JET EDUCATION SERVICES

Evaluation of SANTS Private Higher Education Institution's Bachelor of Education Programmes Work Integrated Learning (WIL) Component: Final Evaluation Report

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Acronyms and Abbreviations

BEd	Bachelor of Education
CAPS	Curriculum Assessment and Policy Statements
CHE	Council of Higher Education
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
ECD	Early Childhood Development
EFAL	English First Additional Language
FP	Foundation Phase
HEI	Higher Education Institution
IP	Intermediate Phase
ITE	Initial Teacher Education
ITERP	ITE Research Project
JET	JET Education Services
LoLT	Language of Learning and Teaching
LTSM	Learning and Teaching Support Material
MRTEQ	Minimum Requirements for Teacher Education Qualifications
NCV	National Certificate Vocational
NQF	National Qualification Framework
NSC	National Senior Certificate
PCK	Pedagogical Content Knowledge
SANTS	SANTS Private Higher Education Institution
SAQA	South African Qualifications Authority
SMT	School Management Team
SSC	Student Support Centre
UFS	University of the Free State
UKZN	University of KwaZulu-Natal
UNISA	University of South Africa
WIL	Work Integrated Learning

Executive Summary

Understanding the commission, about SANTS and WIL

In 2015, SANTS Private Higher Education Institution (SANTS), formerly the South African National Tutor Service, commissioned JET Education Services (JET) to conduct an evaluation of the Work Integrated Learning (WIL) component of SANTS' Bachelor of Education in Foundation Phase Teaching and Bachelor of Education in Intermediate Phase Teaching (BEd programmes) for initial teacher education (ITE).

The study was intended to ascertain the extent to which the SANTS student teachers were putting into practice the knowledge, skills and techniques taught to them when undertaking WIL. The information gathered will provide SANTS with an independent perspective on the student teachers' classroom performance. The study is particularly concerned with the student teachers' level of performance in relation to:

- The expected outcomes of the SANTS BEd programmes; and
- The Minimum Requirements for Teacher Education Qualifications (MRTEQ).

The study also provides feedback on how student teachers cope when faced with the challenges of teaching in schools located in rural and poor areas; perceptions of school stakeholders regarding the quality of teaching delivered by SANTS student teachers; and perceptions of student teachers regarding the quality and relevance of the SANTS BEd programmes in preparing them to teach. The evaluation questions were as follows:

1. To what extent is the classroom performance of SANTS student teachers at the level required by the outcomes of SANTS' BEd programmes?
2. To what extent are SANTS student teachers performing effectively as teachers in terms of the minimum standards as set out in the MRTEQ?
3. Are SANTS student teachers able to implement the lessons learnt through the SANTS BEd programmes in a classroom setting?
4. To what extent are SANTS student teachers able to cope in challenging teaching environments?
5. What are the perceptions of SANTS student teachers regarding the quality and relevance of the SANTS BEd programmes in preparing them to be teachers?
6. What are the perceptions of stakeholders at school level regarding the quality of teaching delivered by SANTS student teachers?

Approach and methodology

The evaluation was formative in nature. Formative evaluations are intended to provide information for guiding improvement, as their purpose is to help form or shape a programme to perform better.

A review of the MRTEQ and SANTS BEd programmes documents and a brief literature review indicated relevant issues relating to ITE, what is required of newly qualified teachers and the challenges newly qualified teachers face in South Africa, which it would be important to investigate. These provided important parameters for assessing the student teachers during WIL.

The thematic areas under investigation were: knowledge of teaching the subject (pedagogical content knowledge (PCK)); teaching methods and strategies; learner differentiation and participation; communication and language; knowledge of curriculum; knowledge of planning and designing lessons; learning and teaching support material (LTSM); classroom management; reflection on teaching practice; mentoring and support provided; strategies to address learners' social problems/challenges; perceptions of school stakeholders regarding SANTS student teachers; quality and relevance of the SANTS BEd programmes; WIL school context and culture; ability to cope in difficult teaching environments; and student teachers' motivation to teach.

A matrix was developed which specified the thematic areas, indicators in each of these areas and more specific measures to guide the study, it also specified which data collection instrument(s) would cover each area. The evaluation matrix can be found in Annexure A.

The study involved mixed methods, both qualitative and quantitative data collection and analysis techniques were used. **Quantitative methods** were used to collect data directly from students, via a perception survey (administered with 347 student teachers), using lesson observation tools (150 language and mathematics lessons were observed) and through a school information form (43 were completed). The quantitative techniques helped in gathering data from a large sample of the student teacher population. Secondary data provided by SANTS (i.e. student performance records) for the entire cohort of 827 students complimented the primary data that was collected.

Qualitative techniques involving face-to-face and focus group interviews were used to collect data from SANTS student teachers (79 interviews were conducted), student teachers' supervisors (77 interviews were conducted), school principals (43 interviews were conducted) and the SANTS tutors (3 focus groups were conducted). The qualitative methodologies allowed for a deeper investigation of respondents' perceptions and actions.

Fieldwork was conducted in July-August 2015, when the SANTS student teachers were mid-way through the third year of four year ITE programmes.

Findings

The findings offer overall a very positive view of the sample of SANTS student teachers who were observed delivering language and mathematics lessons during WIL. In almost all of the thematic areas, indicators and measures which were assessed, a majority of the student teachers performed at the expected level drawn from national minimum standards for newly qualified teachers and SANTS own exit level outcomes for the BEd programmes. Key findings are summarised below.

Regarding t**he student teachers' subject knowledge and the ability to teach the subject**, the following features stand out:

- Quantitative ratings from the lesson observations show that, for language lessons, between 50% and 70% of FP and IP student teachers were rated as performing at or above the expected level in all four aspects of subject knowledge (knowledge of the subject, as demonstrated during the lesson, implementation of subject knowledge during the lesson, accuracy in teaching subject-specific concepts, and overall logic and coherence of the lesson) which were rated. Performance was even better in mathematics lessons, between 69% and

80% of the student teachers performed at or above the expected level in these four aspects of subject knowledge.

- The qualitative data confirms these findings: Observers reporting on language lessons noted in general that: lesson content reflected adequate subject knowledge; the majority of student teachers demonstrated effective delivery of their subject knowledge; concepts were taught accurately; and student teachers presented their lessons in a logical, coherent and meaningful way. The mathematics lesson observers reported similarly: the majority of student teachers demonstrated adequate knowledge of teaching mathematics; were well prepared for their lessons; incorporated mental mathematics appropriately as part of the lesson; were able to tap into prior knowledge; and delivered the lesson adequately.
- The qualitative findings reveal learning deficits amongst the learners, which make it difficult for student teachers to convey subject knowledge effectively.

Ten key aspects of good **teaching methods and strategies** used by the student teachers were assessed, with the following results:

- With respect to language lessons, quantitative observer ratings show that in four aspects more than two thirds (66%) of the FP and IP student teachers were rated as performing at or above the expected level. Performance was less adequate in the areas of: managing learners from different socio-economic backgrounds; differentiation in teaching methods; and monitoring learner progress.
- In relation to mathematics lessons, in six areas more than two thirds of the FP student teachers were rated as performing at or above the expected level. More than two thirds of IP student teachers performed at the expected level in four areas. Performance was weaker in the areas of: managing learners from different socio-economic backgrounds; and monitoring learner progress and understanding throughout the lesson. IP student teachers were also weaker in the areas of informal assessment and lesson pace.
- The primary teaching methods used were whole class instruction and direct instruction and to a lesser extent drill and practice. Mathematics lessons were somewhat more likely than language lessons to include interactive methods and practical work.
- Observers noted that in some instances, strategies for identifying and addressing different learner abilities were identified as an area for improvement. Student teachers supervisors at the WIL schools and the SANTS tutors felt these challenges could be attributed to lack of experience and confidence, which should improve as the student teachers gain further practice. Challenges such as overcrowding in the classroom were said to prevent student teachers from implementing certain interactive strategies.

In the focus on **communication and language:**

- This area was strong overall, 65%-80+% of student teachers achieving the expected level in five aspects of communication and language which were rated: using target language effectively, demonstrating fluency in the language of teaching and learning (LoLT), providing clear oral and written instructions, using relevant terminology and delivering lessons that are free of grammatical errors.

- The overall results masks greater challenges faced by the IP student teachers who are delivering lessons in a language which is not their mother tongue, nor that of the learners whom they teach. The performance of FP student teachers was notably stronger.
- Challenges noted by the observers in relation to some student teachers included: a poor command of English as the LoLT in the IP, poorly developed communication skills in isiZulu as the LoLT in the FP (even though isiZulu may be their home language) and an insufficiently developed command of the subject matter, leading to weakly a developed facility in code switching.
- SANTS tutors felt that some of the FP student teachers' challenges may be related to the fact that English is the medium of instruction in the SANTS BEd programmes, whereas isiZulu is the home language in the majority of the WIL schools.
- Student teachers mentioned challenges translating concepts from English to isiZulu in the FP, particularly mathematic concepts. In the IP, the learners' poor English poses a problem. The huge challenge of switching to English as the LoLT when the learners are far from ready for this should not be underestimated.

Concerning **designing and implementing lesson plans** the findings generally show satisfactory performance at or above the expected level**:**

- For mathematics lessons, 78-91% of FP student teachers performed at or above the expected level in all four aspects of lesson planning which were rated. IP students also performed well with 69%-78% performing at or above the expected level in these aspects.
- For lesson plan implementation, the performance of FP student teachers was generally good with 75-85% performing at or above the expected level in all three aspects which were rated. The performance of IP student teachers was less strong, particularly in terms of pacing and sequencing and achieving the lesson objectives.
- For the language lessons, stating learning objectives clearly and adhering to lesson plans were the strongest aspects of lesson planning and implementation. Pacing and sequencing of lessons according to the subject area and difficulty level was weaker, particularly in the IP.
- Qualitative comments suggest that student teachers generally took their planning seriously. In practice factors like class size, discipline problems and learners' lack of necessary prior knowledge could work against the implementation of the lesson plan as intended. Student teachers frequently deviated from their lesson plan to provide explanations to learners which were considered necessary to accomplish the lesson objectives.
- The student teachers were in general able to reflect on the quality of their lesson planning and lesson plan implementation and identify areas for improvement.

Student teachers' **knowledge and use of the curriculum** (Curriculum Assessment and Policy Statements (CAPS)) were particularly strong:

- The alignment of lesson planning and delivery with the curriculum was an area of high achievement, with 79% language lesson plans and 89% of mathematics lesson plans rated at or above the expected level.
- School Principals and student teacher's supervisors at the WIL schools confirmed that the lesson plans used by SANTS student teachers were aligned to CAPS.

LTSM was another area under investigation:

- With respect to language lessons, student teachers performed best in terms of their LTSM being appropriate for the grade level and content of their lesson, 74-76% of FP and 60-63% of IP student teachers achieved the expected level. Student teachers performed less well in terms of their LTSM being innovative, but the majority were still rated as achieving or exceeding the expected level.
- There were similar findings for mathematics lessons. FP student teachers performed best in providing grade appropriate and content appropriate LTSM, with 83% and 80%, respectively, rated at or above the expected level. IP student teachers also performed well, with 69% to 72% performing at the expected level. Innovative LTSM was the weakest area, but student teachers received higher ratings for innovative LTSM for their mathematics as compared to language lessons.
- Several types of language and mathematics LTSM were not used at all in any of the lessons, including: dictionaries, calculators, compasses, geometric instruments and play money. This may be because they were not available, underscoring the necessity of being "innovative" with respect to LTSM.
- Student teachers reported that they face challenges with obtaining materials to develop their LTSM. However, they also reported making use of the available resources. This points toward the impact of the school and classroom context and resource provisioning on LTSM access and use.

Differentiation and participation was a challenging aspect for some student teachers:

- Compared with the quantitative findings in other areas, the lower incidence of adequate differentiation, particularly with respect to language lessons is marked.
- Overall, student teachers were generally able to ensure that all learners participated in their lessons, however, 24-37% of student teachers performed below or far below the expected level in this area.
- Qualitative data suggests that many student teachers, whilst appreciating the importance of differentiation and aspiring to use it, found it difficult or impossible to do so in the classroom due to time and contextual constraints, including large class sizes. This indicates a disjuncture between planned differentiation according to the lesson plan and the actual method required in a real world classroom situation.

Classroom management and lesson delivery was generally adequate, but also challenging for some student teachers:

- FP student teachers generally performed well in terms of time management and using time effectively to meet the lesson objectives. The IP student teachers performed less well, 43%-46% were rated as below or far below the expected level in these areas. FP student teachers also performed well in terms of presenting a lesson in a manner which supports learning, but worse in providing a summary or conclusion at the end of the lesson. The IP student teachers language lessons were weak in these two areas with less than half (33%-43%) being rated at or above the expected level.

- The majority of student teachers were found to be controlling classroom conversation effectively. Ratings were slightly lower for managing discipline effectively, but the majority still performed at or above the expected level.
- The student teachers attitudes towards learners and creation of a safe learning environment were impressive: 70%-80% of FP student teachers were rated as being warm, attentive, responsive and respectful to learners and creating a safe learning environment in both their language and mathematics lessons and, of these, 7%-11% were rated as exceeding expectations. The IP student teachers ratings were also impressive.
- The observers noted that student teachers experienced challenges maintaining discipline when learners were not engaged in active learning and disruptions occurred when student teachers spent a lot of time explaining.

The school stakeholders have predominantly positive perceptions of the SANTS student teachers and the SANTS BEd programme – specifically the SANTS materials and support provided to the student teachers during WIL. According to them, the SANTS student teachers are well prepared, dedicated and enthusiastic about teaching.

The student teachers perceptions of the SANTS BEd programme were also in general very positive. Support sessions provided at the student support centres (SSCs) were reported to have enhanced the student teachers': subject knowledge; pedagogic skills; knowledge of teaching methods and strategies; lesson planning skills; curriculum knowledge; ability to develop and use LTSM; learner engagement skills; diversity management skills; have prepared student teachers for WIL; and increased their confidence and professionalism.

The majority of student teachers felt that time spent on the practical training was sufficient to improve their teaching skills. Almost all student teachers are of the opinion that their teaching skills and confidence have improved since their participation in WIL. WIL is perceived to be an important component of their training to become teachers.

There were overwhelmingly positive responses when the student teachers were asked to rate various aspects of the SANTS programme. No aspect of the programme was considered to be problematic. Areas in which the student teachers feel they need additional/more support are during WIL and in the area of learner engagement. The top three areas where student teachers feel the programme can be improved are: 1) providing better access to computers; 2) providing (more) financial assistance to student teachers, particularly during WIL; and 3) more/better access to LTSM.

A profile of the WIL school environment provides interesting perspectives. On the whole, the schools were experienced as well-managed and adequately-resourced. However, the major limiting factor affecting the performance of the student teachers and their choice of approaches was the size of the classes. While official figures show a moderately good teacher/ learner ratio of 1/32 – should all teachers be efficiently deployed - the reality reported by student teachers during interviews and observed by the fieldworkers, was that some student teachers often experience large classes. This makes differentiation and individual attention almost impossible.

Discussion

Key to the interpretation of the findings is the question of *how good is good enough* in the cumulative ratings of student teacher performance. Performance was assessed in relation to criteria

which were defined as precisely as possible. Thus, there was a standard for *how good is good enough*. However, the second aspect of this question is *what level of student teacher performance is good enough*? What is good enough for student teachers who still have more than one year of studying ahead? What proportion of student teachers should one expect to be at a level one would expect of newly qualified teachers? What proportion of the student teachers are expected to pass at the end of year four and continue into professional employment and how good should they be before they commence work as newly qualified teachers and begin getting real experience?

To answer the first two evaluation questions: ***To what extent is the classroom performance of SANTS student teachers at the level required by the outcomes of the SANTS B. Ed. programme?*** And ***To what extent are SANTS student teachers performing effectively as teachers in terms of the minimum standards as set out in the MRTEQ?*** In the table overleaf, the expected exit level outcomes of the SANTS BEd programmes and the minimum standards outlined in the MRTEQ are presented alongside one another (as there are many areas of overlap) and key findings are summarised in relation to these standards.

Table 1: Links between the SANTS BEd programme exit level outcomes, the MRTEQ and the evaluation findings

BEd programme exit level outcomes	MRTEQ	Key evaluation findings
Read, write and speak the language/s of instruction in ways that facilitate own academic learning, and teaching in the classroom.	Know how to communicate effectively in general, as well as in relation to their subject(s) in order to mediate learning.	Performance in communication and language is strong, particularly for mathematics lessons and FP teaching. The expected exit level outcome and MRTEQ was achieved by between 65% and 80+% of student teachers in five aspects of communication and language which were assessed. The overall result masks the greater challenges faced by the IP student teachers who are delivering lessons in a language which is not their mother tongue, nor that of the learners whom they are teaching.
Interpret and use numerical and elementary statistical knowledge to facilitate own academic learning, and to manage teaching, learning and assessment.	Have highly developed literacy, numeracy and IT skills.	Not assessed via this study
Use computers and Information and Communications Technology (ICT) in daily life and in teaching.		Not assessed via this study, but "better access to computers" was the most frequently-mentioned concern when student teachers were asked how the SANTS BEd programmes could be improved, suggesting this is an area in which student teachers need/want further development.
Demonstrate understanding of the principles, concepts and knowledge underpinning and related to the learning areas/subjects to be taught.	Sound subject knowledge.	A comprehensive assessment was not undertaken of student teacher subject knowledge. From what could be seen of the application of subject knowledge in the two lessons which were observed, the student teachers performed well to very well, with 65%-80+% achieving or exceeding the expected level in terms of good subject knowledge. Performance was particularly strong in mathematics lessons.
	Know how to teach their subject and select, determine the sequence and pace content in accordance with both subject and learners needs.	The student teachers performed well with 65%-79% achieving or exceeding the expected level in terms of: effective implementation of subject knowledge; concepts being taught accurately; and logical, coherent and meaningful lesson presentation. Some challenges were identified in translating key concepts into the target language in the FP, due to the terminology not existing or being under developed. Sequencing and pacing of lessons is discussed in the two cells directly below this one.
Demonstrate competence in planning, designing and reflecting on learning programmes appropriate for the learners and learning context to be taught.	Knowledgeable about the school curriculum and be able to unpack it's specialised content, as well as being able to use available resources appropriately to plan and	Understanding of and alignment to CAPS was an area of excellence, with 80+% of student teachers achieving the expected level. Performance was moderate to very good in the aspects relating to lesson plan development which were assessed, with 50%-80+% achieving the expected level in terms of lesson planning being clear, logical and sequential, learning objectives/outcomes being clearly stated and activities being provided for reinforcement and practice. A similar level (50%-80+%) was attained for aspects relating to lesson

BEd programme exit level outcomes	MRTEQ	Key evaluation findings
	design suitable learning programmes.	plan implementation: adherence to lesson plans, appropriate pacing and sequencing and achievement of the lesson objectives. The student teacher interviews demonstrated that the majority were able to reflect on the quality of their lesson planning and lesson plan implementation and identify areas for improvement. Between 65% and 79% of student teachers achieve the expected level in terms of LTSM being appropriate for the grade level and content of the lesson. Innovation in LTSM use was weaker, particularly in relation to language lessons. Even so, between 50-64% of student teachers attained the expected level in terms of innovative LTSM.
Demonstrate competence in selecting, using and adjusting teaching and learning strategies in ways, which meet the needs of learners and the context.	Know who their learners are and how they learn; understand their individual needs and tailor teaching accordingly.	Selecting, using and adjusting teaching and learning strategies was a broad area with varied results: performance was stronger overall in mathematics than language. The areas of best performance were: teaching methods being appropriate for the Grade level (65-80+% achieved expectation), building on previous knowledge (65-79% achieved expectation), sequence and pace being relevant to the subject and learner needs (65-79% achieved expectation), and teaching methods being relevant and effective (65-79% achieved expectation). Differentiation and managing learners from different socio-economic backgrounds were weaker areas, particularly in language lessons where less than 50% of student teachers achieved the expectation. The student teachers reported understanding the need for, planning to and wanting to apply differentiation, but challenges such as large class sizes and learners not being at the appropriate cognitive level for their grade hindered their attempts.
	Understand diversity in the South African context and teach in a manner that includes all learners. Identify learning or social problems and work in partnership with professional service providers to address these.	Knowing who their learners are and how they learn, understanding their individual needs and tailoring teaching accordingly was an area of weakness, particularly with respect to language lessons. It was found that student teachers in general understand the need for, plan to and want to apply differentiation, but the challenges discussed above make this difficult in reality. It should also be noted that student teachers have less time and opportunity to get to know their leaners individually during WIL than they will have when they gain employment and begin working as professional teachers.
Demonstrate competence in managing and administering learning environments and supporting learners in ways that are sensitive, stimulating, democratic and well organised.	Manage classrooms effectively across diverse contexts to ensure a conducive learning environment.	While performance was in general adequate; this multifaceted aspect of teaching presented several challenges and performance was mixed. Performance was excellent in aspects relating to attitudes towards learners, creating a safe learning environment, and starting and ending the lesson on time with between 65% and 79% of students performing at the expected level. The management of language lessons was more challenging than that of mathematics lessons, with between 50-64% of student teachers achieving the expected level for their language lessons and 65%-79% achieving the same in their mathematics lessons for: settling the class, motivating learners, controlling classroom

BEd programme exit level outcomes	MRTEQ	Key evaluation findings
		conversation, managing discipline effectively and ensuring that learners are attentive. Weaker areas were: providing a summary/conclusion at the end of the lesson and encouraging learner collaboration with less than 50% of student teachers attaining the expected level for the latter.
Demonstrate competence in monitoring and assessing learner progress and achievement.	Assess learners in reliable and varied ways, as well as being able to use the results of assessment to improve teaching and learning.	Performance was less strong in assessment (to the extent that it could be observed during two lessons) than in several other areas, but a majority of student teachers still achieved the expected level, except in the case of monitoring student progress and understanding in mathematics lessons. Performance was weaker amongst the IP and compared to the FP student teachers.
Demonstrate the ability to function responsibly within an education system, an institution, and the community in which an institution is located.	Have a positive work ethic, display appropriate values and conduct themselves in a manner that befits, enhances and develops the teaching profession.	These aspects were not assessed via observation, but feedback from the WIL school principals provides evidence of student teachers demonstrating commitment to the schools where they undertook WIL (e.g. by supporting extra-curricular activities) and supporting the learners attending those schools (e.g. by offering additional lessons to learners where necessary).
Demonstrate a respect for and commitment to the educator profession.		
	Be able to reflect critically, in theoretically informed ways and in conjunction with their professional community of colleagues on their own practice, in order to constantly improve it and adapt it to evolving circumstances.	The majority of student teachers were rated - by the observers who interviewed them after their lessons - as having attained the expected level of reflection – with the exception of IP student teachers in relation to their language lessons (only 47% achieve the expected level). Student teachers who did not achieve the expected level of reflection were not able to identify any areas of weakness or areas for improvement when they were interviewed and asked to reflect on the lesson which they had just taught.

Are SANTS student teachers able to implement the lessons learnt through the SANTS BEd programmes in a classroom setting?

SANTS identified five key lessons which they believe student teachers should be able to apply in the classroom. The first relates to **following thoroughly prepared lesson plans:** the results are strong in this area, as indicated in the table on the previous three pages. Deviations from the lesson plan were frequently required to provide explanations to learners, indicating that learners' prior knowledge was often not adequate and their cognitive level being below par.

The second lesson: **application of content knowledge to effectively facilitate learning** was also an area of strength, as indicated above. In particular, mathematics lessons were found to reflect strong content knowledge. The performance of FP student teachers was stronger than that of their IP counterparts – likely because of the shift in the LoLT from isiZulu to English in the IP. The qualitative data provides evidence of learning deficits amongst the learners, which make it difficult for student teachers to pitch their lessons at the appropriate level and convey subject knowledge effectively.

Effective management of the classroom to maximise learning, has been discussed in some detail. Performance is demonstrably best – in fact excellent – in aspects relating to attitudes towards learners and creation of a safe learning environment. The weaker areas include: providing a summary/conclusion at the end of the lesson; encouraging learner collaboration and classroom management in language lessons and in the IP. Stakeholders in the WIL schools feel that the student teachers abilities will improve in these areas as they gain more teaching experience.

Utilising self-made innovative LTSM is the fourth key lesson. Student teachers performed best in providing grade and content appropriate LTSM and less well in terms of LTSM being innovative. However, LTSM developed for mathematics lessons was more positively rated for innovation than that developed for and used in language lessons. Several examples were cited in the observation notes, of student teachers making effective use of "everyday objects" to demonstrate concepts such as weight and mass in mathematics lessons.

The final lesson is **implementing the current curriculum (CAPS)**. The alignment of lesson plans to CAPS was an area of strength. Furthermore, curriculum knowledge was an area which the WIL school stakeholders felt the student teachers were competent in.

To what extent are SANTS student teachers able to cope in challenging teaching environments?

The student teachers encounter several challenges in the schools where they undertake WIL. The schools face socio-economic challenges including lack of resources. Three key challenges which the student teachers face are: 1) Large classes – which appeared to be not due to absolute numbers so much as much as challenges with timetable management. The identified weakness in differentiation and predominance of whole class instruction, direct instruction and drill and practice may be linked – at least in part – to this challenge. 2) The accumulation of learning deficits which mean that learners do not have adequate knowledge and are not at the appropriate cognitive level for their grade. This necessitates compensating for and addressing gaps in learners' knowledge and understanding. 3) Learners' poor grasp of English – which becomes the LoLT from grade 4, despite the fact that they are still acquiring basic literacy skills in their home language and are far from fluent in English. This makes it necessary for the student teachers to code switch. The student teachers

were found to be coping as well as they could in the face of these challenges. Such conditions are familiar to them, as they grew up attending such schools, and they demonstrate dedication and commitment to succeeding as teachers under conditions of adversity.

What are the perceptions of SANTS student teachers regarding the quality and relevance of the SANTS BEd programmes in preparing them to be teachers?

The SANTS student teachers are overall very positive about the SANTS BEd programmes and the extent to which it is relevant and is helping them prepare to become teachers. The support sessions provided at the SSCs were reported to have enhanced their knowledge, skills and competencies in various ways. Almost all student teachers believe their teaching skills and confidence have improved since participating in WIL and WIL is felt to be an important component of the teacher training process. There were overwhelmingly positive responses when the student teachers were asked to rate various aspects of the SANTS BEd progammes; no aspect of the programmes was considered to be problematic. The top three areas in which student teachers feel the programme can be improved are: 1) providing more/better access to computers; 2) providing (more) financial assistance to student teachers (including during WIL; and 3) providing more/better access to LTSM.

What are the perceptions of stakeholders at school level regarding the quality of teaching delivered by SANTS student teachers?

The perceptions shared by school level stakeholders were in general very positive regarding the student teachers attitude. Principals commented on the student teachers commitment to the WIL schools and their good work ethic. The majority of student teacher supervisors commented positively on the student teachers teaching skills, indicating that they have potential and are heading in the right direction towards becoming fully competent newly qualified teachers. Even the areas of weaker performance - such as differentiation and classroom management - the school stakeholders praised the student teachers efforts. The student teachers were said to make good efforts to differentiate and understand that learners have different learning styles. Similarly, the student teachers were said to generally have the ability to manage the classroom and discipline the learners effectively. Some areas of improvement were noted – including language skills and confidence – which the stakeholders felt student teachers would develop in their final 18 months of studies. A number of principals confirmed that they would gladly appoint the student teachers when they graduate.

Conclusion and recommendations

Throughout the entire study the evaluation findings are in general very positive. From the lesson observations, with very few exceptions, a clear majority of the student teachers was found to perform in their teaching practice at the level expected in terms of the outcomes of the BEd programmes and the MRTEQ with respect to newly qualified teachers.

When adequate performances exceed inadequate performances by a substantial margin across a wide range of criteria and the SANTS student teachers and their tutors are able to describe their learning and teaching practices in detail, as this report has demonstrated, there appears be a clear uptake of the knowledge, concepts and skills promoted by SANTS.

SANTS student teachers are viewed positively – in terms of their attitude and teaching skills – and SANTS as an institution is valued highly for the way it goes about its work. The student teachers themselves value the academic preparation and pedagogical support offered by SANTS. There are few exceptions to these positive views.

The evaluation points to a number of possible recommendations, these are expanded in more detail in Chapter 5:

1. A deep, structured conversation is needed to explore the interpretation and use of the findings. This could be followed by the compilation of a response to the strengths and weaknesses identified in this evaluation report. Following this conversation, it would be valuable to provide some feedback to the student teachers on the findings of the study.
2. The generally poorer performance of the IP student teachers in delivering lessons as compared to the FP student teachers needs to be looked at closely by SANTS. What might be done to achieve a better balance may need attention.
3. The poorer performance of the same student teachers when teaching language lessons as compared to mathematics lessons in the same phase should also be examined by SANTS. Better performance in mathematics is to be celebrated and the poorer performance in language interrogated. The findings suggest that there may be a need for more exposure to teaching isiZulu and teaching in isiZulu in the BEd programme. Perhaps an even greater concern is the ways in which isiZulu interfaces with English in the classroom.
4. Areas of relative weakness identified via this study should be addressed in the final year of the BEd programme.
5. Encourage reflection when the student teachers come back from WIL on what worked and what did not work and why when they tried to put theory into practice in the real world. Spend time discussing real world challenges and potential solutions. Encourage the student teachers to share good practices and document these for additional student cohorts.
6. At a strategic level, SANTS leadership should look into ways to make WIL (even) more successful: for example, by engaging in gentle advocacy for contexts that favour the qualities that SANTS teaching and national standards value. Practical questions like the location of schools, their distance from where the student teachers live and the cost of travel troubled some of the student teachers. SANTS could investigate ways of limiting the impact of these challenges. The feasibility of providing the additional support during WIL which some students' requested should also be considered.
7. The SANTS model of delivery seems to be impressive and worth replicating. The success of the model can be attributed in part to SANTS' rootedness in its context (regional KwaZulu-Natal) and the relationships it has established in this context. Replication of the model in other contexts would require special attention to the ways in which these new contexts differ.
8. Regarding the BEd programme overall, the perception survey illuminated areas where student teachers would like to see the strengthening and improvement. The greatest area of concern, which SANTS should consider how to address, was computer access and use.
9. Finally, SANTS could look into the possibility of conducting a tracer study (of modest scope) that looks at the uptake and perpetuation of good practices by SANTS graduates in-service.

Chapter 1: Understanding the Commission and Relevant Issues and Questions

1.1 Statement of work

This evaluation focuses on the teaching of student teachers enrolled in SANTS Private Higher Education Institution (SANTS) Bachelor of Education in Foundation Phase Teaching and Bachelor of Education in Intermediate Phase Teaching (BEd programmes). The BEd programmes require academic, practical and work integrated learning (WIL). The study is intended to ascertain the extent to which these student teachers are putting into practice the knowledge, skills and techniques taught to them via the BEd programmes when undertaking WIL. The information gathered through the evaluation will provide SANTS with an independent perspective on the SANTS student teachers' classroom performance. The evaluation is particularly concerned with the student teachers' level of performance in relation to:

- The expected outcomes of the SANTS Bed programmes; and
- The Minimum Requirements for Teacher Education Qualifications (MRTEQ).

The evaluation also provides feedback regarding how student teachers teach when faced with the challenges of teaching in schools located in rural and poor areas. In addition, the evaluation identifies areas in which the BEd programmes could be improved and strengthened.

1.2 About SANTS

SANTS, formerly known as the South African National Tutor Service, was established in 1997 as a private education and training centre. The institution focuses on education-centred programmes and qualifications, mainly in the areas of Early Childhood Development (ECD) and Foundation Phase (FP) and Intermediate Phase (IP) teaching. In 2012, the SANTS BEd programmes were accredited by the Council of Higher Education (CHE) and the institution was registered with the Department of Higher Education and Training (DHET) as a private higher education institution.

SANTS offers three higher education qualifications: a Diploma in Grade R Teaching, BEd Foundation Phase Teaching and BEd Intermediate Phase Teaching. For entry into the BEd programmes to specialise in Foundation Phase or Intermediate Phase teaching, applicants are required to have at least one of the following qualifications:

- A National Senior Certificate (NSC) certified by Umalusi meeting requirements for entrance into Bachelor studies;
- A Senior Certificate with Bachelor endorsement (if achieved before 2008);
- A National Certificate Vocational (NCV) Level 4 qualification issued by Umalusi meeting requirements for admission into Bachelor studies (SANTS, 2014).

The BEd Foundation Phase Teaching qualification aims to equip student teachers with the ability to teach from grade R to grade 3. The programme is designed to shape well-rounded professionally qualified FP teachers with the knowledge and skills required to successfully teach in the FP.

The BEd Intermediate Phase Teaching qualification aims to prepare student teachers to teach from grades 4 to 7. The programme is designed to shape well-rounded professionally qualified IP teachers capable of teaching all subjects in the IP.

The Foundation Phase and Intermediate Phase BEd programmes are both four year programmes. The teaching modules integrate pedagogic (teaching) and content knowledge. According to the South African Qualifications Authority (SAQA) the curriculum is designed around four complementary components:

- Competencies related to fundamental learning;
- Competencies related to subject knowledge and the content of teaching (study of education and its foundations);
- Competencies related to teaching and learning processes (general pedagogic knowledge and pedagogic content knowledge);
- Competencies related to the school and the educator profession (SAQA, 2012a; SAQA, 2012b).

Both the BEd Foundation Phase Teaching the BEd Intermediate Phase Teaching programmes provide practical teaching experience to students with no prior teaching experience through WIL. All student teachers participate in WIL which is expected to provide a platform for practical learning in and from practice.

Prior to undertaking WIL, SANTS student teachers observe model lessons conducted by their tutors. Thereafter, the student teachers plan lessons for each curriculum topic to be covered and are granted an opportunity to present their own simulation lessons with learning and teaching support material (LTSM).

WIL involves observing and teaching in an authentic (school-based) classroom environment. For SANTS student teachers to learn *from* practice whilst undertaking WIL, they must observe model lessons conducted by their supervisors - who are experienced teachers - at the schools where the students undertake WIL. Thereafter, to learn *in* practice, the student teachers must present their own lessons with LTSM.

WIL is offered in each year of the BEd programmes through placement with approved supervisors at designated schools. Student teachers are required to spend a minimum of 20 weeks and a maximum of 32 weeks (as specified in MRTEQ) in formally supervised and assessed school-based practice over the four-year duration of the programme. In any given year, a maximum of 12 such weeks may be spent in schools and at least three of these weeks should be consecutive (as specified in MRTEQ). Student teachers are placed under the mentorship of a qualified teacher during WIL and their WIL is supervised by a SANTS lecturer.

The SANTS programmes are delivered through a distance education model with regular face-to-face contact sessions to support student teachers. Student teachers are provided with support facilitated by qualified tutors at local Student Support Centres (SSCs). The SANTS model provides for 25% of time in face-to-face student support sessions, 25% in practical workplace experience and 50% in student independent self-study including the study of specially prepared materials such as the

Student Training Manual for each module, completing assignments, preparing for tests and examinations and making LTSM for use during their WIL experience and teaching careers.

Reflection on practice is an essential part of the learning experience and is achieved by providing student teachers with feedback on their written tasks and teaching practice (simulation lessons and WIL). The latter can occur orally through discussion with tutors, peers and supervisors in the WIL schools, or in a written format via reflection reports.

SANTS believes that its model is strengthened by providing support to student teachers within their communities. This support is offered by local professionals (tutors). Thus the model is intended, among other things, to build capacity and reduce unemployment in rural and less developed parts of South Africa. SANTS tutors receive specialised training for their complex roles (SANTS, 2014).

The exit level outcomes which student teachers are expected to achieve before graduating from the programme are specified by SAQA (SAQA 2012a; SAQA, 2012b). The SANTS BEd programmes aim to equip graduates with the required content knowledge, educational theory and pedagogical skills to demonstrate competence and responsibility as academically and professionally qualified beginner teachers in their phases of specialisation (SANTS, 2014).

SANTS confirmed that: the main thinking underpinning the BEd programmes is that they should produce teachers who can practically teach in the classroom. Teachers need to have relevant subject knowledge as well as knowledge and skills of 'how to teach' to be successful teachers. SANTS identified five key lessons which SANTS-trained student teachers should be able to apply:

- Teach according to thoroughly prepared lesson plans
- Apply their content knowledge to effectively facilitate learning
- Effectively manage the classroom to maximise learning
- Make use of sufficient self-made innovative LTSM
- Implement the current curriculum (CAPS) (SANTS, 2016).

1.3 Evaluation questions

The following **evaluation questions** were generated from interactions between SANTS and JET:

1. To what extent is the classroom performance of SANTS student teachers at the level required by the outcomes of the SANTS B. Ed. programmes?
2. To what extent are SANTS student teachers performing effectively as teachers in terms of the minimum standards as set out in the MRTEQ?
3. Are SANTS student teachers able to implement the lessons learnt through the SANTS BEd programmes in a classroom setting?
4. To what extent are SANTS student teachers able to cope in challenging teaching environments?
5. What are the perceptions of SANTS student teachers regarding the quality and relevance of the SANTS BEd programmes in preparing them to be teachers?
6. What are the perceptions of stakeholders at school level regarding the quality of teaching delivered by SANTS student teachers?

1.4 Document and literature review

An extensive literature review was not undertaken as part of this study[1]. The scope of work for the document and literature review covered reviewing the MRTEQ, SANTS documentation and the findings emerging from JET's multi-year research study on Initial Teacher Education (ITE). This informed the conceptual framework and data collection instruments that were developed for this study (see Section 2.3).

JET's research study on ITE included a recent literature review on the initial professional development of teachers in South Africa (Deacon, 2012) which constituted a key source. In addition, the findings from other evaluations of teaching practice for student teachers in a South African context (Mukeredzi, 2014; Mukeredzi & Mandrona, 2013) were useful in developing the framework for this study. The implications of the literature and document review for this study are summarized briefly below.

The MRTEQ describes the standards that student teachers are expected to achieve and against which they will be evaluated when they qualify. The standards are drawn from the Higher Education Qualifications Framework and provide institutions that deliver teacher training with requirements for the development of learning programmes. The MRTEQ:

- Sets the standard for the development of the curricula of teacher education programmes;
- Sets minimum standards for different qualifications for specific purposes in education (DHET, 2011);
- Defines the knowledge requirements appropriate for teacher qualifications;
- Prescribes minimum and maximum credit values for learning programmes leading to qualifications; and
- Defines a minimum set of agreed competencies for ITE programmes.

The SANTS BEd teacher education programmes have been based on these requirements. The MRTEQ and SANTS own requirements and expectations of student teachers when they graduate and qualify, informed the development of an evaluation matrix, which includes indicators of student teacher performance (see Section 2.3)

A brief review of literature pertaining to the professional development of student teachers in South Africa provided insight into the processes involved in student teacher development and the skills that student teachers should acquire in order to become successful teachers. A focus was to identify factors that influence the performance of student teachers during WIL practice and influence the extent to which they acquire the skills they are expected to have on completion of their teacher training programmes to meet the requirements of the MRTEQ.

Deacon (2014) conducted a literature review of the initial professional development of teachers and identified the following factors which impact on a teachers' professional identity. A number of these factors are relevant for this study and are summarised below:

- Motivation to teach;

[1] SANTS indicated that they had undertaken their own reviews and were familiar with the literature and did not need this written up in a report.

- Student-teachers' perceptions of teaching as a profession;
- Teacher standards (i.e. such as the MRTEQ);
- Teacher knowledge;
- Teacher education programmes;
- Student-teachers' experiences of teacher education;
- Mentoring of student-teachers;
- Student-teacher retention;
- School culture and context.

The assessment of student teacher performance should involve an analysis of students' professional knowledge. Grossman (1990, cited in Watzke, 2007) argues that four areas emerge as cornerstones of professional knowledge for teachers: subject matter knowledge; general pedagogical knowledge; pedagogical content knowledge (PCK) and knowledge of context. The evaluation of SANTS student teacher practices during WIL involved investigation of these areas.

Building on the seminal work of Shulman (1986), Taylor and Taylor (2012: 3) identify three components of teacher professional knowledge: "*disciplinary knowledge, subject knowledge for teaching, and classroom competence; or, put another way: content knowledge of the respective school subject; theoretical and research findings concerning the nature of the subject and methods of teaching it; and the practical ability to convey the subject to learners in real classrooms*". Shulman (1986) also discusses the need to consider the principles of classroom organisation and management, as well as knowledge of learners and of the school organisation (Shulman 1986: 14). Each of these aspects was incorporated into the conceptual framework underpinning the evaluation, as discussed in Section 2.3 and detailed in the evaluation matrix in Appendix A.

Knowledge of context and culture is also important, for example, knowledge of the language(s) of learning and teaching, of diversity, poverty, HIV and AIDS and other social challenges (DHET 2011: 11, cited in Deacon, 2014).

South Africa faces particular challenges with respect to the language of learning and teaching (LoLT) in schools. In the majority of South African schools, the LoLT in the FP is an African language. But in areas where multiple languages are spoken there may be multiple LoLTs in different classes in the FP and some children are likely end up being taught in a language which is not their home language. In the IP, the LoLT usually switches to English, with the challenge that the majority of learners are now learning in a language which is not their home language and in which they are often not suitably competent. This challenge is well documented (Draper & Spaull, 2015). Thus, competence in more than one South African official language is a prerequisite for teachers and is specified in the MRTEQ. Knowledge of how children acquire language competence and the ability to communicate in and across different languages are critical skills for primary school teachers.

JET's ITE research study identified several challenges relating to the preparation student teachers receive for literacy and language teaching (Taylor, 2015):

- Higher education institutions (HEIs) are not dealing adequately with the challenge of literacy instruction;
- Repeated research findings demonstrate that the majority of learners in the IP are unable to read; and

- HEIs are not doing enough to ensure that newly qualified teachers are proficient in English and adequately prepared to teach English first additional language (EFAL).

A further challenge which is not exclusively a South African problem, but is well documented in South Africa, particularly in relation to mathematics, but in other subjects also, is the learning deficits which learners begin to acquire from as early as Grade R and which accumulate over time: "*students acquire learning deficits early on in their schooling careers*" which build up over time and become "*the root cause of underperformance in later years*" (Spaull & Kotze, 2015, p.13).

According to Fuller (1969), student teacher development grows across three main stages. Fuller theorised an influential model of teacher development in which teachers move from concerns about self, to concerns about tasks, to concerns about the impact they as teachers have on students. These stages were considered in the conceptual framework for the evaluation.

Watzke (2007) identified six key factors that determine the quality of teaching and the extent to which teaching and learning activities will lead to learner progress and achievement. The SANTS student teachers undertaking WIL were also assessed in relation to these characteristics:

- The creation of a safe and stimulating environment for students;
- Efficient classroom management;
- The quality of instruction;
- Teaching students how to learn;
- Monitoring student progress;
- Adapting teaching to student differences; and
- Attention to students at risk of falling behind.

A study which followed teacher education students into their first year of teaching as qualified teachers identified gaps in terms of the teachers being able to implement what they had learnt during their courses because "*the [s]tudent teachers … did not watch their teacher educators teach in school classrooms, nor did they have the opportunity to put their own practices up for evaluation by mathematics specialists while they were on teaching practice*" (Ensor 2001: 315, cited in Deacon, 2014). This emphasises the importance of modelling "best practice" in a classroom setting (Ensor 2001: 317) and suggests that student teachers and newly qualified teachers need to be more reflective about what they teach, how they teach and why (Hammerness et al 2005a: 368, cited in Deacon, 2014). The conceptual framework for the evaluation includes an indicator of the student teachers' ability to reflect critically on their own teaching.

Course tutors and school-based mentors are identified as being "*powerful sources of influence on student teachers undergoing pre-service training*" (Ashby et al 2008: 26, cited in Deacon, 4. Student teachers have been found to value *"supportive, reassuring mentors who are prepared and able to make time for them, to offer practical advice and ideas relating to their teaching, and to provide constructive feedback on their teaching attempts*" (Ashby et al 2008: 26, cited in Deacon, 2014). The conceptual framework for the evaluation includes the extent to which mentorship and support was reportedly provided to student teachers by the SANTS tutors and supervisors at the WIL schools.

Literature on student teachers' experience of WIL finds that mentorship support is commonly identified as "*the factor that has the strongest impact on teaching*" (Roness 2011: 633; Rots *et al*

2007; 544; Feiman-Nemser 2001: 1020, cited in Deacon, 2014). The majority of student teachers view WIL as a positive experience (Akyeampong *et al* 2011: 30; Arends and Phurutse 2009: 17; Sinclair 2008: 93, cited in Deacon, 2014). This points to the critical importance of WIL in ITE and the value of conducting a study which investigates this component of an ITE programme.

Chapter 2: Evaluation Approach and Methodology

This Chapter presents the evaluation approach, conceptual framework and methodology that guided the study. A detailed description is provided which includes the overall approach, conceptual framework, methods used, sampling strategy, development of data collection tools, data collection processes, data analysis methods and limitations of the study. Agreement around the evaluation commission led to an eclectic approach, which was intended to be formative, utilization-focused, and exploratory or descriptive rather than explanatory. A range of methods was used to obtain varied perspectives on the evaluation questions and issues highlighted in the document and literature review. These aspects of the evaluation are spelt out below.

2.1 Evaluation approach

The evaluation was **formative** in nature. Formative evaluations are intended to provide information for guiding improvement, as their purpose is to help form or shape a programme to perform better (Rossi, Lipsey & Freeman, 2004).

JET also aimed to increase the value of the evaluation use by using a **utilization-focused** evaluation approach. Utilisation-focused evaluation entails working with the primary intended users of an evaluation. Here researchers and clients agree on everything from the core evaluation questions to the evaluation design and ultimately the analytical framework for making sense of the data and rendering evaluative judgments (Patton, 2012). This participatory, flexible approach incorporates stakeholders' values and priorities into the evaluation framework. A utilisation-focused approach is believed to increase the likelihood that the results of the evaluation will be developmental and useful to the programme stakeholders in determining possible areas of improvement.

2.2 Evaluation design

An exploratory evaluation design was used. Exploratory studies are useful for obtaining a better understanding of a topic by testing the feasibility of a more extensive study. Furthermore, an exploratory study may be beneficial in developing methods to be used in a subsequent study. Exploratory studies may also aid in highlighting central concepts, determining priorities for future studies and developing new hypothesis about an existing phenomenon. Notably, in this study, the exploratory design could assist in establishing the feasibility of a more extensive study and in laying the foundation for subsequent monitoring of the SANTS student teachers undertaking WIL. Through exploration it is possible to identify the areas of the BEd programmes, and specifically of the WIL component, that most need to be monitored on an ongoing basis for programme improvement.

The evaluation is also seen to serve a descriptive purpose. A great deal of social science research - including in the field of education - is conducted in order to describe situations or events. Descriptive studies aim to describe phenomena accurately, either through narrative type descriptions, or through the use of qualitative or quantitative methods (De Vos, Strydom, Fouche & Delport, 2011). Description aims to map a situation in order to point out what is happening, but not necessarily to make causal explanations (Rosenthal & Rosnow, 2008). This evaluation contains elements of a

descriptive study, given that an expected outcome was to ascertain and describe the extent to which SANTS students' teachers were performing at the level expected of newly qualified teachers.

2.3 Conceptual framework: evaluation matrix

A review of the MRTEQ and SANTS BEd programmes documents and a brief literature review (see Section 1.4) indicated relevant issues relating to initial teacher education (ITE), what is required of newly qualified teachers and the challenges newly qualified teachers face in South Africa, which it would be important to investigate. These aspects and requirements provided important parameters for consideration when assessing student teachers during WIL. Based on the parameters identified via the document and literature review, the evaluation team developed a matrix which specified key thematic areas, indicators in each of these thematic areas and more specific measures to guide the study. The evaluation matrix was also linked to the evaluation questions (see Section 1.3) which were identified for the study. The full evaluation matrix can be found in Annexure A.

The thematic areas under investigation were: knowledge of teaching the subject (pedagogical content knowledge (PCK)); teaching methods and strategies; learner differentiation and participation; communication and language; knowledge of curriculum; knowledge of planning and designing lessons; LTSM; classroom management; reflection on teaching practice; mentoring provided by SANTS; mentoring and support within the WIL school(s); strategies to address learners' social problems/challenges; perceptions of school stakeholders regarding SANTS student teachers; quality and relevance of the SANTS BEd programmes; WIL school context and culture; ability to cope in difficult teaching environments; and student teachers' motivation to teach.

Some of these thematic areas relate to expectations of newly qualified teachers when they are in classrooms and schools, as identified in the literature and outlined in the MRTEQ (e.g. PCK; teaching methods and strategies; learner differentiation and participation; communication and language; knowledge of curriculum; knowledge of planning and designing lessons; LTSM; classroom management; strategies to address learners' social problems/challenges; and reflection on teaching practice). Others relate to strategies which can assist student teachers in their professional development, as outlined in the literature (e.g. mentoring provided by SANTS; and mentoring and support within the WIL school(s)). Some relate to stakeholder perceptions about the SANTS student teachers and the SANTS programme (e.g. perceptions of school stakeholders regarding SANTS student teachers; student teachers' motivation to teach; and quality and relevance of the SANTS BEd programmes). Still others relate to the challenges associated with teaching in schools in rural and poor areas, some of which were identified in the literature (e.g. WIL school context and culture; and ability to cope in difficult teaching environments).

The indicators and measures delve down into more specifics for each thematic area. They were derived based on the evaluation team's review of the MRTEQ, SANTS BEd Foundation Phase Teaching and BEd Intermediate Phase Teaching Module Descriptors (SANTS, 2012a; SANTS, 2012b), the literature review, input from Educationalists and Education Researchers at JET and a review of indicators and instruments previously used by JET to observe and assess classroom teaching. An evaluation matrix was drafted and discussed at a workshop with SANTS which was facilitated by JET.

The evaluation matrix acted as a guiding framework to ensure that each thematic area, indicator and measure was included and specified which data collection instrument(s) would measure these. The first column in the evaluation matrix confirms the link to the evaluation questions; the second column specifies the thematic area; the third column specifies the indicators linked to the thematic area; the fourth column identifies the link (if relevant) between the indicators, the MRTEQ and SANTS module descriptors; the fifth column specifies measure linked to the indicators; the sixth to 16th columns specify which data collection instrument or other data source will provide the requisite information. The full evaluation matrix which guided the study can be found in Appendix A and an excerpt is presented overleaf.

The example presented shows that: in assessing student teachers' knowledge of the curriculum, the mathematics and language lesson observation instruments assessed the extent to which tasks set and activities provided during the lesson were curriculum aligned. The MRTEQ (DHET, 2011) specifies that "newly qualified teachers must be knowledgeable about the South African curriculum and be able to unpack its specialised content". The BEd programmes module descriptors specify that after completing the curriculum in practice and effective classroom practice modules, FP student teachers should be able to "know the school curriculum and implement its specialised content", as well as "determine the Grade R-3 teachers' role during each activity that forms part of the integrated literacy, numeracy and life skills learning programmes" in line with and according to "time allocations stipulated by the official curriculum policy" (SANTS, 2012a). Similarly, the IP module descriptors confirm that after completing the curriculum in practice module, IP student teachers should be able to "interpret the school curriculum and relevant policies and analyse its specialised contents" (SANTS, 2012b).

In ascertaining student teachers' knowledge of planning and designing lessons, students were observed and their lesson plans were reviewed in relation to: (i) alignment to the curriculum; (ii) appropriateness for the subject and grade level; (iii) organisation, structure and objectives; and (iv) the extent to which teaching was in line with the lesson plan and supported the achievement of the lesson objectives. The student teacher interview also provided information to support (iv), as during the interview student teachers were asked to reflect on the lesson they had just taught and the extent to which they were able to achieve the lesson objectives.

Table 2: Excerpt from the evaluation matrix

					Data source										
Link to evaluation questions	**Thematic area**	**Indicators**	**Link between indicators, SANTS expectations and the MRTEQ**	**Measures**	**School information**	**Observation general**	**Observation maths**	**Observation language**	**Lesson Plan review**	**Student teacher interview**	**Supervisor interview**	**Principal interview**	**Tutor FGD**	**Student teacher survey**	**Document review**
Q1-2 & 6	Know-ledge of curri-culum	Teaching is curri-culum aligned	MRTEQ 6, "newly qualified teachers must be knowledgeable about the South African curriculum and be able to unpack its specialised content…". SANTS FP, curriculum in practice, effective classroom practice, "know the school curriculum and implement its specialised content", "determine the Grade R-3 teachers' role during each activity that forms part of the integrated literacy, numeracy and life skills learning programmes…", "...according to time allocations stipulated by the official curriculum policy". SANTS IP, curriculum in practice, "interpret the school curriculum and relevant policies and analyse its specialised contents".	Tasks and activities are aligned to CAPS			x	x							
Q1-3 & 6	Know-ledge of planning and designing lessons	Lesson plan developed	MRTEQ 6, "newly qualified teachers must be knowledgeable about the South African curriculum and be able to unpack its specialised content, as well as being able to use available resources appropriately, so as to plan and design suitable learning programmes"	Lesson plan is aligned with the curriculum					x						
			SANTS FP effective classroom practice 1-2, literacy teaching in the FP 1-3, numeracy in the FP 1-2, " plan and design suitable learning programmes". SANTS IP effective classroom practice 1-2, language teaching in the IP 1-3, mathematics teaching in the IP 1-2: "plan and design suitable learning programmes"	Lesson plan is appropriate for subject and grade level			x	x	x						
			SANTS WIL guidelines, "ability to plan and design suitable learning programmes"	Lesson plan is well organised and structured and has clear objectives					x						
		Lesson plan followed		Teaching is in line with lesson plan and supports achievement of lesson objectives			x	x	x	x					

2.4 Methodology

Mixed methods employing the use of both qualitative and quantitative data collection and analysis techniques were used. **Quantitative methods** were used to collect data directly from students, via a perception survey, using lesson observation tools and through a school information form. The quantitative techniques used were instrumental in gathering data from a large sample of the population. Secondary data provided by SANTS (i.e. student performance records) complimented the primary data that was collected.

In addition, **qualitative** techniques involving face-to-face and focus group interviews were used to collect data from SANTS student teachers, student teachers' supervisors and school principals in the WIL schools and the SANTS tutors. The qualitative methodologies used allowed for a deeper investigation of respondents' perceptions and actions in relation to the specific evaluation questions under investigation and themes and indicators outlined in the evaluation matrix.

By utilising multiple data sources and data collection methods, the evaluation team were able to provide a range of perspectives on the key questions and issues which were, at times complementary, and in other instances revealed that different stakeholders had contrasting perspectives.

2.5 Sampling

A combination of stratified, random and purposive sampling was used to draw the various samples required for the different data collection methods. The processes are briefly described below:

2.5.1 Sampling WIL schools for fieldwork visits and student teachers for observations and interviews

The sampling frame comprised all 341 schools where student teachers were participating in WIL and all 828 BEd students participating in WIL (this information was provided by SANTS). Sampling took place at the level of schools and students. The goal agreed with SANTS was to observe 86 out of the total population of 822 students. If the sample was truly random, this would generate a sample representative of the total population, with a confidence interval[2] of 95% and a margin of error[3] of 10%. However, it was not possible to draw a random sample due to time and cost constraints..

The SANTS student teachers were engaged in WIL for a period of 10 days (20-31 July 2015). It was agreed that fieldwork would not be conducted on the first day to enable the student teachers to settle into their WIL schools, leaving nine fieldwork days. It was necessary to keep the fieldwork team small to ensure the quality of the work, thus seven fieldworkers were recruited. Seven fieldworkers conducting fieldwork over nine days meant that a limited number of schools could be visited and student teachers observed. A maximum of two student teachers could be observed delivering a maximum of two lessons each per day, provided they were engaged in WIL at the same

[2] The confidence level is set at 95%; this means that, if the study is replicated 100 times, in 95 instances a survey result would fall within the specified margin of error of the true result (i.e. if surveying the entire population).

[3] Margin of error refers to the likelihood that the results from a sample will be the same or similar to the findings if one had surveyed the entire population. A margin of error of 10% indicates that the findings from the sample are likely to be within 10% of the findings of the entire population.

school. Where student teachers were engaged in WIL at different schools, only one student teacher could be observed delivering a maximum of two lessons per day. This was due to the time required to travel to and from the schools and to complete other data collection instruments at the schools. Thus, to maximise the number of students that could be observed, it was agreed to sample randomly at the level of WIL schools and for fieldworkers to observe all of the SANTS student teachers engaged in WIL at a particular school. Thus, the sample was random at the level of WIL schools, but not student teachers.

WIL schools were randomly sampled from lists provided by SANTS. The WIL schools were sampled until the target of 86 student teachers engaged in WIL was reached. A proportional sample was drawn based on the number of students assigned to a particular SSC. The number of students sampled per SSC is summarised below:

Table 3: Number of students per SSC and number sampled for the fieldwork

SSC	Number of student teachers	Target number for fieldwork	Number reached for fieldwork
Dundee	98	10	11
Empangeni	167	17	17
Greytown	64	7	7
Ixopo	55	6	6
Jozini	110	11	11
Nongoma	81	8	8
Pongola	72	8	8
Ulundi	82	9	9
Vryheid	99	10	10*
Total	828	86	87*

*The data for three of these student teachers was corrupted, making 84 the actual total for which we have results.

The sampled schools were telephoned in advance to confirm that SANTS student teachers would indeed be engaged in WIL at the school and that the school could accommodate a fieldwork visit. The date of the fieldwork visit was pre-arranged. A number of changes were necessary to the fieldwork plan during the fieldwork period. In a number of instances it was found that the expected SANTS student teachers were not at the WIL school which had been sampled: in these cases the fieldworker observed the student teachers who were at the WIL school. In some instances it was found that no SANTS student teachers were at the WIL school which had been sampled: in these cases a "replacement" school was drawn and the fieldworker proceeded to this replacement school. In a few instances it was found that less than the expected number of SANTS student teachers was at a WIL school which had been sampled: in these cases the fieldworker observed all the student teachers who were there and a replacement school was visited if necessary to ensure that the target number of students per SSC was reached.

In the WIL schools which were visited for fieldwork, **student teachers** were **observed** delivering **mathematics** and **language lessons**. In some instances it was not possible to observe both a mathematics and a language lesson for each student teacher e.g. if the student teacher was not scheduled to teach both lessons on the day of fieldwork, or because of disruptions at the school on the day of fieldwork. However, phoning the schools in advance and pre-arranging the fieldwork

ensured that the majority of student teachers were observed teaching both lessons. **Interviews** were conducted with the SANTS **student teachers** following their lesson observations.

2.5.2 Sampling of school-based stakeholders

Interviews were conducted with the **school principals** and the **supervisors** of the SANTS student teachers who were observed. The supervisors were teachers or school management team (SMT) members assigned to monitor and support the student teachers. These respondents were purposively selected.

2.5.3 Sampling of SANTS tutors

In addition to the fieldwork in schools, **focus group interviews** were conducted with all SANTS tutors. Twenty tutors were interviewed during three separate sessions on 3 August 2015. Tutors linked to all SSCs participated. Tutors were grouped for logistical ease, tutors from SSCs furthest from Durban (where the focus groups were held) were interviewed first so that they could leave to travel home and those from SSCs closest to Durban were interviewed last.

2.5.4 Sampling for the student survey

A perception survey design by JET was administered to the SANTS student teachers by SANTS. Twenty SANTS tutors were trained by the evaluation team on 3 August 2015 in three sessions. The tutors were then tasked with administering the survey at their respective SSCs on 4 and 5 August 2015. The sampling method used was a convenience sample: the sample consisted of all students at the various centres who were in attendance at the non-compulsory sessions on the two days of survey administration. Convenience sampling was the most cost effective method to use to conduct the surveys. There are limitations to using this method relating to self-selection bias - students in effect chose themselves for the survey when they chose to attend the support sessions on the two days of survey administration. The survey therefore may not include the views of students who were not attending the support sessions regularly for whatever reason. While the method ensured that the sample contained representation from each SSC, the sample was not technically stratified.

2.6 Data Collection Instruments

The data collection instruments used in the evaluation were developed following the development of the evaluation matrix. The data collection instruments were developed collaboratively with SANTS, as SANTS reviewed and commented on draft instruments which were developed by JET. The thematic areas and indicators in the evaluation matrix informed decisions regarding what data collection instruments were required and what questions would be included in the data collection instruments. Eight data collection instruments were developed:

1. Mathematics lesson observation tool;
2. Language lesson observation tool (home language in the FP and English in the IP);
3. Student teacher interview schedule;
4. Student teacher supervisor (in WIL school) interview schedule;
5. Principal (in WIL school) interview schedule;
6. SANTS tutor focus group interview schedule;
7. School information form;
8. Student teacher perception survey.

A brief but detailed description of each data collection instrument follows. The data collection instruments can be found in Appendix B.

2.6.1 Observation instruments

The observation instruments developed for this evaluation built on instruments developed by JET for the observation of student teachers and teachers delivering lessons in previous research and evaluation studies. The development of the classroom observation tools involved the expertise of experienced language and mathematics teachers. The observations allowed for the detailed analysis of student teachers' actions and skills in a classroom setting. Systematic observation which involves the careful observation of one or more specific behaviours in a particular setting was employed in assessing student teachers' classroom skills. Systematic observation mainly entails the assessment of specific predefined behaviours or traits that may also be quantifiable.

The evaluation matrix developed by JET, in collaboration with SANTS, guided decisions about which behaviours were important to observe. The areas to be observed and assessed during student teachers' lesson delivery addressed competencies in: lesson planning, preparation and skills; LTSM development and use; skills in classroom management; subject knowledge; and teaching skills. Additionally, the competence of student teachers in language and communication while delivering lessons was assessed.

The mathematics and language observation tools differed only in a few aspects. One such aspect was the LTSM used: the LTSM used relate to the LTSM required for teaching a specific subject. For example, a compass or abacas in the case of mathematics and dictionaries or story books in the case of language. The observation tools also incorporated a section that assessed a student teacher's ability to reflect on the lesson he or she had just taught. The reflection section of the observation tool was completed following face-to-face interview with the student teacher after the lesson observation.

The observation instruments used a 4 point rating scale to rate the student teachers' performance in relation to some of the indicators and measures specified in the evaluation matrix. The 4 point scale was:

- 1 = Exceeding expected level
- 2 = Expected level
- 3 = Below expected level
- 4 = Far below expected level.

The benchmark for "expected level" was the minimum standards for newly qualified teachers set out in the MRTEQ and the expected outcomes of the SANTS BEd programmes.

To use this scale it was necessary to develop specify what would constitute each level on the rating scale for the indicators and measures under observation so as to provide a benchmark and basis for ascertaining what rating should be given. This was intended to increase the reliability of the ratings given, by ensuring that each fieldworker observed student teachers' behaviour in the same way and had the same understanding of what was expected. Appendix C contains the document which was developed to guide fieldworkers in using the rating scale in their observations. An additional step taken to ensure the reliability of the ratings was the inclusion of qualitative questions and a space

for comments under each aspect of the lesson which the fieldworker rated. These sections were intended to substantiate why a student teacher was given a certain rating. Subjective professional judgements were an important part of the process: we thus took care in selecting the right fieldworkers (with the right experience) and training them in the use of the observation tools.

2.6.2 Student teacher survey

Survey research employing the use of tailored questionnaires was useful in obtaining information regarding perceptions from a large sample of student teachers across the whole of the BEd programmes. This survey gave insight into the extent to which the programme was perceived to be beneficial in preparing student teachers for teaching practise. Additionally, the survey sought to highlight possible areas in the SANTS programme that could be improved.

The survey questionnaire had a total of 58 items which were categorised according to different themes. In the first section, demographic information was collected. The survey then went on to collect student teachers' ratings regarding the frequency of training and feedback given by SANTS, the SANTS BEd support sessions offered and the different aspects of the BEd programmes. In addition the survey sought to gather data on student teachers' ratings of their interaction with SANTS tutors and their experiences during WIL. The survey concluded by recording student teachers' opinions on how the SANTS B. Ed. programme might be improved.

2.6.3 School information form

The school information form was designed to gather data on the context of the schools in which SANTS student teachers undertook WIL. The school information form had 31 items that focused on physical facilities and the availability of resources such as running water, electricity, toilets and computers. Additionally, data was collected relating to the culture of the school, for example, whether school, lessons and breaks started and ended on time and the extent to which LTSM and the school grounds and buildings were cared for.

Data gathered via the school information form provided a barometer regarding the social and economic environment of the WIL schools and was useful in affording a different perspective on information provided via stakeholder interviews regarding challenges associated with working in difficult teaching environments.

2.6.4 Interview schedules

Interview schedules were developed to guide face-to-face interviews with various stakeholders at the schools in which SANTS student teachers undertook WIL. There was an interview schedule for use with student teachers following observation of their lessons. These interviews allowed for a reflection on the lessons taught and discussion regarding the progress student teachers felt they had made throughout WIL, challenges they had experienced during WIL, support they had received to address these challenges and possible areas of additional support and improvement they felt they needed.

Interviews were also conducted with the teachers who directly supervised the SANTS student teachers who were observed. Supervisors were asked questions regarding their perceptions of the student teachers' teaching and classroom management skills and areas in which they felt the student teachers needed improvement.

An interview schedule was developed for principals at the WIL schools to gain insight into student teachers' ability to cope in difficult teaching environments. Additionally, the principal interview schedule collected information on principals' perceptions of the SANTS student teachers and of the SANTS BEd programmes as a whole.

2.6.5 Focus group interview schedule

Focus group interviews were conducted with the tutors who provided support to the student teachers. These interviews provided insight into SANTS tutors' perceptions regarding the student teachers' skills and development as teachers and provided additional information on possible areas of improvement for the SANTS BEd programmes.

The SANTS tutor focus group interview schedule centred on: perceptions of student teachers' teaching skills; mentoring of SANTS student teachers; SANTS student teachers' interaction with learners and ability to cope in challenging teaching environments; the quality and relevance of the SANTS programme; SANTS student teachers' critical thinking skills; and reflections on the WIL component of the SANTS BEd programmes.

2.6.6 Summary

The table below summarises the number of data collection instruments which were completed:

Table 4: Number of data collection instruments administered, collected, captured and analysed

Data collection instruments	
Student teacher survey	347
Student teacher language observation	76
Student teacher mathematics observation	74
Student teacher interview	79
Total number of student teachers observed teaching at least one lesson	87
Student teacher supervisor interviews	77
Principal interview	43
School information	43
Focus group interviews	3

2.7 Fieldwork planning and preparation

The fieldwork was planned in collaboration with SANTS. SANTS provided information regarding the names and contact details of the SANTS student teachers, the names and contact details of the WIL schools student teachers were assigned to and the distance of the WIL schools from the student support centres.

Following from the identification of schools to be visited, schools were contacted in advance to obtain permission for the evaluation team to visit and ensure that the selected student teachers would in fact be teaching language and mathematics lessons on the proposed day of fieldwork. Communication prior to the fieldwork visit also helped to ensure that the student teachers' supervisors and the school principals would be available to be interviewed on the proposed fieldwork day. The fieldwork was planned to ensure that the maximum number of lesson observations and interviews could be completed in the fieldwork period.

2.7.1 Pilot Study

A pilot study was completed before the fieldwork was conducted to ensure that the data collection instruments designed for the evaluation would work well in a practical setting. It would have been ideal to pilot the instruments in a WIL school whilst SANTS student teachers were engaged in WIL, but this was not possible due to the time constraints previously outlined. Therefore instruments were piloted in a primary school in the Western Cape Province. Foundation and intermediate phase mathematics and English home language lessons were observed and assessed using the observation instruments and the teachers who had been observed were then interviewed using the student teacher interview schedule. The student teacher supervisor interview was not piloted as the teachers observed were qualified and did not have supervisors. The school principal interview was not piloted as the school principal was not available on the day of piloting.

The pilot study provided insight regarding the amount of time it would take to complete each observation, possible challenges that may be encountered in completing the observation instruments and interviews and questions that were not easy for respondents to understand. The observation tools and interview schedules were finalised following the pilot study.

The student teacher survey questionnaire instrument was also piloted to ensure that it would work well. A small sample of SANTS student teachers who were observed and interviewed in WIL schools during the fieldwork period were asked to complete the survey instrument after their observations and interviews had been conducted. The pilot revealed that the instrument was easy to understand and would work well. No significant changes were made to the student teacher survey questionnaire instrument following the pilot.

2.7.2 Recruitment and training

Seven fieldworkers and one reserve were recruited to collect data. The following criteria were applied during the recruitment process:

- A teaching qualification and at least three years of teaching experience;
- Familiarity with CAPS;
- Familiarity with mathematics and home language teaching in the FP and/or IP;
- Fluency in isiZulu and English;
- Experience in teacher training;
- Some research experience.

A day-long training session facilitated by JET and attended by representatives from SANTS was held for the fieldworkers. The training involved a detailed and in-depth discussion of each data collection instrument and the steps to be taken while using each instrument. How to write up the qualitative interviews which were conducted was also explained. The training session was interactive and designed to allow participants to gain insight into the practical processes involved in data collection. Each fieldworker was provided with a training manual that outlined the code of conduct to be followed while conducting fieldwork. The training manual also provided information bacgrkound about SANTS, the BEd programmes and the study, fieldwork proceedures to be followed at the WIL schools, the fieldwork plan and guideline for completing each data collection instrument, writing up the qualitative interviews and returning the completed instruments and data to JET.

2.8 Data collection and quality assurance

The data collection process commenced a few days after the training. Each fieldworker was assigned to specific SSCs and WIL schools. Only one school could be visited per day because in most cases the schools were difficult to reach. The lesson observations were conducted in the morning before the end of the school day. Fieldworkers were advised to then complete interviews with school principals and student teachers supervisors as they were more likely to be available then. Following these interviews, the student teacher interviews were conducted and the school information forms completed. In schools in which there were more than two student teachers to be observed, fieldworkers were assigned more than one day for the completion of data collection. The data collection process lasted nine days and was supported by two JET staff members who quality assured the process.

The quality assurance process involved JET staff visiting the WIL schools with fieldworkers, observing the data collection process, assisting where necessary and providing feedback on the areas that were handled well and the areas that could be improved upon. Quality assurers were assigned to specific fieldworkers and checked in with them regularly, even when not accompanying them to schools.

The SANTS tutor focus group interview data was collected by a JET staff member, supported by one of the fieldworkers. During the focus group interview sessions, SANTS tutors were provided with information on how to administer the survey to student teachers. The survey was then administered to the student teachers by the SANTs tutors and the completed survey instruments were returned to JET for data capturing and analysis.

2.9 Data capturing, cleaning and analysis

The quantitative data collected through classroom observations, student surveys and school information forms was captured electronically. It was essential to capture the data electronically for ease of analysis.

The qualitative data collected at WIL schools was written up by the fieldworkers who were provided with a guideline on how to write up their interviews. The qualitative interview write ups were quality assured to ensure that sufficient information had been captured and, where necessary, fieldworkers were asked to add more information. The qualitative data collected from the focus group discussions with SANTS tutors and the qualitative data from the observation tools was captured by JET.

Data validation and cleaning took place after all quantitative and qualitative data had been captured. All variables in the various databases where checked to ensure that variables only contained relevant data in the correct format. Systematic errors were clarified by referring to the original data and corrected across the datasets. Furthermore, 10% of the data was randomly selected for quality assurance; this data was double captured to establish the capturing error rate. In line with JET's standards, the error rate was below 3% and the minor errors which were identified via this process were corrected.

Descriptive analysis was conducted of the classroom observation data, the student survey data and the school information data. The data was then presented graphically, highlighting, for instance, the

average rating of student teachers in the different aspects of teaching assessed via the classroom observations.

Thematic analysis was conducted of the qualitative data. This involved identifying pre-agreed upon themes and developing codes for the coding of the qualitative data. The process was guided by the evaluation matrix as well as a review of a sample of interview transcripts. The responses were then coded according to the specific themes and relevant codes. Following the coding process, the qualitative information was analysed per respondent type/instrument and a report generated which provided details of the responses of different respondents.

2.10 Limitations

As with all studies, the evaluation design and methodology presented some limitations. The study focused on SANTS student teachers performance during WIL, the perceptions of various school level stakeholders regarding the quality of teaching delivered by SANTS student teachers and the perceptions of SANTS student teachers regarding the quality and relevance of the SANTS programme. An assessment was not made of the SANTS student teachers performance prior to enrolling in the SANTS BEd programmes, nor of the content of the SANTS BEd programmes. We can therefore not make judgements regarding the extent to which the SANTS BEd programmes contributed to the SANTS student teachers performance during WIL. Our assessment was also limited by the extent of the observations. The sample (86 student teachers and 150 lessons) was as large as was logistically viable given the nine days available for fieldwork when the students were undertaking WIL, and is deemed large enough to general robust results. However, observing a student teacher delivering two lessons and conducting an interview afterwards is not sufficient to conduct a holistic assessment of their knowledge, skills and competencies in all areas.

A further consideration is that the school stakeholders' perceptions regarding the quality of teaching delivered by SANTS student teachers may be influenced by feelings about their own teaching competence. For example, if teachers have concerns about their own competence, they may feel threatened by student teachers who they feel perform better in some areas than they do, and therefore may not provide an objective viewpoint. With this in mind, the school stakeholder perception data should be reviewed and considered carefully, with the understanding that it is perceptual.

The pilot fieldwork study was conducted in a quintile 4 school in the Western Cape and lessons delivered by qualified teachers were observed. The LoLT in the pilot school was English, whereas the LoLT in the majority of WIL schools was isiZulu. This meant that, although the pilot was helpful in testing the instruments in a school environment, there were some shortcomings as the pilot school was not well matched to the WIL schools in terms of socio-economic characteristics. Issues that were not anticipated via the pilot included language barriers: during the fieldwork some respondents appeared not to understand some of the interview questions asked (in English). The fieldworkers tried to address this by simplifying the language used in the data collection instruments and by translating questions into isiZulu where necessary to increase understanding.

The absence of some of the SANTS student teachers from the schools in which they were expected to be undertaking WIL was a further limitation. In some instances, additional WIL schools were

randomly sampled. In other instances the planned random selection of WIL schools to be visited did not always occur, as the fieldworker had to proceed to a nearby WIL school rather than one selected randomly, to ensure that they would be able to carry out fieldwork on a particular day.

One of the main limitations encountered while observing student teachers' lessons was that some student teachers were observed delivering home language isiZulu lessons in the IP, whereas others were observed delivering English first additional language lessons. The initial intention of the evaluation was to evaluate student teachers teaching isiZulu home language lessons in both the FP and IP. However, this did not happen in all instances for the following reasons: (i) the LoLT of the school was English rather than isiZulu and so all lessons (even in the FP) were taught in English; (ii) SANTS student teachers indicated that they *preferred* to teach in English and the observers agreed to observe them teaching lessons in English; (iii) student teachers were scheduled to teach an English first additional language lesson and not an isiZulu home language lesson on the day of fieldwork and thus this was the language lesson which was observed.

The limitation of having some student teachers observed teaching in English and others teaching in isiZulu in the FP may account for some of the differences between the student teachers' performance. Many student teachers were found to struggle in their delivery of English lessons in the IP. Those students who were observed teaching home language in isiZulu may have performed better than those observed teaching first additional language in English and this could have skewed the data.

Chapter 3: Findings

This Chapter presents the findings of the study and is divided into four main Sections: 3.1 provides background information about the complete cohort of SANTS BEd programmes student teachers based predominantly on a dataset which was provided by SANTS. 3.2 is an extensive Section which presents quantitative and qualitative findings regarding the student teachers' classroom performance during WIL. This draws on the observations of language and mathematics lessons and interviews which were conducted with student teachers and school stakeholders (primarily supervisors at the WIL schools); reference is also made to findings from the focus groups which were conducted with SANTS tutors where relevant. Following this, Section 3.3 presents findings regarding perceptions of the school stakeholders' in relation to the SANTS student teachers and the school stakeholders' and SANTS student teachers regarding the SANTS BEd programmes. Additionally, qualitative findings regarding student teachers' motivation to teach and appreciation of the WIL experience are presented. The Section draws on interviews which were conducted with the principals and student teachers supervisors at the WIL schools (regarding the SANTS student teachers), as well as findings from the student teacher interviews and perception survey (regarding the SANTS BEd programmes). Finally, Section 3.4 provides information regarding the socio-economic context and culture of the schools in which student teachers undertake WIL, the student teachers' abilities to cope in challenging teaching environments and areas where additional assistance may be required. The main data sources for this Section are the school information form, student teacher perception survey and interviews conducted with school stakeholders, findings from the focus groups conducted with SANTS tutors are also drawn on where relevant.

3.1 Findings Section. 1: Profile of the SANTS students teachers'

This Section provides background information relating to the profile of the SANTS student teachers, in order to provide additional insight into the group from which the student teachers who were observed and interviewed and completed the perception survey were drawn.

Section 3.1 covers the following aspects of the student profile:

1. Cohort size and phase specialisation;
2. Gender;
3. Age;
4. Prior teaching experience;
5. Region;
6. Academic performance.

The cohort information which was provided by SANTS and analysed consisted of 827 students. Of the 827 students, 502 were registered for specialisation in the foundation phase while the remaining 325 were registered for specialisation in the intermediate phase.

The table below provides a breakdown of the student cohort by phase of specialisation and gender; from Table 5 it is evident that overall there are more females than males in the cohort.

Table 5: Gender of the SANTS student teachers by the phase of specialisation

Gender	Male		Female		Total	
Phase	Number	%	Number	%	Number	%
FP	29	5.8%	473	94.2%	502	100%
IP	281	86.5%	44	13.5%	325	100%
Total	310	37.5%	517	62.5%	827	100%

The table above also shows that in the FP the gender distribution is highly skewed toward females who constitute around 94% of the FP student teacher population, while the opposite is true in the IP where 87% of the group consists of males.

Table 6 below gives an indication of the age of the cohort by phase. As can be seen the average age of both FP and IP populations is 26 years. The table also indicates that both populations also contain student teachers above 35 years with the maximum ages in the FP and IP being 39 years and 41 years respectively.

Table 6: Average cohort age, disaggregated by phase of specialisation.

Phase	Average Age	Minimum	Maximum
FP	26	19	39
IP	26	21	41

The perception survey asked student teachers to indicate whether they had any previous teaching experience, just 7.5% indicated that they had some teaching experience prior to joining the SANTS BEd programmes. This is indicated in Table 7 below

Table 7: Teaching experience prior to joining the SANTS BEd programmes

	Yes		No		Missing[4]		Total	
	Number	%	Number	%	Number	%	Number	%
Total	26	7.5%	318	91.7%	3	0.9%	347	100%

The profile data was also analysed in terms of the region (SSC) in which students were located. This information was used for sampling for the fieldwork. Table 8 below shows the distribution of students across KwaZulu-Natal by phase and the SSC they attend. As seen in Table 8, the largest proportion of students (20%) are located in Empangeni, while Ixopo is the SSC with the lowest proportion of the student cohort (7%).

[4] Missing refers to instances where data was missing, due to it not having been populated by the observers or participants (depending on the data collection instrument). The item may have been accidentally missed or the observer/participant may have not wanted to answer it for some reason. We do not want missing information to affect the average result, so we include a separate response option for missing and missing data is excluded when calculating averages etc. We like to note the number and percentage of missing responses, to give a sense of what proportion of the total responses were blank. In most cases the number and percentage of missing observations was very small.

Table 8: Distribution of student teachers by phase specialisation and SSC the attend

SSC	FP		IP		Total	
Dundee	62	12%	35	11%	97	12%
Empangeni	110	22%	58	18%	168	20%
Greytown	29	6%	35	11%	64	8%
Ixopo	32	6%	23	7%	55	7%
Jozini	58	12%	51	16%	109	13%
Nongoma	56	11%	25	8%	81	10%
Pongola	31	6%	41	13%	72	9%
Ulundi	53	11%	28	9%	81	10%
Vryheid	71	14%	29	9%	100	12%
Total	502	100%	325	100%	827	100%

Table 9 below provides the average performance of the student cohort in each of the subjects undertaken by the students in their degree programme.

Table 9: Average performance of SANTS student teachers by phase specialisation per subject

Subject	Description	Semester/ year studied	FP (n=502)	IP(n=325)	Total (N=827)
ALI515	Academic literacy	1/1	64%	65%	64%
ANU515	Academic numeracy	1/1	77%	79%	78%
LFO116	Literacy Teaching in the Foundation Phase	1/1	64%	N/A	64%
TLI216	Language Teaching in the Intermediate Phase	1/1	N/A	65%	65%
NFO116	Numeracy Teaching in the Foundation Phase	1/1	69%	N/A	69%
TMI216	Numeracy Teaching in the Intermediate Phase	1/1	N/A	70%	70%
WIL116	School-Based WIL I (FP)	1/1	66%	N/A	66%
CLI515	Computer literacy*	2/1	100%*	100%*	100%*
FLT317	First language teaching*	2/1	100%*	99%*	100%*
TST216	Natural Science and Technology Teaching in the Intermediate Phase	2/1	N/A	83%	83%
LST116	Life Skills	2/1	68%	N/A	68%
WCD516	Whole Child Development	2/1	69%	69%	69%
SED516	Studies in Education	2/1	71%	68%	70%
LTT517	Learning and Teaching Theories	2/1	74%	69%	72%
WIL216	School-Based WIL I (IP)	2/1	N/A	67%	67%
ALI525	Academic Literacy	1/2	63%	62%	63%
ANU525	Academic Numeracy	1/2	71%	71%	71%

Subject	Description	Semester/ year studied	FP (n=502)	IP(n=325)	Total (N=827)
LFO127	Literacy Teaching in the Foundation Phase	1/2	58%	N/A	58%
TLI226	Language teaching in the Intermediate Phase	1/2	N/A	60%	60%
ECP316	Effective Classroom Practice	1/2	69%	67%	68%
WIL126	School-Based WIL II (FP)	1/2	76%	N/A	76%
WIL226	School-Based WIL II (IP)	1/2	N/A	74%	74%
SED527	Studies in Education	2/2	73%	71%	72%
FAL326	First Additional Language Teaching (English)*	2/2	97%*	94%*	96%*
LST126	Physical Education	2/2	68%	N/A	68%
TST226	Technology Teaching and Natural Sciences in the Intermediate Phase	2/2	N/A	83%	83%
WCD327	Whole Child Development	2/2	69%	69%	69%
CPR316	Curriculum in Practice	2/2	67%	67%	67%
ICT325	Information and Computer Technology^	1/3	Not available	Not available	Not available
SED537	Studies in Education^	1/3	Not available	Not available	Not available
LFO137	Literacy Teaching in the Foundation Phase^	1/3	Not available	N/A	Not available
TLI237	Teaching Language in the Intermediate Phase^	1/3	N/A	Not available	Not available
NFO126	Numeracy Teaching in the Foundation Phase^	1/3	Not available	N/A	Not available
TMI227	Teaching Mathematics in the Intermediate Phase^	1/3	N/A	Not available	Not available
WIL136	WIL III, (FP)^	1/3	Not available	N/A	Not available
WIL236	WIL III, (IP)^	1/3	N/A	Not available	Not available

* For certain competency modules marks are not awarded, rather, student teachers are assessed and found to be competent or not competent. The percentages refer to the proportion of students found to be competent.
^Marks were not available for the 2015 semester 1 modules at the time of the study.

The average performance for FP student teachers was above 75% in two subjects namely Academic Numeracy and WIL in addition these student teachers had averages above 60% in all subjects but one (Literacy Teaching in the Foundation Phase). IP student teachers performed above the 75% level in two subjects namely Academic Numeracy and Natural Science and Technology Teaching in the Intermediate Phase. Furthermore the IP student teacher group did not have averages below 60% for any of their courses. The average performance of the FP and IP student teachers in the various

subjects which they undertake appears to be similar overall. Performance appears to be somewhat better in terms of both academic knowledge and teaching of the subject in numeracy/mathematics as compared to literacy/language.

It is important to keep in mind that the student teachers who were observed were – at the time of the fieldwork – mid-way through their third year of a four year teacher education programme. On the other hand, the instruments were designed to assess the student teachers in relation to the competency level expected by SANTS at the end of the BEd programmes and the expectations outlined in the MRTEQ of newly qualified teachers. Gaps would be expected in the student teachers knowledge and skills, as they still had three semesters of studies before completing the BEd programmes. The following modules were still to be completed:

Table 10: Modules to be completed in Semesters 5-7 of the SANTS BEd programmes (after fieldwork)

Subject	Description	Semester/ year studied	FP module?	IP module?
CLC336	Communicative Language Competence	3/2	√	√
LST136	Natural Science and Technology	3/2	√	X
GEO226	Social Sciences: Geography	3/2	X	√
IED317	Inclusive Education	3/2	√	√
ASS316	Assessment	3/2	√	√
RME316	Research Methodology	3/2	√	√
NFO137	Numeracy Teaching in the Foundation Phase	4/1	√	X
TMI238	Teaching Mathematics in the Intermediate Phase	4/1	X	√
LSU317	Learning Support	4/1	√	√
ERP318	Education Research Project	4/1	√	√
WIL147	WIL IIII, (FP)	4/1	√	X
WIL247	WIL IIII, (IP)	4/1	X	√
LST146	Social Sciences	4/2	√	X
HIS216	Social Sciences History		X	√
LST156	Creative Arts	4/2	√	X
EMS216	Economic and Management Sciences		X	√
SCM317	School and Classroom Management	4/2	√	√
TPR516	Teaching as a Profession	4/2	√	√

The modules still to be completed span several aspects of knowledge, skills and teaching competencies which were assessed including: literacy/language competence, numeracy/mathematics teaching, assessment, classroom management, inclusive education (understanding diversity, identifying and addressing barriers to learning and ensuring learner participation) and teacher professionalism (work ethic, values and professionalism). However, the evaluation matrix (see Annexure A) shows that all indicators which were assessed via the observation instruments were related to at least one of the modules which the SANTS student teachers had completed by the time of the fieldwork.

3.2 Findings Section. 2: Student teachers' classroom performance during WIL

Section 3.2 covers eight aspects of student teacher competence which are thematic areas in the evaluation matrix. There are - as a matter of course - interlinkages and crossovers between these areas and may therefore be some duplication in the Subsections which follow:

1. Subject knowledge and ability to teach the subject;
2. Teaching methods and strategies;
3. Communication and language;
4. Knowledge of planning and designing lessons;
5. Knowledge of the curriculum;
6. LTSM;
7. Learner differentiation and participation;
8. Classroom management.

In most, the results of the observations of language and mathematics lessons are presented separately. It is important to remember that - in general - the same student teacher was observed teaching both lessons. Thus, while it may be seen from the evidence that the student teachers were observed to be somewhat more competent in teaching mathematics than in teaching language, this must **not** be read to mean that the student teachers observed teaching mathematics were better than the student teachers observed teaching language lessons.

The findings regarding each thematic area are usually presented in four parts:

1. Quantified ratings relating to observations of practice lessons;
2. A summary of tendencies reported in the qualitative feedback provided regarding the lessons from the observers and student teachers;
3. A set of individual quotations from the observers, student teachers and – if relevant - other stakeholders;
4. A summary of the key findings.

The first three parts provide different perspectives which are mutually enriching. However, they are not always consistent with one another. The quantified observation data presents the findings of fieldworkers who observed the student teachers conducting lessons and assessed their teaching practice using the observation instrument and rating scale developed for this evaluation (see Section 2.6.1). This data can be said to be the most reliable[5]. The observation data has been analysed per phase (i.e. FP and IP) and general and specific trends are reported on. The quantitative observation data is presented in both tabular and graphic format to accommodate different cognitive styles.

[5] In research, reliability refers to the extent to which a particular data collection instrument, such as an observation schedule, will produce the same or similar results under different circumstances, e.g. such as being Administered on a different day or by a different person, assuming that the event or activity being examined is the same.

Some analysis was also conducted of the results per SSC[6]. This is not presented in this report; rather, the interested reader can refer to Appendix E.

The summary of qualitative feedback reported on which follows, reports on tendencies which were documented in the qualitative sections of the observation instrument and in interviews with various stakeholders. These are quantified where this is possible and sensible[7].

Individual quotations are included from the qualitative sections of the observation instruments and interviews, to highlight issues which are interesting, but may be relatively minor in terms of the quantified observations and summary of tendencies. The individual quotations should be viewed with this in mind. The quotations do however illustrate through the use of examples, points made in the previous two sections.

It is also important to bear in mind that, although the quantitative ratings were in general high, indicating that the majority of student teachers observed attained the expected level, there was a tendency for notes in the qualitative sections of the observation instruments and the student teachers themselves when interviewed, to identify areas for improvement. As opposed to, for example, commenting on things which had been done well. In keeping with the formative nature of the study, it was felt that identifying aspects of the lessons in which there was room for improvement, would allow for learning and improvement.

3.2.1 Subject knowledge and the ability to teach the subject

The following aspects of subject knowledge and ability to teach the subject were considered:

- Student teachers' knowledge of the subject, as demonstrated during their lessons;
- Student teachers' implementation of subject knowledge during their lessons;
- Accuracy regarding the teaching of subject-specific concepts;
- The logic and coherence of their lessons.

3.2.1.1 Language teaching: quantitative ratings

Table 11 and Figure 1 show observers' ratings of the student teachers' subject knowledge and ability to teach subject knowledge effectively as demonstrated during language lessons. This is followed by a summary of the key trends.

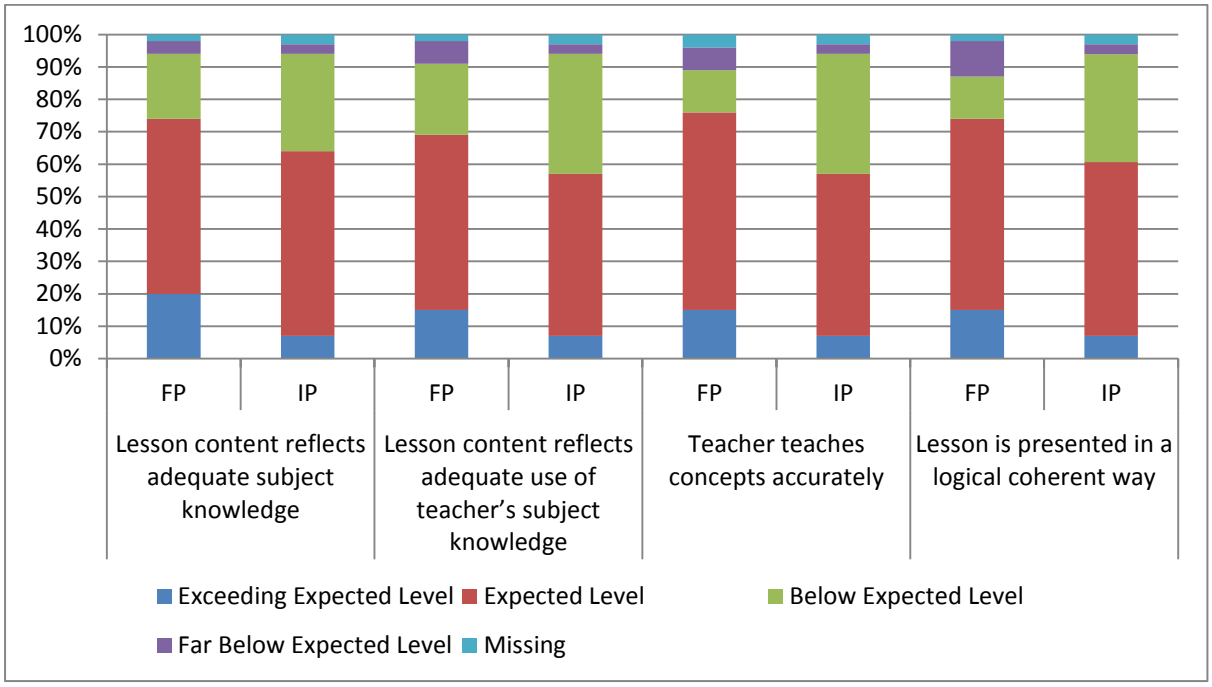
[6] The findings per SSC should be read with the caveat that – due to the limited sample size – the findings are not representative and are therefore not generalisable at the level of the SSC.

[7] Qualitative data collection methods differ from quantitative methods in that the questions posed tend to be less specific and more open ended, it is unlikely that exactly the same themes will be reported on in every interview. If an aspect of student teachers performance such as, for example subject knowledge and ability to teach the subject, is not reported on positively in an interview, it cannot be taken as a given that the finding is negative, as it may be that this theme was not discussed and explored in detail in the interview. Following on from this, qualitative findings can be reported on quantitatively, but the results should not be interpreted in the same way as closed ended survey questions or observations using a quantitative rating scale.

Table 11: Observers' ratings of student teachers' subject knowledge and ability to teach (language)

Rating	Lesson content reflects adequate subject knowledge		Lesson content reflects adequate use of teacher's subject knowledge		Teacher teaches concepts accurately		Lesson is presented in a logical coherent way	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	20%	7%	15%	7%	15%	7%	15%	7%
Expected Level	54%	57%	54%	50%	61%	50%	59%	53%
Below Expected Level	20%	30%	22%	37%	13%	37%	13%	33%
Far Below Expected Level	4%	3%	7%	3%	7%	3%	11%	3%
Missing	2%	3%	2%	3%	4%	3%	2%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 1: Observers' ratings of student teachers' subject knowledge and ability to teach (language)



- A high proportion (between 50% and 70%) of both FP and IP student teachers were rated as performing at or above the expected level in all four aspects which were rated. However, in all four areas 30% or more of the IP student teachers were rated as "below" or "far below" the expected level.
- The aspect in which FP student teachers performed best was teaching concepts accurately, with 76% performing at or above the expected level. IP student teachers performed best in terms of lesson content reflecting adequate subject knowledge (64% performed at or above the expected level).
- It is noticeable that FP student teachers generally performed better than IP student teachers across the board.

- However, 11% of FP student teachers were rated “far below expected level” in terms of presenting their lessons in a logical and coherent fashion.
- Between 33% and 40% of IP student teachers were rated as “below” or “far below” the expected level in all four aspects which were rated.
- An interesting finding in terms of language most used[8] in the lesson presentation is that, those student teachers who used isiZulu were more likely to be rated as exceeding the expected level, with 14% performing above the expected level in all four aspects.

3.2.1.2 Language teaching: qualitative findings

Fieldworkers observing the lessons noted 22 instances (29% of observations) of student teachers whom they especially commended on their knowledge of teaching language or of utilising appropriate methods to teach language. Observers noted in general that:

- The majority of student teachers performed well in this area;
- Lesson content reflected adequate subject knowledge;
- Student teachers demonstrated effective delivery of their subject knowledge in the classroom;
- Language concepts were taught accurately;
- Student teachers were considered to have presented their language lessons in a logical, coherent and meaningful way.

Although the majority of student teachers demonstrated adequate subject knowledge and the ability to communicate this effectively and implement language lessons in line with the teachings of the BEd programmes, some challenges were reported by the observers. Whilst these challenges relate to a few student teachers, or in some cases only one, it will be important to address these challenges with the student teachers concerned:

- Subject knowledge was lacking in some instances (for example, one student teacher repeatedly confused present tense with progressive tense);
- Some student teachers showed gaps in their skills for teaching reading and handwriting to FP learners;
- In some instances, methods and strategies used to teach home language specific to the particular phase were not used effectively;
- Some student teachers did not present language lessons in a logical and properly sequenced way.

When they were interviewed, student teachers themselves highlighted challenges that they experienced in implementing language lessons: examples which were cited include:

- Learners struggled with understanding the lessons taught as their previous knowledge was limited;
- Some learners were unable to read or to write or to construct sentences;
- Student teachers’ felt their own subject knowledge and teaching skills could be improved, to enhance the effectiveness of their implementation of subject knowledge in the classroom.

[8] This observation draws on a dataset too complex to be included in this document, but is available from the metadata.

- The proper use of language in the classroom is a challenge (this was commonly reported by student teachers).
- Student teachers experience challenges in teaching in isiZulu: although the majority of the student teachers were native isiZulu speakers, they found the formal ("deep isiZulu") difficult to teach.

The first two issues highlighted above point to learning deficits which learners begin to acquire in their early school years and which accumulate over time. Many South African studies, particularly studies which focus on mathematics, have identified and documented this phenomenon: "*students acquire learning deficits early on in their schooling careers*" which build up over time and become "*the root cause of underperformance in later years*" (Spaull & Kotze, 2015, p.13).

3.2.1.3 Comments and quotations that illuminate issues in language teaching

Two exemplary teachers

He has good teaching skills. He is able to reach all learners. Materials used [LTSM] enhanced effective learning. He accommodated all the abilities in his class and also took cognizance of different learning styles. Learners worked in groups and two reported to the rest of the class. That boosted their confidence (Observer, classroom observation, July 2015).

The teacher has good skills to impart knowledge. She used different methods and different resources (Observer, classroom observation, July 2015).

Some problematic lessons

Lesson planning had all necessary features but they were not well presented and this meant that the lesson objectives not met. Teaching present tense and future tense need not be confused with progressive tense as the teacher did (Observer, classroom observation, July 2015).

The teacher taught this lesson as if she were teaching learners in the senior phase. Nothing much was done in order for her to give more clarity or reinforce the content. It was just explaining the topic and singing a song. It seemed as if the teacher has little knowledge of the subject (Observer classroom observation, July 2015).

The grammatical component that was done during the lesson was not in the lesson plan. It could have been done at the end of the lesson if there was time to spare, or as homework. The student teacher went back and forth, and there was no logical sequencing of the activities (Observer, classroom observation, July 2015).

Time was not used effectively as there were times when learners were unoccupied. Although the spelling test is beneficial to learners, it can actually be marked by learners in pencil and the teacher can later check. As it is, the teacher became preoccupied with marking the spelling test and did not guide the learners in their reading, or check the progress of the planned activities against the available time remaining. The teacher was detached from the learners and did not engage with them, hence the boys at the back talking (Observer, classroom observation, July 2015).

Student Teacher Reflections

Especially in the home language, it can be difficult sometimes in a way that you end up not knowing how to teach. Home language is our mother tongue but it is difficult to teach it (Student Teacher, interview, July 2015).

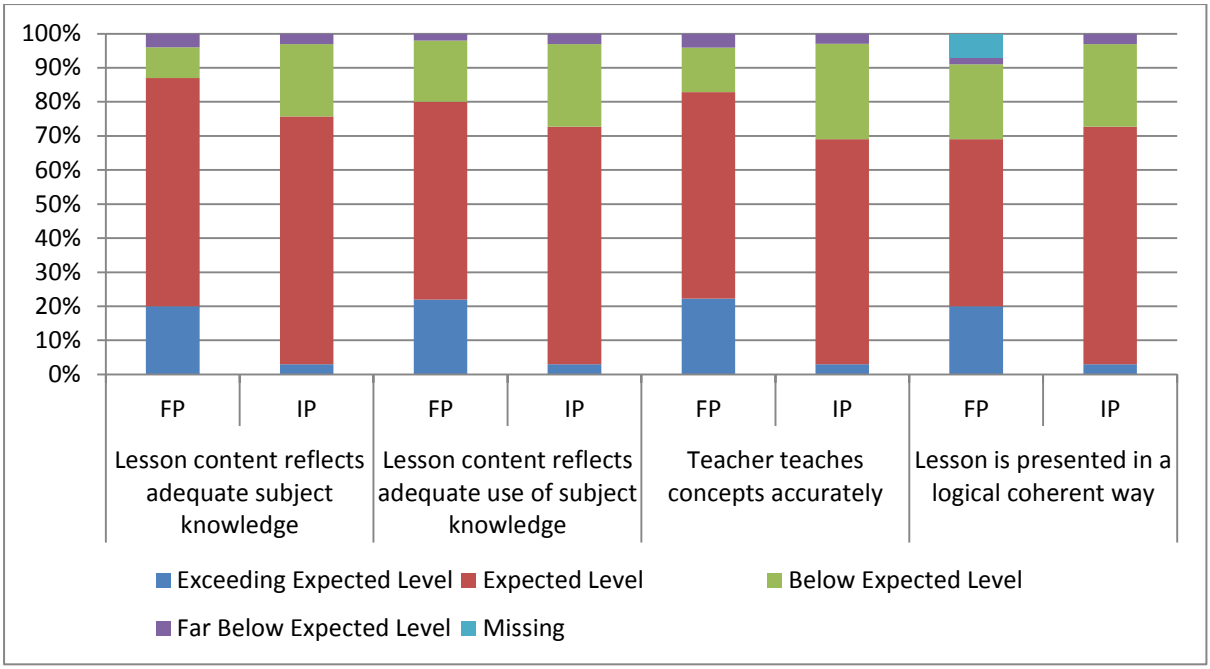
3.2.1.4 Mathematics teaching: quantitative ratings

Table 12 and Figure 2 show observers' ratings of the student teachers' subject knowledge and ability to teach as demonstrated during mathematics lessons.

Table 12: Observers' ratings of student teachers' subject knowledge and ability to teach (mathematics)

Rating	Lesson content reflects adequate subject knowledge		Lesson content reflects adequate use of subject knowledge		Teacher teaches concepts accurately		Lesson is presented in a logical coherent way	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	20%	3%	22%	3%	22%	3%	20%	3%
Expected Level	67%	72%	58%	69%	60%	66%	49%	69%
Below Expected Level	9%	21%	18%	24%	13%	28%	22%	24%
Far Below Expected Level	4%	3%	2%	3%	4%	3%	2%	3%
Missing	0%	0%	0%	0%	0%	0%	7%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 2: Observers' ratings of student teachers' subject knowledge and ability to teach (mathematics)



- Over 80% of the FP student teachers performed at or above the expected level in three of the four aspects of subject knowledge which were assessed. Fewer but still more than two thirds (69%) performed at or above the expected level in presenting their lessons in a logical and coherent manner.
- Between 69% and 75% of IP student teachers were at or above the expected level in all four aspects of mathematics subject knowledge which were assessed.
- Some FP student teachers struggled to present their lessons logically and coherently, with 24% performing below or far below the expected level.
- Between 24% and 31% of IP student teachers performed below or far below the expected level in the four aspects of mathematics subject knowledge which were assessed. The greatest shortfall was in ability to teach concepts accurately.

3.2.1.5 Mathematics: qualitative findings

Fieldworkers observing the lessons noted that: 17 student teachers (23% of observations) stood out and were especially commended for having a good knowledge of teaching mathematics or of applying different teaching methods to facilitate mathematical learning. In general it was reported that:

- The majority of student teachers demonstrated adequate knowledge of teaching mathematics, were well prepared and delivered the lesson adequately.
- The majority of student teachers incorporated mental maths as part of their lessons.
- Student teachers displayed the ability to tap into learners' previous knowledge.

However, some challenges were noted in relation to lessons observed:

- Some 27% of student teachers spent too much time on mental mathematics[9] and did not adhere to their lesson plans.
- Ten percent of student teachers could not tap into learners' previous knowledge.
- Almost 20% of student teachers taught their FP lessons partially or completely in English – as a result learners struggled to understand the lessons.
- Twenty five percent struggled with conveying key mathematics concepts in the FP in the LoLT (isiZulu).

Feedback from the student teachers themselves revealed the following:

Some student teachers said it was sometimes difficult to adhere to the lesson plan. Learners struggled because they lacked the previous knowledge which was required to follow the lesson. This meant that the student teachers were forced to include things in the lesson that had not been planned for.

Some student teachers stated their challenges in teaching mathematics in isiZulu in the FP. They reported that learners in the FP struggled to use the correct mathematics terms in isiZulu and would use English terms instead. This presented a challenge for the student teachers, who felt unsure of what language to use in order to ensure learners benefited optimally from the lesson.

Some student teachers acknowledged needing assistance regarding their own mathematics subject knowledge and teaching methods. Concerns which were mentioned included how to introduce large numbers and how to convert mixed fractions to proper fractions.

The same challenge identified by the student teachers in their language teaching is evident – learners have gaps in the prior knowledge which they are supposed to have to understand the lesson. This challenge is well documented in relation to mathematical learning in South Africa (Spaull & Kotze, 2015, p.13).

Findings from the interviews with WIL school principals and focus groups with SANTS tutors confirmed the challenge with the language of instruction through which mathematical subject knowledge is conveyed: there are challenges translating mathematical concepts into isiZulu in the FP.

3.2.1.6 Comments and quotations that illuminate issues in mathematics teaching

General praise

The maths students are doing very well; the student teacher is excellent in language and maths (WIL School Principal, interview, July 2015).

The student teacher is confident and excellent in teaching maths; the student teacher demonstrates a good level of knowledge of maths and English; Good knowledge of subject content and confidence imparting the knowledge to learners (WIL School Principal, interview, July 2015).

[9] CAPS recommends that 20 minutes per day in the Foundation Phase and 10 minutes per day in the Intermediate Phase be spent on mental mathematics.

Two exemplary teachers

Different teaching methods were used effectively. She could accommodate learners' level and abilities. She has a good understanding of maths (Observer, classroom observation, July 2015).

The student teacher was well prepared for the lesson and he made effective and appropriate LTSM in the form of charts and expanded notation cards. Learners really enjoyed the varied activities that the teacher had planned for. They did mental maths orally, then wrote a class test with immediate feedback. They did expanded notation and values of numbers as a class, then in groups and finally as individuals. The pace of the lesson was fast and this kept learners engaged (Observer, classroom observation, July 2015).

Lessons with strengths and weaknesses and challenges

Having been requested to conduct a 40-45 min lesson because of the time due to the staff meeting in the morning, the student teacher started by wasting time with mental maths counting in 5s to 250 and counting backwards. Learners struggled to sound backwards. The class test was done better. The problem started when he started teaching the place value and rounding off at the same time (Observer, classroom observation, July 2015).

Some part of the lesson plan was not done. Mental mathematics was cut out and it started just with the presentation part of it. Emphasis on capacity was well done to make sure that all learners understood. All activities were followed as outlined in the presentation part and conclusion (Observer, classroom observation, July 2015).

The lesson was well-written and the LTSM was good. However the content of the lesson did not correspond with previous work done. Evidence indicated that the class was already at numbers 19 and 20. The student teacher took more than five minutes rummaging through the cupboard, possibly looking for the LTSM for the lesson (Observer, classroom observation, July 2015).

The lesson was well prepared and appropriate LTSM was used. The chart that she made with the numbers 100-150 was very good. However, since learners should do maths in the home language isiZulu, the numbers should have been read in isiZulu during the drill (Observer, classroom observation, July 2015).

The whole lesson was conducted in the correct LoLT, which is isiZulu. However, the student teacher needs to avoid naming numbers in English in the maths lesson as this does not help the learners (Observer, classroom observation, July 2015).

The challenge was that learners forget how to count. They say numbers in English but they are supposed to say them in Zulu (Observer, classroom observation, July 2015).

Student teacher reflections

I need to improve on teaching maths in isiZulu (Student Teacher, interview, July 2015).

The learners did not know the tens and units. I ended up adding things that I did not plan in my lesson and that affected my lesson (Student Teacher, interview, July 2015).

I need to improve my subject knowledge in mathematics. But accessing relevant books is a problem. (Student Teacher, interview, July 2015).

Even though I have knowledge I need to know more about how to explain the topic to the learners in order for them to understand (Student Teacher, interview, July 2015).

I need improvement in teaching measurements especially capacity (Student Teacher, interview, July 2015).

3.2.1.7 Summary of key findings

***Overall remarks in terms of language teaching**:*
The quantitative ratings from the lesson observation, which are the most reliable data indicate that a high proportion (between 50% and 70%) of both FP and IP student teachers were rated as performing at or above the expected level in all four aspects of subject knowledge which were rated. However, in the same four areas 30% or more of the IP student teachers were rated as "below" or "far below" the expected level. In terms of language most used in lesson presentation, student teachers who taught mainly in isiZulu were more likely to be rated as exceeding the expected level.

The qualitative observations - while being less indicative of performance and quantifiable - largely confirm the quantitative findings. Lesson observers noted instances of student teachers who could be especially commended on their knowledge of teaching language and applying different teaching methods. Observers noted in general that: Lesson content in language reflected adequate subject knowledge; the majority of student teachers demonstrated effective delivery of their subject knowledge; language concepts were taught accurately; and student teachers presented their language lessons in a logical, coherent and meaningful way.

Although the majority of student teachers demonstrated adequate subject knowledge and the ability to communicate this effectively, some challenges were reported by the observers and by the student teachers themselves. Whilst these challenges may relate to a few student teachers, it will be important for SANTS to address them with the students concerned.

The qualitative findings also provide evidence of learning deficits amongst the learners, which make it difficult for student teachers to pitch their lessons at the appropriate level and convey subject knowledge effectively.

***Overall remarks in terms of Mathematics teaching**:*
The quantitative ratings show that over 80% of the FP student teachers performed at or above the expected level in three of the four aspects of subject knowledge which were assessed. This is very positive. Fewer but still more than two thirds (69%) - performed at or above the expected level in presenting their lessons in a logical and coherent manner. Between 69% and 75% of IP student teachers were at or above the expected level in all four aspects of mathematics subject knowledge which were assessed. However, some FP student teachers struggled to present their lessons logically and coherently, with 24% performing below or far below the expected level. Similarly, between 24% and 31% of IP student teachers performed below or far below the expected level in the four aspects of mathematics subject knowledge which were assessed. The greatest shortfall was in ability to teach concepts accurately.

The qualitative observation data complements the quantitative data, indicating that the majority of student teachers demonstrated adequate knowledge of teaching mathematics, were well prepared for their lessons, incorporated mental mathematics appropriately as part of the lesson, were able to tap into prior knowledge and delivered the lesson adequately.

Challenges were identified relating to some lessons which were observed. Some student teachers spent too much time on mental mathematics and did not adhere to their lesson plans. A few student

teachers could not tap into learners' prior knowledge. This links to the challenge identified – also in relation to language teaching – of learners not being at the appropriate learning level for their Grade. Some student teachers found it difficult to convey key mathematics concepts in isiZulu in the FP.

3.2.2 Teaching methods and strategies

The following features of applying appropriate teaching methods and strategies provide the basis of this Section:

- Managing learners from different socio-economic backgrounds;
- Building on past knowledge and experience of learners;
- Monitoring learner progress and understanding throughout the lesson;
- The use of informal assessment to check learner understanding during the lesson;
- Differentiated teaching and learning[10];
- Relating the sequencing of the lesson to the subject area and learner needs;
- Ensuring the pace of lesson is related to the subject area and learner needs;
- The relevance and effectiveness of teaching methods in relation to the lesson content and objectives;
- Appropriateness of teaching methods to grade level;
- Providing learners with appropriate feedback.

3.2.2.1 Language: quantitative analysis of teaching methods and strategies

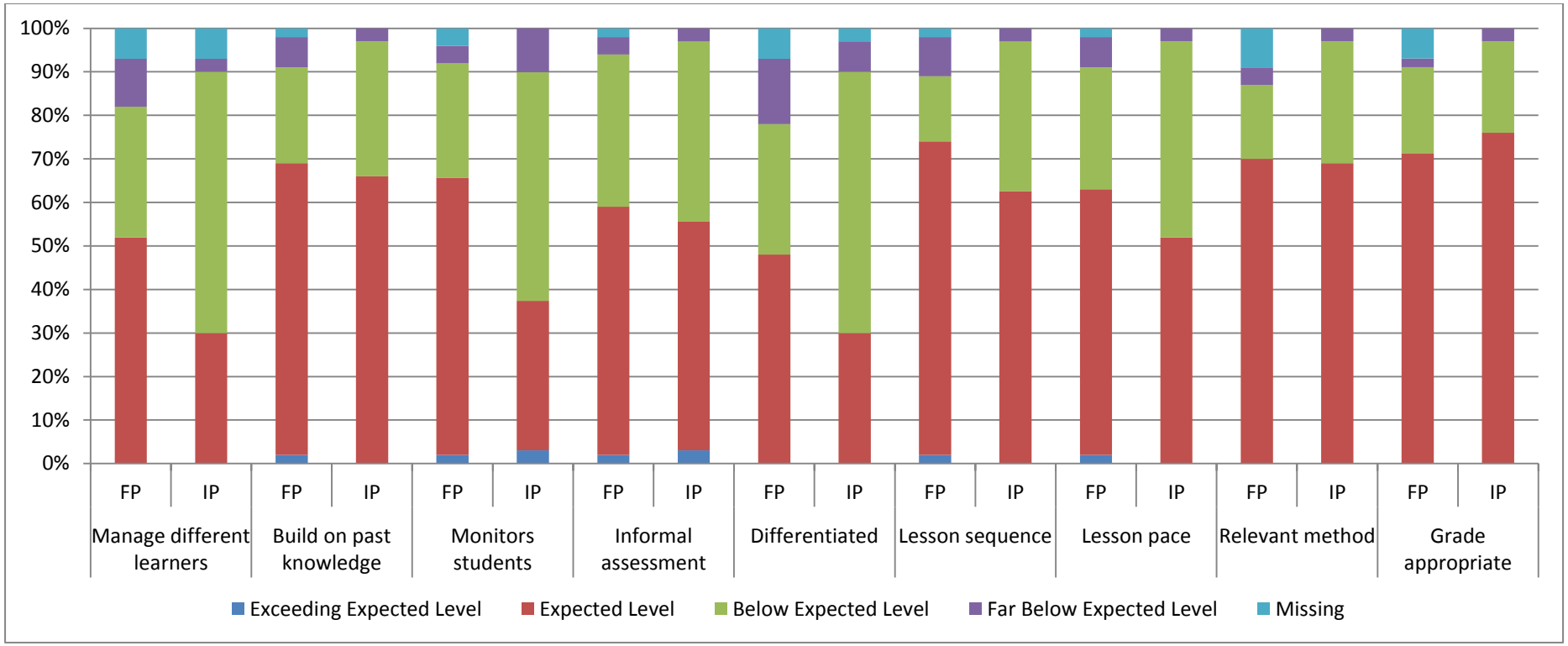
Table 13 and Figure 3 show observers' ratings of the student teachers' use of teaching methods and strategies as demonstrated during language lessons.

[10] Differentiation is discussed in more detail in Section 3.2.7.

Table 13: Adequacy of language teaching methods and strategies

Rating	Manage different learners		Builds on past knowledge		Monitors students		Informal assessment		Differentiated teaching & learning strategies		Lesson sequence		Lesson pace		Relevant method		Grade appropriate	
	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	0%	0%	2%	0%	2%	3%	2%	3%	0%	0%	2%	0%	2%	0%	0%	0%	0%	0%
Expected Level	52%	30%	67%	66%	63%	34%	57%	52%	48%	30%	72%	62%	61%	52%	70%	69%	72%	76%
Below Expected Level	30%	60%	22%	31%	26%	52%	35%	41%	30%	60%	15%	34%	28%	45%	17%	28%	20%	21%
Far Below Expected Level	11%	3%	7%	3%	4%	10%	4%	3%	15%	7%	9%	3%	7%	3%	4%	3%	2%	3%
Missing	7%	7%	2%	0%	4%	0%	2%	0%	7%	3%	2%	0%	2%	0%	9%	0%	7%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 3: Adequacy of language teaching methods and strategies



- In four aspects more than two thirds (66%) of the FP student teachers were rated as performing at or above the expected level: these areas were: building on past knowledge; *lesson sequencing*[11]*;* the use of relevant and effective methods (in terms of lesson content and objectives); and the use of grade appropriate methods.
- Two thirds (66%) of IP student teachers were also rated at or above the expected level in three of the eight areas which were rated: building on past knowledge*;* the use of relevant and effective methods (in terms of lesson content and objectives); and the use of grade appropriate methods.
- The FP student teachers' performance was less adequate in the areas of: managing learners from different socio-economic backgrounds (30% were rated below and 11% were rated far below the expected level) and differentiation in teaching methods (30% were rated below and 15% were rated far below the expected level).
- In all but one area, a greater proportion of IP students were rated as below the expected level in terms of language teaching methods and strategies.
- The majority (67%, 63% and 62% respectively) of IP lessons were rated below (60%, 60% and 52%) or far below (7%, 3% and 10%) the expected level for differentiation, managing learners from different socio-economic backgrounds and monitoring students.
- Between 44% and 47% of IP lessons were rated below or far below the expected level for lesson pace, managing learners from different background and informal assessment.
- Analysis of data not presented here[12] reveals that lessons presented predominantly in English were more likely to be rated below the expected level: in all eight aspects between 26% and 57% of the student teachers teaching predominantly in English were rated as performing below the expected level.

3.2.2.2 Mathematics: quantitative analysis of teaching methods and strategies

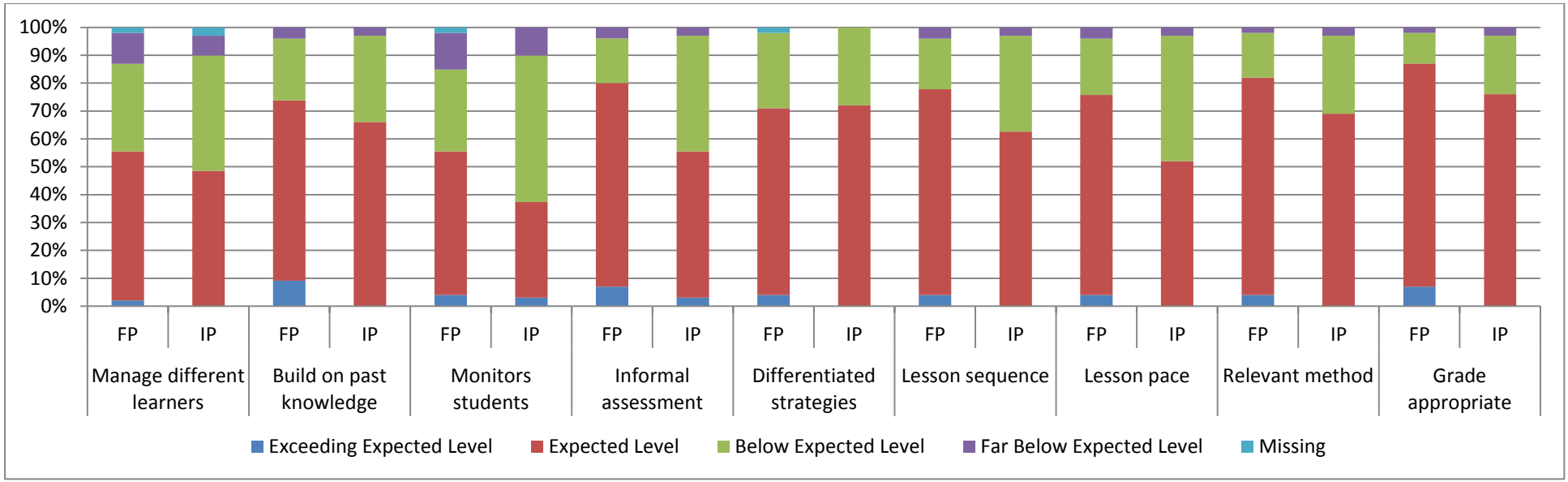
Table 14 and Figure 4 show observers' ratings of the student teachers' subject knowledge and use of teaching methods and strategies as demonstrated during mathematics lessons.

[11] The features in which FP and IP students' performance appeared to differ are *italicised*.
[12] This observation draws on a dataset too complex to be included in this document, but is available from the metadata.

Table 14: Adequacy of mathematics teaching methods and strategies

Rating	Manage different learners		Builds on past knowledge		Monitors students		Informal assessment		Differentiated teaching & learning strategies		Lesson sequence		Lesson pace		Relevant method		Grade appropriate	
	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	2%	0%	9%	0%	4%	3%	7%	3%	4%	0%	4%	0%	4%	0%	4%	0%	7%	0%
Expected Level	53%	48%	64%	66%	51%	34%	73%	52%	67%	72%	73%	62%	71%	52%	78%	69%	80%	76%
Below Expected Level	31%	41%	22%	31%	29%	52%	16%	41%	27%	28%	18%	34%	20%	45%	16%	28%	11%	21%
Far Below Expected Level	11%	7%	4%	3%	13%	10%	4%	3%	0%	0%	4%	3%	4%	3%	2%	3%	2%	3%
Missing	2%	3%	0%	0%	2%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 4: Adequacy of mathematics teaching methods and strategies

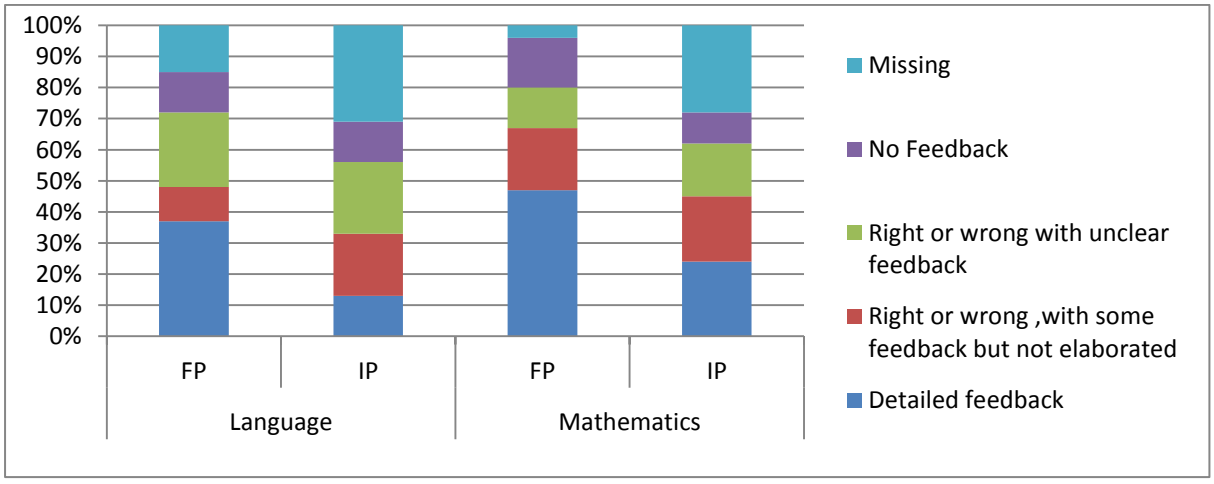


- In six areas more than two thirds of the FP student teachers were rated as performing at or above the expected level: *informal assessment*; differentiated strategies; *lesson sequencing*; *lesson pace*; the use of relevant methods; and grade appropriate methods.
- More than two thirds of IP student teachers performed at the expect level in four areas: *building on past knowledge*; differentiated strategies; the use of relevant methods; and grade appropriate methods.
- Areas are *italicised* to show features where FP and IP students' strengths differ.
- FP and IP student teachers performance was weaker in the areas of: managing learners from different socio-economic backgrounds (42-48% below or far below expectation); and monitoring student progress and understanding throughout the lesson (42-62% below or far below expectation). IP student teachers were also weaker in the areas of informal assessment (44% below or far below expectation) and lesson pace (47% below or far below expectation).

3.2.2.3 Providing learners with appropriate feedback and teaching methods used (both language and mathematics)

Figure 5 shows observers' assessment of the student teachers' provision of feedback to learners during mathematics and language lessons.

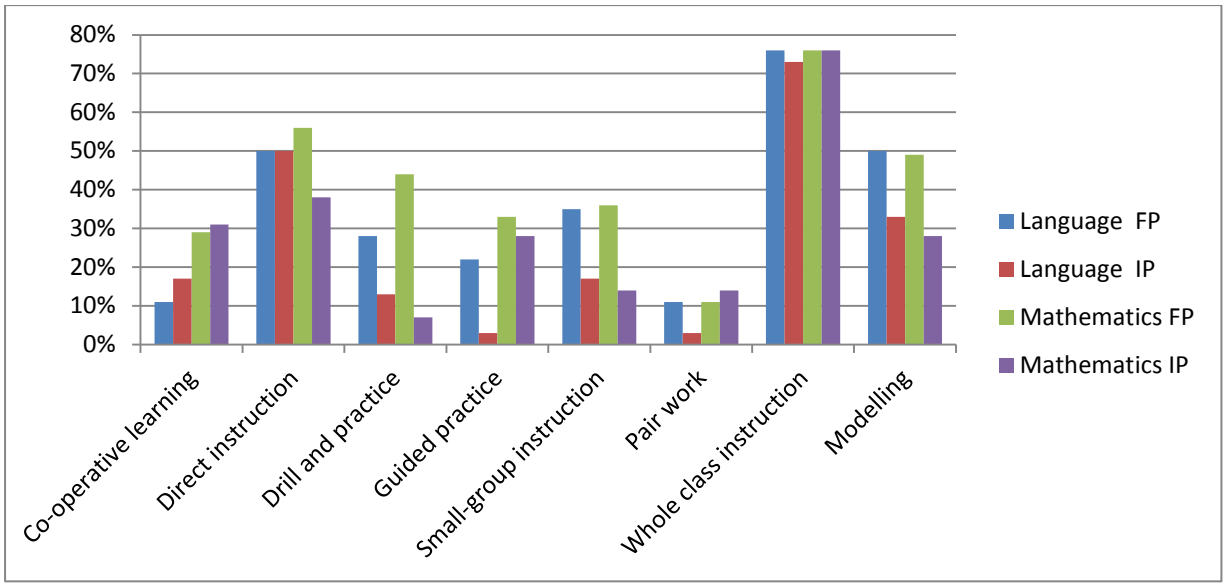
Figure 5: Feedback provided to learners



- Feedback was stronger in mathematics lessons in both phases, with more frequent/extensive feedback being given.
- Similarly, feedback was stronger in FP than IP lessons. The most commonly selected response option for the FP lessons was that "detailed feedback" was given.
- It is also important to look at the extent of the absence of feedback. A substantial percentage - 36% of the IP language lessons and 37% of the IP mathematics lessons offered no enriched feedback beyond "right or wrong".
- FP lessons show a similar trend in this respect, with no enriched feedback being provided in 37% of language lessons and 33% of mathematics lessons.

Figure 6 shows student teachers' preferred teaching methods during mathematics and language lessons.

Figure 6: Teaching methods used in language and mathematics lessons



- The most striking observation is the dominance of whole class instruction, utilised in 73% to 76% of lessons, followed by direct instruction, which was used in 36% to 56% of of lessons.
- Mathematics lessons were somewhat more likely than language lessons to include interactive methods and practical work.
- Regarding phase, FP language lessons were more likely than IP lessons to include interactive methods and practical work, except in the case of co-operative learning which was more common in the IP classes.
- In mathematics, the FP lessons were more likely to include small group instruction and modelling, but the IP lessons were more likely to include co-operative learning and pair work.
- Drill and practice was more common in the FP than the IP mathematics lessons, likely due to the inclusion of mental maths in the FP.

The table below summarises the findings when the various teaching methods are grouped into three broad categories – direct instruction, whole class instruction and interactive methods[13]. When the data is presented in this way the results appear more positive: the majority of FP and IP language and mathematics lessons did include at least one interactive method. However, these findings should be treated with caution as combining various methods into one category may mask possible inadequate usage of the interactive methods individually.

[13] Interactive" methods is a NOT a formal teaching method but one that combines the following: cooperative learning; drill and practice; guided practice; small-group instruction; pair work, and modelling.

Table 15: Teaching methods grouped into categories

Subject	Method	FP	IP	Total
Language	Whole Class Instruction	74%	76%	75%
	Direct Instruction	52%	47%	50%
	Interactive Methods	71%	56%	64%
Mathematics	Whole Class Instruction	79%	72%	76%
	Direct Instruction	52%	44%	49%
	Interactive Methods	83%	56%	72%

3.2.2.4 Qualitative findings on teaching methods and strategies

The following comments from observers and later the student teachers themselves tend to highlight problems and challenges. The impression of negativity must be countered by recalling that the quantitative data generally shows performance which is at or above the level expected of newly qualified teachers.

Observers perspectives

The observers explicitly mentioned 13 language lessons (17%) in which student teachers were seen as confident and explicit in terms of **differentiating between and accommodating learners.** This was mentioned in fewer instances (4) in relation to mathematics lessons. In contrast, in 33 language lessons (43% of lessons observed) and 17 mathematics lessons (23% of lessons observed) it was noted that student teachers experienced challenges in differentiating among or accommodating different learners. Observers noted that the majority of student teachers were able to **use different teaching methods in order to accommodate different learners**. However in some instances, the teaching methods used were not supportive. For example, it was reported that almost 20% of student teachers **struggled to provide guidance** to learners and did not incorporate scaffolding techniques to enhance learners' understanding.

Observers noted that in 19 language lessons (25%) student teachers explicitly demonstrated good efforts to **ensure active learner participation** or involvement in the lesson. More student teachers were noted to have demonstrated this in their mathematics lessons. In 36 lessons (49%) students teachers were observed to concretely involve and assist learners.

An important area for improvement according to the observers was: strategies for **identifying and addressing different learner abilities**.

Student teachers' reflections

The literature review (Ensor, 2001, and Hammerness *et al,* 2005a, both cited in Deacon, 2014) highlighted the importance of teachers taking time to reflect on their performance and the need for student teachers and newly qualified teachers to engage in this activity much more. This was an aspect which the observers rated the student teachers on, as indicated in the table below:

Table 16: Student teachers ability to reflect meaningfully on the lessons they had just taught

Rating	Language		Mathematics	
	FP	IP	FP	IP
Exceeding Expected Level	2%	0%	7%	3%
Expected Level	67%	47%	60%	66%
Below Expected Level	24%	47%	22%	31%
Far Below Expected Level	4%	3%	7%	0%
Missing	2%	3%	4%	0%
Total	100%	100%	100%	100%

The majority of student teachers were rated as having attained the expected level of reflection; the exception is IP student teachers in relation to their language lessons. However, between 28% and 51% of student teachers were deemed to not demonstrate adequate ability to reflect on their lessons.

Ability to reflect was an area of concern to some of the observers who indicated that some student teachers did not seem willing or able to identify their own areas of weakness. Seventy five per cent of the student teachers felt that they did not experience any challenges in their language lesson delivery in the classroom. The key challenges identified by the student teachers (25%) who reflected on challenges in their language were:

- The need to improve their own language abilities and convey language concepts to learners in a more structured way;
- The need to include learners more in the lesson;
- The need to make the objectives of the lesson more reasonable or achievable;
- The need to understand learners better and identify the need for differentiation.

When student teachers reflected on their mathematics lessons, six (8%) indicated that there were no areas for improvement, while 25 (34%) were able to identify areas for improvement. Just over half (52%) did not know where or how they could improve, which was of concern to some of the observers. Areas for improvement identified by student teachers in relation to their mathematics lessons included:

- The need to take more notice of learners who are struggling and pace the following parts of lessons accordingly;
- The need to make better use of scaffolding techniques and other learners in the classroom to bring slower learners up to speed;
- The need to work on how to identify the need for differentiation in a classroom;
- The need to diversify methods of explaining content and diversify types of examples prepared for the lesson;
- The need to prepare exercises and answers before the lesson to be able to better respond to questions and misconceptions; and
- The need to prepare a wide variety of questions at different levels.

In reporting on the **teaching methods** that they had used to deliver their lessons, student teachers reported that a variety of methods had been taught to them in the BEd programmes. The student teachers mentioned using the strategy of *moving from the concrete to the semi-concrete and then to the abstract.* They also mentioned using methods such as *modelling, inductive to deductive methods, whole class group work, teacher learner methods, the democratic method, question and answer methods, classical methods and individual teaching methods*. Students reported that they had chosen specific teaching methods which had been taught to them in the BEd programmes for the delivery of their lessons. Furthermore, student teachers reported that they were aware of their learners needs and selected teaching methods according to those needs.

The student teachers also mentioned using **methods to gauge learner understanding,** for example, *probing, recitation, swapping work and classroom practice* methods. When asked why they chose to use particular methods, the student teachers noted that their choice of methods was informed by an assessment of how the learners would best learn. Additionally, the teaching methods selected aimed to ensure learners actively grasped the concepts that they were being taught and that they were actively involved in the lesson. Methods were also selected based on how appropriate they were for the lesson and the extent to which learners' prior knowledge could be tapped into.

Student teachers provided insight regarding aspects of teaching methods and strategies that they would change given **the chance to improve**. Student teachers reported that they would vary the content of their lessons to keep learners interested, for instance, through the use of concrete to semi-concrete methods, and that they would improve on the LTSM used.

Student teachers spoke about the importance of **better planning and preparation** of lessons in areas such as the lesson pace, providing more tasks and examples to learners and improving lesson content. Student teachers identified improvements in these areas that would increase learners' participation and understanding.

Feedback from other stakeholders

The student teachers supervisors at the WIL schools were able to comment on the student teachers' teaching skills. By comparison, the WIL school principals were less involved with the student teachers at a classroom level and less able to comment on their skills. Some 49 student teacher supervisors commented positively, indicating that they saw potential in the student teachers, who still had another year of study to complete at the time of the fieldwork, but seemed to be heading in the right direction.

According to the SANTS tutors, the student teachers use a learner orientated approach which promotes learner participation and engagement. Tutors added that student teachers use teaching methods and strategies that are taught to them in the SANTS BEd programmes, including strategies such as the whole group teaching method and one-on-one approaches.

The SANTS tutors highlighted challenges such as overcrowding in the classroom that prevented student teachers from implementing certain strategies such as group work or classical methods of interacting with learners. One tutor emphasised: "*In many of the rural schools there is overcrowding in the classrooms. We used to emphasize that they must make sure the number of learners must not exceed 7-10 for group work. If there are more than 10, we cannot just say it is group work, this is a mass. So we must go about it in such a way that everybody can participate*".

This latter point highlights contextual factors associated with teaching in challenging teaching environments which make it difficult for the SANTS student teachers to put into practice some of the teaching methods and strategies which have been taught to them via the BEd programmes

3.2.2.5 Comments and quotations that illustrate issues relating to the application of teaching methods and strategies

The comments below, drawn from the observers' comments and interviews with student teachers, illustrate specific positive and less positive instances of the application of teaching methods and strategies and student teachers' abilities to reflect on their lessons.

Positive support, sensitivity and differentiation (comments from observers)

- *He is a good teacher who tries to reach all learners in the classroom. He used other learners to assist the struggling learners. He used pictures to explain concepts. He also used worksheet with drawings e.g. learners could easily remember number symbols*.
- *She varies her teaching methods according to the content and learner competence.*
- *They are able to apply various teaching strategies such as grouping learners and attending to individual learners.*
- *SANTS teaches them to divide learners in groups and to pay individual attention to the learners making ensuring learner participation. It is also important that they use a holistic approach in terms of developing each learner, being cognizant of learner differentiation.*

Some model lessons and approaches (comments from observers)

- *Teaching skills were very good because the lesson was learner centred: all learners participated and immediate feedback was given to learners where they gave wrong answers. She paid attention to each learner, giving feedback as she was marking exercise books for the class work.*
- *Learner involvement and participation was good. The teacher allowed learners to come and use numbers to match with number names*.
- *Her planning is good, it enhances learning. Learners' interest is considered as it contains activities to involve learners. Components follow each other very well and in a logical way. The use of a shopping song to draw attention to what learners are going to be introduced to. It was good*.
- *The lesson plan is clear, logical, sequential and developmental. It contains all the aspects of e.g. grade, date, lesson topic, LTSM, spelling test, classwork and lesson presentation in step by step way. Speaking and reading is evident in the lesson. The use of the work book when the teacher was reading gave [an opportunity for] listening to the learner's part, they also read the story about the holidays and answer the questions orally and then wrote in their exercise books. The homework was given and it was clearly explained*.
- *Teaching skills used were interesting and effective in making learners understand the concept. Direct instruction method, demonstrations, small groups, guided practice methods drill and written practice methods were all incorporated for learners to understand clearly. The teacher demonstrated examples on the chalkboard guided learners clearly on how to do the sums*.
- *The student teachers are flexible and able to use many different teaching methods and approaches.*

- *The student teacher uses teaching strategies such as asking questions to see whether or not all the learners understand. He engages with learners, making them actively involved in the lesson.*
- *The [SANTS] BEd programme[s] prepares them well for their WIL. His planning, teaching methods and classroom management are very good.*
- *She is very good as she uses pictures and gestures in explaining. She explains to the class as a whole and engages herself on a one-on-one basis where she finds slower learners.*
- *They teach the learners what they know. [For example] if the topic is about utensils, they let the learners bring knives, jugs, glasses, etc. to the classroom.*

Pleasing student teacher self-awareness (student teachers' own comments)

- *I like to work from concrete to semi-concrete to abstract. I also used modelling on how to write the letter 'w'. I made learners practice their fine motor skills before they wrote in their books. I also used colourful LTSM.*
- *I believe that maths is about identifying things for yourself. It is a practical subject where learners have to practise and apply their own thinking.*
- *I used inclusive methods because my lesson was based on the story. I wanted to accommodate all learners regardless of their learning abilities.*
- *Using LTSM I would label everything in the classroom like the door, the cupboard, chalkboard, chair, table etc. so that learners develop their vocabulary. I would divide them in groups so that they benefit from the mixed ability groups.*
- *I was taught to teach from the known to the unknown, before teaching new materials. I started with the known, for example, with the spelling test.*
- *I used the classical teaching method because it was a lesson that was suitable for classical teaching. I gave individual attention where necessary.*
- *I incorporated the demonstration method and used LTSMs that they usually use at home - to make them aware that what we learn is something that we see every day at our homes.*

Limited ability to reflect (observers' comments)

- *Although the student teacher acknowledged that his lesson objective was not achieved, he was not able to pin point the areas where he needs to improve. He would only admit that his LTSM was inadequate. However, he insisted that code switching is the best way of teaching the learners English. He was also oblivious of how badly the learners did in the spelling test. He needs to improve on informal assessment and being more responsive to any red flags in the learning process*.
- *He did not reflect well, because to him he thought the objectives were met yet learners did not understand. He should recognise that the method used was not relevant to the level of learners and change it to suit the class*.

Specific weaknesses in approach

- *She taught the lesson using whole class teaching throughout, without considering differentiation. No special attention was given to those learners who did not raise their hands to ask or answer questions based on the story*.
- *The concern was that the slow learners were not identified and hence not assisted at all*.
- *He used drill method and direct instruction. Learners were not directly involved.*

- *The student teacher teaches the whole class, and picks on learners to come to the board to do examples. He favours one girl who is very good, and praises her particularly. No effort is made to cater for learners who struggle, and he does not use any teaching methods to cater for them. He makes fun of a learner who asks a question. This will destroy the learner's confidence, so that she will participate less in future*.
- *The teacher did not do well as she didn't teach but asked learners to do the activity; no guidance was given to the learners all whilst they were writing [in the activity book].*
- *He should have planned for more scaffolding, as, in his own words English is a foreign language to the learners. He should have explained the question words and made reference to the story on which they were basing their dialogues. This would have been easier if it was noted in the lesson plan.*

3.2.2.6 Summary of key findings

Overall remarks in terms of Language teaching
Quantitative observer ratings showed that in four aspects more than two thirds (66%) of the FP and IP student teachers were rated as performing at or above the expected level . The FP student teachers' performance was less adequate in the areas of: managing learners from different socio-economic backgrounds and differentiation in teaching methods. In all but two areas, a higher proportion of IP students than FP student were rated as below the expected level in terms of language teaching methods and strategies. The majority of IP lessons were rated below or far below the expected level for managing learners from different socio-economic backgrounds and monitoring students. Between 44% and 47% of IP lessons were rated below or far below the expected level for lesson pace and informal assessment. The lessons presented predominantly in English were more likely to be rated below the expected level in all eight aspects.

Overall remarks in terms of Mathematics teaching
Quantitative analysis of the observers' ratings showed that in six areas more than two thirds of the FP student teachers were rated as performing at or above the expected level. More than two thirds of IP student teachers performed at the expected level in four areas. FP and IP student teachers performance was weaker in the areas of: managing learners from different socio-economic backgrounds; and monitoring student progress and understanding throughout the lesson. IP student teachers were also weaker in the areas of informal assessment and lesson pace.

Providing learners with feedback and teaching methods used
Providing learners with appropriate feedback was stronger in mathematics lessons in both phases, with more frequent/extensive feedback being given. Feedback was stronger in the FP than the IP. The most common response option for the FP lessons was that "detailed feedback" was given. Over one third of the IP language and mathematics lessons offered no enriched feedback beyond "right or wrong". FP lessons show a similar trend in this respect.

The primary teaching methods used were whole class instruction and direct instruction. Mathematics lessons were somewhat more likely than language lessons to include interactive methods and practical work. Regarding phase, FP language lessons were more likely than IP lessons to include interactive methods and practical work, except in the case of co-operative learning which was more common in the IP classes.

Qualitative findings
Qualitative feedback indicated similar patterns as the quantitative data, but provided specific details of instances where successes and challenges were experienced.

*Observers noted that the majority of student teachers were able to **use different teaching methods in order to accommodate different learners**. However in some instances, the teaching methods used were not supportive and strategies for **identifying and addressing different learner abilities** were identified as an area for improvement. In 33 language lessons (45% of lessons observed) and 17 mathematics lessons (23% of lessons observed) it was noted that student teachers experienced significant challenges in differentiating among or accommodating different learners. Student teachers supervisors and the SANTS tutors indicated that these challenges could be attributed to lack of experience and confidence which should improve as students near the end of their studies. Observers noted that in 19 language lessons and 36 mathematics lessons (49% of lessons observed) student teachers explicitly demonstrated good efforts to **ensure active learner participation** or involvement in the lesson.*

*The student teachers' were predominantly rated as having adequate ability to **reflect on their lessons.** But the ability to reflect on strengths and weaknesses was an area of concern to some of the observers who indicated that some student teachers were not able to identify their areas of weakness.*

Student teachers in general reported that they had chosen specific teaching methods which had been taught to them in the BEd programmes for delivery of their lessons and selected teaching methods according to the needs of the learners in their class.

The SANTS tutors highlighted challenges such as overcrowding in the classroom that prevented student teachers from implementing certain strategies of interacting with learners which give context to the areas of difficulty reported in the quantitative data.

3.2.3 Communication and language

The classroom observation sought to assess the following aspects of student teachers' communication and language skills:

- Relevance of vocabulary to subject and lesson;
- Student teachers fluency in the LoLT;
- Appropriate use of terminology (for either mathematics or language teaching);
- Clarity of instructions (oral and written);
- Appropriate use (but not overuse) of code switching.

3.2.3.1 Communication in language lessons: quantitative analysis

Table 17 indicates the language of communication observed to be most frequently used in the language lessons.

Table 17: Language most frequently used for communication in the language lesson observations

Language used most often in the lesson	FP lessons		IP lessons		Total	
	No.	%	No.	%	No.	%
English	8	17%	15	50%	23	30%
IsiXhosa	2	4%	0	0%	2	3%
isiZulu	36	78%	15	50%	51	67%
Total	46	100%	30	100%	76	100%

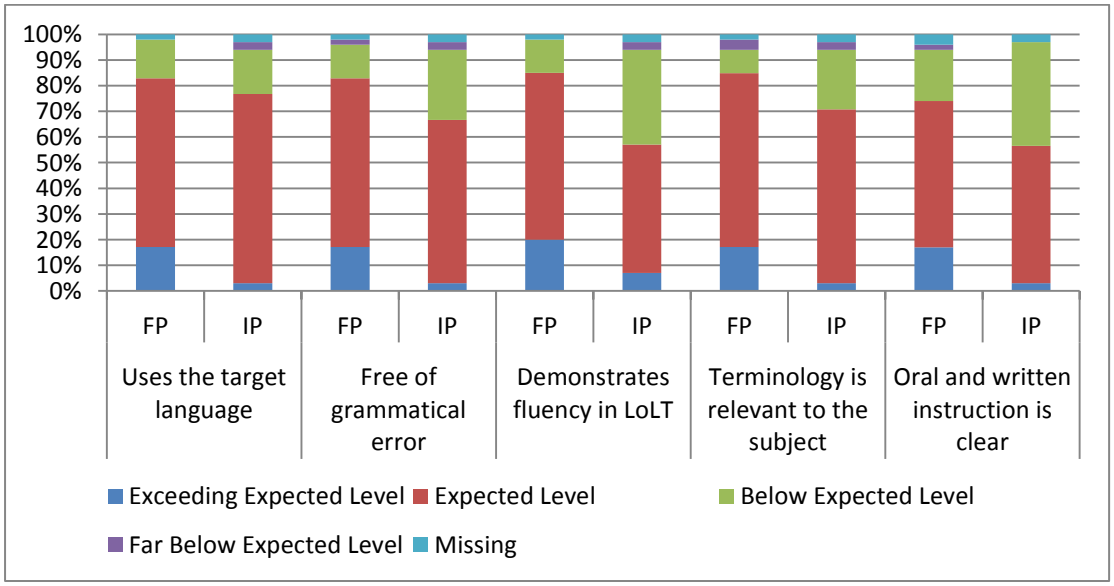
- The majority of FP language lessons were mediated mainly in isiZulu; however, 17% were mediated mainly in English and 4% is isiXhose.
- The IP language lessons which were observed were split equally into those in which English was the main language of instruction and those in which isiZulu was the main language of instruction. This reflects one of the limitations of the study (see 2.10), namely, that the IP student teachers were observed delivering *both* isiZulu home language and English first additional language lessons.

Table 18 and Figure 7 report on student teachers language and communication skills as demonstrated in the lessons which were observed.

Table 18: Language and communication skills employed in the language lessons observed

Rating	Uses the target language		Free of grammatical error		Demonstrates fluency in LoLT		Terminology is relevant to the subject		Oral and written instruction is clear	
	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	17%	3%	17%	3%	20%	7%	17%	3%	17%	3%
Expected Level	65%	73%	65%	63%	65%	50%	67%	67%	57%	53%
Below Expected Level	15%	17%	13%	27%	13%	37%	9%	23%	20%	40%
Far Below Expected Level	0%	3%	2%	3%	0%	3%	4%	3%	2%	0%
Missing	2%	3%	2%	3%	2%	3%	2%	3%	4%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 7: Language and communication skills employed in the language lessons observed



- Student teachers generally used the target language appropriately: 82% of FP and 76% of IP student teachers used the target language as expected (but not always entirely consistently).

- FP student teachers also performed very well in terms of their lessons being free of grammatical error (82% were at or above the expected level), demonstrating fluency in the LoLT (85% were at or above the expected level) and terminology being relevant to the subject (84% were at or above the expected level).
- The IP student teachers performed less well in these other areas (likely because of the switch from most student teachers' home language of isiZulu to English), but the majority still achieved or exceeded expectations: 57% of IP student teachers were at or above the expected level in demonstrating fluency in the LoLT and 56% were at or above the expected level in terms of providing clear oral and written instructions.
- In all four areas of language and communication skills FP student teachers outperformed the IP student teachers with 17%-20% of FP teachers as compared to 3-7% of IP teachers exceeding the expected levels.
- IP student teachers performed worst in terms of giving clear oral and written instruction - 40% performed at below the expected level - and demonstrating fluency in the LoLT - 40% performed below or far below the expected level.

3.2.3.2 Communication in mathematics lessons: quantitative analysis

Table 19 shows the language of communication observed to be most frequently used in mathematics lessons.

Table 19: Language most frequently used for communication in the mathematics lessons observed

Language Most Used	FP lessons		IP lessons		Total	
	No.	%	No.	%	No.	%
English	12	27%	26	90%	38	51%
IsiXhosa	2	4%	0	0%	2	3%
isiZulu	31	69%	3	10%	34	46%
Total	45	100%	29	100%	74	100%

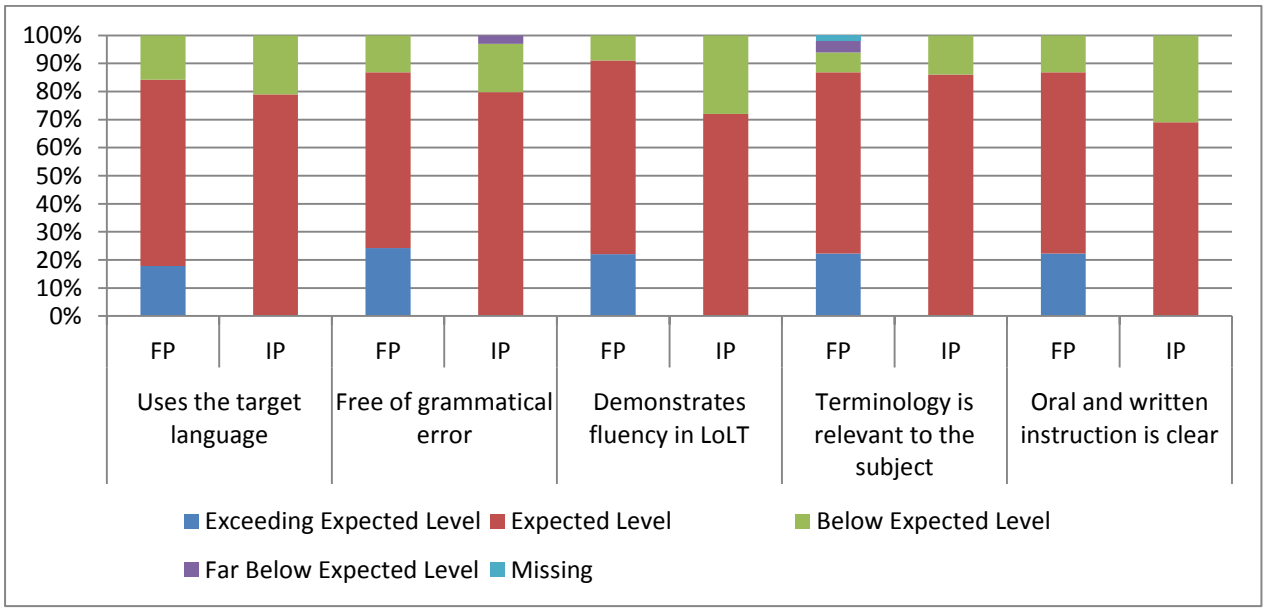
- The majority of FP lessons were conducted predominantly in isiZulu (69%), but a surprising 27% were conducted mainly in English (this finding is in line with the challenges discussed in Section 3.2.1.5).
- IP mathematics lessons took place largely in English (90%), with a relatively small proportion (10%) being conducted mainly in isiZulu.

Table 20 and Figure 8 indicate the student teachers' performance in terms of communication skills in the mathematics lessons observed.

Table 20: Language and communication skills employed in the mathematics lessons observed

Rating	Uses the target language		Free of grammatical error		Demonstrates fluency in LoLT		Terminology is relevant to the subject		Oral and written instruction is clear	
	FP	IP	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	18%	0%	24%	0%	22%	0%	22%	0%	22%	0%
Expected Level	67%	79%	62%	79%	69%	72%	64%	86%	64%	69%
Below Expected Level	16%	21%	13%	17%	9%	28%	7%	14%	13%	31%
Far Below Expected Level	0%	0%	0%	3%	0%	0%	4%	0%	0%	0%
Missing	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 8: Language and communication skills employed in the mathematics lessons observed



- Performance was largely at the expected level, with at least 85% of FP and 69% of IP student teachers achieving or exceeding the expected level in each of the five aspects which were rated.
- An impressive 91% of FP student teachers demonstrated fluency at or above the expected level in the LoLT.
- IP student teachers performed best in terms of terminology being relevant to the subject (86% were at the expected level). The FP student teachers performed at a similar level in this area.
- However, a substantial minority of IP student teachers fell below the expected level in fluency in the LoLT (28%) and giving clear oral and written instructions (31%).

3.2.3.3 Qualitative findings on communication and language

From the quantitative observation data, language proficiency appears to be considerably more of a challenge in the IP than in the FP and more so in Mathematics than in language (this could be because a large share of the language lessons which were observed were isiZulu lessons). The data suggests that the problem is multi-faceted.

The quantitative observation data suggests that one in four IP student teachers have, to a greater or lesser extent, a poor command of the LoLT (predominantly English). This challenge is less pronounced in the FP where the LoLT was predominantly isiZulu and only 9% of Mathematics student teachers and 13%of Language student teachers did not demonstrate adequate fluency. A further 31% of IP and 13% of FP student teachers failed to give clear oral and written instructions in mathematics while 20% of FP and 40% of IP student teachers were below the expect level in this area for their language lessons. The qualitative comments on the observation schedules and interview data shed more light on the challenges that some student teachers had with communication and language.

Challenges noted in the additional feedback provided by observers included: a poor command of English as the LoLT in the IP, poorly developed communication skills in isiZulu as the LoLT in the FP (even though isiZulu is their home language) and an insufficiently developed command of the subject matter, all of which result in a weakly developed facility in code switching.

The fact that communication skills of the FP student teachers seem decidedly better clearly relates to the more comfortable experience for most of teaching in a common mother-tongue and to the lower level of cognitive complexity in the subject matter. However, even in the FP some difficulties were reported. Between the lines one might read some evidence of a neglect of formal language development in isiZulu. The huge challenge of switching to English as the LoLT when the learners are often far from ready for this should not be underestimated.

Two WIL school principals (5%) reported that some of the SANTS student teachers were not able to deliver lessons in the home language of the WIL school.

Some 16% of the supervisors in the WIL schools explicitly reported that student teachers' had good communication skills. They commended the quality of code switching and said student teachers used appropriate language in the classroom and communicated at a level that learners could easily understand. The student teachers were said to integrate code switching to ensure that learners understood and adjust their lessons to accommodate the learning pace of the learners. However, five supervisors (6%) also mentioned cases of student teachers struggling with the LoLT.

Student teachers themselves stressed – in interviews – that the LoLT could at times be a stumbling block and highlighted their need for further development in delivering lessons in the LoLT in both isiZulu and English. As was previously mentioned in Section 3.2.1, some student teachers who were first language isiZulu speakers said they experienced difficulty when teaching in isiZulu in the FP. Similarly, some IP student teachers reported that they sometimes struggled to teach learners in English. Additionally, translating mathematical concepts into isiZulu was reported to be challenging. Finally, student teachers mentioned that the learners' limited English posed a particular problem in the IP.

The immense challenge associated with switching from a language of instruction which is - for most children in rural KwaZulu-Natal – likely to be a home language, to English between grade 3 and grade 4, when children are still acquiring basic literacy skills in mother tongue is well documented and should not be under-estimated (Draper & Spaull, 2015). Taylor (2015) cautions that HEIs are by and large not dealing adequately with the challenge of literacy instruction, nor doing enough to ensure that newly qualified teachers are proficient in English and adequately prepared to teach English as a first additional language.

SANTS tutors commented that the FP student teachers' use of appropriate language was sometimes problematic because of the gap between English, which is the medium of instruction in the SANTS BEd programmes, and the use of home language as the LoLT in the schools.

3.2.3.4 Comments and quotations that illustrate communication successes, issues and challenges

The comments below, drawn from the observers notes and interviews illustrate specific successes, issues and challenges relating to language and communication in the classroom.

Praise for good practices

The students are confident, well-prepared and impressive with their use of English and isiZulu as a medium of instruction (WIL School Principal, interview, July 2015).

He does his best to cater for all learners. He uses English as the language of teaching and learning but to reach out to all learners he uses a little isiZulu. (Student Teacher Supervisor in WIL School, interview, July 2015).

She involves all the learners and switches code where learners struggle. She grouped learners according to their learning abilities. Though she used English she sometimes explained words in isiZulu (Student Teacher Supervisor in WIL School, interview, July 2015*).*

The challenge of teaching in isiZulu

To teach isiZulu while we do not have material for isiZulu is a problem. There are English words in the material which cannot be translated in isiZulu - like "puzzle" (Student Teacher, interview, July 2015).

Yes, I need improvement in how to use isiZulu as a language of teaching and learning. I know isiZulu very well but find it difficult when it comes to teaching proper Zulu. For example to convert English names into Zulu like "shapes" and "patterns" is very challenging. Learners were not used in Zulu names (Student Teacher, interview, July 2015).

Home language is our mother tongue but it is difficult to teach it (Student Teacher, interview, July 2015).

In maths I struggle to use isiZulu, then I end up teaching Maths in English because there are certain concepts I do not know how to say in isiZulu, for examples shapes. Same thing in the Home language (isiZulu) I made little mistakes in using English instead of isiZulu (Student Teacher, interview, July 2015).

We do everything in English at SANTS, and when they go to a foundation phase, they have to teach life skills in isiZulu, they run short on vocabulary, and maths also (SANTS Tutor, focus group, August 2015).

I think a problem with SANTS is that we are concentrating more on English and not paying enough attention to isiZulu in such a way that our students don't see isiZulu as one of the important subjects. So personally I think SANTS ought to give attention to isiZulu, not English all the way, because these students are going to be going to schools and they are going to be expected to teach isiZulu (SANTS Tutor, focus group, August 2015)..

The challenge of English and the transition from isiZulu

Learners struggle with English pronunciation and expression. You need to simplify everything that you say (Student Teacher, interview, July 2015).

*Most learners cannot express themselves in English because it is not their home language. They are shy, some fear to speak (*Student Teacher, interview, July 2015).

We ask our students to use more English, but they say: "If I am teaching in English, I find that the learners are totally lost if I'm saying things in English. We have to do code-switching. Not really code switching either – it's more like direct translation. You say something in English and the repeat it directly in isiZulu" (SANTS Tutor, focus group, August 2015).

The challenge of handwriting

I have obseved that most of the student teachers lack writing skills, especially when it comes to writing on the chalk board. They mixed small letters with capital letters unnecessary, they erased by their hands and the style of writing the date is not appropriate to lower grades (Observer, fieldwork observation notes, July 2015).

Figure 9: The Challenge of handwriting

3.2.3.5 Summary of key findings

Summary

Quantitative analysis of Language lessons

Within the FP there were three languages predominantly utilised in the lessons: isiZulu (by 78%), English (by 17%) and isi Xhosa (by 4%). In the IP there were two languages predominantly utilised in the lessons: English (by 50%) and isiZulu (by 50%).

Student teachers generally used the target language as expected. FP student teachers also performed very well in terms of their lessons being free of grammatical error, demonstrating fluency in the LoLT and terminology being relevant to the subject. The IP student teachers performed less well, but the majority still achieved or exceeded expectations. The areas of greatest weakness for the IP student teachers were: demonstrating fluency in the LoLT (likely because of the switch from isiZulu which is their home language to English) and providing clear oral and written instructions.

Quantitative analysis of Mathematics lessons

The majority of FP lessons majority were predominantly conducted predominantly in isiZulu (69%), but 27% were conducted mainly in English. IP mathematics lessons took place largely in English (90%), with a relatively small proportion (10%) being conducted predominantly in isiZulu. Performance was largely at the expected level with at least 85% of FP and 69% of IP student teachers achieving or exceeding the expected level in each of the five aspects which were rated. However, a fair proportion of IP student teachers fell below the expected level in fluency in the LoLT (28%) and giving clear oral and written instructions (31%).

Qualitative feedback

In terms of the additional qualitative feedback, challenges noted by the observers in relation to some student teachers included: a poor command of English as the LoLT in the IP, poorly developed communication skills in isiZulu as the LoLT in the FP (even though isiZulu may be their home language) and an insufficiently developed command of the subject matter, which lead to weakly developed facility in code switching.

Student teachers concurred that the LoLT could at times be a stumbling block and highlighted a need for further development in delivering lessons in the LoLT in both isiZulu and English. They mentioned challenges with translating concepts from English to isiZulu, particularly mathematic concepts (e.g. "shapes", "puzzle, "patterns" etc). Finally, student teachers mentioned that the limitations of learners' poor English posed a particular problem in the IP.The huge challenge of switching to English as the LoLT when the learners are often far from ready for this should not be underestimated.

SANTS tutors commented that the FP student teachers' challenges may be related to the gap between English - which is the medium of instruction in the SANTS BEd programmes - and the use of home language as the LoLT in the FP in the schools.

3.2.4 Designing and implementing lesson plans

This Section discusses at the quality of lesson planning and the student teachers' ability to use their lesson plans in practice. The following aspects of lesson planning were considered:

- Organisation, structure and clear objectives of the lesson plan;
- Appropriateness of lesson plan for subject and grade level;
- Alignment of teaching and activities with lesson plan to support achievement of lesson objectives.

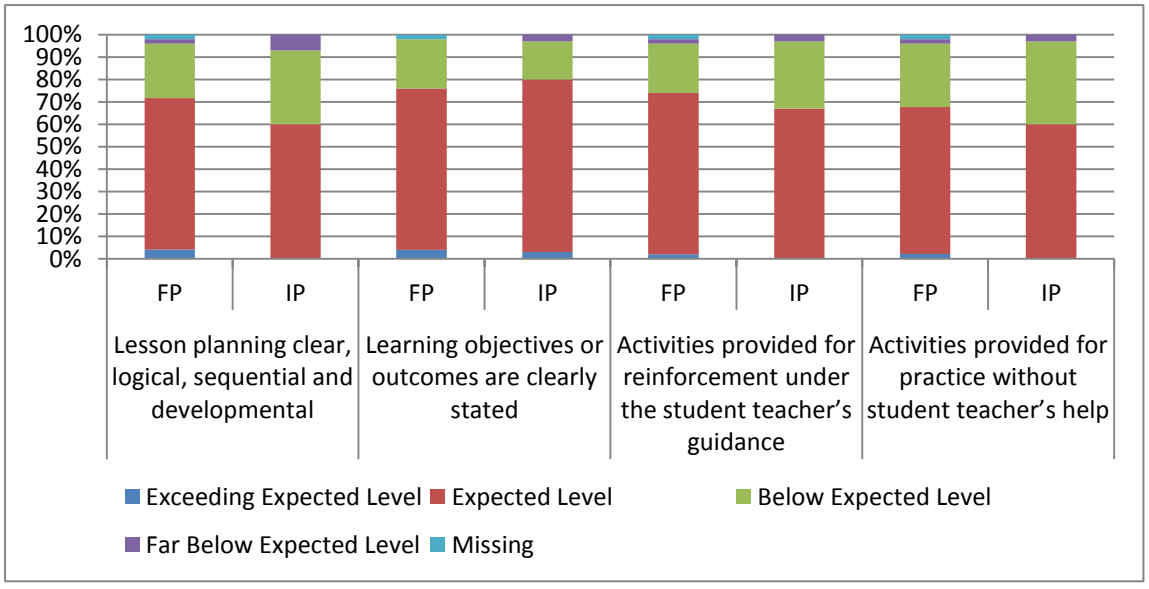
3.2.4.1 Language lesson planning and implementation: quantitative analysis

Table 21 and Figure 10 show the quantitative ratings of the four aspects of student teachers' lesson planning which was assessed in relation to language lessons.

Table 21: Student teachers' ratings in the four aspects of language lesson planning

Rating	Lesson planning clear, logical, sequential and developmental		Learning objectives or outcomes are clearly stated		Activities provided for reinforcement under the student teacher's guidance		Activities provided for practice without student teacher's help	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	4%	0%	4%	3%	2%	0%	2%	0%
Expected Level	67%	60%	72%	77%	72%	67%	65%	60%
Below Expected Level	24%	33%	22%	17%	22%	30%	28%	37%
Far Below Expected Level	2%	7%	0%	3%	2%	3%	2%	3%
Missing	2%	0%	2%	0%	2%	0%	2%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 10: Student teachers' ratings in the four aspects of language lesson planning



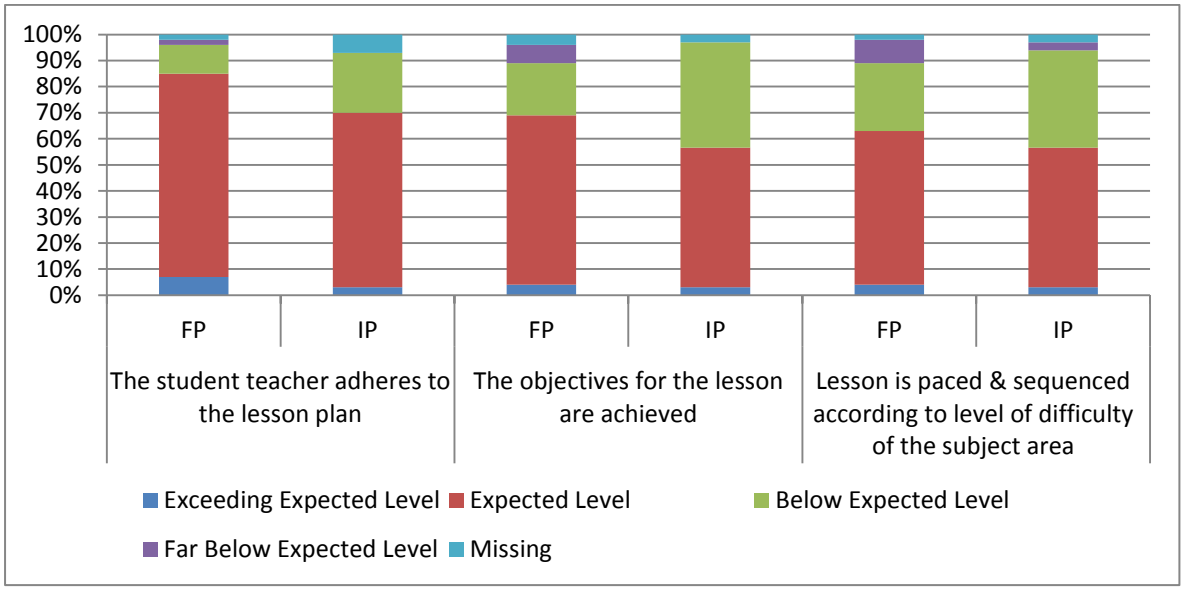
- Stating the learning objectives clearly was the strongest aspect of lesson planning in both phases, 76% of FP and 80% of IP student teachers were rated at or above the expected level;
- 20%-40% of student teachers were below or far below the expected level in all four aspects of lesson planning which were rated;
- The FP student teachers outperformed the IP student teachers in all areas except stating the learning objectives clearly.

Table 22 and Figure 11 show the ratings of student teachers' abilities to act on their lesson plans in language lessons.

Table 22: Student teachers' abilities to act on their language lesson plans

Rating	The student teacher adheres to the lesson plan		The objectives for the lesson are achieved		Lesson is paced & sequenced according to level of difficulty of the subject area	
	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	7%	3%	4%	3%	4%	3%
Expected Level	78%	67%	65%	53%	59%	53%
Below Expected Level	11%	23%	20%	40%	26%	37%
Far Below Expected Level	2%	0%	7%	0%	9%	3%
Missing	2%	7%	4%	3%	2%	3%
Total	100%	100%	100%	100%	100%	100%

Figure 11: Student teachers' abilities to act on their language lesson plans



- Adhering to lessons plans was the area in which both the FP and the IP student teachers performance was strongest: 85% of FP and 70% of IP student teachers were able to adhere to their lesson plans;
- 63-69% of FP student teachers performed at or above the expected level in pacing and sequencing according to the level of difficulty of the subject area and ensuring that lesson objectives were achieved respectively;
- 56% of IP student teachers achieved or exceeded the expected level in these two areas;

- Pacing and sequencing was the area of greatest weakness: 40% of IP and 35% of FP student teachers fell below or far below the expected level in this regard.

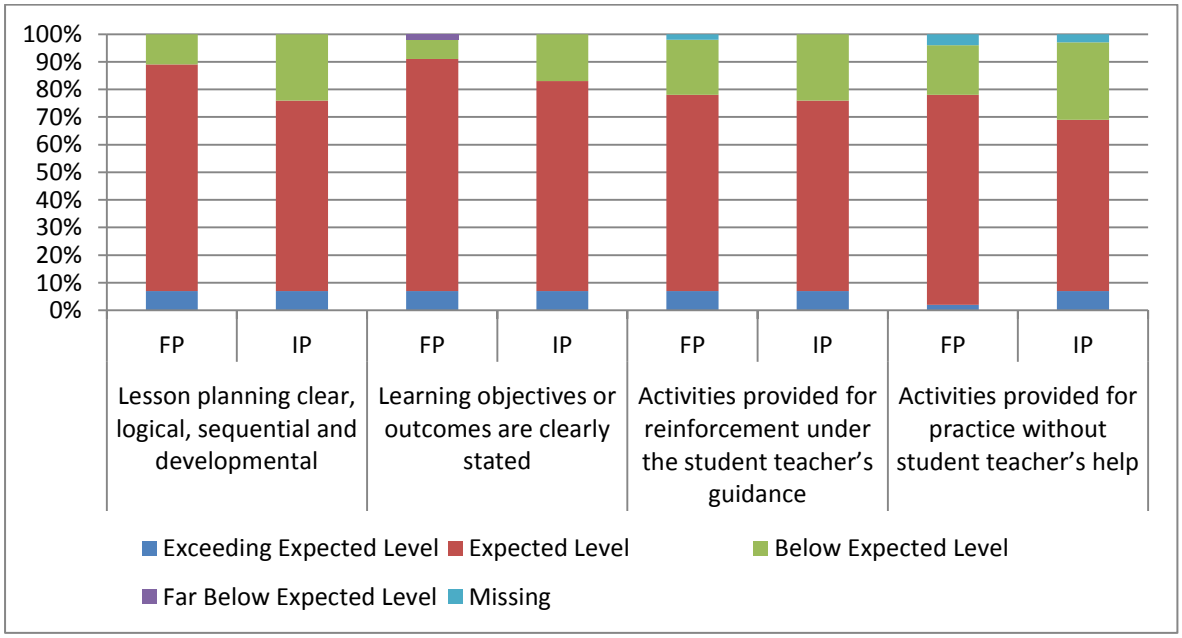
3.2.4.2 Mathematics lesson planning and implementation: Quantitative analysis

Table 23 and Figure 12 show the ratings of the four aspects of student teachers' lesson planning in relation to mathematics lessons.

Table 23: Student teachers' ratings in the four aspects of mathematics lesson planning

Ratings	Lesson planning clear, logical, sequential and developmental		Learning objectives or outcomes are clearly stated		Activities provided for reinforcement under the student teacher's guidance		Activities provided for practice without student teacher's help	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	7%	7%	7%	7%	7%	7%	2%	7%
Expected Level	82%	69%	84%	76%	71%	69%	76%	62%
Below Expected Level	11%	24%	7%	17%	20%	24%	18%	28%
Far Below Expected Level	0%	0%	2%	0%	0%	0%	0%	0%
Missing	0%	0%	0%	0%	2%	0%	4%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 12: Student teachers' ratings in the four aspects of mathematics lesson planning



- 78%-91% of FP student teachers performed at or above the expected level in all four aspects of lesson planning;

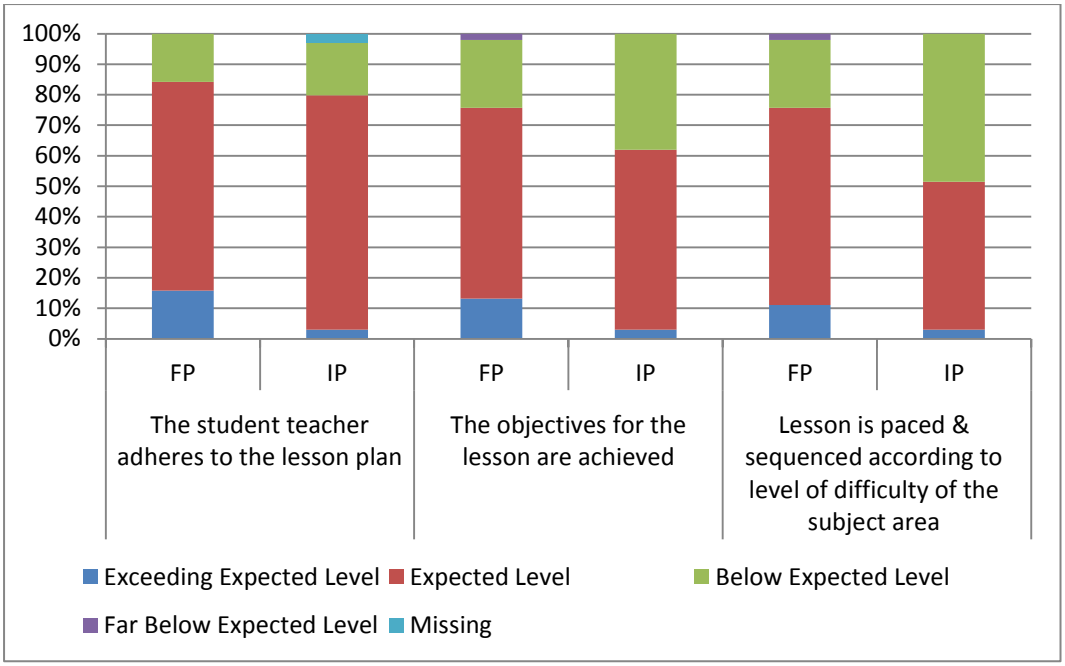
- IP student teachers also performed well, with 69% -78% performing at or above the expected level in all four aspects of lesson planning;
- Almost no student teachers performed far below the expected level in any of the four aspects of lesson planning which were rated;
- As a whole, the student teachers' performance in lesson planning was more satisfactory for the mathematics lessons than for the language lessons.

Table 24 and Figure 11 show the ratings of student teachers' abilities to act on their lesson plans in mathematics lessons.

Table 24: Student teachers' abilities to act on their mathematics lesson plans

Rating	The student teacher adheres to the lesson plan		The objectives for the lesson are achieved		Lesson is paced & sequenced according to level of difficulty of the subject area	
	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	16%	3%	13%	3%	11%	3%
Expected Level	69%	76%	62%	59%	64%	48%
Below Expected Level	16%	17%	22%	38%	22%	48%
Far Below Expected Level	0%	0%	2%	0%	2%	0%
Missing	0%	3%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Figure 13: Student teachers' abilities to act on their mathematics lesson plans



- The performance of the FP student teachers were generally good or adequate, with 75-85% performing at or above the expected level in all three aspects which were rated;
- The performance of IP student teachers was less good, particularly in terms of pacing and sequencing and achieving the lesson objectives with 48% and 38% of student teachers respectively performing below the level expected of newly qualified teachers.

3.2.4.3 Qualitative findings on lesson planning and implementation

Comments from the qualitative sections of the observation instrument reveal that, the observers deemed language lesson plans to be good or adequate when: they were prepared in such a way as to ensure the lesson objectives could be met; the activities outlined were conducive to achieving the lesson objectives and were complemented by relevant LTSM; and they outlined the use of different teaching methods to accommodate different learning styles where relevant.

The mathematics lessons plans which were described as well prepared contained detailed information on the following elements: how the content aligned to CAPS; LTSM to be used in the lesson, how the LTSM would be used and how they linked to the lesson content; examples, exercises and questions that would be used to convey the lesson content; and homework planned.

Half of the observers specifically commented that they believed the teachers were well prepared for their lessons. They reported that the lesson objectives were clearly stated and the student teachers were able to stick to their lesson plans. Student teachers were found to perform well in terms of following the general structure of the lesson plan. In addition, half of the observers noted that student teachers had made provision in their lesson planning for a review of the previous lesson.

However, some student teachers' grasp of the purpose of lesson planning was seen to be limited. Some observers expressed concern at the lack of preparation and organisation seen in some student teachers' lesson planning (24 mathematics lessons and 20 language lessons were mentioned in this regard). Some student teachers struggled with clarifying the lesson objectives and outlining how the

objectives would be achieved. The lesson plans which were weak were not specific enough in terms of activities, timing and resources. This resulted in lessons with insufficient depth of inquiry and an over reliance on workbooks. Observers of approximately a quarter of the lessons (24% language and 25% mathematics) noted that the student teachers did not meet the lesson objectives or experienced significant challenges in meeting the objectives due to their inability to adhere to the lesson plans. According to the observers, in around one fifth of the lessons observed, the quality of the lesson plans hindered the achievement of the lesson objectives.

Observers noted that student teachers frequently deviated from the lesson plan to provide explanations to learners. The student teachers considered these explanations necessary to accomplish the lesson. This coincides with the findings previously documented in Sections 3.2.1 and 3.2.2 whereby student teachers expressed concern with their learners ability to grasp concepts as they are not at the expected cognitive level.

Findings from the student teacher interviews reveal that student teachers felt that the LTSM and teaching aids that they had used in delivering the lessons had played an important role in facilitating achievement of the lesson objectives. The student teachers also reported that they were able to evaluate the extent to which their lesson objectives had been met by assessing learner understanding through question and answer exercises. They were then able to amend their lessons based on the results of these exercises.

A few of the student teachers (6%) were aware of their need to improve in specifying the objectives of the lesson and lesson content. Six percent of student teachers reported that they had partly met their lesson objectives because they did not use the LTSM required for lesson delivery. Similarly, a few student teachers (4%) felt that they had not met their lesson objectives as not all learners had understood the lesson. . Difficulties in maintaining learner discipline and coping with class size were reported as being the most frequent challenges (8%) to following lesson plans and achieving lesson objectives.

According to 48 responses (62%) given by the supervisors in the WIL schools, lesson planning was done effectively. The SANTS lesson plan and SANTS policy documents were reported to be used as guidelines by student teachers. Most lesson plans were reported to be closely aligned to CAPS and structured to clearly state the objectives of each lesson. Some student teachers (3%) did however note that their WIL schools were not satisfied with the lesson plan format (provided by SANTS) they were using.

3.2.4.4 Comments and quotations regarding lesson planning

The following set of quotations from observers, student teachers and WIL school principals reflect the variety of ways in which lessons can be well-prepared and executed and, conversely, in which they can go wrong. The quotations also give a sense of some contextual constraints on performance.

Positive praise for well-modelled and realised lessons (Observers' views)

- *She knows how to plan, she prepared for the achievement of the objectives. She did not limit learners therefore there was learner involvement.*
- *The SANTS lesson plan format was used and contained the requirements e.g. the grade, date, topic and the LTSM etc. Lesson objectives were clearly stated.*

- *She can plan and prepare her lessons very well and the lesson plan had been done correctly showing all the steps of a lesson plan - LTSM were well prepared and used to make able to understand the lesson.*
- *The lesson was very well planned. The student teacher started by giving learners a mental test, which was marked without delay. He then recapped the previous day's work before introducing then day's lesson. The LTSM that he used, the various objects for weighing and the homemade scale were very creative.*
- *The [student] teacher knows how to plan and prepare a logical lesson. She showed progression of the lesson which linked to the objective of the lessons. LTSM was used effectively and learners manipulated objects, which led to effective involvement. They compared objects from the abacus, building stick and worksheets. This was all laid out in the lesson plan.*
- *The lesson was very good or excellently planned. LTSM were visible and effectively used the big scale, bathroom scales and measurement physical part of it was well done. Learners were able to step on a scale read it and interpret it. The scales were presented and well explained how they are used to measure different things.*
- *The student [teacher] did well to plan to review the previous lesson before introducing the new lesson and the link between previous work and new lesson [is] clear.*

Less satisfactory lesson plans and implementation thereof (Observers' views)

- *The teacher effectively taught a life skills lesson as an isiZulu home language lesson. She is not aware of the skills that must be taught in a language lesson, according to CAPS i.e. reading, grammar skills etc. The LTSM would have been appropriate in a life skills lesson.*
- *After reading the text, the student teacher abandoned the lesson plan and started following the exercises as they are set in the DBE workbook. The lesson objectives were not met as at no point were learners asked to make predictions on the story or critically analyse the text.*
- *The grammatical component that was done during the lesson was not in the lesson plan. It could have been done at the end of the lesson if there was time to spare, or as homework. The student teacher went back and forth, and there was no logical sequencing of the activities done.*
- *He should have planned for more scaffolding, as; in his own words, English is a foreign language to the learners. He should have explained the question words and made reference to the story on which they were basing their dialogues. This would have been easier if it was noted in the lesson plan.*
- *The teacher did not consider diversity and variety in her lesson planning and preparations; she did not plan different activities or cater for the needs of different learners in class.*

Reflections on the requirements of the lesson plans

- *There are problems concerning the preparation of our lesson plans: teachers are not happy about it, as it[they] contain lot of activities that [the teachers feel] are time wasting* (Student Teacher, interview, July 2015).
- *Student teachers are compelled to use lesson plans with formats that have been designed by the schools. We find that our students are supposed to write the lesson plan in the school format and also the lesson plan in SANTS format because some of the mentors disagree with the SANTS format* (SANTS Tutor, focus group, August 2015).

Student teachers' reflection on their performance

- *Learners were able to solve the problems that I gave them, in groups and individually.*
- *When I see that the learners do not understand what you are trying to explain to them, you just add some information that was not planned for.*
- *I wanted them to understand and be able to view what they saw in the text. They did very well because when I asked them questions they were able to answer.*
- *My lesson objectives were met and the LTSM that I used helped because learners understood the lesson. Learners also participated in the lesson.*
- *With the resources I used, I think I met the objectives. The learner's behaviour was good. A class is a bit full so that disturbed me because it is not easy to move in between desks (Student teacher interviews).*
- *I think I met my objective partly. But learners struggled with writing the dialogues.*

3.2.4.5 Summary of key findings

Summary

Quantitative analysis of language lesson planning and implementation

Stating learning objectives clearly was the strongest aspect of lesson planning in both phases 76%-80% of student teachers were rated at or above the expected level. *However, 20-40% of student teachers were below or far below the expected level in all four aspects of lesson planning which were rated. FP student teachers outperformed the IP student teachers in most areas. Adhering to lessons plans was the area of lesson plan implementation in which both the FP and the IP student teachers performance was strongest. Pacing and sequencing was the area of greatest weakness: 40% of IP and 35% of FP student teachers fell below or far below the expected level in this regard.*

Quantitative analysis of the Mathematics lesson planning and implementation

A high proportion of FP student teachers (78%-91%) performed at or above the expected level in all four aspects of lesson planning which were rated. IP students also performed well with 69% -78% performing at or above the expected level in all four aspects of lesson planning. As a whole, the student teachers' performance in lesson planning was more satisfactory for the mathematics lessons than for the language lessons. The performance of the FP student teachers in lesson plan implementation was generally good or adequate, with 75-85% performing at or above the expected level in all three aspects which were rated. The performance of IP student teachers was less good, particularly in terms of pacing and sequencing and achieving the lesson objectives with 48% and 38% of student teachers respectively performing below the level expected of newly qualified teachers.

Qualitative findings

Qualitative comments from the observers regarding areas for improvement should not be seen as contradictory to the generally positive quantitative findings, they highlight areas for possible improvement. Half of the observers specifically commented that they believed the teachers were well prepared for their lessons. The lesson objectives were clearly stated and the student teachers were able to stick to their lesson plans. Student teachers performed well in terms of following the general structure of the lesson plan and made provision for a review of the previous lesson.

However, some observers expressed concern at the lack of preparation and organisation seen in some student teachers' lesson planning. These student teachers struggled with clarifying the lesson objectives and outlining how these objectives would be achieved. The lesson plans which were weak were not specific enough in terms of activities, timing and resources.

Observers noted that student teachers frequently deviated from the lesson plan to provide

explanations to learners. The student teachers considered these explanations necessary to accomplish the lesson. This relates to challenges identified in previous sections regarding learners prior knowledge and cognitive level not being adequate.

The student teacher interviews demonstrate that many of the interviewees were able to reflect on the quality of their lesson planning and lesson plan implementation and identify areas for improvement.

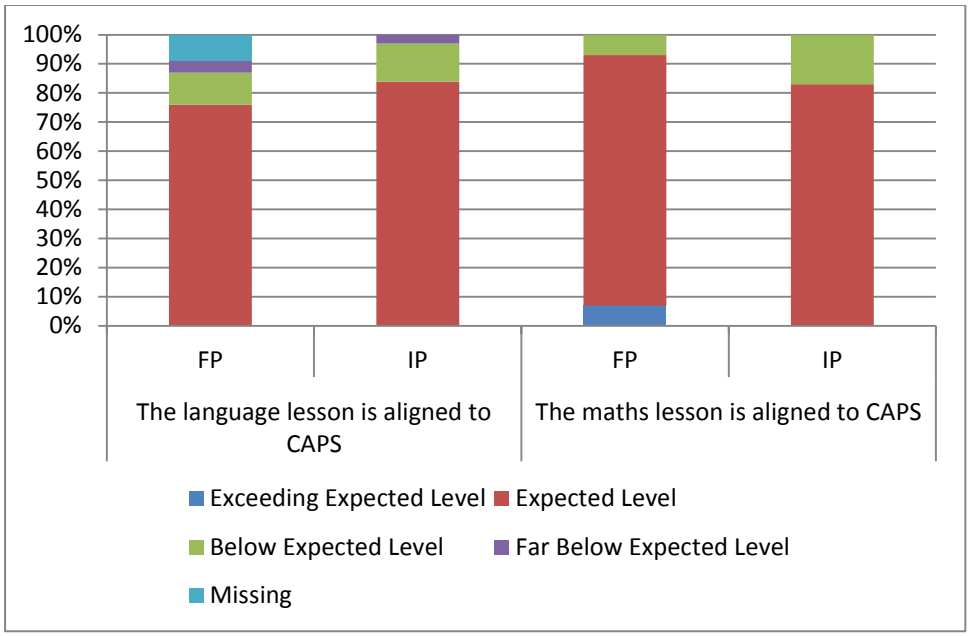
3.2.5 Knowledge of curriculum

This section considers curriculum alignment in lesson planning and preparation and delivery.

3.2.5.1 Quantitative analysis of curriculum alignment

Figure 14 shows the quantitative ratings for student teachers in terms of aligning their lesson plans with the curriculum.

Figure 14: Alignment of lesson plans with the curriculum (CAPS)



- The majority of student teachers delivered mathematics and language lessons that were aligned with the CAPS – between 76% and 94% of the FP and IP mathematics and language lessons in were curriculum-aligned;
- The curriculum-alignment of mathematics lessons was slightly better than that of the language lessons.

3.2.5.2 Qualitative findings on curriculum alignment

Only a few lesson plans were noted by the observers as not being aligned with CAPS. They reported that a few student teachers had noticeable challenges presenting a lesson plan which was in line with the CAPS guidelines.

In the interviews which were conducted, some student teachers said they felt that they could improve on their curriculum knowledge as well as their knowledge of national curriculum requirements and thereby to improve their lesson planning and preparation.

Some student teachers reported that mentorship they received from their supervisors in the WIL schools had assisted in developing their curriculum knowledge. However, when asked what areas had been problematic or where the help which was provided had been useful, the student teachers were not specific.

Principals at the WIL schools tended to report in general terms that SANTS student teachers had sufficient knowledge of the curriculum. The student teacher supervisors at the WIL schools had a closer perspective of the student teachers' knowledge of the curriculum and 67 supervisors (87%) reported that the lesson plans used by SANTS student teachers were aligned to CAPS.

3.2.5.3 Summary of key findings

Summary
Between 76% and 94% of the mathematics and language lessons which were observed were curriculum-aligned. The qualitative data also supports this finding. School Principals and student teacher's supervisors at the WIL schools reported that the lesson plans used by SANTS student teachers were aligned to CAPS. Sudent teachers reported that mentorship support they received from their supervisors in the WIL schools had assisted in developing their curriculum knowledge.

3.2.6 LTSM

This section examines student teachers' design and use of LTSM, focusing on issues of innovation and appropriateness.

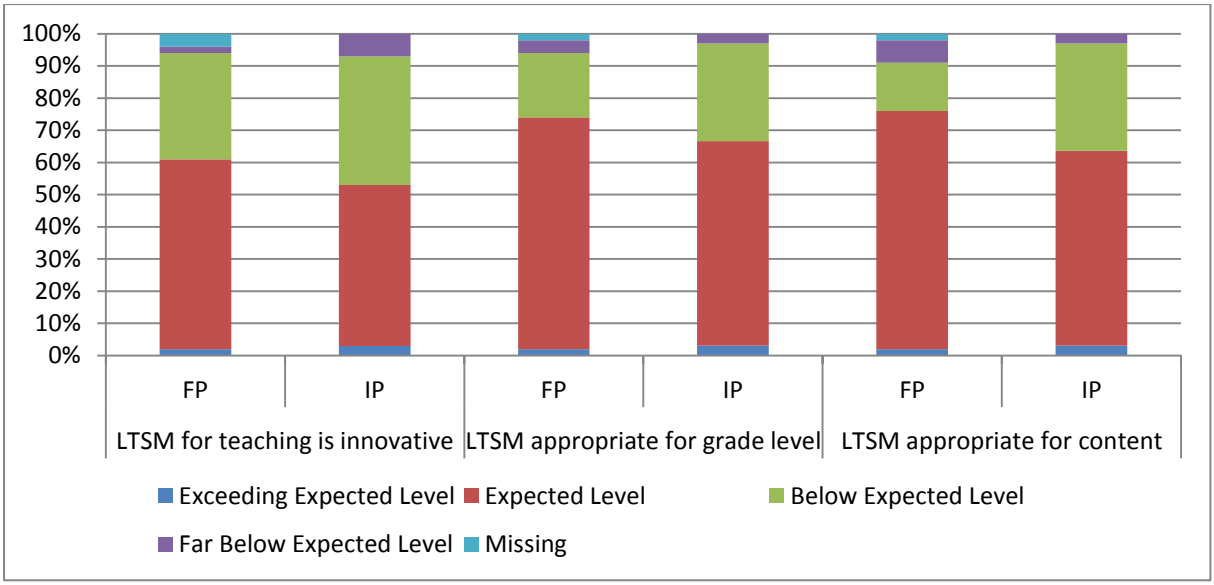
3.2.6.1 Language LTSM design and use: quantitative analysis

Table 25 and Figure 15 show quantitative ratings of the student teachers' use of LTSM in language lessons.

Table 25: Language LTSM design and use

Rating	LTSM for teaching is innovative		LTSM appropriate for grade level		LTSM appropriate for content	
	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	2%	3%	2%	3%	2%	3%
Expected Level	59%	50%	72%	63%	74%	60%
Below Expected Level	33%	40%	20%	30%	15%	33%
Far Below Expected Level	2%	7%	4%	3%	7%	3%
Missing	4%	0%	2%	0%	2%	0%
Total	100%	100%	100%	100%	100%	100%

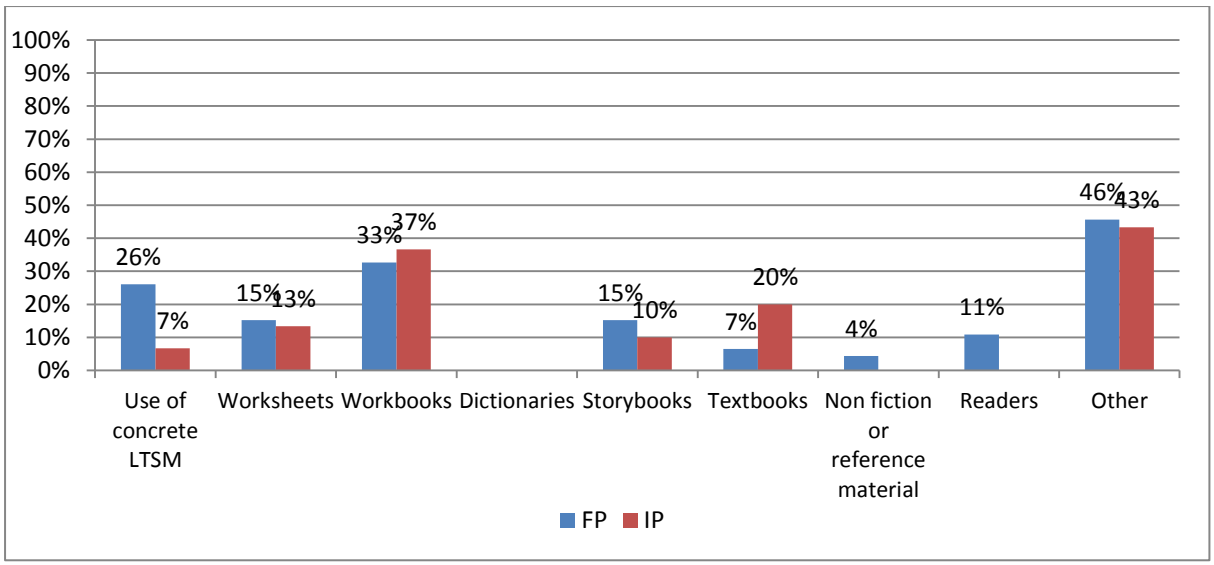
Figure 15: Language LTSM design and use



- 74-76% of FP student teachers were rated at or above the expected level in terms of their LTSM being appropriate for the grade level and content of their lessons;
- 60-63% of IP student teachers were rated at or above the expected level for the same aspects of LTSM design and use;
- Student teachers performed less well in terms of their LTSM being innovative, but the majority were still rated as achieving or exceeding the expected level;
- Of concern, 47% of the IP student teacher were rated as below or far below expectation in terms of LTSM for teaching being innovative;
- The relatively higher occurrence of student teachers rated as using appropriate LTSM as expected (63%-76% as described above) derives perhaps from their tendency, reported below, to prefer using text-books and official resources such as workbooks.

Figure 16 illustrates the extent to which the various kinds of LTSMs for language were used by student teachers during the lessons which were observed.

Figure 16: Use of LTSM by student teachers in language lessons



- Workbooks and "other" LTSM (such as everyday items for creative use) were the most frequently used types of LTSM among both FP and IP student teachers;
- Dictionaries were not used at all by either FP or IP student teachers;
- Readers (11%) and non-fiction references (4%) were used minimally by FP student teachers and not at all by IP student teachers;
- Overall FP student teachers used various types of LTSM more frequently than their IP counterparts.

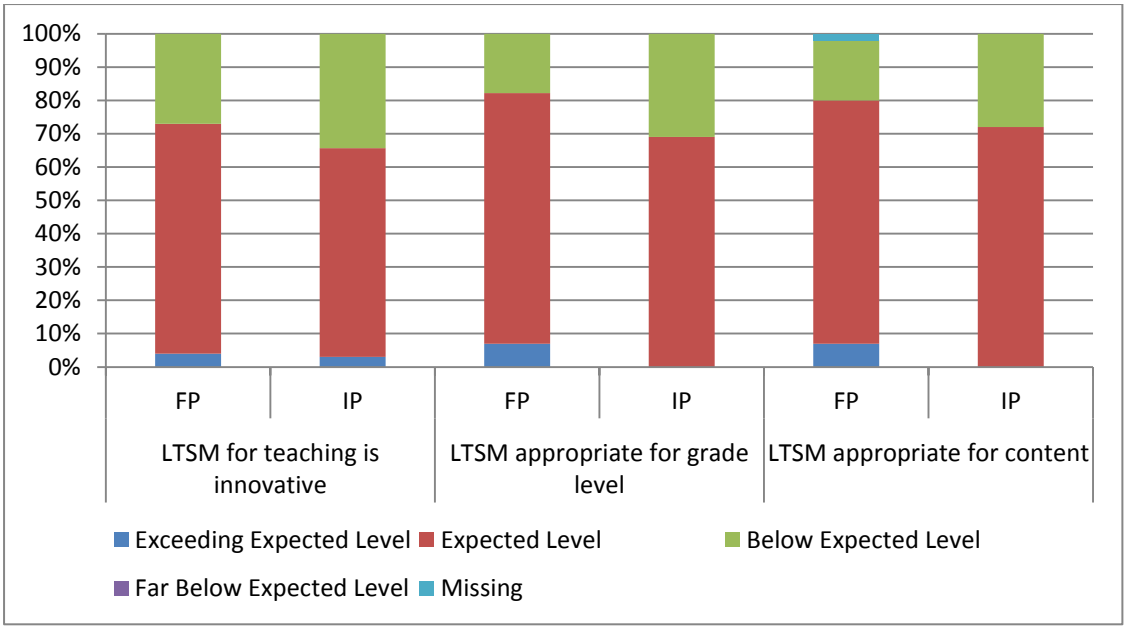
3.2.6.2 Mathematics LTSM design and use: quantitative analysis

Table 26 and Figure 17 show the ratings of the student teachers' use of LTSM in mathematics lessons.

Table 26: Mathematics LTSM design and use

Rating	LTSM for teaching is innovative		LTSM appropriate for grade level		LTSM appropriate for content	
	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	4%	3%	7%	0%	7%	0%
Expected Level	69%	62%	76%	69%	73%	72%
Below Expected Level	27%	34%	18%	31%	18%	28%
Far Below Expected Level	0%	0%	0%	0%	0%	0%
Missing	0%	0%	0%	0%	2%	0%
Total	100%	100%	100%	0%	100%	100%

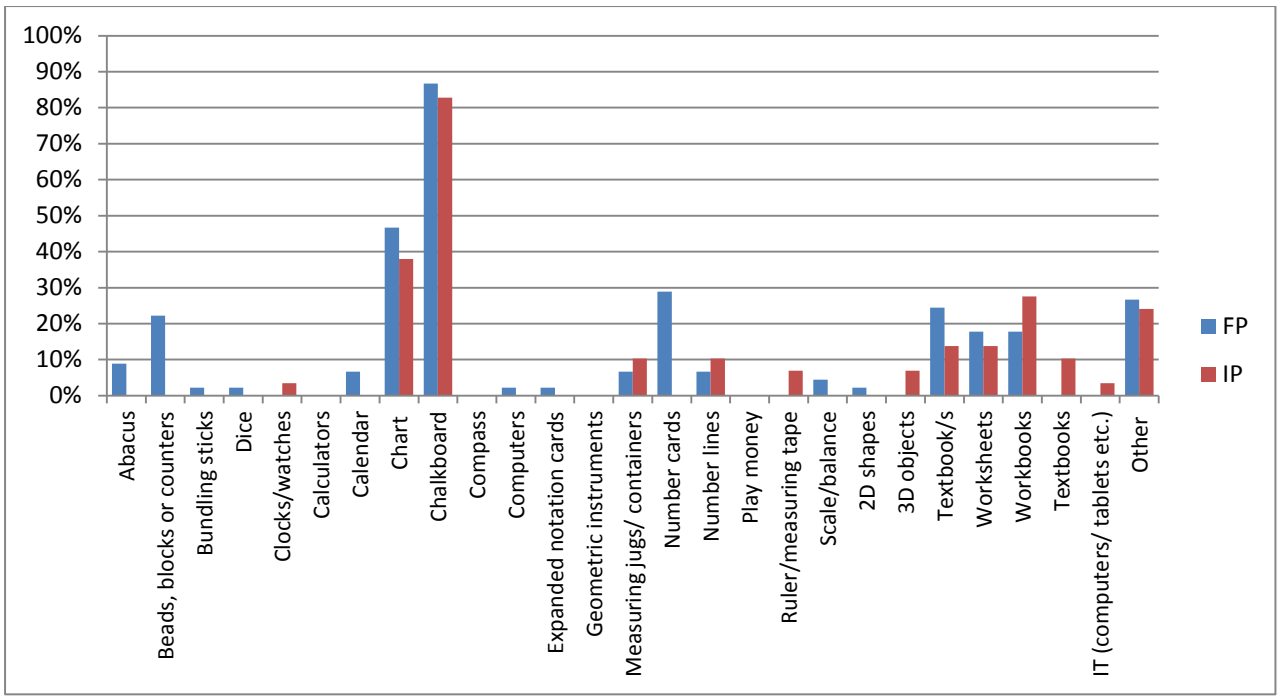
Figure 17: Mathematics LTSM design and use



- FP student teachers performed best in providing grade appropriate and content appropriate mathematics LTSM, with 83% and 80%, respectively, rated at or above the expected level. IP student teachers also performed well, with 69% to 72% being rated as performing at the expected level;
- Innovative LTSM for teaching was the area in which both FP and IP teachers' were weakest, with 27% and 34%, respectively, being rated at below the expected level, although none were rated as "far below".

Figure 18 provides further information about the extent to which the various kinds of LTSM for mathematics were used by student teachers during mathematics lessons.

Figure 18: Use of LTSM in mathematics lessons



- Student teachers in both FP and IP predominantly made use of the chalkboard and charts, followed by other readily available resources such as textbooks, workbooks and worksheets;
- This coincides with the finding cited previously that innovation was the weakest area in terms of LTSM for these student teachers;
- Several types of LTSM were not used at all in any of the lessons: this tendency was particularly marked in the IP lessons observed, none of which made use of: an abacus; beads, blocks or counters; bundling sticks; dice; calculators; a compass; computers; expanded notation cards; geometric instruments; number cards; play money; scale/balance; or 2D shapes.

3.2.6.3 Qualitative findings on design and use of LTSM

Qualitative comments from the observers on student teachers' use of LTSM show that, when planned for and available, the student teachers' used LTSM effectively. Among the language lessons observed, 22 student teachers (29%) were commended for being well prepared to use LTSM and more than half were specifically reported to have made use of the material effectively. In mathematics lessons 69% of the observers' comments indicated effective use of LTSM and 48% noted that there was good preparation for using the material when it was available.

Although innovation in LTSM use as identified in the quantitative ratings as being the weaknest area, the majority of student teachers were still rated as achieving what was expected and the observers encoutered numerous example of innovative LTSM use patricularly in relation to mathematics lessons. In relation to the lesson illustrated in Figure 19 below, the observer commented: *it was a very interesting lesson. The Student teachers' energy and the learners level of energy was on the same level. Learners were enjoying the lesson, participating and even asking questions.*

Figure 19: A student teacher demonstrating how to compare mass.

Despite the generally positive views, there were examples of LTSM not being used well to enhance the lesson or to improve teaching and learning. The two comments below illuminate this point:

Materials brought to class were not enough to explain what he wanted to achieve. Three objects: salt, soup, and tin of fish. He seemed having a problem with teaching methods when learners did not understand to arrange objects from lighter to heavier which was not helped by the LTSM (Observer, fieldwork observation, July 2015).

Providing a variety of LTSM was all very well, but the LTSM was not used effectively. In the event it only distracted from the lesson and it deviated from what it was created for (Observer, fieldwork observation, July 2015).

Many student teachers reported that they faced challenges with obtaining materials to develop their LTSM (a shortage of Bostik was given as an example; this made it difficult to develop a complex set of materials). However, they also reported making use of the available resources. One student teacher said that she planned to label everything in her classroom (chalkboard, chair, table etc.) to teach vocabulary.

The majority of supervisors at the WIL schools reported that student teachers were innovative and used LTSM effectively. One third (33%) of the supervisors specifically stated that LTSM was used effectively with the aim of ensuring learner differentiation.

SANTS tutors noted that the student teachers were provided with various resources to use in the classroom to aid in the teaching and learning process. In the opinion of the tutors, the student teachers made effective and varied use of LTSM in the classroom. The tutors pointed out that student teachers seemed to favour non-traditional resources: they were seen using dairy products, clothes hangers, boxes, toilet paper rolls and other everyday items in their teaching.

3.2.6.4 Summary of key findings

Summary

Quantitative analysis of language lessons

Student teachers performed best in terms of their LTSM being appropriate for the grade level and content of their lesson, 74-76% of FP and 60-63% of IP student teachers achieved the expected level. Student teachers performed less well in terms of their LTSM being innovative, but the majority were still rated as achieving or exceeding the expected level. The relatively higher occurrence of student teachers rated as using appropriate LTSM as expected is perhaps derived from their tendency to prefer using text-books and official resources such as workbooks. Workbooks and "other" LTSM (such as everyday items for creative use) were the most frequently used types of LTSM among both FP and IP student teachers. Overall FP student teachers used various types of LTSM more frequently than their IP counterparts.

Quantitative analysis of mathematics lessons

The overall pattern of findings is similar for mathematics lessons. FP student teachers performed best in providing grade appropriate and content appropriate mathematics LTSM, with 83% and 80%, respectively, rated at or above the expected level. IP student teachers also performed well, with 69% to 72% being rated as performing at the expected level. Innovative LTSM for teaching was the area in which both FP and IP teachers' were weakest, with 27% and 34%, respectively, being rated at below the expected level, although none were rated as "far below". Student teachers in both FP and IP predominantly made use of the chalkboard and charts, followed by other readily available resources such as textbooks, workbooks and worksheets; Several types of LTSM were not used at all in any of the lessons: this tendency was particularly marked in the IP lessons observed, none of which made use of: an abacus; beads, blocks or counters; bundling sticks; dice; calculators; a compass; computers; expanded notation cards; geometric instruments; number cards; play money; scale/balance; or 2D shapes.

Qualitative findings

Qualitative comments from the observers on student teachers' use of LTSM show that, when planned for and available, the student teachers' used LTSM effectively. For both the language and mathematics lessons, student teachers were commended for being well prepared to use LTSM and had apparently made use of LTSM effectively when it was available.

Many student teachers reported that they faced challenges with obtaining materials to develop their LTSM. However, they also reported making use of the available resources. This points toward the impact of the school and classroom context and resource provisioning on LTSM access and use.

3.2.7 Learner differentiation and participation

Teachers are expected to differentiate between learners with different levels of understanding. For example, by providing additional instruction or re-teaching aspects of the lesson to learners that are struggling or by requiring learners who are faster in grasping concepts to assist other slower learners. The ability to accommodate learners that are faster at grasping lesson content than others is another important aspect of differentiation and teachers should be able to differentiate between learners with different learning styles. As mentioned in the literature review, this is important in the South African context, because of the great diversity which exists in terms of language, cognitive ability, socio-economic background, and other aspects in classrooms (DHET, 2011:11, cited in Deacon, 2014). These aspects of effective teaching were assessed via observation of the student teachers teaching language and mathematics lessons.

Based on the observational data presented in Subsection 3.1.2 on teaching methods and strategies, it was evident that, in general, differentiation was a weak area for many student teachers. This is explored further below.

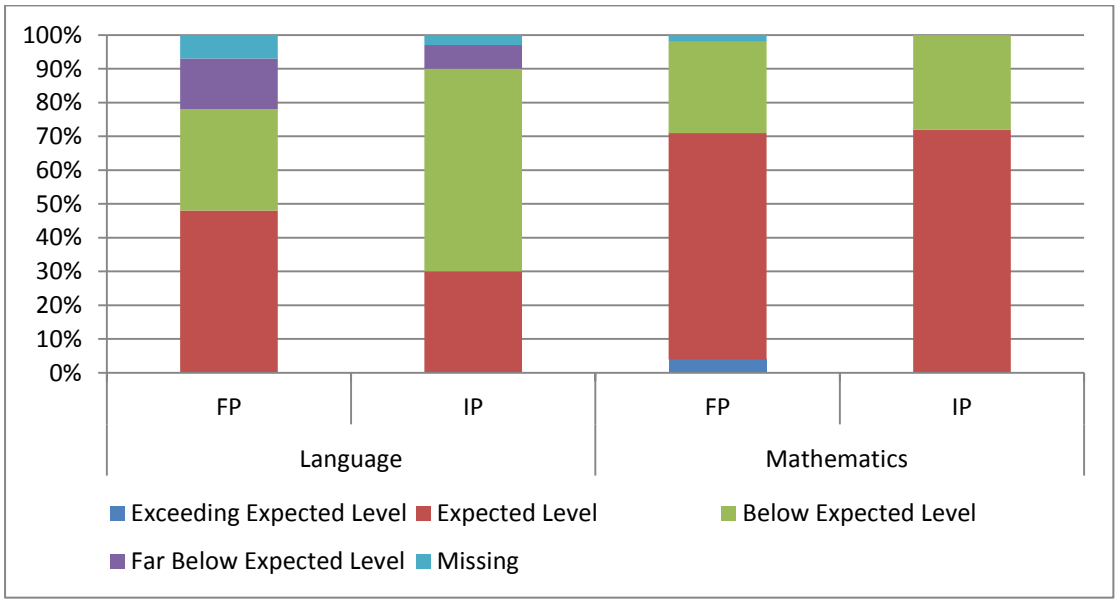
3.2.7.1 Differentiation and participation: Quantitative analysis

Table 27 and Figure 20 show the ratings of the student teachers' ability to differentiate. Some of the data presented in Tables 12 and 13 and Figures 3 and 4 have been reproduced to highlight the key findings in this important area.

Table 27: Evidence of differentiated teaching and learning during lessons observed

Rating	Language		Mathematics	
	FP	IP	FP	IP
Exceeding Expected Level	0%	0%	4%	0%
Expected Level	48%	30%	67%	72%
Below Expected Level	30%	60%	27%	28%
Far Below Expected Level	15%	7%	0%	0%
Missing	7%	3%	2%	0%
Total	100%	100%	100%	100%

Figure 20: Evidence of differentiated teaching and learning during lessons observed



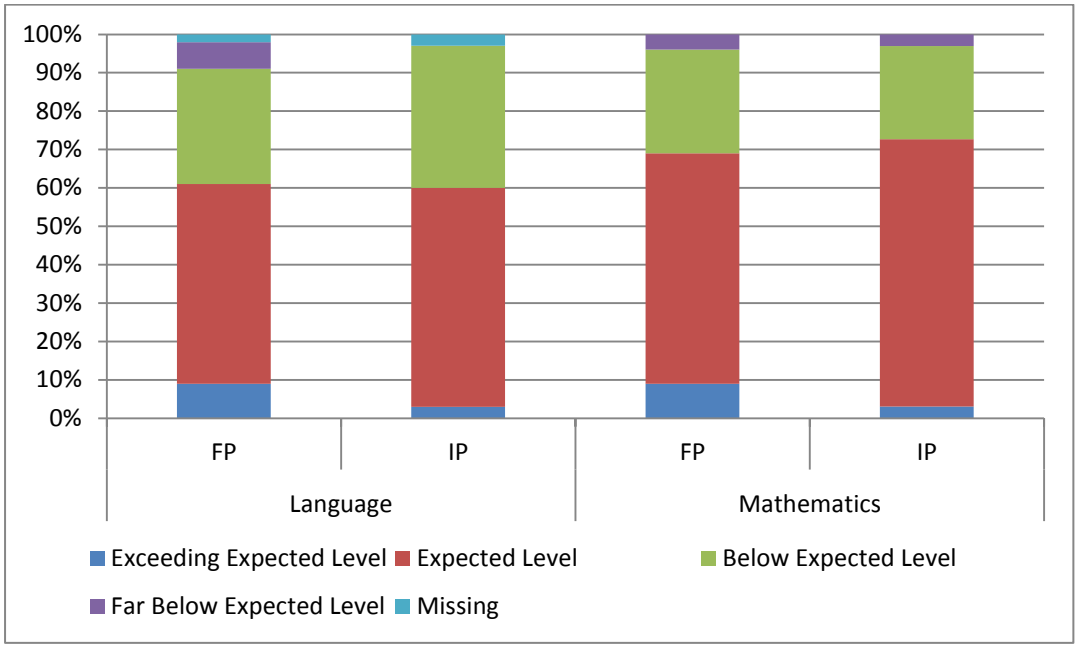
- Compared with the quantitative findings in other areas, the lower incidence of adequate differentiation, particularly with respect to language lessons (only 48% of FP and 30% of IP language lessons were at the expected level in this regard) is marked;
- It would be worth exploring why the same student teachers who did not differentiate in language lessons managed a higher degree of differentiation in mathematics lessons;
- The qualitative analysis of student teachers' ability to differentiate that follows in Section 3.2.7.2 suggests that many student teachers, whilst appreciating the importance of differentiation and aspiring to use it, found it difficult or impossible to do so in the classroom.

Table 28 and Figure 21 show ratings of the extent to which student teachers' were able to secure learner participation in their lessons.

Table 28: Extent to which student teachers were able to ensure all learners were attentive and participated

Rating	Language		Mathematics	
	FP	IP	FP	IP
Exceeding Expected Level	9%	3%	9%	3%
Expected Level	52%	57%	60%	69%
Below Expected Level	30%	37%	27%	24%
Far Below Expected Level	7%	0%	4%	3%
Missing	2%	3%	0%	0%
Total	100%	100%	100%	100%

Figure 21: Extent to which student teachers were able to ensure all learners were attentive and participated



- Overall, student teachers were generally able to ensure that all learners participated in their mathematics lessons, with 69%-71% attaining or exceeding the expected level.
- In 60%-61% of language lessons student teachers were able to meet or exceed the expected level in terms of ensuring learner participation and attentiveness.
- However, a substantial 24-37% of student teachers performed below or far below the expected level in terms in this area.
- The pattern is somewhat puzzling. Why is attention and participation quite distinctly better in mathematics lessons – at both levels – than in language lessons? Could there be something in the assumptions about what language lessons entail that is causing this anomalous finding? For example, do student teachers feel that language lessons demand more of a personal performance – talking and telling – whereas mathematics lessons of necessity demand practice and feedback?

3.2.7.2 Qualitative findings of differentiation and participation

As noted in the previous Section, a substantial proportion of student teachers were rated poorly in their ability to differentiate. The reasons for this are illuminated through qualitative comments on the observations and feedback from the interviews discussed below.

The observers specifically noted 13 instances in which the lessons they observed showed student teachers to be competent in differentiating between and accommodating learners. Nine of these were language lessons and four were mathematics lessons.

On the other hand, the observation notes indicate that 33 student teachers experienced significant challenges in differentiating among or accommodating learners in the language lessons and 17 experienced challenges in this regard in mathematics lessons. In instances in which there were challenges, the teaching methods used did not facilitate accommodating different learners and student teachers did not show the ability to be able to identify and support learners that were struggling. Some observers recommended that student teachers need to improve their skills in planning, including the use of different teaching methods, to accommodate different learners and considering learner diversity in their lesson plans.

Many of the student teachers that were interviewed recognised that learner differentiation was necessary in their lessons, as some learners neither understood nor learnt from the lesson for various reasons. Student teachers noted that they would incorporate learner differentiation techniques such as group work, peer support and after class support to learners requiring additional assistance. Student teachers also recognised that some learners learn faster than others and that these learners would also require differentiation. These comments indicate that the student teachers did have knowledge of various learner differentiation techniques.

However, the student teachers reported that they struggle to implement their knowledge of differentiation in the classroom setting. The majority of student teachers reported that various challenges experienced in the classroom did not always permit them to practice learner differentiation techniques. Code switching in language use as a response to different levels of communicative competence and to different cognitive styles is an example of such a technique. In a few instances, student teachers reported that differentiating in the case of disabled learners was particularly challenging.

Supervisors in the WIL schools commented that the majority of the student teachers were able to accommodate different kinds of learners. Student teachers demonstrated skills in differentiation and understood that not all learners retain information in the same way and some learners face learning barriers. Supervisors noted that student teachers had shown skills in their ability to accommodate learners with learning barriers by providing one-on-one time or by providing written work to test for understanding and then addressing gaps that were highlighted in the exercise. However, it was reported that some student teachers sometimes struggled with learner differentiation and felt that this may be because they had difficulty explaining concepts to learners in the language of instruction.

Numerous responses from the student teachers supervisors in the WIL schools indicate the ways in which the student teachers involved learners in the lesson. Student teachers often did this by, for example: facilitating discussions that involved learner participation; asking the learners questions;

asking learners to interpret their understanding of a topic; or allowing learners to recall/recite a specific piece of work. In some instances, student teachers were reported to put in extra effort to create a safe learning environment in which learners were free to ask questions. According to the supervisors in the WIL schools, most of these strategies were used to promote learner engagement and ensure that the learners understood and absorbed the content which they were taught.

3.2.7.3 Comments and quotations regarding learner differentiation and participation

The quotations below are drawn from the observers' comments and interviews to illustrate specific instances of successes and challenges relating to learner differentiation and participation.

Examples of good application of differentiation and learner participation techniques

- *She gave slower learners a chance to come up to the board and guided them to the correct answer* (Observer, fieldwork observation, July 2015).
- *Moving around learners while they are writing shows that he understands the need to help those who are struggling* (Observer, fieldwork observation, July 2015).
- *The [student] teacher uses different teaching methods to accommodate all learners. She keeps checking on slow learners as they work on sums and brings down the content to the level of those learners* (Observer, fieldwork observation, July 2015).
- *He is absolutely good in learner involvement; he has the ability to reach even the weakest child in the class, especially through using LTSM effectively* (Observer, fieldwork observation, July 2015).
- *Student teachers in the two learning areas are able to display learners' differentiation by accommodating all types of learners, including those with learning problems. They place them in the first rows so that they might be able to cope with learning and teaching* (WIL School Principal, interview, July 2015).
- *Student teachers' make provision for learners with learning barriers by placing them in the front row, making sure they get one on one time and paying attention to their learning needs* (WIL School Supervisor, interview, July 2015).
- *When she gives the learners written work, she walks around the classroom and helps those learners who are experiencing difficulties* (WIL school Supervisor, interview, July 2015).

Weaker lessons where differentiation and learner participation techniques were not applied

- *The student teacher taught the lesson using whole class teaching throughout, without considering differentiation. No special attention was given to those learners who did not raise their hands to ask or answer questions based on the story" And, "slow learners were not identified and hence not assisted at all* (Observer, fieldwork observation, July 2015).

3.2.7.4 Summary of key findings

Quantitative findings
Compared with the quantitative findings in other areas, the lower incidence of adequate differentiation, particularly with respect to language lessons is marked. Overall, student teachers were generally able to ensure that all learners participated in their lessons, however, a substantial 24-37% of student teachers performed below or far below the expected level in terms in this area.

Qualitative findings
Qualitative analysis suggests that many student teachers, whilst appreciating the importance of

differentiation and aspiring to use it, found it difficult or impossible to do so in the classroom due to time or contextual constraints, including large class sizes. In instances in which there were challenges, the teaching methods used did not facilitate accommodating different learners. This indicates a disjuncture between planned differentiation according to the lesson plan and the actual method required in the real world classroom situation.

In contrast, stakeholders at the WIL schools reported in general that student teachers made good efforts to differentiate. They were able to interact well with different types of learners in the classroom and understood that not all learners retain information in the same way and some face learning barriers.

Further insight provided by both school stakeholders and observers was that student teachers sometimes struggled with learner differentiation because they had difficulty explaining concepts to learners in the language of instruction.

3.2.8 Classroom management and lesson delivery

This section discusses student teachers' classroom management and lesson delivery and considers three main themes:

- Lesson delivery and time management;
- Learner discipline and management; and
- Classroom environment and the student teacher's approach to the learners.

3.2.8.1 Lesson delivery and time management: quantitative analysis

Four aspects of time management and lesson delivery were considered:

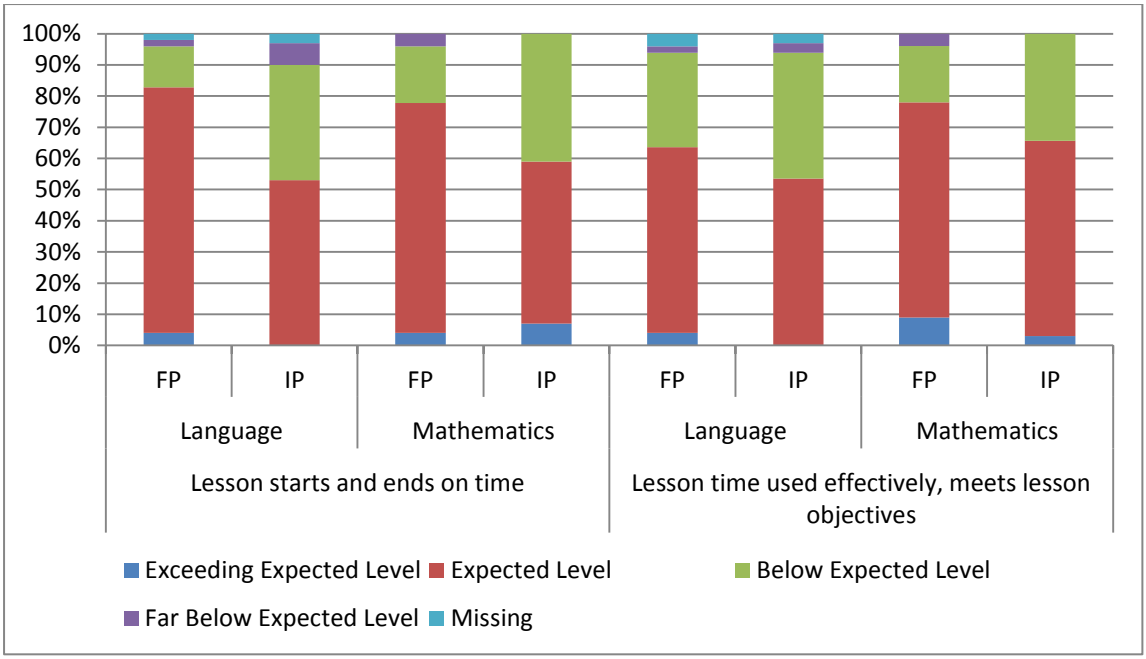
- Whether the lesson started and ended on time;
- Whether lesson time was used effectively to meet lesson objectives;
- Whether the student teacher provided a summary or conclusion at the end of the lesson;
- Whether the lesson was presented in a manner which supports learning.

Table 29 and Figure 22 indicate quantitative ratings of student teachers' use of time.

Table 29: Efficient and effective use of time

Rating	Lesson starts and ends on time				Lesson time used effectively, meets lesson objectives			
	Language		Mathematics		Language		Mathematics	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	4%	0%	4%	7%	4%	0%	9%	3%
Expected Level	78%	53%	73%	52%	59%	53%	69%	62%
Below Expected Level	13%	37%	18%	41%	30%	40%	18%	34%
Far Below Expected Level	2%	7%	4%	0%	2%	3%	4%	0%
Missing	2%	3%	0%	0%	4%	3%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 22: Efficient and effective use of time



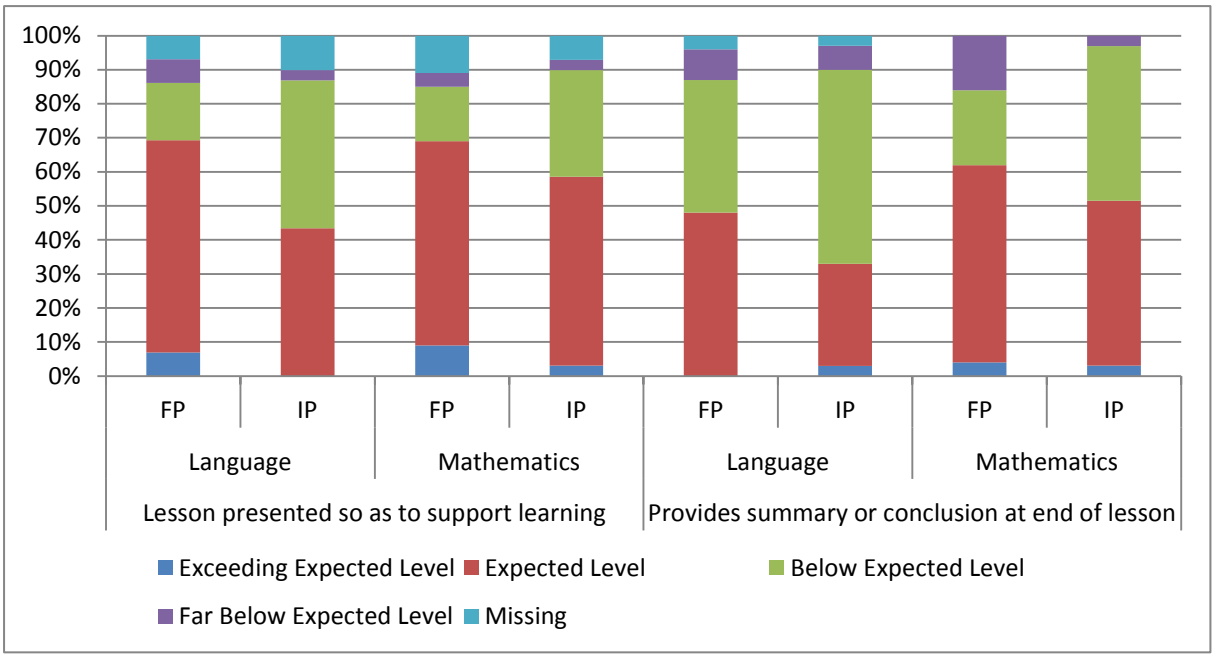
- FP student teachers generally performed well, particularly in terms of time management, where 77%-82% were rated as at or above the expected level, but also in terms of using time effectively to meet the lesson objectives, where 63%-76% were rated as at or above the expected level;
- The IP student teachers performed less well, 46% of IP language lessons were rated as below or far below the expected level in terms of starting and ending on time, and 43% were rated as below or far below the expected level in terms of the effective use of time to meet the lesson objectives;
- The IP student teachers performance was also weaker than the FP student teacher performance with respect to mathematics lessons.

Table 30 and Figure 23 illustrate ratings of the student teachers in aspects of lesson delivery that enhance learning.

Table 30: Presentation and conclusion of the lesson to enhance learning

Rating	Lesson presented so as to support learning				Provides summary or conclusion at the end of the lesson			
	Language		Mathematics		Language		Mathematics	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	7%	0%	9%	3%	0%	3%	4%	3%
Expected Level	63%	43%	60%	55%	48%	30%	58%	48%
Below Expected Level	17%	43%	16%	31%	39%	57%	22%	45%
Far Below Expected Level	7%	3%	4%	3%	9%	7%	16%	3%
Missing	7%	10%	11%	7%	4%	3%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 23: Presentation and conclusion of the lesson to enhance learning



- FP student teachers performed best in terms of presenting a lesson in a manner which supports learning, but performed worse in terms of providing a summary or conclusion at the end of the lesson; 48% of FP language lessons were rated as being at or above the expected level in this regard;
- The IP student teachers mathematics lessons were strongest, with 51%-58% being rated at or above the expected level in terms of presenting a lesson in a manner which supports learning and providing a summary or conclusion at the end of the lesson;
- In general, the IP student teachers language lessons were weaker, less than half (33%-43% were rated at or above the expected level in these two areas.

3.2.8.2 Learner discipline and management: Quantitative analysis

This sub-section explores four requirements of for good learner discipline and management:

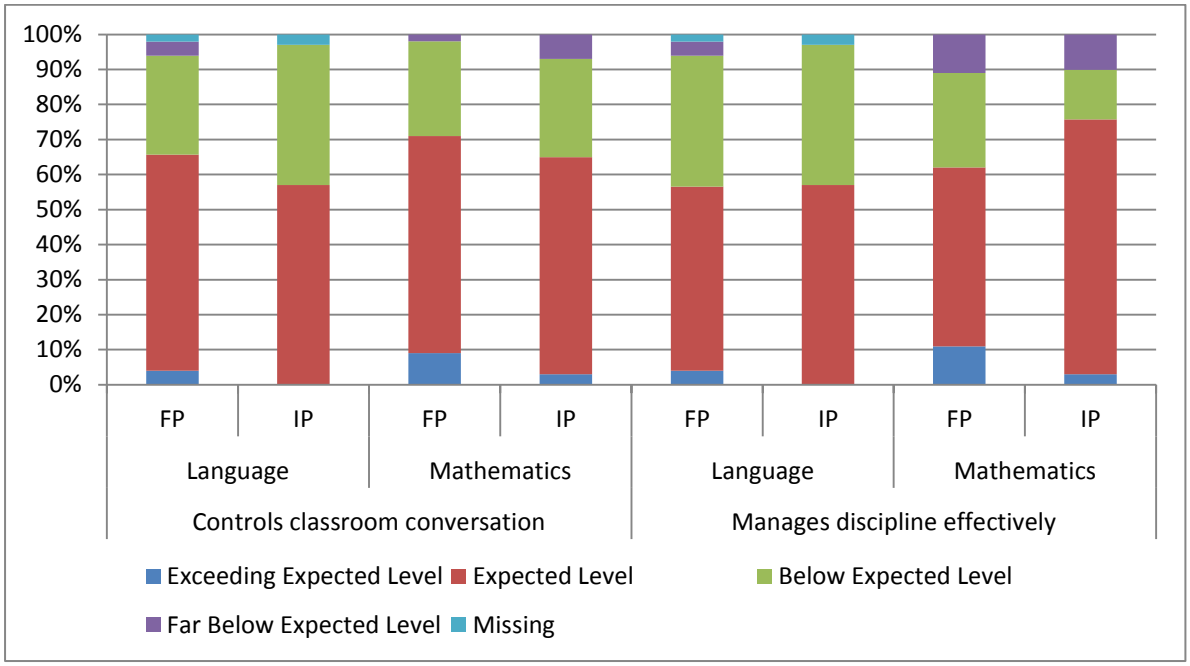
- Settling the class at the beginning of and throughout the lesson;
- Handing out of resources smoothly and in a manner which maintains order;
- Managing classroom conversation;
- Managing discipline effectively.

Table 31 and Figure 24 show the quantitative rating of student teachers' management of classroom discipline.

Table 31: Management of classroom discipline

Rating	Controls classroom conversation				Manages discipline effectively			
	Language		Mathematics		Language		Mathematics	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	4%	0%	9%	3%	4%	0%	11%	3%
Expected Level	61%	57%	62%	62%	52%	57%	51%	72%
Below Expected Level	28%	40%	27%	28%	37%	40%	27%	14%
Far Below Expected Level	4%	0%	2%	7%	4%	0%	11%	10%
Missing	2%	3%	0%	0%	2%	3%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 24: Management of classroom discipline



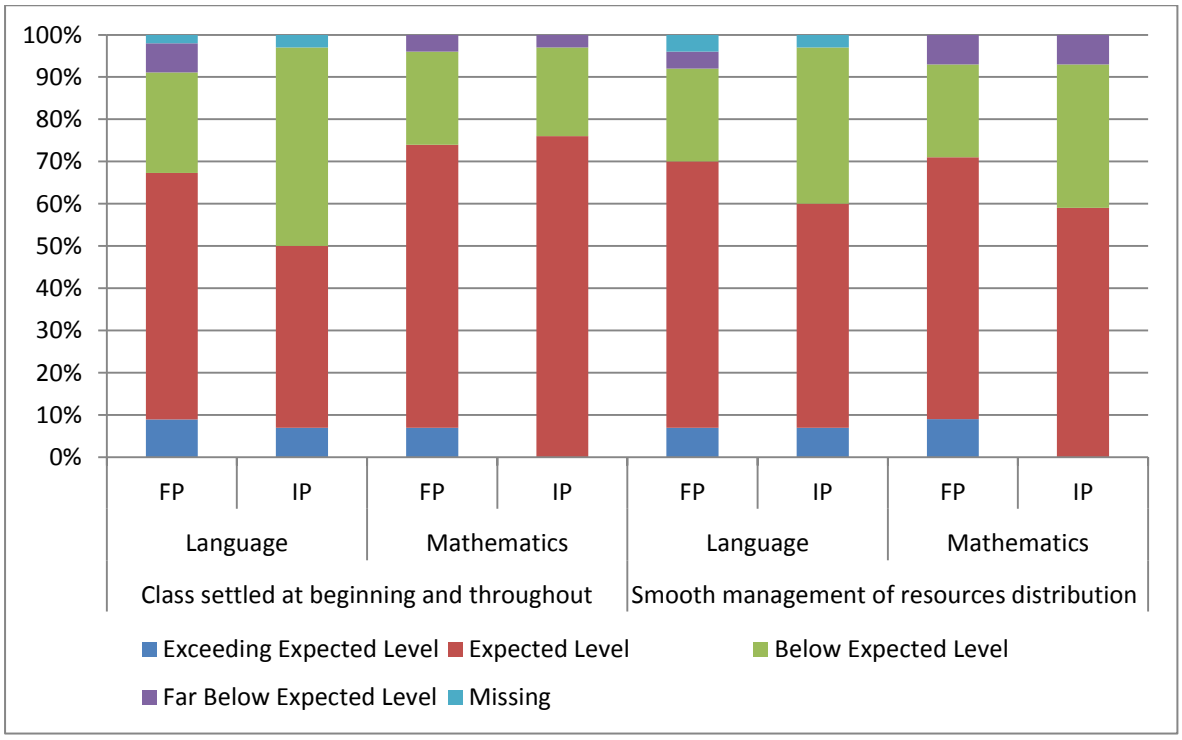
- Between 65% and 71% of FP student teachers were rated as controlling classroom conversation effectively. Their ratings were slightly lower for managing discipline effectively, but the majority still performed at or above the expected level and 11% *exceeded* the expected level in their mathematics lessons;
- FP student teachers slightly outperform their IP counterparts in controlling the classroom conversation, but this situation is reversed for managing discipline effectively, wherein 57%-75% of IP students attained or exceeded the expected level;
- FP student teachers were more successful in managing discipline during their mathematics lessons than during their language lessons, , with 9% being rated at above the expected level in their ability to control classroom conversation and 11% rated at above the expected level in managing student discipline effectively;
- IP student teachers were also rated more highly during their mathematics lessons than their language lessons.

Table 32 and Figure 25 below show the results of the quantitative ratings of student teachers in two aspects relating to classroom control and management: settling the class at the beginning of the lesson and managing resource distribution.

Table 32: Class control and resource distribution

Rating	Class settled at beginning and throughout				Smooth management of resource distribution			
	Language		Mathematics		Language		Mathematics	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	9%	7%	7%	0%	7%	7%	9%	0%
Expected Level	59%	43%	67%	76%	63%	53%	62%	59%
Below Expected Level	24%	47%	22%	21%	22%	37%	22%	34%
Far Below Expected Level	7%	0%	4%	3%	4%	0%	7%	7%
Missing	2%	3%	0%	0%	4%	3%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 25: Class control and resource distribution



- Between 68% and 74% of FP student teachers were rated at or above the expected level in both of these aspects of classroom management;
- FP student teachers outperformed IP student teachers in the rating of both aspects for their language lessons and their performance was very similar (with IP student teacher performing slightly better) in terms of settling the class for their mathematics lessons;
- The IP teachers worst performance was settling the class for their language lessons, wherein 50% were rating as achieving or exceeding the expected level. It is surprising that their performance was substantially better for their mathematics lessons.

3.2.8.3 Classroom environment and approach to learners: quantitative analysis

This subsection explores two aspects relating to the classroom environment namely, whether the student teacher:

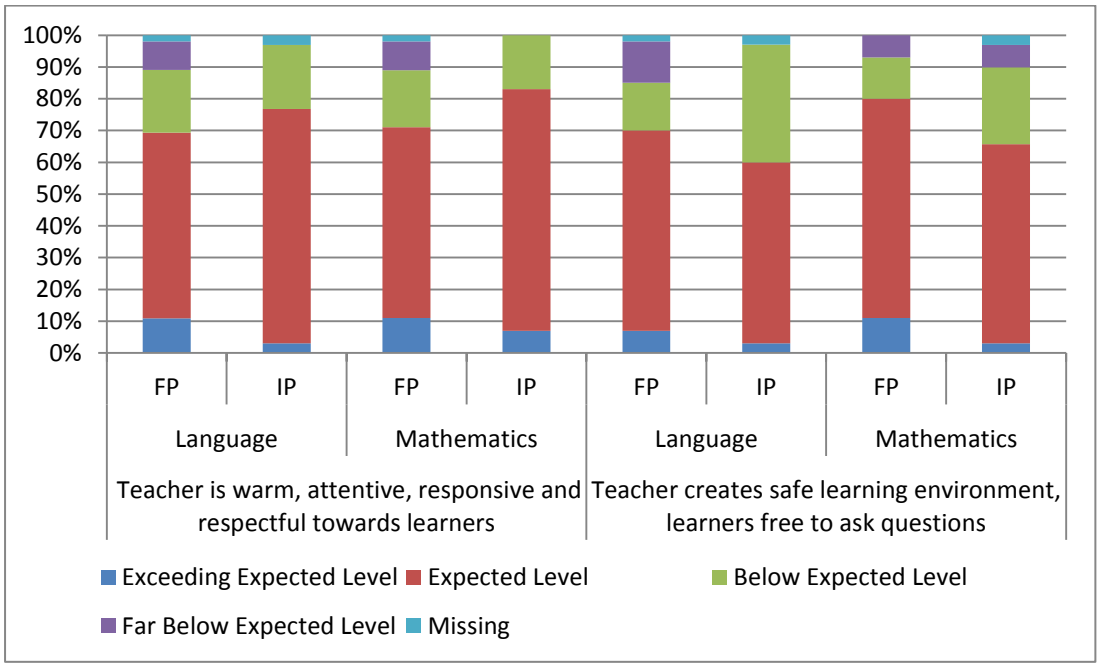
- Was warm, attentive, responsive and respectful towards learners; and
- Created a safe learning environment in which learners felt free to ask questions.

The ratings of student teachers in these aspects are depicted in Table 33 and Figure 26.

Table 33: Creation of a safe learning environment

Rating	Teacher is warm, attentive, responsive and respectful towards learners				Teacher creates safe learning environment, learners free to ask questions			
	Language		Mathematics		Language		Mathematics	
	FP	IP	FP	IP	FP	IP	FP	IP
Exceeding Expected Level	11%	3%	11%	7%	7%	3%	11%	3%
Expected Level	59%	73%	60%	76%	63%	57%	69%	62%
Below Expected Level	20%	20%	18%	17%	15%	37%	13%	24%
Far Below Expected Level	9%	0%	9%	0%	13%	0%	7%	7%
Missing	2%	3%	2%	0%	2%	3%	0%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Figure 26: Creation of a safe learning environment



- The findings are impressive overall: 70%-80% of FP student teachers were warm, attentive, responsive and respectful to learners and created a safe learning environment in both their

language and mathematics lessons and, of these, 7%-11% were rated as exceeding the expectations of newly qualified teachers in this regard;

- Between 76%-83% of the IP student teachers were warm, attentive, responsive and respectful to learners in both of their lessons; slightly fewer (60%-65%) were rated as having created a safe learning environment their language and mathematics lessons;
- The finding that during language lessons, student teachers achieved lower ratings for creating an adequately safe learning environment in which learners feel free to ask questions is of interest. Assumptions that language lessons must be full of teacher talk, while mathematics lessons demand action and feedback and thus should be full of questions, may be at play. This interesting contrast needs to be explored further.

3.2.8.4 Qualitative findings regarding classroom management

Despite the generally positive findings presented in Sections 3.2.8.1-3.2.8.3, more challenges than successes were recorded in the qualitative notes section of the observation instruments. Observers noted a few of the student teachers (18% in language and 11% in mathematic lessons) experienced challenges maintaining discipline when learners were not engaged in active learning. Disruptions also occurred when student teachers explained activities to learners. Observers suggested that better lesson planning with the inclusion of more activities for learners to maintain their attention and participation in the lesson may improve student teachers' classroom management.

When discussing their classroom management skills and the extent to which they had been effective in managing the lesson that they had just taught, the student teachers were able to identify challenges that affected the effectiveness with which they managed their classes. The student teachers reported that the SANTS classroom management module helped them to be effective in this regard and that their supervisors at the WIL schools also provide them with valuable mentorship on classroom management.

The majority of responses from the student teachers' supervisors in the WIL schools suggest that the student teachers had the ability to manage the classroom well and discipline the learners effectively. It was reported that the student teachers were able to settle learners quickly before and maintain discipline throughout the lesson. However, there were some instances of supervisors reporting that the student teachers failed to be assertive with learners. It was also reported that some student teachers were able to control the classroom at the start of the lesson, but were unable to maintain control throughout the lesson.

3.2.8.5 Comments and quotations regarding classroom management

The quotations below illustrate some positive and negative aspects of classroom management which were observed and reported on.

Positive aspects of classroom management

- *He creates order before starting. He introduces the topic and the learners are quiet and listening. He starts the lesson on time and finishes on time. He gives them a chance to ask questions if they do not understand* (supervisor in a WIL school, interview, July 2015).

Negative aspects of classroom management

- *While the student teacher hands out the workbooks etc., she struggles to keep the learners engaged. Some learners are fighting in the class throughout the lesson. This could endanger them or other learners. She also struggled to maintain learner engagement and discipline generally* (Observer, fieldwork observation, July 2015).
- *The activities were not logical, they were mixed up. This might be reason for learners making lot of noise during the lesson delivery* (Observer, fieldwork observation, July 2015).

3.2.8.6 Summary of key findings

Quantitative findings

FP student teachers generally performed well in terms of time management and using time effectively to meet the lesson objectives. The IP student teachers performed less well, 43%-46% were rated as below or far below the expected level in these areas. FP student teachers performed well in terms of presenting a lesson in a manner which supports learning, but performed worse in terms of providing a summary or conclusion at the end of the lesson. The IP student teachers language lessons were weak, less than half (33%-43% were rated at or above the expected level in these two areas).

The majority of FP student teachers were rated as controlling classroom conversation effectively. Ratings were slightly lower for managing discipline effectively, but the majority still performed at or above the expected level. IP students performed slightly worse but the majority still attained or exceeded the expected level.

The findings regarding attitude towards learners and creation of a safe learning environment are impressive. Overall: 70%-80% of FP student teachers were rated as being adequately warm, attentive, responsive and respectful to learners and creating a safe learning environment in both their language and mathematics lessons and, of these, 7%-11% were rated as exceeding expectations. The IP student teachers rating were also impressive, albeit slightly lower.

Qualitative findings

While student performance was in general adequate; this multifaceted aspect of teaching presented with a number of challenges. The observers noted that student teachers experienced challenges maintaining discipline when learners were not engaged in active learning and disruptions occurred when student teachers spent a lot of time explaining activities to learners.

Student teachers' supervisors in the WIL schools felt that the majority of student teachers had the ability to manage the classroom well and discipline the learners effectively. However some areas of potential improvement were noted.

3.3 Findings Section 3: Perceptions relating to the SANTS student teachers and the SANTS BEd programmes

This section presents predominantly qualitative findings relating to perceptions of the SANTS student teachers and the quality and relevance of the SANTS programme in preparing students to become teachers. It includes findings relating to SANTS student teachers' attitudes to teaching, the perceived quality of SANTS student teachers and the perceived quality of the SANTS BEd programmes. The analysis draws from interviews with supervisors and principals at the WIL schools, interviews with the SANTS student teachers, focus group interviews with SANTS tutors and the student survey questionnaires.

3.3.1 SANTS student teachers' attitudes to teaching

3.3.1.1 Motivation to teach

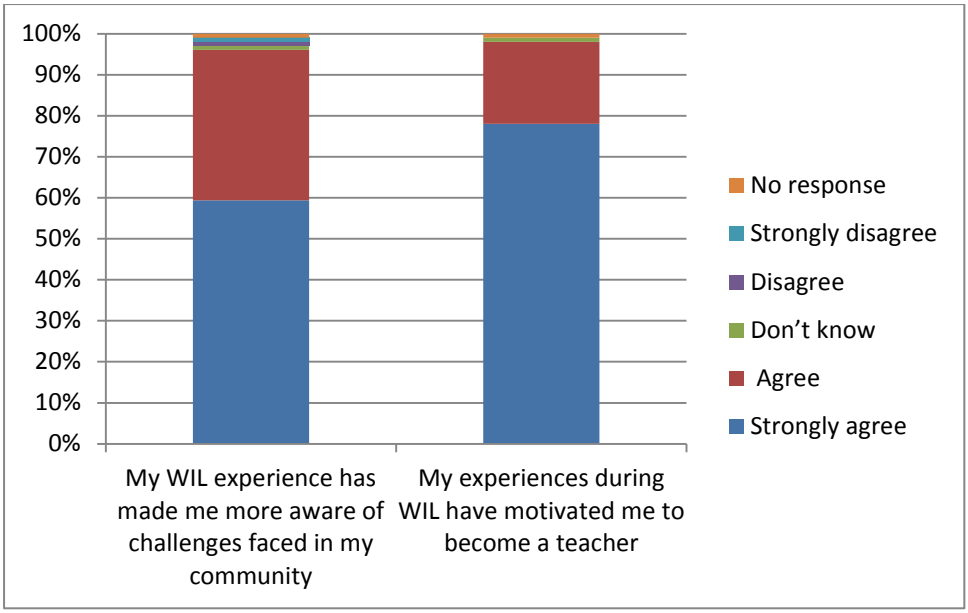
When asked in interviews why they wanted to become teachers, 35 student teachers responded that it was because of their desire to impart knowledge to children and aide in children's development in becoming responsible and professional citizens. A further 20% of the student teachers said they were inspired and encouraged by their own teachers and principals to go into teaching as a career. For a number of the student teachers it was the lack of quality teachers in rural communities that inspired them to become teachers.

Table 34 and Figure 27 - which present results from the student teacher survey - show that the WIL experience has contributed positively to the student teachers' commitment to teaching.

Table 34: Student teachers' ratings of the contribution of the WIL experience to their commitment to teaching

Statement	Responses of student teachers					
	Strongly agree	Agree	Don't know	Disagree	Strongly disagree	No response
My WIL experience has made me more aware of challenges faced in my community	60%	37%	1%	1%	1%	1%
My experiences during WIL have motivated me to become a teacher	78%	20%	1%	0%	0%	1%

Figure 27: Student teachers' ratings of the contribution of the WIL experience to their commitment to teaching



3.3.1.2 Commitment to WIL schools

According to 27 WIL school principals (63%), SANTS student teachers were involved in extracurricular activities such as assisting with cultural events (music and drama) and sports (netball, soccer, athletics, etc.). In one case, WIL placement coincided with the circuit's cultural events and, according to the principal, the students were of great help with these activities.

Eleven principals (26%) commented that the SANTS student teachers expanded their commitment to WIL by conducting extra lessons for learners experiencing learning challenges, before or at the end of the school day.

3.3.1.3 Work ethic

The SANTS student teachers' work ethic was assessed in relation to their:

- Punctuality;
- Adherence to school policy;
- Preparation for the classroom;
- Engagement with other teachers and with learners; and
- Their conduct in general.

Responses from 36 WIL school principals (84%) specifically mentioned the good work ethic of SANTS student teachers participating in WIL. One principal said:

They are disciplined and communicate well with senior teachers. They adhere to the school's code of conduct (WIL School Principal, interview, July 2015).

Another added:

They are punctual and serve for the duration of the required time. They stick to time on task while carrying out their core responsibilities (WIL School Principal, interview, July 2015).

Only three principals were critical of the SANTS student teachers' work ethic. One complained that:

They do not behave in a professional manner (WIL School Principal, interview, July 2015).

3.3.2 Perceptions of school stakeholders regarding the quality of the SANTS student teachers and the SANTS Programme

A substantial number of WIL school principals (28 or 65%) were positive about:

- The good practices of the SANTS student teachers in delivering good quality teaching;
- The quality of the SANTS BEd programmes; and
- The support provided by SANTS to the student teachers during their WIL experience.

One principal stated that:

SANTS is strict and organised. The student teachers are properly monitored by their tutors compared to other students from other institutions. SANTS do follow-ups at the school to check if the student teachers are performing (WIL School Principal, interview, July 2015).

The WIL school principals felt that they could themselves learn from the SANTS manuals, LTSM and teaching methods and strategies. One principal praised the resources in these terms:

The resource which the student teachers use for lesson preparation - the book they are using at SANTS - is so informative. I use it for my preparation as well (WIL School Principal, interview, July 2015).

Another noted that:

SANTS books are very good. I use them myself, especially because they are aligned with CAPS (WIL School Principal, interview, July 2015).

The WIL school principals also commented on the extent to which the SANTS programme is relevant, given that the student teachers had appropriate content knowledge aligned to CAPS. Notable comments include the following:

The skills they are acquiring in their studies are very relevant to the curriculum of today. Their approach to teaching will produce good results. The gaps that were created by the changes that we are experiencing in our education system will be closed (WIL School Principal, interview, July 2015).

The SANTS student teachers are rich in subject matter and teaching methods (WIL School Principal, interview, July 2015).

These perceptions are in line with the quantitative and qualitative findings in Sections 3.2.1. 3.2.2, 3.2.4 and 3.2.5 regarding the student teachers adequate subject knowledge, application of teaching methods and strategies, lesson planning skills and curriculum knowledge.

3.3.3 Comparison of SANTS student teachers with student teachers from other institutions

Thirty-five of the WIL school principals (81%) reported that students from other institutions undertake WIL at their schools. These other institutions were reported to include: the University of South Africa (UNISA), the University of Kwa-Zulu Natal (UKZN), the University of the North West, the University of Zululand, the University of Tshwane and the University of the Free State (UFS).

The principals were asked to comment on how SANTS student teachers compared to student teachers from these other institutions. According to the responses given, 16 principals (37%) felt that there was no real difference between SANTS student teachers and student teachers from other institutions. Student teachers practicing WIL at the school - from SANTS and from other institutions - were seen to perform at the same standard. One of the principals stated:

According to my observation they match the same standard as other institution which is at the expected school level (WIL School Principal, interview, July 2015).

Fourteen principals (33%) and 29 supervisors (38%) at WIL schools gave positive views of SANTS student teachers in comparison to student teachers from other institutions. According to them, the SANTS student teachers were well prepared, dedicated and enthusiastic about teaching. One principal particularly appreciated that:

SANTS students are good; they come well prepared from their institution. They are taught to be always in the classroom teaching unsupervised. They can work independently unlike other students from other institution (WIL School Principal, interview, July 2015).

A supervisor confirmed that:

SANTS student teachers show great enthusiasm and are willing to learn more. They seem well equipped with the knowledge of what they do. They are well disciplined and understand their role well. They are real teachers in waiting because of the quality of training they get from their institution (WIL School supervisor, interview, July 2015).

Only one principal responded negatively in comparing SANTS student teachers to other student teachers. He felt that:

Student teachers from other institutions have more experience in terms of resources, like libraries and computer labs. Students from SANTS are unfamiliar with the facilities of this kind. Students from other institutions did their lesson plans from laptops. They also help learners in different sport codes during practice. They also get more continuous practical time compared to two weeks for SANTS. Having two weeks every three months is disadvantageous to learners (WIL School Principal, interview, July 2015).

The general overall feeling expressed by almost all (37 or 86%) of the WIL school principals was that they would employ the SANTS student teachers as professional teachers, describing them as dedicated, hardworking and professional, always prepared to learn and showing a great deal of professionalism and enthusiasm. The comments of two principals are presented below:

Yes I would employ them [SANTS students] because the SANTS programme produces good quality student teachers who have in-depth knowledge and skills of the curriculum (WIL School Principal, interview, July 2015).

The passion that they have shown in their teaching practice will be the main reason that will encourage me to employ them (WIL School Principal, interview, July 2015).

In summary, the majority of WIL school principals perceive SANTS to be producing high quality teachers who will add value to schools and are committed to changing the lives of their learners.

3.3.4 Student teachers' perceptions of the quality and relevance of the SANTS programme

This Subsection looks at student teachers' perceptions regarding the contribution of the SANTS BEd programmes to enhancing their knowledge of education theory, their subject content knowledge and their pedagogical skills. The Section draws on the student teacher survey responses and is enriched by perspectives from interviews conducted with the student teachers following observations of their lessons. The survey included questions in which the student teachers were asked to rate certain assertions relating to the value of aspects of the BEd programmes on a continuum from "strongly agree" to "strongly disagree".

3.3.4.1 Valuing the support sessions

With few exceptions, the student teachers understood that they had to attend support sessions at the SSCs daily to receive guidance on lesson planning and presentation. This is indicated in Table 35 below:

Table 35: Frequency of support sessions

Statement rated	Daily	Weekly	Monthly	Every 3 months	No response
How often are you required to attend support sessions in the SANTS B. Ed. programme?	96.3%	2.6%	0.1%	0.0%	0.1%

Student teachers said they receive feedback on their lesson delivery and other support from the SANTS tutors during visits to the SSCs.

Student teachers' responses to an open ended question in the survey were, in general, complimentary about the support sessions they received, as the quotations below attest. The support sessions were reported to have enhanced the student teachers': subject knowledge; pedagogic skills; knowledge of teaching methods and strategies; lesson planning skills; curriculum knowledge; ability to develop and use LTSM; and learner engagement and diversity management skills. The support sessions were also reported to have prepared student teachers for WIL and increased their confidence and professionalism:

The support sessions I received in the B Ed programme influence the way I deliver lessons to learners and increased my motivation to become a proficient teacher (Student Teacher, survey questionnaire, August 2015).

The support session[s] has influenced my skills as a teacher because it has motivated me and provided me with the different strategies of teaching (Student Teacher, survey questionnaire, August 2015).

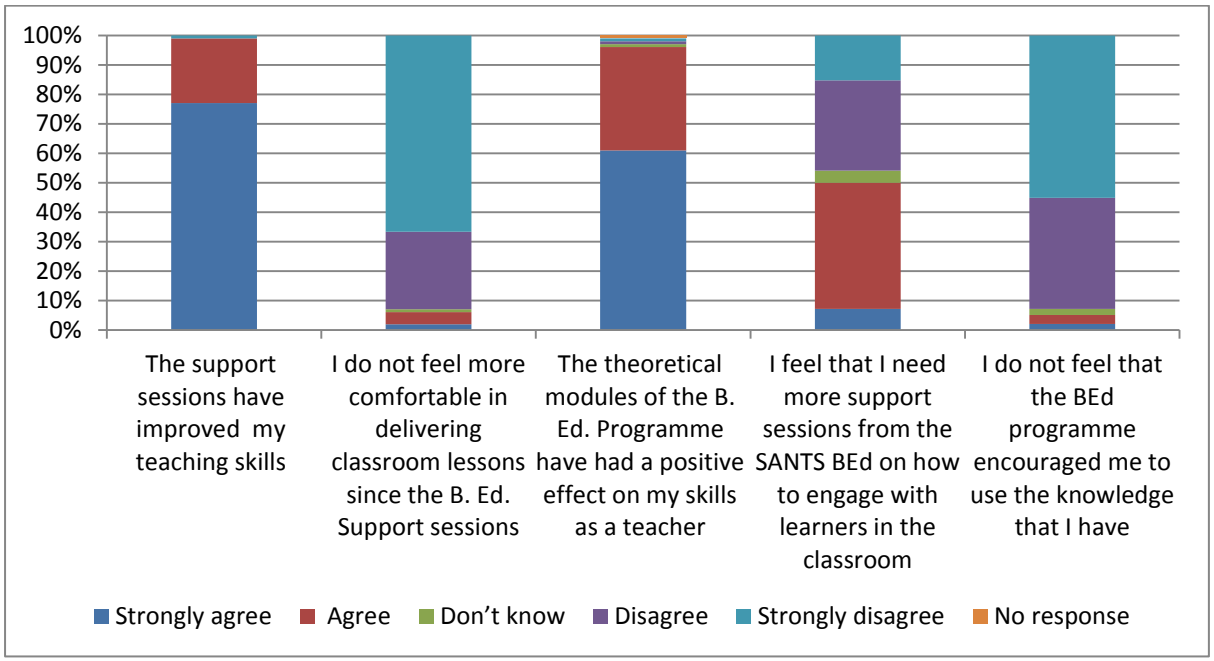
I learned more [about] how to be creative, making the LTSM [rather] than buying them. I also become knowledgeable on how to present a lesson in a right way-and be confident (Student Teacher, survey questionnaire, August 2015).

Table 36 and Figure 28 illustrate student teachers' ratings of the value of the support sessions provided by the SANTS tutors.

Table 36: Student teachers' ratings of the value of support sessions

Statement	Responses of student teachers					
	Strongly Agree	Agree	Don't know	Disagree	Strongly disagree	No response
The support sessions have improved my teaching skills	77%	22%	0%	0%	1%	0%
I do not feel more comfortable in delivering classroom lessons since the B. Ed. Support sessions	2%	4%	1%	26%	66%	0%
The theoretical modules of the B. Ed. Programme have had a positive effect on my skills as a teacher	61%	35%	1%	1%	1%	1%
I feel that I need more support sessions from the SANTS BEd on how to engage with learners in the classroom	7%	42%	4%	30%	15%	0%
I do not feel that the BEd programme encouraged me to use the knowledge that I have	2%	3%	2%	37%	54%	0%

Figure 28: Student teachers' ratings of the value of support sessions



- An overwhelming number and proportion (99%) of student teachers indicated that they felt the support sessions they received from SANTS improved their teaching skills.
- A further 92% of the student teachers reported that they felt comfortable when delivering lessons after receiving the BEd support sessions.
- Furthermore, 96% of the student teachers agreed that the theoretical modules of the BEd programmes had a positive effect on their teaching skills.
- However, student teachers indicated that they felt the need for more support sessions in order to address areas in which they experienced challenges, with 42% of student teachers indicating a need for additional support sessions on learner engagement in the classroom.

3.3.4.2 Simulation lessons and feedback

SANTS training incorporates simulation lessons as a practical learning technique. Simulation lessons involve student teachers observing a tutor conducting a model lesson, followed by the student teacher presenting a simulation lesson on a prescribed topic. The student teachers were asked how often simulation lessons were conducted. Close to one third of student teachers said that simulation lessons occur daily and close to two thirds of respondents said they occur weekly.

Table 37: Frequency of simulation lessons

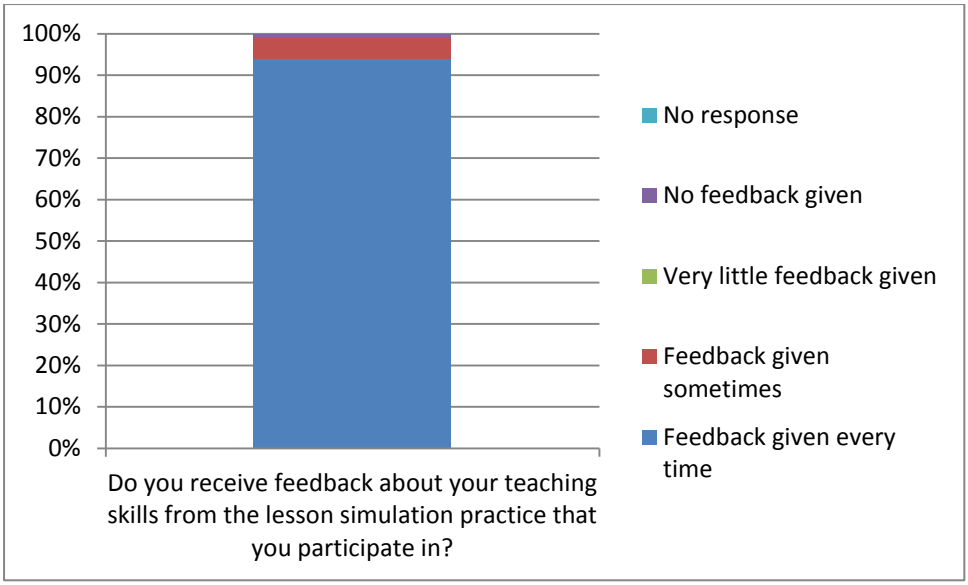
Statement rated	Daily	Weekly	Monthly	Every three months	No response
How often are simulation teaching classes conducted in SANTS B. Ed. Programme?	30.5%	65.1%	2.3%	0.9%	1.2%

Student teachers should, after the simulation, receive feedback from the group (lecturers and other student teachers) to help them take note of their strengths and weaknesses and plan adapt their lessons accordingly. Table 38 and Figure 30 shows the responses of the student teachers regarding the frequency of feedback they receive on their simulation lessons.

Table 38: Frequency of feedback about teaching from the simulation lessons

Statement rated	Feedback given every time	Feedback given sometimes	Very little feedback given	No feedback given	No response
Do you receive feedback about your teaching skills from the lesson simulation practice that you participate in?	94%	5%	0%	1%	0%

Figure 29: Frequency of feedback about teaching from the simulation lessons



A large majority of SANTS student teachers (94%) indicated that they received feedback on their performance after every simulation lesson presented and just 5% said that they received feedback "sometimes". According to one of the student teachers interviewed:

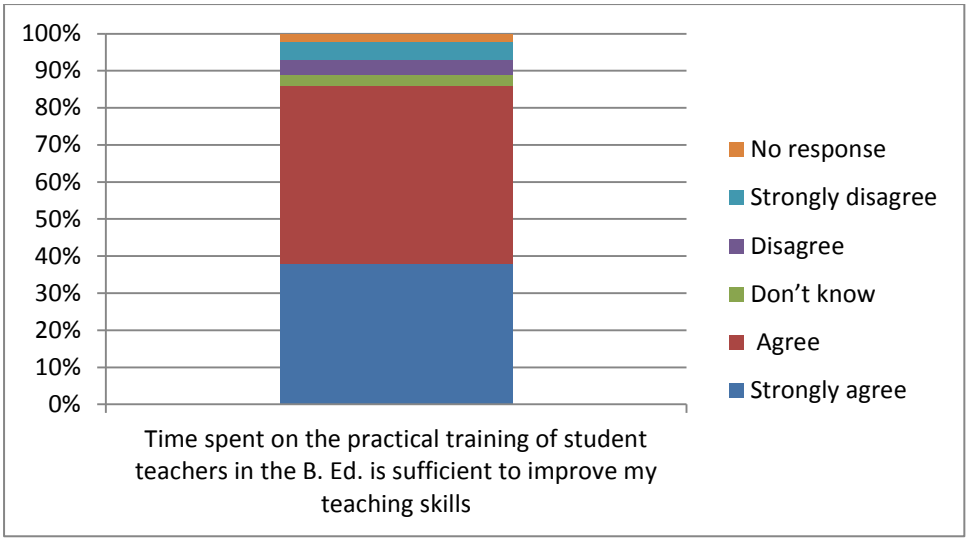
The tutors gave us the chance to organise and prepare the lesson. We presented them in front of our tutors every Wednesday and our tutor gave us feedback on how to improve (Student Teacher, interview, July 2015).

The student teachers were asked whether they felt that time spent on the practical training in the B. Ed. was sufficient to improve their teaching skills. Table 39 and Figure 30 illustrate the student teachers' responses.

Table 39: Student teacher responses regarding the value of practical training

Statement	Strongly agree	Agree	Don't know	Disagree	Strongly disagree	No response
Time spent on the practical training of student teachers in the B. Ed. is sufficient to improve my teaching skills	38%	48%	3%	4%	5%	2%

Figure 30: Student teacher responses regarding the value of practical training



A total of 86% of the student teachers either agreed or strongly agreed with this assertion. A minority of student teachers (9%) felt that the time was insufficient and more time should be spent on practical training. Similarly, spending "*more time to be spent on practicals*" was mentioned by one student teacher in response to an open ended question in the survey about how SANTS could improve the BEd programmes.

3.3.4.3 Perceptions of student teachers regarding the value of WIL in preparing them to teach

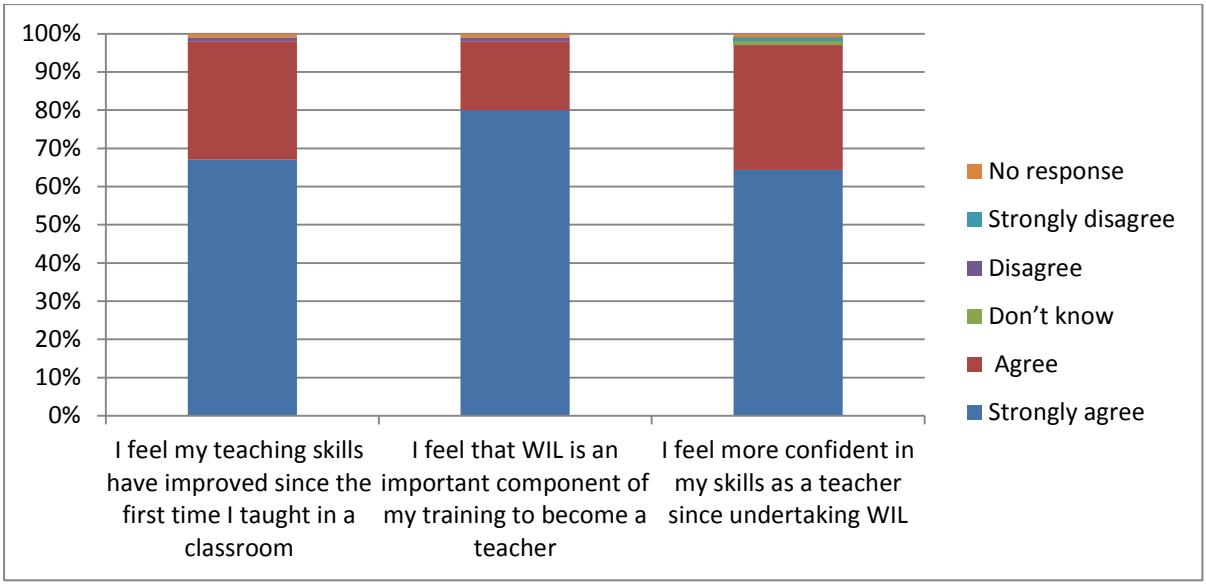
An overwhelming majority (98%) of student teachers felt that their teaching skills as well as their confidence to teach have improved since their participation in WIL. Furthermore, the student teachers agreed that WIL was an important component of their training in becoming teachers.

Table 40 and Figure 31 indicate student teachers' ratings of the value of WIL.

Table 40: Value of WIL in preparing student teachers to teach

Statement	Strongly agree	Agree	Don't know	Disagree	Strongly disagree	No response
I feel my teaching skills have improved since the first time I taught in a classroom	67%	31%	0%	1%	0%	1%
I feel that WIL is an important component of my training to become a teacher	80%	18%	0%	1%	0%	1%
I feel more confident in my skills as a teacher since undertaking WIL	65%	33%	1%	0%	1%	1%

Figure 31: Value of WIL in preparing student teachers to teach



In response to the open-ended question in the survey about how the BEd programmes could be improved, 17 student teachers requested that more time be spent on WIL. Seven others requested that the WIL experience take place in a single block of time, rather than spread out over the course of the year. Student teachers noted that they needed time to get to know and understand the learners in their classes and be able to teach them well.

3.3.4.4 Support from and interactions with SANTS tutors

SANTS tutors are responsible for providing face-to-face support to student teachers at the SSCs. The support student teachers receive consists of support sessions with the tutors, simulation lessons, providing constructive feedback and development of areas in which student teachers experience challenges. During their WIL practice, student teachers should be visited at least once per year by a SANTS tutor.

One of the tutors explained their role in the support sessions as follows:

My role is to tutor the student teachers, give them the theory on teaching, then also give them the methodology, how to teach now. We focus on giving them sound content on the subject they are going to teach at school. It is also my role to demonstrate in the form of model lessons, demonstrate to them how to teach the particular content that we have been focusing on. Then they have a chance to simulate the content I have demonstrated to them. Later we do peer assessment of the simulation (SANTS tutor, focus group, August 2015).

Student teachers were asked to comment on the quality of interaction with SANTS tutors.

In open-ended comments in the survey a number of student teachers commented positively about the SANTS tutors including the following:

SANTS help us with tutors, they are full time with us, they consider our differences they know what we need to become a professional qualified teacher they show us how to do our work" (Student Teacher, perception survey, August 2015).

The tutors always motivate us, telling us to be confident in standing in front of the learners as well to be good representatives in the community (Student Teacher, perception survey, August 2015).

Two student teachers responding to the survey remarked that they felt their tutors were under strain and that more tutors should be employed by SANTS. Other criticisms mentioned by a small number of student teachers included: tutors should use less "chalk and talk" and introduce more interesting and innovative teaching methods (5); tutors should have a deeper knowledge of the subjects they teach (2); and SANTS should place tutors of different race groups at the various SSCs to enhance student teachers' understanding of diversity (2).

The overwhelmingly positive responses from student teachers to the survey questions in which they were asked to rate the programme (see Table 41 and Figure 32) speak for themselves. No aspects of the programme were considered to be problematic.

While tutors were largely reported to provide sufficient support during contact sessions at the SSCs, some student teachers did comment on the infrequency of support from SANTS tutors during WIL; (SANTS tutors are only expected to observe student teachers once a year doing WIL). The survey results indicate that 25% of the student teachers felt that they needed more support from SANTS tutors during WIL. And six student teachers answered an opened ended question about how the BEd programmes could be improved, with the answer: provide more support to student teachers during WIL.

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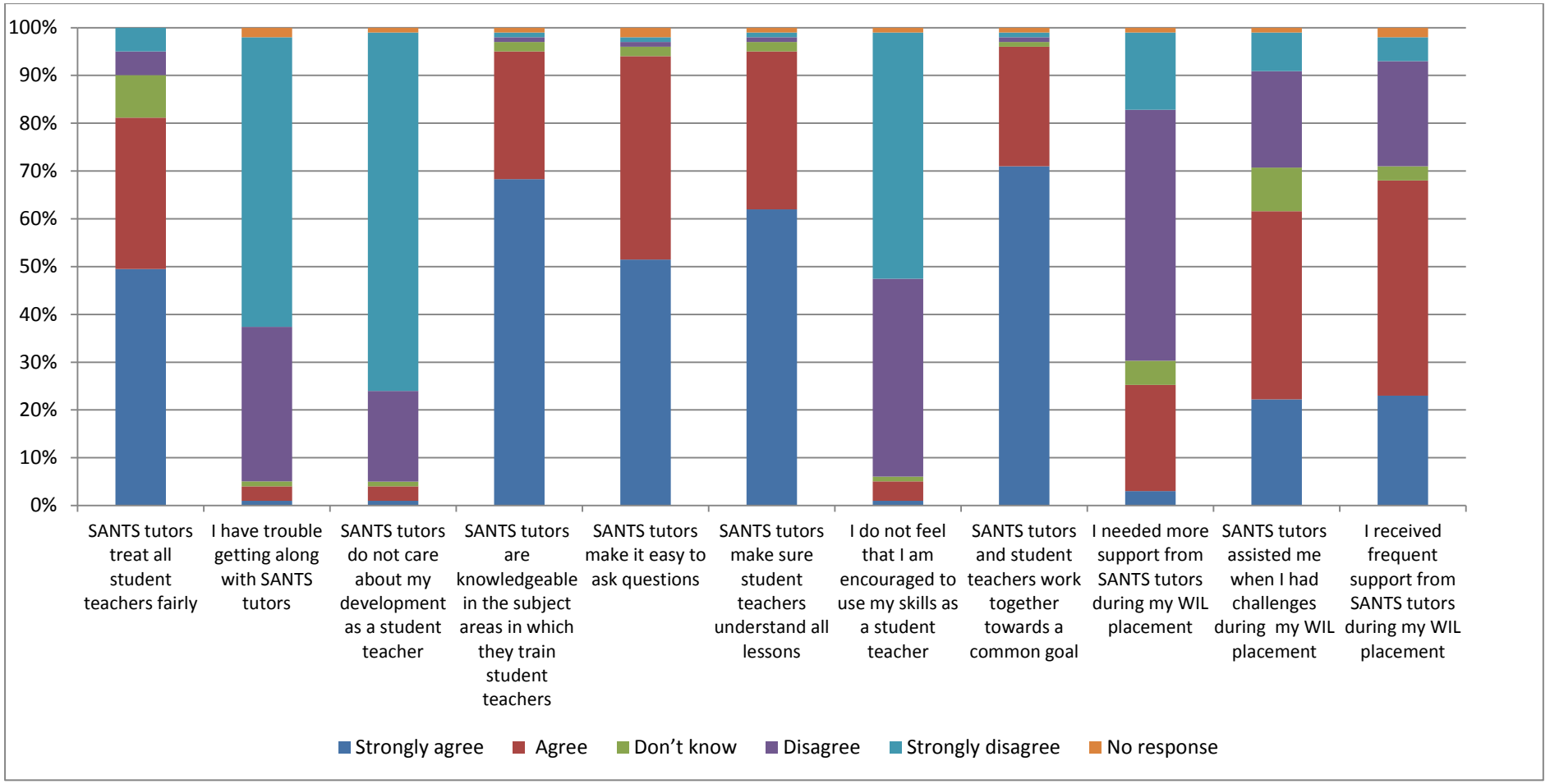
Table 41: Student teachers ratings of interactions with SANTS tutors

Statement rated	Strongly agree	Agree	Don't know	Disagree	Strongly disagree	No response
SANTS tutors treat all student teachers fairly	50%	32%	9%	5%	5%	0%
I have trouble getting along with SANTS tutors	1%	3%	1%	32%	60%	2%
I feel that SANTS tutors do not care about my development as a student teacher	1%	3%	1%	19%	75%	1%
SANTS tutors are knowledgeable in the subject areas in which they train student teachers	69%	27%	2%	1%	1%	1%
SANTS tutors make it easy to ask questions	52%	43%	2%	1%	1%	2%
SANTS tutors make sure student teachers understand all lessons	62%	33%	2%	1%	1%	1%
I do not feel that I am encouraged to use my skills as a student teacher	1%	4%	1%	41%	51%	1%
I feel that SANTS tutors and student teachers work together towards a common goal	71%	25%	1%	1%	1%	1%
I needed more support from SANTS tutors during my WIL placement	3%	22%	5%	52%	16%	1%
SANTS tutors assisted me when I had challenges during my WIL placement	22%	39%	9%	20%	8%	1%
I received frequent support from SANTS tutors during my WIL placement	23%	45%	3%	22%	5%	2%

Figure 32: Student teachers ratings of interactions with SANTS tutors



3.3.4.5 Additional areas of improvement mentioned by student teachers

Additional areas mentioned by student teachers in relation to possible improvements to the SANTS BEd programmes include the need for:

- Better access to computers (by far the most frequently-mentioned concern, mentioned by 142 respondents);
- Training in ICT skills (10);
- Financial assistance (the second most frequently-mentioned concern, mentioned by 89 respondents);
- More/better access to LTSM (33), libraries (5) and science equipment (2);
- Support with LTSM development;
- Information regarding the "scope" of the exams, more study time during exams and improvements regarding the marking of student papers (20);
- Better instruction in language teaching (3);
- Lessons to be offered in isiZulu (2);
- Better lesson plan templates (2).

Eleven student teachers from two SSCs raised concerns relating to security, the location of the SSCs and the lack of adequate space for all of the tutors and student teachers.

Three student teachers commented that communication between SANTS (the institution) and the student teachers needed to be improved.

A substantial number of student teachers (50) did not mention any ways in which the programme could be improved and, instead, commended SANTS on the BEd programmes.

3.3.5 Summary of key findings

SANTS student teachers are motivated to become teachers for various reasons including: the desire to help children; being inspired by their own teachers; and wanting to improve the quality of teaching in rural areas and communities. For the majority of SANTS student teachers, the WIL experience is positive and contributes to their commitment to become teachers. Echoing these findings, the WIL school principals that commented on the student teachers commitment to the WIL schools and their work ethic were largely very positive.

The WIL school stakeholders that were interviewed (principals and teachers who are the student teachers' supervisors) have predominantly positive perceptions of the SANTS student teachers and also of the SANTS BEd programmes – specifically the SANTS materials and support provided to the student teachers during WIL. A number of school stakeholders confirmed that they would gladly appoint the student teachers when they graduate. SANTS student teachers were reported to be comparable to or better than student teachers from other institutions. According to the school stakeholders, the SANTS student teachers are well prepared, dedicated and enthusiastic about teaching.

The student teachers have overall very positive perceptions about the SANTS BEd programmes. The majority of student teachers report that they attend the SSCs daily. The support sessions provided at the SSCs were reported to have enhanced the student teachers': subject knowledge; pedagogic skills; knowledge of teaching methods and strategies; lesson planning skills; curriculum knowledge; ability to develop and use LTSM; learner engagement skills; diversity management skills; have prepared

student teachers for WIL; and increased their confidence and professionalism. However, 42% indicated a need for additional support in the area of learner engagement.

The majority of student teachers felt that time spent on the practical training (lesson simulation and WIL) during the BEd programmes was sufficient to improve their teaching skills. Almost all student teachers are of the opinion that their teaching skills and confidence to teach have improved since their participation in WIL. WIL is perceived to be an important component of their training to become teachers.

There were overwhelmingly positive responses when the student teachers were asked to rate various aspects of the SANTS progamme. No aspect of the programme was considered to be problematic. Tutors were reported to provide sufficient support during contact sessions at the SSCs, but 25% of the student teachers would like to receive more support during WIL. The top three additional areas in which student teachers feel the programme can be improved are: 1) providing better access to computers; 2) providing (more) financial assistance to student teachers, particularly during WIL; and 3) More/better access to LTSM.

3.4 Findings Section 4: Student teachers' ability to cope in challenging teaching environments

3.4.1 WIL school context

3.4.1.1 Quintile

Table 42 below shows that close to half of the WIL schools sampled were quintile[14] 1 schools; the majority (84%) were quintile 1 to 3 schools, which are classified as "no fee" schools.

Table 42: Quintile of the WIL schools

School quintile	Number of schools	Percentage of schools
Q1	18	42%
Q2	11	26%
Q3	8	19%
Q4	6	14%
Q5	0	0%
Total	43	100%

Thirty seven of the 43 WIL school principals that were interviewed reported socio-economic challenges at the school such as the lack of resources (including LTSM and infrastructure), a high teacher/student ratio and high level of learner absenteeism. In the words of two principals:

The greatest challenge that the school faces is that of poor infrastructure, which is not conducive to learning [and] the lack of basic resources such as LTSM (WIL School Principal, interview, July 2015).

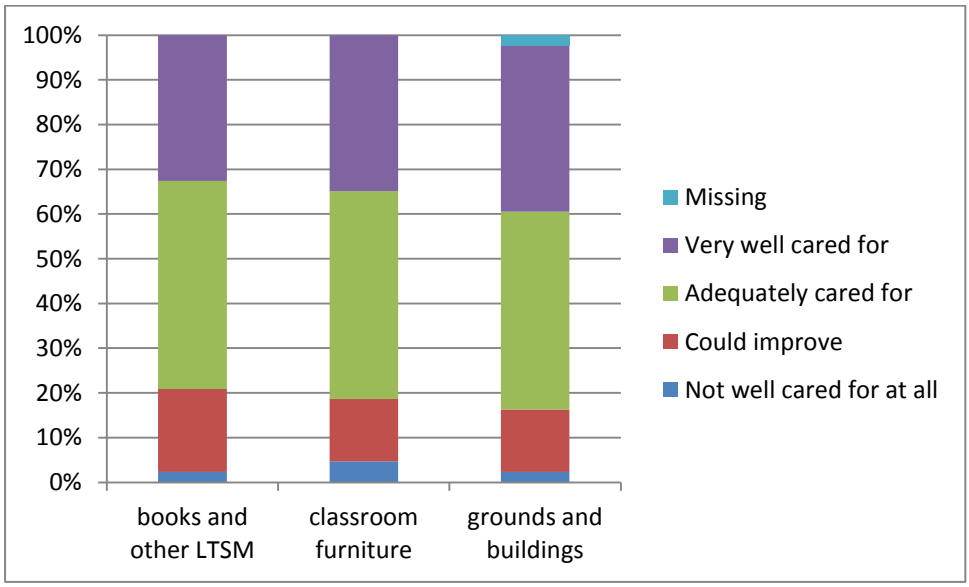
[14] South African public ordinary schools are categorised into "quintiles" for the purpose of allocating financial resources equitably. Quintile one is the "poorest" and quintile five is "least poor". The level of poverty of the community surrounding the school, as well as infrastructural features, are used to determine quintile rankings and the rankings are determine nationally, so in a given province more or less than 20% of schools may be ranked 1,2 and so on. At national level, schools in quintiles 1, 2,3,4 and 5 each contain 20% of all learners.

There is shortage in terms of the furniture. The desks that we have are purchased according to our norms and standards are not enough (WIL School Principal, interview, July 2015).

3.4.1.2 Resources and facilities

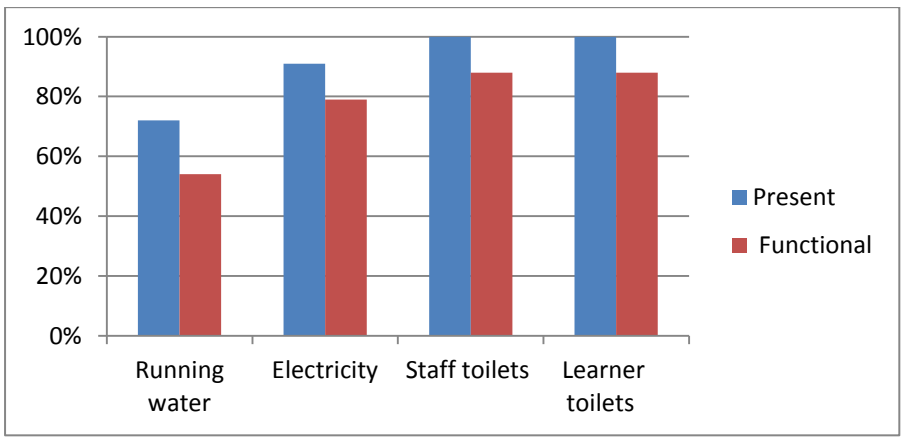
The observers were asked to comment on the school information form on the extent to which books and other LTSM, classroom furniture and school grounds and buildings were well cared for; this being an indicator of the culture of the WIL school. Observers reported that in the majority of the WIL schools the books and other LTSM, classroom furniture and grounds and buildings were adequately or very well cared for, as indicated in Figure 33 below.

Figure 33: Observers ratings regarding the extent to which LTSM, classroom furniture and infrastructure were well cared for at the WIL schools



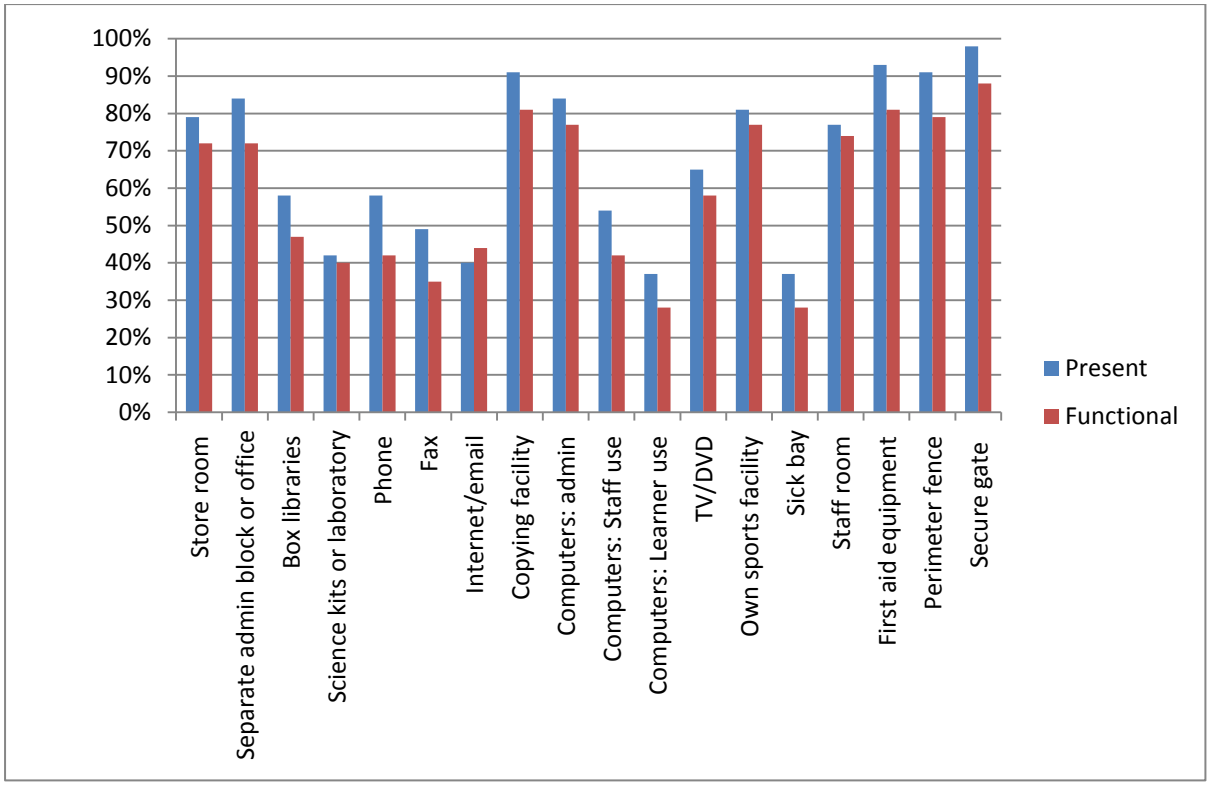
Data collected via the school information instrument and presented below in Figure 34 indicates that almost all the WIL schools had basic sanitation facilities and a large proportion had electricity. However, close to a third of the schools did not have running water.

Figure 34: Basic facilities at WIL schools



The profile of other facilities and resources available at the schools as shown in Figure 35 indicates a reasonably positive situation in relation to basic infrastructure such as - perimeter fencing, secure gates, staff rooms, store rooms, admin blocks and sport facilities - and basic equipment such as copying facilities, computers for admin use and First Aid equipment. However, less than 50% of the WIL schools had internet and email access, computers for learners to use, science kits or a sick bay. Similarly, less than 50% of the WIL schools had functional libraries, telephones and computers for staff use.

Figure 35: Facilities at WIL schools



The challenges indicated above are part and parcel of the challenging teaching environments faced by student teachers during their WIL practice, and likely when they qualify and begin professional teaching.

3.4.1.3 Teacher/student ratio

Ten WIL school principals suggested during interviews that the **teacher/student ratio** was a challenge. The cause of the problem was reported to be understaffing, leading to overcrowding in classrooms and teachers being unable to give learners individual attention. One principal mentioned a class with 94 learners. In addition the challenge of multi-grade classrooms was raised by 10 WIL principals. However, the data below suggests that the average teacher/learner ratio in the WIL schools was 1/32, which is not unreasonable. On the other hand, some of the student teachers appear to have often experienced large classes, as reported by the student teachers themselves during interviews and observed by fieldworkers during the lesson observations. Feedback from the lesson observers suggests that this was not so much due to absolute numbers, but challenges with timetable management, whereby some teachers had to cope with large classes while other teachers had free periods.

Table 43 indicates the teacher/learner ratio in the WIL schools, assuming that all teachers are efficiently deployed:

Table 43: Teacher/learner ratio in the WIL schools

Learner/Teacher Ratio*	Number of WIL schools	Percentage of WIL schools
Less than 25 learners per teacher	6	14%
Between 25-30 learners per teacher	11	26%
Between 31-35 learners per teacher	12	29%
Between 36- 40 learners per teacher	8	19%
More than 40 learners per teacher	5	12%
TOTAL	42	100%

* the learner/teacher ratio in the table above was calculated by dividing the number of learners enrolled at the school by the number of teachers at the schools, as reported in the school information instrument.

According to the SANTS tutors, overcrowding in the classrooms in WIL schools made it difficult for student teachers to manage the classrooms successfully: they had difficulty managing discipline and dealing with difficult learners. Tutors indicated that they encouraged the student teachers to develop their skills in managing overcrowded classes. A tutor commented:

In a class of ninety or seventy learners it is really not easy, but I have experienced that the student teachers try their best in these circumstances. We tutors taught them that they cannot teach the whole class if it is so large. It is better to group the learners in the classrooms and interact with learners individually (SANTS Tutor, focus group, August 2015).

Another explained that this can impact on the student teachers' abilities to implement some of the teaching methods and strategies which have been taught to them via the SANTS programme (this issue was also highlighted in Section 3.2.2):

In terms of overcrowding, we used to emphasise they must make sure the number of learners must not exceed 7-10 for group work. If there are more than 10, we cannot just say it is group work, this is a mass. So we must go about it in such a way that everybody can participate in the group work (SANTS Tutor, focus group, August 2015).

3.4.1.4 Learner and teacher attendance

Poor learner attendance was reported by principals of five WIL schools. According to two of the principals, poor attendance usually occurred due to bad weather, on days when parents received grants or on the first and last days of the school term. One principal observed that:

Learners tend to absent themselves on the first and last days of school terms (WIL School Principal, interview, July 2015).

A small number of student teachers reported that they experienced high learner absenteeism rates in the WIL schools. Lack of parental involvement in learners' education was reported as contributing to absenteeism rates and ultimately to poor learner performance. Student teachers went on to report the challenges they faced in their teaching as a result of student absenteeism, highlighting that often they were forced to repeat lessons to accommodate all learners.

Half of the WIL school principals reported good teacher and learner attendance, indicating that the attendance of teachers was generally good, unless teachers fell ill or had to attend to family emergencies.

3.4.1.5 School culture

School culture refers to the internal dynamics of the WIL schools as demonstrated by the work ethic of the teachers, their attitudes towards learner achievement and their sense of accountability in meeting the demands of the school and learners' needs.

Punctuality is an indication of a strong work ethic and Figure 36 below suggests that the WIL schools involved in this study generally kept to time. Lack of punctuality was a problem in a small minority of the schools.

Figure 36: Punctuality at WIL schools

3.4.2 Preparation of student teachers for WIL

According to the SANTS tutors, the student teachers were well prepared for WIL through their support sessions, simulation lessons, peer review and feedback. Simulation and feedback were emphasised in particular:

In the first year, student teachers go to schools to observe. Most of their time they use it for simulating, that is the time they are putting into practice the theory they have learnt, they can put it into practice. They start putting it into practice from their first year (SANTS Tutor, focus group discussion, August 2015).

We model the lessons so the students can see what we do, and then they simulate. We have to evaluate them while they are simulating so that we can see. We don't evaluate the students only; even our students evaluate each other. We have taught them how to evaluate each other's presentations. So they can grow from that, so they can learn from each other's mistakes. This is the feedback I am talking about, we do it and then the students also do feedback for their peers (SANTS Tutor, focus group discussion, August 2015).

Student teachers indicated that they considered themselves well prepared for WIL. In particular they mentioned lesson planning using the SANTS template and being prepared to implement different teaching methods and strategies - including dealing with learner differentiation. The student teachers also reported that they gained confidence through delivering simulation lessons.

They [SANTS tutors] gave us an opportunity to demonstrate our lesson and gave us feedback on how to improve our presentations. Our tutor also makes sure that we know very well what is expected from us and to also provide us with steps to be followed when designing a lesson plan (Student Teacher, interview, July 2015).

3.4.3 Mentoring and support received in the WIL Schools

As an integral part of their training, student teachers should receive mentoring and support while in the WIL schools. Twenty four (24) supervisors who were interviewed reported that the SANTS student teachers receive mentoring and support at the WIL School. They further commented that the principal and/or the deputy principal are responsible for the induction in teaching practices and learning capabilities such as the school processes and the curriculum. Teachers who were nominated to be student teacher supervisors were responsible for classroom induction and mentorship in lesson planning, classroom management and classroom processes. The following two observations made by WIL school principals offer some detail:

Student teachers receive full support and guidance from the principal and management team. They were also taken through the school process and classroom processes. Lastly their mentor teachers introduced them to the learners in their classes (WIL School Principal, interview, July 2015).

The mentor also provides the student teacher with relevant exposure, guidance, and support and workplace experience to enable her to complete the teaching practice. The mentor lets the student teacher observe her while she teaches and she also observes the student teacher teach and gives support where necessary (WIL School Principal, interview, July 2015).

The student teachers who were interviewed confirmed that they received mentorship from their supervisors in the WIL schools. It was noted in Section 3.2 that support they receive from their supervisors was particularly beneficial in the areas of curriculum and classroom management. Several student teachers praised the helpfulness of the induction to the WIL school and its practices.

3.4.4 Perceived challenges of WIL

This Section should be reviewed keeping in mind the positive trend in the reporting on the WIL experience which was presented in Section 3.3.4.3.

The SANTS tutors who participated in focus group discussions highlighted a number of challenges faced by the student teachers during WIL: These are presented as observations rather than as representing general trends. Tutors' observations relating to student teachers' resourcefulness in the face of challenges are also noted.

Some challenge experienced by student teachers during WIL (SANTS tutors comments)

- *Some teachers feel threatened by our students when they receive praise from the school Principal. The teachers end up not giving them enough time to practice.*
- *You find that when they are there, the mentors that are supposed to assist; it's either that they [student teachers] are the ones that have to do the whole teaching or the mentor [supervisor]will want to carry on teaching without even giving our students a chance to render the lessons.*

- *Mentors [student teacher supervisors in WIL schools] sometimes oppose the lesson plans prepared by the student teacher that follows the SANTS lesson plan structure. They divert them away from the content in the lesson plan.*
- *The student teacher gave the mentor the lesson plan, and she [the mentor] said don't do this, go straight to the content, you are wasting time. Now that is not their class, because they are taking the mentor's class. And they are also under pressure because the mentors want them to cover a lot of content for them while they are out.*
- *A problem the students face relates to the classroom setup. It is not easy to rearrange a classroom that belongs to somebody else according to what they are taught at SANTS. Then there is the problem of overcrowding: You can see the learners sitting in twos and rows and rows just because of the space and overcrowding, which makes it difficult for the student to do group work.*
- *We emphasise that there must be a mathematics corner in the classroom. When the student teachers displayed the different LTSM in the Maths corner, the mentor, who is also the class manager, removed all the stuff.*

A challenge frequently mentioned by student teachers in their responses to the survey was the financial challenge[15] of covering the cost of transport to the schools which may be quite far from where they live. One survey respondent requested that they be allowed to undertake WIL in schools which are close to where they live.

A further challenge identified by some of the fieldworkers was that some of the WIL schools had a high number of student teachers (up to 10 students per school). The implication is that this may limit the amount of support and mentorship the school and its staff are able to provide to each student teacher. Additionally, the working environment may be less authentic than in schools in which the student teachers interact more with professional teachers and less with their peers.

Student teachers' resourcefulness (SANTS tutors comments)

- *SANTS students adapt very well in the environment because they grew up attending rural schools. They are able to accommodate the overcrowded classes and they have good communication and camaraderie with colleagues.*
- *If they are in a situation where there are no materials, the students are well equipped to improvise and be creative in making materials.*
- *The student teachers' are able to improvise and make creative LTSM for teaching and learning.*

In closing, we present a comment from a SANTS tutor on the student teachers' need for further support to help address the identified challenges:

- *Although the student teachers manage admirably in general, they still need further support and development in classroom management, particularly for schools where there is overcrowding.*

[15] Eighty nine survey respondents mentioned the need for financial assistance in an open-ended answer to a question about how the SANTS BEd programmes could be improved. Included in these responses were requests for financial assistance to cover transport during WIL.

3.4.5 Summary of key findings

The majority (84%) of sampled schools where the SANTS student teachers were undertaking WIL were quintile 1 to 3 schools which are classified as "no fee" schools. The WIL school principals reported a range of socio-economic challenges at the schools including lack of resources (including LTSM and infrastructure), a high teacher/student ratio and high level of learner absenteeism. Observers reported that in the majority of the WIL schools the books and other LTSM, classroom furniture and grounds and buildings were adequately or very well cared for. Almost all of the WIL schools had functional toilets (88%) and electricity (79%), but only 54% had functional running water. According to the observers, the WIL schools in the study generally kept to time.

According to the SANTS tutors, the student teachers were well prepared for WIL through their support sessions, simulation lessons, peer review and feedback. The student teachers confirmed this In particular they mentioned lesson planning using the SANTS template and being prepared to implement different teaching methods and strategies. The student teachers also reported that they gained confidence through delivering simulation lessons. However, Section 3.2.7 has highlighted that learner differentiation was an area of weaker performance as compared to other aspects of student teacher performance which were assessed.

Challenges which SANTS student teachers were found to face during their WIL were: receiving conflicting guidance/direction from SANTS and their supervisors in the WIL schools; the financial challenge of covering the cost of transport to the WIL schools; and dealing with large class sizes. Despite these challenges, the student teachers were found to be coping under difficult circumstances, it was noted that they are able to adapt well to the conditions which are familiar to them as they grew up attending such schools, and demonstrate commitment and dedication to teaching and succeeding under conditions of adversity.

Chapter 4: Discussion

This Chapter returns to the evaluation questions which were posed at the outset (see Section 1.3) and seeks to answer them, drawing on the findings which were presented in Chapter 3. By way of an introduction, the Chapter begins by reflecting on the interpretation of findings.

4.1 Introduction

How good is good enough?

Interpretation of the findings is made more complex by the underlying question of *how good is good enough* in the cumulative ratings of student teacher performance. The student teachers performance was assessed in relation to the outcomes expected by SANTS, the MRTEQ standards expected of newly qualified teachers and good practices identified in the literature, against criteria which were defined as precisely as possible. Thus, there was a standard for *how good is good enough* – although precisely defined criteria are notoriously open to varying interpretations and use across different contexts.

The second part of this question is *what level of student teacher performance is good enough*? What is good enough for student teachers who still have more than one year of studying ahead of them? What proportion of student teachers can reasonably be expected to be at a level one would expect of newly qualified teachers? What proportion of the student teachers are expected to pass the programme at the end of year four and continue into professional employment, and how good should they be before they commence work as newly qualified teachers and begin getting real experience? Ideally, all student teachers would achieve the expected level in all of the required outcomes. But this kind of perfection cannot reasonably be expected in the real world. Even with the most restrictive admission criteria and superb courses, a failure rate is to be expected, plus passes with imperfections.

We present two examples of situations in which the question of what is good enough is tricky to answer: 1) What proportion of lessons could realistically be expected to show a satisfactory use of differentiation, given the student teachers' experience or contextual factors which discourage differentiation; and: 2) What would be an acceptable proportion of direct or whole class instruction as against more progressive teaching approaches?

There is a standard joke in outcomes-based instructional design: You can't certify an airline pilot who has perfect achievements in taking off and flying, but only satisfies half of the criteria for landing. Fortunately, the competence of teachers is rather different from that of pilots. A brilliant teacher may, for example, write poor lesson plans – and a teacher with exceptional lesson plans may be a complete failure in the classroom. More important still is the view that initial teacher development can only prepare student teachers to be ready to start learning for their roles as teachers in employment. Some of the best teachers grow through experience into competence and confidence that allows them to implement desired best practices. This may only come about years after their graduation. This observation is intended to put the expected levels of performance into perspective.

An institutional conversation (within SANTS) is probably the closest one can come to adequate answers to the question of "*how good is good enough*?" The findings of this study should inform such a discussion, but it is up to located professional judgment (i.e. the reflections and decisions of SANTS leadership) to decide, for example, whether 70% positive achievement against a criterion is good enough or even impressive, and what one makes of the 30% failure to satisfy the requirement.

With the above points in mind we now return to the evaluation questions which this study set out to answer.

4.2 To what extent is the classroom performance of SANTS student teachers at the level required by the outcomes of the SANTS B. Ed. programmes?

The exit level outcomes of the SANTS BEd programmes, as outlined in the qualifications registered with SAQA (SAQA, 2012a; SAQA, 2012b) are summarised in the table below. These relate to the four components which the curriculum is based on which were introduced in Section 1.2. The table also indicates how these expected exit level outcomes relate to the findings presented in Chapter 3. The key findings are summarised in relation to the expected exit level outcomes, a colour coding system is applied whereby red indicates aspects in which less than 50% of student teachers attained the level expected at the end of the programme, orange indicates areas where 50%-64% of student teachers achieved the expected level, yellow indicates that 65%-79% of student teachers reached the expected level and green means that 80% or more of student teachers achieved or exceeded expectation. The letters (L) and (M) in brackets after a finding indicates that the finding relates to the language and mathematics observations respectively.

It is important to bear in mind when reading Sections 4.2 to 4.4 that the modules still to be completed (at the time of the fieldwork) span several aspects of teaching competencies including: literacy/language competence, numeracy/mathematics teaching, assessment, classroom management, inclusive education (understanding diversity, identifying and addressing barriers to learning and ensuring learner participation) and teacher professionalism (work ethic, values and professionalism). Therefore, further gains are to be expected in these areas, as well as overall, as the student teachers progress further on their journey to becoming newly qualified teachers.

With respect to: **reading, writing and speaking the language/s of instruction in ways that facilitate own academic learning, and teaching in the classroom**: the results show that performance in terms of communication and language is strong, particularly for mathematics lessons and the expected outcome was largely achieved. However, the overall result masks the greater challenges faced by the IP student teachers who are delivering lessons in a language which is not their mother tongue, nor that of the learners whom they are teaching. In the FP there are some challenges student teachers face translating subject-specific terminology into isiZulu.

Table 44: Links between the SANTS BEd programmes exit level outcomes and the evaluation findings

Curriculum component	SANTS BEd programmes outcomes	Relevant evaluation findings sections	<50%	50%-64%	65%-79%	80+%
Fundamental learning	Read, write and speak the language/s of instruction in ways that facilitate own academic learning, and teaching in the classroom.	Section 3.2.3 (communication and language).			Free of grammatical errors (L) Fluency in LoLT (L) Terminology is relevant (L) Oral & written instruction is clear (L).	Uses target language effectively (L, M) Free of grammatical errors (M) Fluency in LoLT (M) Terminology is relevant (M) Oral & written instruction is clear (M).
	Interpret and use numerical and elementary statistical knowledge to facilitate own academic learning, and to manage teaching, learning and assessment.	N/A.				
	Use computers and Information and Communications Technology (ICT) in daily life and in teaching.	N/A, but briefly mentioned in Section 3.3.4.5 (additional areas of improvement).				
Subject and content of teaching	Demonstrate understanding of the principles, concepts and knowledge underpinning and related to the learning areas/subjects to be taught.	Section 3.2.1 (subject knowledge and ability to teach the subject, specifically: mathematics and language).			Lesson content reflects subject knowledge (L) Teacher implements subject knowledge effectively (L, M) Concepts taught accurately (L, M) Lesson presentation is logical, coherent & meaningful (L, M).	Lesson content reflects subject knowledge (M).
	Demonstrate competence	Section 3.2.4 (designing and		Activities provided	Lesson planning clear,	Lesson planning

Curriculum component	SANTS BEd programmes outcomes	Relevant evaluation findings sections	<50%	50%-64%	65%-79%	80+%
	in planning, designing and reflecting on learning programmes appropriate for the learners and learning context to be taught.	implementing lesson plans).		for practice (L) Lesson paced & sequenced according to difficulty of subject area (L).	logical, sequential (L) Lesson objectives/ outcomes clear (L) Activities provided for reinforcement (L, M) Activities provided for practice (M) Lesson objectives achieved (L, M) Adheres to lesson plan (L) Lesson paced & sequenced according to difficulty of subject area (M).	clear, logical, sequential (M) Adheres to lesson plan (M).
Teaching and learning processes	Demonstrate competence in selecting, using and adjusting teaching and learning strategies in ways, which meet the needs of learners and the context.	Sections 3.2.2 (teaching methods and strategies), 3.2.6 (LTSM) and 3.2.7 (learner differentiation).	Differentiation (L) Manage learners from different socio-economic backgrounds (L).	LTSM is innovative (L) Manage learners from different socio-economic backgrounds (M).	LTSM is innovative (M) LTSM appropriate for grade level (L, M) LTSM appropriate for content (L, M) Lesson builds on past knowledge (L, M) Sequence & pace related to subject areas & learner needs (L, M) Teaching methods relevant & effective for content & objectives (L, M) Teaching methods appropriate for Grade level (L) Differentiation (M).	Teaching methods appropriate for Grade level (M).
	Demonstrate competence in managing and administering learning environments and	Section 3.2.8 (classroom management).	Teacher provides a summary/ conclusion (L)	Teacher provides a summary/ conclusion (M) Time used effectively	Teacher is warm, attentive, respectful (L, M) Lesson starts & ends on time (L, M)	

Curriculum component	SANTS BEd programmes outcomes	Relevant evaluation findings sections	<50%	50%-64%	65%-79%	80+%
	supporting learners in ways that are sensitive, stimulating, democratic and well organised.		Collaboration & group work encouraged (L, M).	to meet objectives (L) Class is settled (L) Learners are motivated (L) Classroom conversation controlled (L) Discipline managed effectively (L) Learners are attentive & participate (L) Lesson presented to support learning (L).	Time used effectively to meet objectives (M) Class is settled (M) Learners are motivated (M) Classroom conversation controlled (M) Discipline managed effectively (M) Learners are attentive & participate (M) Resources handed out (L, M) Teacher creates a safe learning environment (L, M) Lesson presented to support learning (M).	
	Demonstrate competence in monitoring and assessing learner progress and achievement.	Section 3.2.2 (teaching methods and strategies, specifically: monitoring learner progress and understanding throughout the lesson; and the use of informal assessment to check learner understanding during the lesson).	Monitor student progress and understanding (M).	Monitor student progress and understanding (L) Conduct informal assessment (L).	Conduct informal assessment (M).	
School and the education profession	Demonstrate the ability to function responsibly within an education system, an institution, and the community in which an institution is located.	Section 3.3.1 (attitudes to teaching).				
	Demonstrate a respect for and commitment to the educator profession.	Section 3.3.1 (attitudes to teaching).				

The following two exit level outcomes were not investigated via this study, but it is noteworthy that "better access to computers" was the most frequently-mentioned concern, mentioned by 142 student teacher respondents when asked how the SANTS BEd programmes could be improved. This suggests that computer and ICT use is an area in which student teachers feel they need/want further development.

In relation to: **demonstrating understanding of the principles, concepts and knowledge underpinning and related to the learning areas/subjects to be taught** the student teachers performed well to very well, with 65%-80+% achieving or exceeding the expected level. In particular, mathematics lessons were reported to reflect strong subject knowledge. The student teachers stronger performance in mathematics was also evident in their average subject marks provided by SANTS (see Table 9). Challenges were identified in terms of translating key concepts into the target language in the FP, due to the terminology not existing or being under developed. It is important to bear in mind that our study presents a snapshot of subject knowledge as demonstrated in one language and one mathematics lesson. A comprehensive assessment was not undertaken of the student teacher's subject knowledge in these two subject areas.

In terms of **demonstrating competence in planning, designing and reflecting on learning programmes appropriate for the learners and learning context** the student teachers performance was good to very good in most areas which were assessed, particularly in mathematics lessons with regards to lesson planning being clear, logical and sequential and adherence to lesson plans. Performance was weaker in the language lessons in terms of lesson, pacing and sequencing being appropriate for the level of difficult and the provision of activities for practice.

Selecting, using and adjusting teaching and learning strategies in ways, which meet the needs of learners and the context is a broad area with varied results: performance was stronger overall in mathematics than language. The area of best performance was in the mathematics lessons in terms of teaching methods being appropriate for the Grade level. Lesson sequencing and pacing (being relevant to the subject areas and learner needs), teaching methods being relevant and effective (for the content and lesson objectives), building on past knowledge, and lessons being appropriate for the grade level were also areas of strength.

Additionally, LTSM use was broadly considered to be appropriate, and – in the case of mathematics – innovative. Weaker aspects of this broad learning outcome were: the use of differentiation, managing learners from different socio-economic backgrounds and innovation in LTSM use – in the case of language lessons. The student teachers generally reported understanding the need for, planning to and wanting to apply differentiation, but challenges such as large class sizes and learners not being at the appropriate cognitive level for their grade was found to hinder their attempts – particularly in the case of language lessons. Student teachers supervisors in the WIL schools and the SANTS tutors felt that these challenges could be attributed to lack of experience and confidence, which should improve as the student teachers progress further in their studies. It is understood that the module on inclusive education (to be covered in the second semester of year three) will cover understanding diversity, identifying and addressing barriers to learning and ensuring learner participation.

The exit level outcome of **managing and administering learning environments and supporting learners in ways that are sensitive, stimulating, democratic and well organised** was also an area of mixed performance. Performance was best in aspects relating to the student teachers attitudes towards learners, creation of a safe learning environment, starting and ending the lesson on time, and classroom management in mathematics lessons and in the FP. Weaker areas included: providing a summary/conclusion at the end of the lesson – rather than ending abruptly – and encouraging learner collaboration and classroom management in language lessons and in the IP. While student performance was in general adequate; this multifaceted aspect of teaching presented a number of challenges: it was noted that student teachers experienced challenges maintaining discipline when learners were not engaged in active learning. A further module on classroom management will be covered in year four.

Performance in terms of the exit level outcome: **monitoring and assessing learner progress and achievement** was less strong than in several other areas, but a majority of student teachers still achieved the expected level, except in the case of monitoring student progress and understanding in mathematics lessons –an area in which performance was better in the language lessons. Performance was also weaker amongst the IP and compared to the FP student teachers. Notably, the module on assessment was to be undertaken in semester two of year three, subsequent to the fieldwork taking place.

The final two exit level outcomes were not assessed via the observation, but feedback from the WIL school principals provided evidence of student teachers demonstrating commitment to the schools where they were undertaking WIL (e.g. by supporting extra-curricular activities) and supporting the learners attending those schools (e.g. by offering additional lessons to learners where necessary).

4.3 To what extent are SANTS student teachers performing effectively as teachers in terms of the minimum standards as set out in the MRTEQ?

Following a similar format as the table presented above, the table presented below summarises the minimum set of competencies of newly qualified teachers outlined in the MRTEQ. This table also indicates how the minimum competencies relate to the findings presented in Chapter 3. Similarities between the exit level outcomes expected of the SANTS BEd programmes and the minimum competencies specified in the MRTEQ are clearly evident, demonstrating that the SANTS BEd qualification is aligned to the MRTEQ. The same colour coding system is used to indicate areas of excellent, good, moderate and weaker performance. Where the results are the same or very similar to those discussed in Section 4.2, they are not elaborated in detail.

The extent to which student teachers demonstrated **sound subject knowledge** was discussed under 4.2. From what could be seen of the application of subject knowledge in the two lessons which were observed, the student teachers performed well to very well, with 65%-80+% achieving or exceeding the expected level. Performance was particularly strong in mathematics lessons.

Table 45: Links between the MRTEQ and the evaluation findings

Basic competencies	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
Sound subject knowledge.	Section 3.2.1 (subject knowledge and ability to teach the subject, specifically: mathematics and language).			Lesson content reflects subject knowledge (L) Teacher implements subject knowledge effectively (L, M) Concepts taught accurately (L, M) Lesson presentation is logical, coherent & meaningful (L, M).	Lesson content reflects subject knowledge (M).
Know how to teach their subject and select, determine the sequence and pace content in accordance with both subject and learners needs.	Sections 3.2.1 (subject knowledge and ability to teach the subject, specifically: mathematics and language), 3.2.2 (teaching methods and strategies) and 3.2.7 (learner differentiation).	Differentiation (L) Manage learners from different socio-economic backgrounds (L).	LTSM is innovative (L) Manage learners from different socio-economic backgrounds (M).	LTSM is innovative (M) LTSM appropriate for grade level (L, M) LTSM appropriate for content (L, M) Lesson builds on past knowledge (L, M) Sequence & pace related to subject areas & learner needs (L, M) Teaching methods relevant & effective for content & objectives (L, M) Teaching methods appropriate for Grade level (L) Differentiation (M).	Teaching methods appropriate for Grade level (M).
Know who their learners are and how they learn; understand their individual needs and tailor teaching accordingly.	Section 3.2.7 (learner differentiation).	Differentiation (L) Manage learners from different socio-economic backgrounds (L).	Manage learners from different socio-economic backgrounds (M).	Differentiation (M).	
Know how to communicate effectively in general, as well as in relation to their subject(s) in order to mediate learning.	Sections 3.2.1 (subject knowledge and ability to teach the subject, specifically: mathematics and language) and 3.2.2 (communication and language).			Free of grammatical errors (L) Fluency in LoLT (L) Terminology is relevant (L) Oral & written instruction is clear (L).	Uses target language effectively (L, M) Free of grammatical errors (M) Fluency in LoLT

Basic competencies	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
					(M) Terminology is relevant (M) Oral & written instruction is clear (M).
Have highly developed literacy, numeracy and IT skills.	N/A.				
Knowledgeable about the school curriculum and be able to unpack it's specialised content, as well as being able to use available resources appropriately to plan and design suitable learning programmes.	Sections 3.2.4 (designing and implementing lesson plans), 3.2.5 (knowledge of curriculum) and 3.2.6 (LTSM).		Activities provided for practice (L) Lesson paced & sequenced according to difficulty of subject area (L).	Lesson planning clear, logical, sequential (L) Lesson objectives/ outcomes clear (L) Activities provided for reinforcement (L, M) Activities provided for practice (M) Lesson objectives achieved (L, M) Adheres to lesson plan (L) Lesson paced & sequenced according to difficulty of subject area (M).	Lesson planning clear, logical, sequential (M) Adheres to lesson plan (M) Lesson is aligned to CAPS (L,M)
Understand diversity in the South African context in order to teach in a manner that includes all learners. Able to identify learning or social problems and work in partnership with professional service providers to address these.	Sections 3.2.7 (learner differentiation) and 3.2.8 (classroom management). Ability to identify social problems and work with service providers to address them was not investigated.	Teacher provides a summary/ conclusion (L) Collaboration & group work encouraged (L, M).	Teacher provides a summary/ conclusion (M) Time used effectively to meet objectives (L) Class is settled (L) Learners are motivated (L) Classroom conversation controlled (L) Discipline managed effectively (L) Learners are attentive & participate (L) Lesson presented to	Teacher is warm, attentive, respectful (L, M) Lesson starts & ends on time (L, M) Time used effectively to meet objectives (M) Class is settled (M) Learners are motivated (M) Classroom conversation controlled (M) Discipline managed effectively (M) Learners are attentive & participate (M) Resources handed out (L, M) Teacher creates a safe learning environment (L, M) Lesson presented to support learning (M).	

Basic competencies	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
			support learning (L).		
Manage classrooms effectively across diverse contexts to ensure a conducive learning environment.	Section 3.2.8 (classroom management).	Teacher provides a summary/ conclusion (L) Collaboration & group work encouraged (L, M).	Teacher provides a summary/ conclusion (M) Time used effectively to meet objectives (L) Class is settled (L) Learners are motivated (L) Classroom conversation controlled (L) Discipline managed effectively (L) Learners are attentive & participate (L) Lesson presented to support learning (L)	Teacher is warm, attentive, respectful (L, M) Lesson starts & ends on time (L, M) Time used effectively to meet objectives (M) Class is settled (M) Learners are motivated (M) Classroom conversation controlled (M) Discipline managed effectively (M) Learners are attentive & participate (M) Resources handed out (L, M) Teacher creates a safe learning environment (L, M) Lesson presented to support learning (M).	
Assess learners in reliable and varied ways, as well as being able to use the results of assessment to improve teaching and learning.	Section 3.2.2 (teaching methods and strategies, specifically: monitoring learner progress and understanding throughout the lesson; and the use of informal assessment to check learner understanding during the lesson).	Monitor student progress and understanding (M).	Monitor student progress and understanding (L) Conduct informal assessment (L).	Conduct informal assessment (M).	
Have a positive work ethic, display appropriate values and conduct themselves in a manner that befits, enhances and develops the teaching profession;	Section 3.3.1 (attitudes to teaching).				
Be able to reflect critically, in	Observers' assessment of		Student teacher able to	Student teacher able to reflect	

Basic competencies	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
theoretically informed ways and in conjunction with their professional community of colleagues on their own practice, in order to constantly improve it and adapt it to evolving circumstances.	student teacher's ability to reflect.		reflect meaningfully on the lesson (L).	meaningfully on the lesson (M).	

With regards to **knowing how to teach their subject and select, determine the sequence and pace content in accordance with subject and learners needs**, the results, as discussed under 4.2 were mixed. The results of the mathematics lessons were best. Lesson sequencing and pacing were also areas of strong performance.

Knowing who their learners are and how they learn; understanding their individual needs and tailoring teaching accordingly was an area of weakness, particularly with respect to language lessons. It was found that student teachers in general understand the need for, plan to and want to apply differentiation, but the challenges discussed under 4.2 make this difficult in reality.

Knowing how to communicate effectively in general, as well as in relation to their subject(s) in order to mediate learning was also discussed under Section 4.2. Performance in this area was found to be strong, particularly for mathematics and FP teaching. However, there are challenges which students face teaching in isiZulu (as formal "deep" isiZulu is different to the language which they speak at home), presenting mathematics lessons in isiZulu and shifting to English as the LoLT in Grade 4, when the majority of learners are still grappling with literacy in their mother tongue and their English competence is limited. These challenges should not be underestimated.
The student teachers **literacy, numeracy and IT skills** were not assessed via this study.

With respect to the competency area: **knowledge about the school curriculum and ability to unpack it's specialised content, and use available resources appropriately to plan and design suitable learning programmes:** the first aspect of this competency is not captured under the SANTS BEd programmes exit level outcomes nor therefore discussed under 4.2. Understanding of and alignment to CAPS was an area of excellence, with 80+% of student teachers achieving the expected level. Lesson planning was also a relatively strong area, with 80+% of mathematics lesson plans and 65%-79%of language lesson plans being rated as achieving the expected level in terms of clear, logical and sequential lesson planning.

Furthermore, the student teacher interviews demonstrated that many of the interviewees were able to reflect on the quality of their lesson planning and lesson plan implementation and identify areas for improvement. With regards to LTSM, these were generally appropriate for the content of the lesson and grade level of the learners being taught.

Performance in the area of **managing classrooms effectively across diverse contexts to ensure a conducive learning environment** was discussed under Section 4.2. It was an area of mixed performance, with performance being best in relation to ensuring a conducive learning environment and weaker in terms of effective classroom management, particularly in language lessons.

Assessing learners in reliable and varied ways was discussed under Section 4.2. Performance was less strong than in several other areas, but a majority of student teachers still achieved the expected level, except in the case of monitoring student progress and understanding in mathematics lessons. The second part of this competency **being able to use the results of assessment to improve teaching and learning** was not investigated in this study beyond the extent to which informal assessment was utilised in language and mathematics lessons.

Having a positive work ethic, displaying appropriate values and conducting oneself in a manner that befits, enhances and develops the teaching profession was also not assessed to any great extent, but the interviews with school stakeholders did provide some evidence of the student teachers positive work ethic, values and conduct in this regard.

Being able to reflect critically, in theoretically informed ways and in conjunction with a professional community of colleagues on their own practice, in order to constantly improve it and adapt it to evolving circumstances was identified via the literature review as a very critical aspect of student teacher and teacher professional development. The majority of student teachers were rated by the observers who interviewed them after their lessons as having attained the expected level of reflection – with the exception of IP student teachers in relation to their language lessons. However, there is room for improvement, as between 28% and 51% of student teachers did not demonstrate adequate ability to reflect on their lessons.

4.4 Are SANTS student teachers able to implement the lessons learnt through the SANTS BEd programmes in a classroom setting?

SANTS identified five key lessons which they believe student teachers following the BEd programmes should be able to apply in the classroom. These are presented in Table 46, which also presents the linkages to key aspects covered in the evaluation and the key evaluation results.

The first key lesson relates to **following thoroughly prepared lesson plans:** the results are strong in this area: 80+% of student teachers were found to have clear, logical and sequential lessons plans and adhere to their lesson plans with respect to mathematics lessons. Between 65% and 79% of student teachers attained the same standard with respect to their language lesson plans. The performance of FP student teachers was stronger than that of their IP counterparts in this regard.

Table 46: Links between key lessons which SANTS BEd programmes student teachers should be able to apply in the classroom and the evaluation findings

Key lesson	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
Teach according to thoroughly prepared lesson plans	Section 3.2.4 (designing and implementing lesson plans).		Activities provided for practice (L) Lesson paced & sequenced according to difficulty of subject area (L)	Lesson planning clear, logical, sequential (L) Lesson objectives/ outcomes clear (L) Activities provided for reinforcement (L, M) Activities provided for practice (M) Lesson objectives achieved (L, M) Adheres to lesson plan (L) Lesson paced & sequenced according to difficulty of subject area (M)	Lesson planning clear, logical, sequential (M) Adheres to lesson plan (M)
Apply their content knowledge to effectively facilitate learning	Section 3.2.1 (subject knowledge and ability to teach the subject, specifically: mathematics and language)			Lesson content reflects subject knowledge (L) Teacher implements subject knowledge effectively (L, M) Concepts taught accurately (L, M) Lesson presentation is logical, coherent & meaningful (L, M)	Lesson content reflects subject knowledge (M)
Effectively manage the classroom to maximise learning	Section 3.2.8 (classroom management).	Teacher provides a summary/ conclusion (L) Collaboration & group work encouraged (L, M)	Teacher provides a summary/ conclusion (M) Time used effectively to meet objectives (L) Class is settled (L) Learners are motivated (L) Classroom conversation controlled (L) Discipline managed effectively (L) Learners are attentive & participate (L) Lesson presented to support learning (L)	Teacher is warm, attentive, respectful (L, M) Lesson starts & ends on time (L, M) Time used effectively to meet objectives (M) Class is settled (M) Learners are motivated (M) Classroom conversation controlled (M) Discipline managed effectively (M) Learners are attentive & participate (M) Resources handed out (L, M) Teacher creates a safe learning environment (L, M) Lesson presented to support learning (M)	
Make use of sufficient self-made innovative LTSM	Section 3.2.6 (LTSM).		LTSM is innovative (L)	LTSM is innovative (M) LTSM appropriate for grade level (L, M) LTSM appropriate for content (L, M)	

Key lesson	Relevant evaluation findings	<50%	50%-64%	65%-79%	80+%
Implement the current curriculum (CAPS)	Section 3.2.5 (knowledge of curriculum).				Lesson is aligned to CAPS (L,M)

Stating learning objectives clearly was another strong aspect of lesson planning, whereas pacing and sequencing and providing activities for practice were the areas of greatest weakness (even so, at least 50% of student teachers attained the expected level).

Observers noted that student teachers frequently deviated from the lesson plan to provide explanations to learners. The student teachers considered these explanations necessary to accomplish the lesson. This relates to challenges regarding learners' prior knowledge not being adequate and their cognitive level being below par. A further challenge with regards to following thoroughly prepared lesson plans was that – in a few WIL schools – the student teachers are expected to use the schools' own lesson plan template as opposed to the standard template provided by SANTS.

The **application of content knowledge to effectively facilitate learning** was also an area of strength, with 65%-80+% of student teachers attaining the expected level in all aspects of this area which were rated. In particular, mathematics lessons were found to reflect strong content knowledge. The performance of FP student teachers was stronger than that of their IP counterparts – likely because of the shift in the LoLT from isiZulu to English in the IP.
In relation to language lessons, the observers noted in general that : lesson content reflected adequate subject knowledge; the majority of student teachers demonstrated effective delivery of their subject knowledge; language concepts were taught accurately; and student teachers presented their language lessons in a logical, coherent and meaningful way. In relation to mathematics lessons, the observers found that the majority of student teachers demonstrated adequate knowledge of teaching mathematics, were well prepared for their lessons, incorporated mental mathematics appropriately as part of the lesson, were able to tap into prior knowledge and delivered the lesson adequately.

The qualitative findings also provide evidence of learning deficits amongst the learners, which make it difficult for student teachers to pitch their lessons at the appropriate level and convey subject knowledge effectively. Additionally, some student teachers found it difficult to convey key mathematics concepts in isiZulu in the FP.

Effective management of the classroom to maximise learning has been discussed in some detail already in Sections 4.2 and 4.3. Performance is demonstrably best – in fact excellent – in aspects relating to attitudes towards learners and creation of a safe learning environment. The weaker areas include: providing a summary/conclusion at the end of the lesson; encouraging learner collaboration and classroom management in language lessons and in the IP. Performance was in general adequate, but the lesson observers noted that student teachers experienced challenges maintaining discipline when learners were not engaged in active learning and disruptions occurred when a lot of time was spent explaining.

Stakeholders in the WIL schools felt that the student teachers abilities would improve in these areas as they gain more teaching experience. It was also noted that a further module on classroom management will be covered in year four.

Utilising self-made innovative LTSM is another area in which SANTS believe their student teachers should be able to apply lessons learnt through the BEd programmes in the classroom. In terms of the various aspects of LSTM development and use which were rated, student teachers performed best in providing grade appropriate and content appropriate LTSM. Once again the FP students performed best, and student teachers performed better in their mathematics as compared to their language lessons.

The student teachers performed less well in terms of their LTSM being innovative, but the majority were still rated as achieving or exceeding the expected level. LTSM developed for mathematics lessons was more positively rated for innovation than that developed for and used in language lessons. Several examples were cited in the observation notes, of student teachers making effective use of “everyday objects” to demonstrate concepts such as weight and mass in mathematics lessons.

The LTSM most often used in language lessons were text books, work books and “other” (including everyday items). Similarly, the most frequently used resources in mathematics lessons were textbooks, workbooks and worksheets. This may partially explain the relatively higher ratings for “appropriate” as opposed to “innovative” LTSM. Several types of language and mathematics LTSM were not used at all in any of the lessons, including: dictionaries, calculators, compasses, geometric instruments and play money. This may be because they were not available, underscoring the necessity of being “innovative” with respect to LTSM.

Student teachers reported that they faced challenges with obtaining materials to develop their LTSM However; they also reported making use of the available resources. This points toward the impact of the school and classroom context and resource provisioning on LTSM access and use.

The final lesson which SANTS expect their student teachers to be able to demonstrate in the classroom is **implementing the current curriculum (CAPS).** Our study assessed the extent to which the student teachers lesson plans were curriculum aligned and the lessons which they taught were subject and grade appropriate. The alignment of lesson plans to CAPS was an area of strength: more than 80% of the student teachers had lesson plans for both language and mathematics which met or exceeded the required standard. Additionally, between 65%-79% of student teachers were found to be utilising LTSM and teaching methods which were appropriate to the subject being taught, the

grade level and content of the lesson. Curriculum knowledge was an area which the WIL school stakeholders (principals and student teacher supervisors) also confirmed that the student teachers were competent in.

4.5 To what extent are SANTS student teachers able to cope in challenging teaching environments?

The student teachers encounter numerous challenges in the schools where they undertake WIL. The majority undertake WIL in quintile 1 to 3 schools which are classified as “no fee” schools. The WIL school principals report a range of socio-economic challenges including lack of resources. Only 54% of the WIL schools had running water and less than 50% had internet and email access, computers for learners to use, science kits or a sick bay. Similarly, less than 50% of the WIL schools had functional libraries, telephones and computers for staff use.

The teacher/student ratio was reported to be a challenge by some WIL school principals. The cause of the problem was reported to be understaffing, leading to overcrowding in classrooms. Classes with up to 94 learners were reported. However, data collected by the fieldworkers suggests that the average teacher/learner ratio in the WIL schools would be 1/32 if all teachers were efficiently deployed. However, some student teachers appear to have often experienced large classes. Feedback from the lesson observers suggests that this was not so much due to absolute numbers, but challenges with timetable management, whereby some teachers had to cope with large classes while other teachers had free periods. The challenge of multi-grade teaching was also evident in some schools.

The SANTS tutors and student teachers themselves report that they were well prepared for WIL through attending support sessions at the SSCs, practising simulation lessons, and receiving feedback on their performance.

The evaluation findings show that differentiation is an area of weaker performance - as compared to other areas - and there is a predominance of whole class instruction, direct instruction and drill and practice as opposed to more interactive teaching methods. These could be linked – at least in part – to the challenge of dealing with over large classes.

Other issues associated with the teaching environment which translate into challenges for the student teachers are: the accumulation of learning deficits (from Grade 1) which mean that learners do not have adequate prior knowledge and are not at the appropriate cognitive level for their grade. This challenge is well documented in South Africa (Spaull & Kotze, 2015). The student teachers will need to compensate by addressing the gaps in learners knowledge and understanding. Another challenge is learners poor grasp of English – which becomes the LoLT from grade 4, despite the fact that they are still acquiring basic literacy skills in their home language and are far from fluent in English. This makes it necessary for the student teachers to code switch. The extent of these challenges should not be underestimated.

Further challenges which some of the student teachers face during their WIL are: receiving conflicting guidance/direction from SANTS and their supervisors in the WIL schools (particularly with respect to lesson planning); the financial challenge of covering the cost of transport to the WIL schools; and undertaking WIL in schools with large numbers of other SANTS student teachers.

In spite of these challenges, the student teachers were – by and large – found to be coping admirably under the difficult circumstances. They are able to adapt well to the conditions which are familiar to them as they grew up attending such schools, and demonstrate dedication and commitment to succeeding in teaching under conditions of adversity.

4.6 What are the perceptions of SANTS student teachers regarding the quality and relevance of the SANTS BEd programmes in preparing them to be teachers?

In general the SANTS student teachers were very positive regarding the SANTS BEd programmes and the extent to which it is relevant and is helping them prepare to become teachers.

The support sessions provided at the SSCs were reported to have enhanced the student teachers: subject knowledge; pedagogic skills; knowledge of teaching methods and strategies; lesson planning skills; curriculum knowledge; ability to develop and use LTSM; learner engagement skills; diversity management skills; have prepared student teachers for WIL; and increased their confidence and professionalism. However, 42% of student teachers who were surveyed requested additional support in the area of learner engagement – which was one of the more weakly rated aspects of classroom management.

The majority of student teachers felt that time spent on the practical training (lesson simulation and WIL) during the BEd programmes was sufficient to improve their teaching skills.

Almost all student teachers are of the opinion that their teaching skills and confidence to teach have improved since their participation in WIL. WIL is perceived to be an important component of the teacher training process. However, 25% of the student teachers who were surveyed said they would like to receive more support from SANTS tutors during WIL.

There were overwhelmingly positive responses when the student teachers were asked to rate various aspects of the SANTS BEd progammes. No aspect of the programme was considered to be problematic. The top three additional areas in which student teachers feel the programme can be improved are: 1) providing more/better access to computers; 2) providing (more) financial assistance to student teachers (including during WIL; and 3) providing more/better access to LTSM.

4.7 What are the perceptions of stakeholders at school level regarding the quality of teaching delivered by SANTS student teachers?

The perceptions shared by school level stakeholders with the evaluation team were in general very positive regarding the student teachers attitude and teaching skills. These were discussed – where relevant – in Section 3.2 and in more detail in Section 3.3.

The principals that commented on the student teachers commitment to the WIL schools and their work ethic were largely very positive, noting that the student teachers have participated in extra-curricular activities and in some cases providing extra lessons/support to learners as required.

The WIL school stakeholders also regarded the student teachers highly in terms of their knowledge, teaching skills and competencies. Sixty three percent of the student teacher supervisors commented positively during their interviews on the student teachers teaching skills, indicating that they saw potential in the student teachers, who still had another 18 months of studies ahead at the time of the fieldwork and were heading in the right direction. Some challenges were noted in some schools relating to communicating effectively in the LoLT, both isiZulu (and in a few cases English) in the FP and English in the IP.

Even in some of the areas of weaker performance identified by the observers, the WIL school stakeholders praised the student teachers efforts. In general school stakeholders felt that the student teachers made good efforts to differentiate, interact well with different types of learners and understand that learners have different learning styles and some face learning barriers. Similarly, the student teachers supervisors in the WIL schools felt that – in general – student teachers had the ability to manage the classroom and discipline the learners effectively. Some areas of improvement were noted – including confidence – which they felt would develop in the student teachers final 18 months of studies.

In summary, the school stakeholders have predominantly very positive perceptions of the SANTS student teachers. A number of principals confirmed that they would gladly appoint the student teachers when they graduate. The SANTS student teachers were said to be well prepared, dedicated and enthusiastic about teaching.

Chapter 5: Conclusion and Recommendations

This Chapter presents a conclusion, reflects critically on the study and outlines recommendations for SANTS which emanate from the study and its results.

5.1 Conclusion

This study out to assess the performance of student teachers – at the time mid-way through their third year of study of a four year programme – in relation to: the expected outcomes of the SANTS BEd programmes and the MRTEQ. The evaluation also sought to provide feedback regarding how student teachers teach when faced with the challenges of teaching in schools located in rural and poor areas and identify areas in which the BEd programmes could be strengthened and improved.

The findings are wide-ranging, they are discussed in detail in Chapter 3, Chapter 4 relates the findings to the evaluation questions, they are also summarised in the Executive Summary and will not be repeated here.

Throughout the entire report the evaluation findings are in general very positive. From the lesson observations, with very few exceptions, a clear majority of the student teachers was found to perform in their teaching practice at the level expected in terms of the outcomes of the BEd programmes and the MRTEQ with respect to newly qualified teachers.
When adequate performances exceed inadequate performances by a substantial margin across a wide range of criteria and the SANTS student teachers and their tutors are able to describe their learning and teaching practices in detail, as this report has demonstrated, there appears be a clear uptake of the knowledge, concepts and skills promoted by SANTS.

SANTS student teachers are viewed positively – in terms of their attitude and teaching skills – and SANTS as an institution is valued highly for the way it goes about its work. The student teachers themselves value the academic preparation and pedagogical support offered by SANTS. There are very few exceptions to these positive views.

5.2 Critical reflection on the study

Interpreting and using the findings
As noted in Section 2.2, the study was descriptive and exploratory. The resulting findings are wide-ranging and rich in contextual detail. The statistical investigation of factors affecting student teachers classroom performance presented in Appendix D was not able to find significant relationships among the multiple variables studied. In other words, there is no ready guide to understanding cause and effect or clear correlation among the factors involved. This does not mean that there are no significant relationships – only that the structure of the data did not lend itself to clarifying relationships. The challenge of making sense – and good use – of the findings must be taken up through reflection on the findings and patterns and tendencies which were revealed in Chapter 3.

The significance of a specific finding or observation may be immediately apparent to those at SANTS responsible for the specific area of concern. In a number of instances the findings may confirm existing perceptions. Some findings will surface new issues, point in new directions and may guide improvements in programme design and implementation. For example, SANTS literacy and numeracy specialists may immediately understand why dictionaries and certain mathematics LTSM are not used at all in the rural KwaZulu-Natal schools in which student teachers undertook WIL, and will have good ideas regarding what to do about this – which may include agreeing to do nothing. But other findings are more difficult to respond to. For example, the relatively weaker uptake of successful learner differentiation or approaches that are participatory or active rather than "chalk-and-talk" may be attributable to large classes, what professional teachers at the WIL schools will allow, the inhibitions of demonstration lessons, or a student teacher's background and sense of what is appropriate (in spite of SANTS advocacy for and training in what it sees as good practices). The findings should resonate with SANTS' experience and practices, but also challenge in various ways.

How can we separate the act from the actor?

A further difficulty in making wise decisions on the basis of the evaluation findings lies in the famous dilemma of understanding by separating the act from the actor (or in Yeats's version "the dancer from the dance"). This evaluation focuses on the dance – literally, on detailed specifications for good dancing. It focuses on institutional and national requirements for adequate teacher development.

The use of multiple criteria or specifications of achievement of necessity fragments the art and the act of teaching into competencies. This has the virtue of showing what aspects of good teaching practice need attention in programme development and delivery. However, what is lost is how the individual student teacher brings a different combination of skills and competencies together in response to learners, a classroom and a teaching context. The holistic view of how individual student teachers apply their skills and competencies to teach should be a valuable supplement to this study and may be may be available in the summative assessment of the SANTS BEd student teachers before their graduation.

The theory/practice dilemma

The theory/practice dilemma is a chronic concern of teacher development programmes, especially in situations where marked improvement – or transformation – is being sought in curriculum and pedagogy. Best efforts to instil good practices can be defeated by powerful contextual factors:

- Desired content, methods and approaches are often unfamiliar, even unknown, to teachers, who may dislike them or see no sense in them and thus fall back on the practices endorsed by their upbringing.
- Even when persuaded of the desired good practices, teachers may find that the school (principal, head of department or even the learners themselves) is hostile to these good practices.
- Society and (market) economy may well enforce values at odds with the good practices promoted by education professionals: they may, for example, seem to promote traditional, authoritarian or superficial approaches to life and learning, while the good practices include

approaches that promote innovation, questioning, critical inquiry, deepening of feeling and insight and so on.

- Best practices mature over time within growing communities of practice: they are not necessarily detectable in quick reviews: however, these communities of practice may not be given the chance to thrive.

These and other absorbing dilemmas of ITE point towards the great importance of the concerns of SANTS regarding the practical uptake of their values and approaches to teacher development.

5.3 Recommendations

The findings point the evaluation team to make recommendations in certain areas. SANTS will also have their own ideas about how to apply the findings to address the weaknesses which were identified and strengthen and improve the BEd programmes.

1. A deep, structured conversation is needed to explore the interpretation and use of the findings. This could be followed by the compilation of a response to the strengths and weaknesses identified in this evaluation report. Detailed, specific findings can be used by SANTS specialists even before this takes place and will contribute to the conversation. Following this conversation, it would be valuable to provide some feedback to the student teachers on the findings of the study. Praise and encourage the areas of strength which were identified and discuss the areas of relative weakness – what were the causes/reasons for these and how can they be addressed?
2. The generally poorer performance of the IP student teachers in delivering lessons as compared to the FP student teachers needs to be looked at closely by SANTS. Several possible reasons come readily to mind such as: the switch in many cases to English as a medium of instruction (which is not the mother tongue of the student teachers or most of the learners), the greater complexity of concepts and teaching in the IP, the higher cognitive level expected and cumulative learning deficit. What might be done to achieve a better balance may need attention.
3. The poorer performance of the same student teachers when teaching language lessons as compared to mathematics lessons in the same phase should also be examined by SANTS. A difference was also evident to a certain degree in the average course marks. Better performance in mathematics is to be celebrated and the poorer performance in language interrogated. Language learning is of great importance in both the FP and the IP, and ITE programmes have generally been found wanting in terms of preparing student teachers adequately for this important task (Taylor, 2015). isiZulu as a language of learning and teaching is a matter of concern. The findings suggest that there may be a need for more exposure to teaching isiZulu and teaching in isiZulu in the BEd programmes Perhaps an even greater concern is the ways in which isiZulu interfaces with English in the classroom. The interface could be fruitful rather than problematic. The complexity of issues involved requires the development of attitudes and capabilities suitable for dealing with the problem. SANTS already promotes techniques for dealing with these language issues, but the evaluation findings suggest that the practice may need to be intensified. For example, greater emphasis on appropriate code switching techniques. Another consideration is whether the SANTS programme can promote greater bilingualism - the LoLT of the SANTS

programme itself is English currently. One practical way to tackle some of the language challenges which were reported is to translate key subject-specific concepts required for FP and IP teaching into both languages and make them available to student teachers for use in the classroom.

4. Areas of relative weakness identified via this study should be addressed in the final year of the BEd programmes. For example: how to differentiate and use interactive methods in large classes, how to monitor student progress and understanding throughout the lesson, and how to innovate in LTSM use, taking into consideration real world resource constraints.
5. Encourage reflection when the student teachers come back from WIL on what worked and what did not work and why when they tried to put theory into practice in the real world. Spend time discussing the real world challenges they face – such as for example large class sizes – and potential solutions. Encourage the student teachers to share good practices and document these for additional student cohorts.
6. At a strategic level, SANTS leadership should look into ways to make WIL (even) more successful: for example, by engaging in gentle advocacy for contexts that favour the qualities that SANTS teaching and national standards value. Large class sizes (in some cases unnecessary) defeats attempts to exercise good practices or even just basic discipline and order. Can this seriously limiting factor can be overcome? Could WIL schools be requested to allocate student teachers only to manageable classes? Some WIL schools and student teacher supervisors rejecting the SANTS lesson plan was also a challenge for some student teachers, which should be diplomatically addressed. Some student teachers felt that periods of WIL needed to be longer, especially so that they could get to know the learners and the context better. This possibility could be explored. Practical questions like the location of schools, their distance from where the student teachers live and the cost of travel troubled some of the student teachers. SANTS could investigate ways of limiting the impact of these challenges. For example, whether the student funding can cover a stipend for WIL and student teachers can undertake WIL in their own communities. The feasibility of providing the additional support during WIL which some students' requested should also be considered.
7. The SANTS model of delivery seems to be impressive and worth replicating. The success of the model can be attributed in part to SANTS' rootedness in its context (regional KwaZulu-Natal) and the relationships it has established in this context. Replication of the model in other contexts would require special attention to the ways in which these new contexts differ.
8. Regarding the BEd programmes overall, the perception survey illuminated areas where student teachers would like to see the strengthening and improvement. Some of these requests – such as financial assistance for example – may not be easy to address, but others are. The greatest area of concern, which SANTS should consider how to address, was computer access and use.
9. Finally, SANTS could look into the possibility of conducting a tracer study (of modest scope) that looks at the uptake and perpetuation of good practices by SANTS graduates in-service. Do they sustain what they have learnt in their professional education? What challenges do they encounter and how do they address them? Do the SANTS BEd programmes provide a framework or a springboard for rich, self-aware, mission-driven professional development

and growth in the education system? Tracer studies can be expensive and difficult to undertake, but even a limited inquiry could be useful and illuminating.

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