
7. References

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Addendum A: Student questionnaire

Preservice Mathematics Teacher Questionnaire

(Beijaard, 2000, translated, adapted and modified)

This questionnaire has been designed to provide insight into the way pre-service mathematics teachers regard certain important aspects of their professional identity. The questionnaire consists of two sections and should take half an hour to complete. All information you provide will be regarded as absolutely confidential. Thank you for your participation!

Section 1 : General biographical questions

1. Name:

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2. Sex: Male Female

3. Age:

4. Type of High School you attended (you may tick more than one block):

Rural City Private Formerly disadvantaged Former Model C

5. Final mark for mathematics in matric (approximately):

40-49%
 50-59%
 60-69%
 70-79%
 80-100%

Section 2 : How you see yourself as mathematics teacher

In the table below, being a teacher is divided into three parts: SUBJECT SPECIALIST, DIDACTICS SPECIALIST and PEDAGOGICS SPECIALIST. You are requested to examine how you see yourself as a mathematics teacher and to determine which of these aspects are most important in your own perception of what it is to be a teacher.

NB: In this inquiry sheet the following definitions will apply:

SUBJECT SPECIALIST: a teacher that focuses on *subject knowledge and skills*.

DIDACTICS SPECIALIST: a teacher that focuses on knowledge and skills regarding the preparation, implementation and evaluation of *teaching and learning processes*.

PEDAGOGICS SPECIALIST: a teacher that focuses on knowledge and skills concerning the *socio-emotional and moral development of the learners*.

CATEGORY	PRIORITISATION (First, second or third)
SUBJECT SPECIALIST	
DIDACTICS SPECIALIST	
PEDAGOGICS SPECIALIST	

1. Please give a short explanation of why you prioritised these aspects the way you did in the table above.

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2. This question concerns the significant learning experiences that you have encountered in your tertiary training around these three aspects. Please complete the following sentences:

A. With regard to my role as SUBJECT SPECIALIST I have learnt that

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B. With regard to my role as DIDACTICS SPECIALIST I have learnt that

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C. With regard to my role as PEDAGOGICS SPECIALIST I learnt that

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Addendum B: First individual student interview questions

First Individual Interview Protocol

1. How would you describe a good mathematics teacher? (*Personal background: self-in-the-mind*)
2. Why did you choose to study to become a mathematics teacher? What influenced your choice most heavily and why? (*Personal background: self-in-the-community*)
3. In the questionnaire you indicated that you attach great value to the subject specialist/Carer/technician role of the teacher. Describe yourself as a mathematics teacher. (*Subject specialist/Carer/technician: self-in-the-mind/ community*)
4. How did you implement these roles in your previous teaching pracs? (*Teaching practicum*)
5. When you enrolled for your teaching studies, what were your expectations of the training to become a mathematics teacher? (*Tertiary training context: self-in-the-community*)
6. What changes do you perceive in yourself as a result of your tertiary training? (*Tertiary training context: self-in-the-community*)
7. What aspects of your training would you change if you could? (*Tertiary training context: self-in-the-community*)

Addendum C: Second individual student interview questions

Second Individual Interview Protocol

About the subject mathematics:

How do you see the subject mathematics? Describe “mathematics”.

What is the purpose of the subject?

How do you feel about the subject?

Do you believe that there is scope for creativity in the teaching and learning of maths? (Flexibility)

About the video

Didactics:

What stands out for you in this video clip?

How would you describe your own teaching style?

For example:

Negotiation of meaning – teach by questioning

Emphasis on relationships

Relevance to real life

As a maths teacher, what are your personal goals in the classroom? What do you try to achieve?

What do you see as evidence that learners are understanding?

What do you believe is the purpose of planning a lesson? (Preparation)

Reflection:

What, in terms of teaching maths, are you unsure of?

What, in terms of teaching maths, are you sure of?

Do you look back on a lesson you have taught with a view to finding strengths and weaknesses? Describe an example.

Pedagogy:

Why do you believe that a maths teacher should be available to learners after class? What about during class?

Addendum D: Group interview questions

Group Interview Guidelines

1. Was this teaching prac different from your other teaching pracs? Why? If yes, why; if no, why not?
2. Has anything changed in your ideas of what it means to be a teacher?
3. How do you see yourself in the future in the classroom? Describe you in a classroom next year.
4. Did you teach as you were taught at school or did you teach differently?
5. Now that you know what it's like out there, how would you make the methodology more relevant? More worthwhile?

Addendum E: Questionnaire to be completed by student's mentor teacher

Mentor Teacher Questionnaire

(Beijaard, 2000, translated, adapted and modified)

This questionnaire has been designed to provide insight into the way pre-service mathematics teachers regard certain important aspects of their professional identity.

The questionnaire consists of two sections and should take 20 minutes to complete.

Section 1 : Observed teaching identity

In the table below, being a teacher is divided into three parts: SUBJECT SPECIALIST, TEACHING & LEARNING SPECIALIST and CARER. You are requested to think about what you have observed in your student as a mathematics teacher and to determine which of these aspects are most often observable in his/her teaching.

NB: In this inquiry sheet the following definitions will apply:

SUBJECT SPECIALIST: a teacher that focuses on *subject knowledge and skills*.

TEACHING & LEARNING SPECIALIST: a teacher that focuses on knowledge and skills regarding the preparation, implementation and evaluation of *teaching and learning processes*.

NURTURER: a teacher that focuses on knowledge and skills concerning the *socio-emotional and moral development of the learners*.



CATEGORY	PRIORITISATION (First, second or third)
SUBJECT SPECIALIST	
TEACHING PROCESS SPECIALIST	
CARER	

Please give a short explanation of why you prioritised these aspects the way you did in the table above.

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Addendum F: Interview protocol for interview with student's mentor teacher

1. Would you describe your student as a good mathematics teacher?
2. In which aspects of teaching mathematics do you think your student can still improve?
3. In your observation of this student, what has struck you the most in his/her teaching?