept 'irony' and its use in a cartoon. Even more astonishingly, only four testees could write the noun form of the adjective 'agitated' (in the context provided, the answer would be 'agitator').

Considering some of the test items which aimed to assess pedagogical content knowledge, only 11 NQTs were able to formulate a clearly expressed and appropriate question which could be asked of IP learners to help them understand a main feature of a book review; only one-third

(10) could use the word 'habitat' in a sentence so that the meaning of the word would be clear to learners; and only 10 could formulate and clearly describe an appropriate learning activity through which learners could practice using an index.

Finally, the 30 NQTs were given the short writing task of describing a parent or family member in 4-6 sentences, for 10 marks: 'You should say who the person is and include details such as what he or she looks like, what he or she likes doing and what makes him or her special to you'. They were also enjoined to first 'study the 10 mark rubric' that would be used to mark their answers, which rubric read as follows:

Ability to write a paragraph in which the sentences are logically connected (1 [mark]), the content responds to the task instructions (5), descriptive vocabulary is used (2) and sentences are correctly constructed and punctuated (2).

Seven NQTs scored 80% (i.e. 8/10) or more for their paragraphs, while 15 achieved 60% or less, and nearly a third (9) scored 50% or less. These results elicited the following comment from the examiner: 'the pedestrian nature of many of the responses (limited vocabulary and little creativity in sentence construction) is some cause for concern' (Reed, 2015: 4; also cited in Taylor, 2015: 10).

5 Conclusion

The implications of the symposium findings are summed up and further discussed below under five main headings. Given the small number of participants and other methodological limitations of the symposium, due caution must be exercised in interpreting all findings. The first section examines the measure of a teacher, or what it means to be a good teacher and a professional teacher, both in the eyes of these NQTs and in the light of the broader findings. Second, the manner in which these NQTs learnt and were taught to be teachers and what they deemed to be the most important aspects of their initial teacher education programmes are considered. Third, the exigencies of teaching are explored, including how these NQTs felt when they first started teaching, the contexts in which they were teaching, and the strategies they were using to negotiate these contexts. The fourth section focuses on the organisation of teaching, and how these NQTs' knowledge, skills, and particular specialisations were being utilised by their schools. Finally, specific attention is given to how these NQTs were taught to teach Mathematics and English, how prepared they felt with regard to any challenges they now faced, and how proficient they were in teaching these subjects.

The measure of a teacher

What stands out amongst these findings is that these NQTs' overall vision of the good or ideal teacher – someone who is knowledgeable and caring and a role model for learners – corresponds very closely with what, in previous ITERP research (Deacon, 2013), teacher educators across the five case study institutions had defined as the characteristics of a professional teacher: having strong subject content knowledge and a caring attitude, acting ethically and as a role model, and being committed, passionate, and punctual. At first glance, this close correspondence suggests that teacher education programmes and teacher educator discourses are successfully imbuing student-teachers with the same broad vision or, at the very

least, that universities are selecting candidates who already have these beliefs right from the start.

Another positive sign is that most NQTs believed that they could partly realise or approximate this conception of the ideal teacher in their particular teaching contexts. This suggests that, on the whole, they were confident in their abilities and optimistic that they could achieve their ideals, notwithstanding the varied schooling conditions in which they find themselves.

However, there was a slight difference between respondents' understanding of a 'professional teacher' and their conception of an 'ideal teacher'. The 'professional teacher' was understood to be, above all, one whose conduct is ethical, while the most common attribute of the 'ideal teacher' was considered to be knowledge. This difference is not stark, and the two conceptions are not exclusive: they are easily accommodated in a single vision of the kind of teacher most would want to have teaching their children. Nevertheless, it would be worthwhile for future research to explore the basis for and implications of this difference, among both new teachers and current teachers, for it is important for those who employ teachers (generally, government but also individual schools) and those who train them (universities) to clearly, firmly, and unambiguously promote a shared set of models or standards for all educational personnel.

It should be noted that these NQTs were unanimous in their belief that they were, always or sometimes, professional teachers. There was a strong professional ethic amongst them, with most affirming that they were professional teachers and the remainder considering themselves to be such teachers at least some of the time. The tendency among these NQTs was therefore to own the notion of professionalism, to consider it to be an attribute over which they have control and for which they are responsible. Hardly any appeared to even entertain the possibility that non-professional conduct (let alone unprofessional conduct) on the part of a teacher could in any way be excused or mitigated on grounds of extenuating circumstances. By contrast, there was no such unanimity in these NQTs' views that they could fully or partly realise what they understood as an ideal teacher: whereas no respondent considered themselves to be not or never a professional teacher, most respondents felt that they could only partially approximate their ideal teacher, and some felt that it was simply impossible.

This suggests that, for these NQTs, it was slightly more important, or at least more feasible, for a teacher to act ethically, to conduct him- or herself in a principled manner, than to be knowledgeable or prepared. Granted, few people would willingly admit to acting 'unprofessionally'; but on what grounds would one doubt one's ability to foster learners' knowledge of a subject? Is this emphasis on ethics perhaps based on their awareness – repeatedly mentioned during the symposium – of a need for greater social justice for the country's learners (that they deserve more care)? Could it be a comment on the moral state of the teaching profession today (that it needs to be more principled)? The finding that the quality of their Mathematics and English knowledge was, on average, mediocre could be part of the explanation, but few NQTs gave any indication that they themselves felt deficient in this regard. Perhaps, instead, it is a realisation that the knowledge which defines the 'ideal' teacher is premised on it being taught to and learned by others, and that this premise is not always realisable under current conditions of poverty-stricken communities, ill-equipped schools, indifferent teachers, and underprepared learners. This last possible explanation would point again to the importance of context and that it may be slightly more in an inexperienced

teacher's power to act ethically, which depends largely on oneself, than to ensure learning, which requires the able participation of others.

The making of a teacher

Unsurprisingly, for new professionals whose key function is to develop and care for children, the majority of these NQTs aligned themselves with the idea that teachers are made rather than born, that is, that they are constituted more through 'nurture' than by 'nature'. This was implicit in their strong emphasis on the developmental and transformative role of education, specifically the idea that learning to teach requires 'proper training' and that 'anyone' can learn to teach so long as they receive suitable instruction. The idea of nurture was also apparent in their view that teachers need 'a special kind of personality' (although not a 'special calling'), since personality is, arguably, a characteristic developed at least as much, and possibly more, by environment, upbringing, and education than by one's natural or genetic inheritance. Overall, nature received comparatively short shrift vis-à-vis nurture, especially given that only half of these new teachers deemed 'natural talent' to be essential for teachers to do their work effectively.

A note of caution should be sounded here, however, lest this apparently self-evident, but nevertheless very 20th century truth (that nurture generally trumps nature) is taken to mean that it does not matter who chooses or is selected to teach and to permit evident natural talent to be ignored. It is not necessarily true that 'anyone can learn to teach' or that 'anyone can be taught to teach', and such views should not be used to permit government and universities to abrogate their responsibilities to select those who are best suited for teaching, not just those who are available, and to deliberately foster natural talent where it exists, not to spurn or disregard it. The same applies to the selection of those who are to teach, induct, mentor or act as role models to student-teachers and NQTs.

Two much more significant and closely related findings have to do with what these NQTs considered to be the most important aspects of their initial teacher education programmes, namely, inclusive education coursework modules (broadly understood) and exposure to actual school procedures, classrooms, and learners.

First, for almost half of these NQTs, the study of inclusive education was particularly valuable because it was understood as going well beyond remedial or special needs education and the mainstreaming of learners with various disabilities, and encompassing the 'ordinary' teaching of 'extraordinarily' poorly prepared and unready learners under conditions 'extraordinarily' non-conducive to learning. It might even be said that, for these NQTs, what is considered to be remedial teaching or the teaching of learners with special educational needs (LSEs) is no longer 'special' under South African circumstances: it has become the norm. While this does not mean that knowledge of one's discipline or subject is somehow less important to these new teachers – several referred explicitly to the usefulness of various subject content and subject methodology modules – it seems that many NQTs feel the need to better understand how children learn and what obstacles they may face in doing so, a feeling which is likely to have been reinforced by the NQTs' increased awareness of the extent of their learners' low levels of learning vis-à-vis the grades they are in, accompanied by a need to expand their repertoire of strategies in order to manage and discipline such learners.

Second, and related to this, it was apparent that these NQTs considered that some of what they were taught at university was impractical and unrealistic, particularly in relation to conditions being encountered at the schools at which they were now teaching (conditions such as large class sizes, curriculum expectations, and time constraints). NQTs' repeated calls for more extended and more carefully structured and managed periods of teaching practice – including better coordination, supervision, mentoring, and assessment thereof – as well as much more practice with regard to administration and classroom management appear to be closely connected to requests that university coursework be made more directly applicable to the pedagogies and methodologies of actual classroom teaching. This finding is given further support by NQTs' usually favourable references to micro-teaching and school-based learnership programmes. Similarly, NQTs' calls to improve the quality and consistency – and, in some cases, to simply ensure the presence – of supervising lecturers and mentor teachers go hand-in-hand with complaints about the unflattering conduct of some teacher educators and about tendencies, at some institutions, to treat student-teachers like the schoolchildren they are being trained to teach.

Across individual interviews, focus groups, and written responses to questionnaires what comes out very strongly is a stress on the importance of getting real life classroom experience. This highlighting of direct personal acquaintance with authentic contexts (which would include practice teaching in real schools) over and above anything learnt only or mainly on a university campus is compellingly revealed in the most emphatic of these NQTs' collective responses, where 24 of the 30 respondents 'strongly agreed' on the importance of student-teachers 'getting a feel' for how to teach through real life classroom experiences (see statement ix in section 4.6 'Views on learning to teach and teaching', above).

The special significance that participants accorded to practical experience is given a particular gloss in their responses to other statements about learning to teach. For instance, only half agreed and 12 disagreed that a lot of what they learnt during their university-based coursework was relevant to their present teaching contexts (see statement xv in section 4.6 above). This gloss, foregrounding the (marginal) relevance of their training vis-à-vis the context of its exercise, suggests that the form and content of university teacher education programmes – relating at once to 'theory', 'coursework', and 'teaching practice' – were considered by a significant minority of respondents to be insufficiently relevant to their actual school contexts.

This perturbing finding, that the conditions in which these NQTs find themselves cannot be adequately traversed using the tools with which they have been supplied, is reinforced by their overall response to another statement (statement xvii) in section 4.6. Asked explicitly whether their teacher education programmes had prepared them well for the work they are doing, over half agreed, but more than a third disagreed. This third constitutes another substantial proportion of negative sentiment, more than one might expect, let alone desire, from any group of newly qualified professionals, no matter how small or non-random this group might be. (Incidentally, this also constitutes a much more sober self-assessment of preparedness than was found when these NQTs and their fellow student-teachers were still in their final year of study in 2013: at that time 94% of the final year student-teacher class of 2013 felt well or very well prepared by their ITE programmes – see Deacon, 2015a: 26, 29).

It follows that if one juxtaposes statements (viii), (xvii), and (xv) then although most NQTs (three out of every four) thought that 'proper training' can teach anyone how to teach, only a bare majority (just over half) felt that they had been properly trained, and even fewer than that (exactly half) considered the training that they had received (or at least the largest proportion thereof: the university coursework) to be relevant. Given all this, it is clear that for these NQTs at least, the gulf between the world of formally teaching in a school and the world of training to teach in a school (in both its theoretical and its practical dimensions) yawns too widely.

These criticisms by the symposium participants of the usefulness, practicality, and relevance of aspects of their initial teacher education seem to be of a different order from the age-old criticism of overly-theoretical academic forms of training, which is usually contrasted with vocational, apprenticeship, or on the job forms of training. There does not appear to be a strong theory/practice or pure/applied knowledge divide here, given that educational theory comes in for a certain measure of appreciation as does 'pure' subject knowledge. 'Theory' (as opposed to 'practice') and 'university' (as opposed to 'classroom') are certainly important to these NQTs – two-thirds felt that the theory learnt at university had turned out to be more important than they had thought it would be and that the knowledge they had learnt at university helped them to reflect on their classroom experiences, while they were nearly unanimous in their belief that teachers need *both* theoretical knowledge *and* practical experience before they can teach. Rather than there being a theory/practice divide in these NQTs' responses, there appears to be a practical/impractical or relevant/irrelevant divide – with an emphasis on what works or is feasible under existing conditions. It is against this background that inclusive education modules would appear to have supplied many of these NQTs with functional tools and techniques.

The importance of practical and relevant knowledge and skills is further highlighted by the finding that almost half of these NQTs felt insufficiently prepared for both the administrative workload and the pressures of classroom management, and that they had had to learn these on the job. This would appear to constitute a significant failing on the part of teacher education programmes, even if it were to be argued that new teachers cannot be taught everything about their craft before they graduate and are posted to schools. One could reasonably expect that all of the technical details, if not the full weight, of the administrative workload as well as multiple and varied classroom management strategies across a wide range of contexts could and should have been taught and practised repetitively in advance, both on and off campus and through both coursework and purposively structured teaching practice.

Furthermore, it is not only in their craft knowledge and skills that new teachers need to be well-versed; they also require contextual and situational knowledge, such as of the country's varied schooling conditions and locales. It is unfathomable that any newly qualified teacher in South Africa can fail to expect and not be deliberately prepared for the dearth of resources in many schools, a dearth which is inevitably accompanied by large class sizes; yet a third of these NQTs claimed to have anticipated neither these nor the poverty-straitened and demotivating circumstances of many learners. To the extent to which student and new teachers are genuinely unaware of South Africa's varied socio-educational contexts, they are being let down by the programmes which purport to train them.

It is also worth reflecting on the fact that the classroom management and administrative skills that these NQTs felt they so sorely needed, and which might have been taught to them or taught more thoroughly through university coursework and/or teaching practice, were ultimately taught to them in situ - in a fragmented fashion, disconnected from their studies, and without much opportunity for experimentation or reflection - by colleagues who may or may not be formal mentors and whose knowledge and experience, no matter how extensive, does not necessarily equate to the expertise of a teacher educator. (On the other hand, it could be said that what these NQTs learnt on the job may have had far more immediate and practical application and relevance than could have been taught by an inexperienced or redundant teacher educator or an overstretched, non-specialist teaching practice supervisor.)

Given that the vast majority of these NQTs were not expecting, were surprised and, in some cases, shocked to be in the situations they found themselves in at their schools, and were certainly feeling inundated by their workloads, it seems clear that their university coursework and, above all, the teaching practice component thereof failed to provide many of them with the insights, experience, and skills needed to relatively seamlessly integrate into the processes and pressures of actually working in a school. Even those NQTs who were of the opinion that their teaching practice experiences had been at least as if not more important than any of their coursework also felt that more support and feedback - including proper supervision and mentoring - needed to be provided by both lecturers and teachers to student-teachers while practising in the schools.

The exigencies of teaching

When asked to describe their feelings when they first started teaching, participants focused above all on their experiences during their very first school term, which is precisely when any dissonances between their freshly-forged professional identities and their own and others' expectations of their abilities and capacities would be at their greatest. Unfortunately, but probably unsurprisingly, a simple count of their collective emotions shows that they were weighted towards the negative end of the spectrum. What two-thirds of these respondents experienced when they first walked into classrooms as newly qualified teachers was therefore indeed a 'huge shock'. Whether or not the first experiences of a new professional, or any new employee for that matter, are ever likely to be anything more than mixed, there is undoubtedly more that could be done in advance to ease NQTs' introduction into schools and to reduce the variance between their expectations and reality.

This variance - 'chasm' is probably a more accurate term - refers not only to the extent of their under preparedness, as already discussed: it is also premised on their discovery of the magnitude of their learners' low levels of learning. Some, if not many, of the learners in almost all of these NQTs' classes were estimated to be experiencing learning difficulties. The extent of these learners' problems is perhaps less remarkable than the fact that problems such as an inability to speak, write, and understand remain so prevalent four or more years after their formal schooling is said to have begun.

Nevertheless, confronted with learners with such a wide range and depth of diverse characteristics and needs, most participants appeared to have strategies in place - strategies explicitly said to derive in large part from the university inclusive education and educational

psychology modules deemed so valuable – which they were using on a more or less regular basis.

However, in no case was any set of university-taught classroom strategies unanimously perceived by these NQTs to be workable in their school contexts; in every case a few respondents thought that a received strategy was not feasible given their particular context. In addition, most of these NQTs felt unable to implement any of these strategies on a daily basis. Moreover, there were three areas where respondents singled out their initial teacher training programmes as not providing them with much, if any, direction in the form of preferred classroom practices: only one of the 30 NQTs could think of a formal strategy to help learners who struggle to speak the LoLT (and did so, moreover, in very generalised terms: develop an 'Individualised Education Plan'); there was a similar absence of programme-preferred strategies to support high-achieving learners; and whereas most NQTs could list several strategies to deal with learners who were aggressive towards others, seven respondents stated unequivocally that they never got any advice in this regard. It is also of concern that, with reference to every single one of the listed learning difficulties, at least some (and, as noted in the case of aggressive learners, up to almost a quarter of) NQTs explicitly stated that their BED programmes had not encouraged them to use any particular strategies.

Such findings ought to encourage further reflection amongst teacher educators and researchers in an effort to promote desirable, evidence-based, good practice across the ITE system. Should some classroom-based learning challenges be prioritised? Which strategies need to be (and can be) implemented more regularly and how can this be facilitated? Are some strategies simply less feasible given particular contexts and, if so, what alternatives can be considered? Above all, which classroom practices are (justifiably) preferred and how are these best disseminated to all new teachers?

There is an interesting common thread running through most of the classroom strategies adumbrated by the symposium participants: they frequently consist of prescribing more practice for learners, whether it is in reading, writing or speaking and also more teaching (occasionally in the form of referring learners to other experts) – in short, more of the same. The application of 'more of the same' could be very effective when built on a firm foundation, i.e. when the teaching originally provided and the learning initially undertaken were adequate to the task. Participants were not asked how effective or successful they considered their strategies to be, however; and, given evidence that nationally, teaching in the preceding (Foundation) phase of schooling is poor and learner performance declines annually from Grade 1 through to Grade 3 (DBE, 2014: 28ff; NEEDU, 2013: 10-12; Deacon, 2016), it may be that specifically targeted interventions are more likely to be needed in the IP than just 'more of the same'.

Given these exigencies being faced by these newly qualified teachers, it is encouraging that one composite attribute stood out from what they described as their teaching strengths, namely, the ability to understand or relate to children, including being approachable, motivating, open-minded, empathetic, firm, patient and being able to present knowledge in interesting and relevant ways. At the same time, one fifth of these NQTs felt that they weren't doing enough to include and assist weaker learners whose low levels of learning and cognitive development and varied learning styles seemed so unexpected. These views reinforce the earlier stated

importance to these NQTs of recognising and addressing the substantial barriers to learning so prevalent in schools today. To the extent to which an ability to understand or relate to children can be taught, it needs to be fostered more vigorously among student-teachers and, even if it cannot be deliberately taught, it ought to be a central element guiding the selection of applicants to teacher education programmes.

The organisation of teaching

Notwithstanding their own belief in the importance of the making or nurturing of teachers who can in turn contribute to the development of learners, many of these new professionals did not feel especially well-nurtured either by the manner in which they had been trained at university or, albeit to a lesser extent, by how they were being managed by the schools in which they were now teaching. A majority, although not an overwhelming one, felt supported by school staff and encouraged by other teachers and had received mentoring at their schools; however, only half had received any formal induction, and their often rather disapproving references to inefficient school management practices and sometimes unprofessional and disillusioned teacher colleagues do not engender much confidence that schools can make up for what universities did not do.

To the contrary, in fact: many of the schools at which these NQTs have found posts appear to be exacerbating the under preparedness of their new members of staff by employing or assigning them to teach what they had not been trained to teach. Some NQTs were teaching in a phase other than the one(s) in which they had specialised; many who were teaching IP English or Mathematics did not specialise in those subjects; some who had specialised in teaching English or Mathematics were not teaching these subjects; and many, particularly (but not only) those teaching all subjects to a single class, had not specialised in most of those subjects.

This finding, although based on a non-representative group of NQTs, is supported by other ITERP research which has found that across all subjects, large numbers of NQTs are not being properly utilised in schools in terms of their phase and subject specialisations. For instance, 65% of newly qualified IP teachers surveyed in 2014 were teaching out of phase, 43% of all newly qualified English specialists were not teaching English, and 28% of all newly qualified Mathematics specialists were not teaching Mathematics (Deacon, 2015b: 50-2, 95-6). It is therefore not at all speculative to hypothesise that the mismatches between teaching and specialisation that are so apparent amongst this small, non-random group of NQTs would be no less prominent amongst larger selections of new teachers.

Despite the fact that most, if not all, student-teachers choose and receive specialised training in particular subjects, findings such as these suggest that these specialisations are too often ignored by schools. Immediate exigencies frequently drive schools to allocate newly available, even if inexperienced, human resources to any necessary function, regardless of phase or subject fitness. Among the reasons for this phenomenon of 'out-of-field' teaching, suggested a U.S. study, could be teacher shortages, the kinds of posts available, school organisation, school size, and union involvement (Ingersoll, 2002). Alternatively, but equally disquieting, it could be said that there is an insufficient focus at universities on providing student-teachers with an all-round, generalist training across all the IP subjects in which schools might choose to deploy them. It appears that in the absence of an over-arching national educational human resources strategy premised on provincial-, district- and school-level needs and based on accurate and up

to date teacher supply and demand data, students choose to study what they want to study, universities offer to teach what they want to teach, schools allocate staff to subjects how they want to allocate staff, and there is seldom much correspondence between the three.

Remarkably, only a few symposium participants indicated that they did not feel comfortable, let alone competent, to teach anything, let alone a subject or in a phase in which they had not specialised. When asked in interviews to reflect on things they felt they should be but weren't yet doing in their classroom practice, there was almost no mention of a lack of subject content knowledge (except, possibly, where it was implicit in the perceived inability to assist weak learners or, in one instance, with regard to sign language). In their questionnaire responses, most also indicated that they had not felt any need to ask other teachers for help with regard to the content knowledge of the subjects they were teaching. And in focus groups, the only (admittedly crucial) area in which several readily confessed to any subject and pedagogical knowledge shortcomings was in relation to the teaching of language and literacy.

This suggests that, despite the fact that many were teaching out-of-phase and out-of-field, most believed that they were coping with the specifically pedagogical requirements of their current work allocations. On the one hand, this belief may be well-grounded, given that they are expected – at both policy and school levels and accordingly have been trained, at least ostensibly – to be competent at teaching most subjects on offer in the IP. On the other hand, should they have any shortcomings in teaching subjects in which they had not specialised, they may not know it or not wish others to know it. The symposium assessed participants' subject and pedagogical knowledge only in IP English and Mathematics, not across all IP subjects, but their tepid performance on these assessments as well as previous ITERP findings that the subject-specific training that IP student-teachers often receive is limited (Bowie, 2014; Reed, 2014; Taylor, 2014), suggest that these NQTs may not know what they do not know about the subjects they are teaching.

Another finding which has a bearing on whether NQTs can teach what they are being expected to teach is that most (more than two-thirds) of the participants indicated that they had specialised in just two subjects. Such limited specialisation at IP level would not accord with the standing government policy of the time, the *Norms and Standards* of 2000, which specified specialisation in five subjects (or 'learning programmes') (DoE, 2000: 27), nor even with the more recent (but not yet current when these NQTs were studying) *Minimum Requirements for Teacher Education Qualifications (MRTEQ)* of 2011 (updated 2015), which specifies at least four subjects (including two languages) (DHET, 2011: 21). However, participants' responses here may have been influenced by the fact that most were qualified to teach in both the IP and the SP, which latter phase is expected by both the *Norms and Standards* and the *MRTEQ* to involve just two subjects. It is also possible that participants felt that they had 'specialised' (in depth) in just two subjects despite also having being trained (in breadth) in all IP subjects. If the question had been differently phrased, asking not 'In which school teaching subject/s did you specialise?', but instead asking, 'Which school teaching subjects are you qualified to teach?', answers would have included all subjects in which respondents were formally competent, whether they had 'specialised' in them or not. Hence, one should not read too much into this finding. It ought to be investigated further, however; if ITE programmes are tending to allow specialisation in just two subjects at IP level, then new IP teachers would be entering the system distinctly undertrained, a disadvantage that would be passed on to their learners.

Just as problematic as, or perhaps even more problematic than, the mis-utilisation of many of these new teachers is that over a third of these NQTs said that they occasionally felt compelled by other teachers to suppress their teaching qualities or skills. This extraordinary claim needs closer scrutiny and further investigation. On what grounds might some teachers put pressure on new teachers not to perform as well as they can? It is possible that some teachers feel threatened by and react against the arrival of a new, young, apparently up-and-coming, university graduate, especially if the teachers themselves lack commensurate qualifications, are struggling with curriculum changes, are under pressure to perform, or are disillusioned by public criticism of the profession. There is also evidence from other research that workplace bullying of teachers by teachers in South Africa is high: in a recent convenience voluntary sample of 999 teachers busy studying to upgrade their qualifications, 83.8% claimed to have in the preceding year experienced one or more acts of bullying which undermined their professional status, including – most pertinently for this symposium finding – 42% who were victims of a "negative reaction from others because I work 'too hard'" (with 32% experiencing this reaction frequently or constantly) (De Wet and Jacobs, 2013: 455-7). Such actions or reactions might be exacerbated by tendencies in some schools, whether emanating from teachers themselves or from a school management team, a governing body, a trade union, an education district office, a group of parents or members of a surrounding community, to enforce, for whatever reason, a degree of discipline, conformism, coordination, solidarity, and/or formal equality amongst teachers. On the other hand, it could be that some respondents, newly graduated, perhaps over-confident or with an inflated sense of their own abilities, might merely have taken too personally the attitudes of older, more experienced teachers who insist on sticking to tried-and-tested methods or may have misconstrued as bad practice what are just comparatively staid or traditional approaches.

Personal gripes might also play a role but are unlikely to account for all these responses. Delving deeper, few of those who felt that they were under such pressure planned to leave teaching or felt unprepared by their ITE programme; half of them, however, also said that they did not feel encouraged by other teachers or supported by school staff; and symposium participants in general were unwilling to voice any concerns they may have at their schools. If there is any substance to this claim that some current teachers pressurise new teachers not to perform as well as they can, then it is not just the utilisation of new teachers in schools that is an obstacle to quality education, but also the cultures of these schools and their teachers and how new teachers are being acculturated; and all of these aspects need to be investigated.

Despite peer pressure of this sort – as well as other concerns that NQTs raised above, such as some feeling insufficiently prepared by their studies, or that their studies were insufficiently relevant to their school contexts – the vast majority of participants were pleased that they had become teachers. They certainly did not think that their time or money had been wasted, even if some felt they could have got a better return on their investment. Most, in fact, intended to have a long career in education. Whether they do or not, it would be worth revisiting these 30 respondents in three or five years' time to find out where they are and whether their views have changed.

The teaching of Mathematics and English

Most NQTs teaching Mathematics had been taught and said they were applying a problem-based approach to teaching the subject, including encouraging the (justified) use of multiple

procedures, concretising abstractions, and identifying and addressing common learner misconceptions and problems. While a few did mention having difficulty teaching certain aspects of the Mathematics curriculum, NQTs' primary difficulty with the problem-based approach was its apparently time-consuming nature; for these NQTs (and probably for NQTs in general), time was at a premium due to curriculum and school expectations, heavy administrative loads, and a scarcity of teaching and learning resources and technologies. All of these problems were compounded by the challenge of teaching large numbers of academically weak, unmotivated, and/or ill-disciplined first additional language learners, with many NQTs expressing concern about being unable to ensure that all learners had grasped everything before moving on to the next section.

NQTs teaching English had been taught to teach using either a communicative or a text-based approach or both. They did not indicate having any formal difficulties applying these approaches in their classrooms or in either teaching English as a subject or utilising it as a medium of instruction. Rather, the greatest challenge for NQTs teaching English (and, to some extent, for those teaching Mathematics as well, having to use English as the LoLT) was most learners' extremely limited proficiency in this (for them) first additional language, accompanied by learners' aversion to engaging with and practising the language either at school or at home.

Like those teaching Mathematics, NQTs teaching English were feeling the weight of time, curriculum, and workload pressures as well as large class sizes; a lack of resources and learner ill-discipline were also mentioned, but on comparatively fewer occasions than in relation to Mathematics. With regard to both English and, to a lesser extent, Mathematics, NQTs seemed to be struggling far more with 'external' school, curriculum, and learner issues than with anything 'internal' to these subjects.

NQTs teaching Mathematics did not seem to be expecting the challenges they were now facing, particularly that learners' proficiencies in the subject would vary so widely, and that so many would struggle. Nevertheless, most NQTs teaching Mathematics considered that their teacher education programmes had prepared them well, rendering them, for the most part, confident in their knowledge, adaptable in their approaches, and generally able to cope.

By contrast, NQTs teaching English seemed to be expecting the challenges (although not their extent) but felt inadequately prepared for them, in part due to wider school and curriculum expectations, but mostly due to the need to teach and support so many learners with such little understanding of or competency in the language. A number of respondents also indicated that they had little idea of how to teach reading.

It is perhaps surprising that the symposium participants did as well as they did on the Mathematics and English content and pedagogy assessments, taking into account the fact that some specialised in neither Mathematics nor English at university, and that the depth and breadth of the training that both specialists in these subjects and nonspecialists likely received was in many instances insufficient. Most achieved more than an ordinary university pass mark of 50% on both tests. However, two points must be noted: first, it is possible that the NQTs who responded to the symposium invitation to participate in a programme of professional development activities to which the tests were attached were those with above average confidence and competence and, second, even though the tests were not tests of university-level knowledge, a number of testees did not perform very well on them.

Admittedly, these were just two tests, each undoubtedly with its own particular limitations. It is always difficult to identify test items which assess aspects of subject knowledge and skills in an appropriate manner and even more difficult to generate test items which can appropriately assess PCK via a written test (as opposed, for example, to observing the application of pedagogical knowledge in an actual classroom setting). Furthermore, given the variability in both Mathematics and English content focus and depth between universities and other methodological limitations mentioned at the start of this report, great caution must be exercised in interpreting the test results, and further research into appropriate test design and development will always be needed.

Nevertheless, it is apparent that many of these newly qualified teachers are insufficiently versed in the subject and PCK that they are teaching as well as in the language through which almost all are teaching (i.e. through the medium of English, whichever subject they are teaching). This in turn raises the issue of what is and what should be the quality and the quantity of IP subject and methodology teaching across the ITE sector.

With IP teachers expected by government policy and often required by schools to teach Mathematics, regardless of whether they have specialised in the subject, the 56% average achieved by all 30 NQTs on the ITERP Mathematics test, the 49% achieved by the 18 NQTs who did not specialise in the subject, and even the 66% obtained by the 12 Mathematics specialists ought to disappoint the universities that trained them and disconcert the schools currently using or planning to use them to teach Mathematics. These results raise a number of questions, chief among them being the kind of mark (or, better, the depth and breadth of subject and pedagogical knowledge) one might legitimately expect, not only of newly trained subject specialists but also of all new IP teachers, who are very likely to be required to teach Mathematics at some time or another.

Similar questions should be raised in relation to the English test, on which the overall results of 66% for all NQTs, 69% for the English specialists, and 64% for those who did not specialise in English are mediocre, at best. It is not acceptable for newly minted teachers armed with a degree to know, on average, barely two-thirds of what their learners can be expected to know of the subject; and this is even less acceptable when English is also the primary language of learning and teaching in the country.

On both tests, unsurprisingly and, in fact, to be expected, specialists outperformed nonspecialists. That said, there were a few test items, especially in the English test, in which the reverse was true and many other items in which there was little difference in the performance of specialists and non-specialists. In the case of the English test, too, the differences between NQTs' subject and PCK and skills as well as between subject specialists and non-specialists were not more discernible, although they surely ought to have been; and whereas on the Mathematics test, participants did substantially better in terms of subject content knowledge than pedagogical content knowledge, it must be asked why their PCK was so poor, comparatively speaking.

These teachers' inability to answer more than 50% of the Mathematics test's higher cognitive demand questions is a gauge of how little they understand about what they are teaching. In addition, the fact that the participants' overall Mathematics results, disappointing in themselves, consisted in the main of an indifferent knowledge of cognitively undemanding IP material

(72%) coupled with weak PCK (44%), suggests serious shortcomings in relation to the former and outright inadequacy in relation to the latter.

There are a number of possible reasons why NQTs struggled with Mathematics questions requiring the choice and application of learning tasks and teaching strategies appropriate to both a range of learners and the nature of mathematical knowledge, i.e. PCK questions. First, despite having been a focus of attention in education, internationally, for decades, PCK has remained under-theorised and undeveloped; there is little consensus on how to formulate and phrase questions intended to test such knowledge; and there is little familiarity amongst the teaching fraternity in general as to how to answer them (Burn, 2007; Hill et al., 2007). Second, questions (and answers) related to pedagogy invariably require the use of language (in this case, English), and in South Africa most teachers, including most of these NQTs, speak English as an additional language. (It was also found that a number of students who wrote the pilot Mathematics test appeared to struggle to provide coherent explanations in English.) Third, some NQTs might not be sufficiently knowledgeable about the actual Mathematics on which the pedagogical questions were based and towards which they were being asked to provide a pedagogical approach (Bowie, 2015: 3).

A perhaps unsurprising finding is that whenever test items required extended answers or clearly phrased questions or instructions, the writing of the English home language speakers was superior to that of NQTs who were writing in an additional language. However, the responses of most of the NQTs to test items that required clear phrasing of questions or task instructions that would support learners as developing readers are a cause for concern. Overall, on the basis of this small sample of testees, it can be said that the standard of their written English is low, and that, in some instances, their learners would be confused by the phrasing of the questions they ask or the instructions they give (Reed, 2015).

While the number of positives that can be drawn from the results of the ITERP Mathematics and English tests are few, they should not be ignored. Most of these NQTs did comparatively well on IP-level Mathematics content, particularly questions involving number; and in English they were able to read for detail, interpret, and comprehend texts in a range of genres and excel, comparatively speaking, at responding to poetry.

That said, a definite starting point for English ITE curriculum change is language study. The fact that most testees could not distinguish between a dash and a hyphen may be indicative of limited knowledge of the metalanguage of punctuation; and the inability to rewrite a sentence in the passive voice could indicate a lack of knowledge of grammatical forms and of word order in a sentence. Their difficulty changing an adjective into a noun and explaining certain words suggests limited vocabulary and an inability to work with common suffixes. One clear area for further research among student-teachers, new teachers, and teacher educators alike is thus contextualised learning, teaching, and testing of language (including syntax, lexis, semantics, pragmatics, and grammatical metalanguage), which at present receive limited attention at some universities.

In relation to all of the above, teacher educators need to consider what could be done to improve the communicative competence – both oral and written – of all their students, both those specialising in one or other language and those who will, given the language choices being

made by schools and parents in South Africa, have to use a particular language of learning and teaching.

At one level, it is a travesty that some teachers are permitted – even appointed – to teach a subject in which they had not specialised, even while some subject specialists are not being utilised to teach that subject; at another level, given that the proficiency even of some subject specialists leaves much to be desired, perhaps it is a blessing in disguise that some learners thereby avoid being subjected to poor quality instruction. While some may say that even a poor quality teacher is better than no teacher at all, this is not necessarily true: research suggests that a poor quality teacher has irreversibly negative and even regressive effects on learners (McKinsey, 2007: 12).

It follows that, in terms of both Mathematics and English (and probably other school subjects as well), serious questions need to start being asked by universities and their ITE programmes as to their student selection practices, their teaching and development of coursework modules, their assessment procedures, their staff development programmes, and the manner in which and by whom students are supervised on teaching practice.

To sum up, this select group of newly qualified IP teachers, now some 18 months into their careers, believe that while they can all be professionals, it is a bit more difficult, under current conditions of teaching and learning in their schools, to realise their conception of the ideal teacher, understood as a learned and caring role model. They feel that they have not been sufficiently prepared for the magnitude of the workload (especially the administrative and classroom management aspects) and, above all, the extent of learners' learning difficulties. Hence they would, if they could, reconfigure the BEd degree so as to accommodate more and better teaching practice and generally try to more closely align what student-teachers learn when at university and what is expected of new teachers once posted to a school.

Nevertheless, what many of these NQTs learnt about inclusive education at university is particularly useful to them now, and they consider the ability to relate to children to be an asset. In their classrooms they are regularly using strategies taught to them at university, although sometimes these are not workable and too often assume the adequacy of teaching and learning undertaken in earlier years. Unfortunately, many of these NQTs find themselves assigned to teach subjects and phases in which they had not specialised. While they have become aware of the fact that all teaching takes time, and that this is especially the case amongst under-prepared learners in under-resourced environments, they are seldom aware that their own knowledge of what and how to teach often contains significant gaps.

Regardless of which of the several IP subjects they might be teaching, one of the most pressing concerns of these NQTs is how to engage with learners for whom English is, at best, a first additional language in and through which they have been inadequately taught; and this is a challenge which most NQTs feel ill-equipped to address. The language issue is not specific or limited to English (even though English features prominently in many instances). It is not confined to the training of English teachers, whether as home language or first additional language teachers or teachers capable of teaching in English as LoLT, but is also pertinent to teachers of any other official South African language – including sign language – which is taught as a first additional language. The issue extends to and is partly responsible for learners who are grades behind where they are expected to be in any subject, including Mathematics; and it

encompasses official policies which pay lip-service to African languages, but disregard teachers' and parents' precipitate preference for English as well as schools and teachers that are incapable or unwilling to tackle learner deficits directly and instead pass the buck to the next grade or phase. In this light, the teaching and learning of English is probably the greatest of the challenges that must be overcome if the quality of education in South Africa is to be improved.

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References

- Ball, D. & Hill, H. 2008. *Mathematical Knowledge for Teaching (MKT) Measures: Mathematics Released Items 2008*. Ann Arbor, MI: University of Michigan. URL: http://www.umich.edu/~lmtweb/files/lmt_sample_items.pdf.
- Bowie, L. 2014. *Report on Mathematics Courses for Intermediate Phase Student Teachers at Five Universities*. Johannesburg: JET Education Services.
- Bowie, L. 2015. *Report on Performance in ITERP Maths test*. Johannesburg: JET Education Services.
- Burn, K. 2007. Professional knowledge and identity in a contested discipline: challenges for student teachers and teacher educators, *Oxford Review of Education*, 33(4): 445-467.
- DBE. 2014. *Education Statistics in South Africa 2012*. Pretoria: Department of Basic Education.
- De Wet, C. and Jacobs, L. 2013. South African teachers' exposure to workplace bullying. *Journal for Transdisciplinary Research in Southern Africa*, 9(3): 446-464.
- Deacon, R. 2012. *The Initial Professional Development of Teachers: A Literature Review*. Johannesburg: JET Education Services.
- Deacon, R. 2013. *Initial Teacher Education Project: Institutional Case Studies Composite Report*. Johannesburg: JET Education Services.
- Deacon, R. 2015a *Report on the 2013 Survey of Final Year Initial Teacher Education Students*. February. Johannesburg: JET Education Services.
- Deacon, R. 2015b. *Newly Qualified Teachers in South Africa: Report on the 2014 telephonic follow-up survey of the 2013 class of final year initial teacher education students*. October. Johannesburg: JET Education Services.
- Deacon, R. 2015c. *Preparation and Practice of Newly Qualified Intermediate Phase Mathematics and English Teachers in South Africa: Focus group discussions with participants at the ITERP NQT Symposium, July 2015: Consolidated Report*. November. Johannesburg: JET Education Services.
- Deacon, R. 2015d. *Perceptions and Experiences of Newly Qualified Intermediate Phase Mathematics and English Teachers in South Africa: Interviews with participants at the ITERP NQT Symposium, July 2015: Consolidated Report*. November. Johannesburg: JET Education Services.
- Deacon, R. 2016. *Foundation Phase Education Research in South Africa, 2010-2015: An Overview*. Draft report. URL: http://www.academia.edu/24585719/Foundation_Phase_Education_Research_in_South_Africa_2010-2015_An_Overview.
- DHET. 2011. *Policy on Minimum Requirements for Teacher Education Qualifications selected from the HEQF*. Pretoria: Department of Higher Education and Training.

- DHET. 2015. *Teacher Graduate Employment 2014*. Pretoria: Department of Higher Education and Training.
- DoE. 2000. *Norms and Standards for Educators*. Pretoria: Department of Education.
- Hill, H., Sleep, L., Lewis, J. & Ball, D. 2007. Assessing teachers' mathematical knowledge: What knowledge matters and what evidence counts? In Lester, J. (ed) *Second Handbook of Research on Mathematics Teaching and Learning*. Charlotte, NC: Information Age.
- Ingersoll, R. 2002. *Out-of-Field Teaching, Educational Inequality, and the Organization of Schools: An Exploratory Analysis*. Seattle: University of Washington, Center for the Study of Teaching and Policy.
- McKinsey. 2007. *How the World's Best-Performing School Systems come out on Top*. New York: McKinsey and Company.
- NEEDU. 2013. *National Report 2012: Summary*. April. Pretoria: National Education Evaluation and Development Unit.
- Reed, Y. 2014. *Report on English Courses for Intermediate Phase Student Teachers at Five Universities*. Johannesburg: JET Education Services.
- Reed, Y. 2015. *Analysis of the Responses of Final year B Ed Students and Newly Qualified Teachers from Five Universities to an Assessment of Aspects of 'English-for-teaching' (subject and pedagogic knowledge and skills)*. Johannesburg: JET Education Services.
- Rusznayak, L. & Bertram, C. 2014. *An Analysis of Teaching Practice Assessment Instruments: A cross-institutional case study of five universities in South Africa*. Johannesburg: JET Education Services.
- Taylor, N. 2014. *An Examination of Aspects of the BEd Curricula for Intermediate Phase Teachers at Five Higher Education Institutions*. Johannesburg: JET Education Services.
- Taylor, N. 2015. *Initial Teacher Education Research Project Phase II: From Research to Action*. Presentation to the Education Deans Forum. November. Johannesburg: JET Education Services.