

BYLAAG A

BYLAAG B

INFORMED CONSENT

ACTION RESEARCH PROJECT TNG

You are requested to enter into a contract agreement with Ms. CJ Louw who is conducting this research project as part of her M.Ed. studies at the University of Pretoria.

Mrs. Louw undertakes to:

- ◆ treat you fairly at all times;
- ◆ assure your anonymity;
- ◆ treat all data as confidential;
- ◆ use pseudonyms in her dissertation when referring to students; and
- ◆ reveal the outcome of the research to participants at an arranged occasion.

You, as the student and participant, have to make the following undertaking.

I,.....(full names)

.....(student number).....(Diploma)

ID Number.....

am under no obligation to participate in this project, but if I decide to do so, I undertake

- ◆ to participate and cooperate fully in the research project;
- ◆ not to drop out of the project;
- ◆ to answer all questionnaires truthfully and honestly;
- ◆ to allow Mrs. Louw to use the data from the project in her thesis.

Signed at this.....day of..... at

.....
Student

.....
Mrs.C J Louw

.....
Parent or guardian

BYLAAG C

BYLAAG D

BYLAAG E

TRANSKRIPSIE VAN 'N ONDERHOUD MET 'N WISKUNDEFASILITEERDER

Hierdie onderhoud is by 'n sekondêre staatskool, in die Ooste van Pretoria gevoer. Die fasiliteerder (R1) is vroulik, en het meer as 15 jaar ondervinding. Die onderhoudvoerder (O) het telkens net die vraag gestel en die respondent het spontaan uitgebrei.

O: Dink u dat portefeuljeassessering in wiskunde 'n positiewe doel dien? Hoekom sê u so?

R1: Die huidige portefeuljes dien definitief 'n baie positiewe doel. Dit bestaan uit twee dele: die ou tradisionele afdeling A wat uit die eksamen en formele toetse bestaan en 50% van die portefeulje tel, en afdeling B wat joernaalinskrywings, geheuekaarte, groepwerk en werkkaarte insluit. Afdeling B het 'n baie positiewe, besliste invloed op die leerders om hulle werkvoordering baie goed dop te hou en ... uhm ... uhm en ek dink rêrigwaar dis 'n baie goeie aksie.

O: Dink u dat wiskundestudente die portefeuljeassessering as sinvol beleef? Hoekom sê u so?

R1: Die leerders beleef die portefeuljes baie sinvol in die eerste plek, omdat jy meer as een aktiwiteit ... van 'n aktiwiteit doen en hy op die ou einde sy beste een kan kies, so hy is nie gedwing om te volstaan met 'n druppunt nie. Hy kan dit verbeter sodat hy 'n goeie punt het. Die tweede positiewe aspek wat die leerders ervaar is dat hy kan sien hoe hy verbeter, sy vordering is sigbaar. Die ander positiewe eienskap is die feit dat hulle in groepe saamwerk en makkaar daardeur leer. Dis ook vir hulle lekker om so in groepe saam te werk.

- O: Wat is die positiefste faktor by portefeuljeassessering?
- R1: Beslis die werkkaarte. Die werkkaarte is hoofsaaklik meetkundeprobleme wat jy vir die leerders gee en wat hulle self moet voltooi en hulle het onbepaalde tyd daarvoor. Ons sien dat, omdat hulle onbepaalde tyd het, doen hulle moeite om dit te bemeester en soos hulle ... ons die werkkaarte vir hulle weer gee, ... uhm volgende werkkaarte gee, kan ons sien hoe hulle deur een werkkaart te bemeester, 'n volgende een makliker bemeester as die vorige een.
- O: Is daar enige negatiewe faktore by portefeuljeassessering? Ja/Nee
Indien "Ja", wat is hierdie negatiewe faktore?
- R1: Die een negatiewe uitvloeisel is by die groepwerk waar die groep mekaar moet assesser. Die leerders sukkel baie om vir die een wat die groot bydrae gegee het, nege punte te gee en die een wat min bygedra het net twee of drie punte. Hulle gee oor die algemeen 'n gemiddeld van sewe. Dit is een van die negatiewe uitvloeiings.
- O: Indien u kon kies, sou u met portefeuljeassessering voortgaan, of sou u na die tradisionele manier van assessering terugkeer?
Hoekom sê u so?
- R1: Ek sou definitief kies om aan te hou om portefeuljeassessering te doen, want in 'n sekere sin vervang dit maar jou ... uhm gewone outydse klastoetsies wat jy in elk geval geskryf het. Dit word nou net gestruktureerd gedoen en die leerders hou daarvan, omdat hulle op die ou einde kan kies wat die beste toetse en die beste assessering is.

BYLAAG F

QUESTIONNAIRE

This questionnaire is aimed at evaluating your success/failure in the recent test of MTHS1. Please complete it honestly since the information will be treated confidentially.

Respondent
Group
Repeat
Type

V1				1
V2				4
V3			6	
V4	1		7	

Complete the form by circling the appropriate number in the shaded area.

Question 1

Respondent is a

Male student	1	V5	<input type="text"/>	8
Female student	2			

Question 2

What is your age in years?	18	19	20	21	22	23+	V6	<input type="text"/>	9
	1	2	3	4	5	6			

Question 3

Did you perform according to what you've expected in the MTHS1 test?

Yes	1	V7	<input type="text"/>	10
No	2		<input type="text"/>	

If your answer was "No" to Question 3, what do you think were the factors that prevented you from performing the way you've expected to perform? Mark all those factors (listed on the next page) that played a role in your performance.

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I made careless errors.	1	V8	<input type="checkbox"/>	11	
I didn't do my homework regularly.	2	V9	<input type="checkbox"/>	12	
I didn't practice enough.	3	V10	<input type="checkbox"/>	13	
I've over-estimated my ability.	4	V11	<input type="checkbox"/>	14	
I registered late.	5	V12	<input type="checkbox"/>	15	
I was not settled in at TNG yet.	6	V13	<input type="checkbox"/>	16	
The time allocated for the test was too short.	7	V14	<input type="checkbox"/>	17	
I did not understand the lecturer.	8	V15	<input type="checkbox"/>	18	
The test was unfairly difficult.	9	V16	<input type="checkbox"/>	19	
I did not know that I didn't understand the work, it was only when I started revising that I realized my lack of understanding.	10	V17	<input type="checkbox"/>	<input type="checkbox"/>	20
I lost my notes/scribbler.	11	V18	<input type="checkbox"/>	<input type="checkbox"/>	22
I was not healthy.	12	V19	<input type="checkbox"/>	<input type="checkbox"/>	24
I did not have a suitable place to study.	13	V20	<input type="checkbox"/>	<input type="checkbox"/>	26
I was absent a few times due to problems and did not have all the work.	14	V21	<input type="checkbox"/>	<input type="checkbox"/>	28
I am too shy to ask questions in class.	15	V22	<input type="checkbox"/>	<input type="checkbox"/>	30
I just did not have enough time to prepare.	16	V23	<input type="checkbox"/>	<input type="checkbox"/>	32
I had personal problems (specify):	17	V24	<input type="checkbox"/>	<input type="checkbox"/>	34
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
I have motivational problems (e.g., it is not important for me to perform well in mathematics.) (Specify):	18	V25	<input type="checkbox"/>	<input type="checkbox"/>	36
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
Other (specify):		V26	<input type="checkbox"/>	<input type="checkbox"/>	38
			<input type="checkbox"/>	<input type="checkbox"/>	

If your answer was "Yes" to Question 3, what do you think were the factors that contributed to your success?

I do my homework everyday and had all the work to learn.	1	V27	<input type="checkbox"/>	40
I revised the work adequately .	2	V28	<input type="checkbox"/>	41
I find maths very easy.	3	V29	<input type="checkbox"/>	42
I understand the lecturer well.	4	V30	<input type="checkbox"/>	43
I ask questions in class when I do not understand.	5	V31	<input type="checkbox"/>	44
The test was easy.	6	V32	<input type="checkbox"/>	45
I am never absent from maths classes.	7	V33	<input type="checkbox"/>	46

I had enough time to check my answers in the test.	8	V34	<input type="text"/>	47
Other (specify):	9	V35	<input type="text"/>	48

Question 4

Do you think the tutorials will help you to perform better?

Yes	1	V36	<input type="text"/>	49
No	2	V37	<input type="text"/>	50
Why do/don't you think so?		V38	<input type="text"/>	51

Question 5

What else is there that I should know?		V39	<input type="text"/>	52

BYLAAG G

FOCUS GROUPS PREPARATION

FOCUS GROUP

DATE:.....

VENUE.....

SELECTION CRITERIA:.....

POTENTIAL CANDIDATES FOR CIVIL ENGINEERING

STUDENT NUMBER	NAME	GROUP/DIPLOMA
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

INFORMATION LETTER TO PARTICIPANTS IN THE FOCUS GROUPS

You have attended the information session about this project and as explained to you, one of the data gathering tools of the project is a focus group interview. You will be selected to attend and participate in such focus groups through the course of the semester.

You need to know the following:

- ◆ Focus groups are compiled according to a homogeneous aspect/factor that is present amongst everyone attending that focus group, i.e. mathematics anxiety or excellent achievement in a mathematics test.
- ◆ There will be a few broad questions for discussion in the group.
- ◆ It would be helpful if you could respond as honestly to the questions as possible as this would enable me to gather reliable information.
- ◆ An audio or video recording will be made of the interview so as to ensure that the information provided is accurately captured.
- ◆ Your responses and the information that you provide during the focus group interview will be treated as being strictly confidential.
- ◆ Please complete the consent form at the bottom of this letter and hand it to me during the interview.

CONSENT FORM

Having read the information above, and having attended the information session about the project, I am fully aware of the nature and purpose of the focus groups that Mrs. Louw is conducting as part of her studies. I understand that my responses will be treated as strictly confidential. I thus consent to participate in the focus group.

Signature:.....

Date:.....

BYLAAG H

TRANSKRIPSIE VAN 'N FOKUSGROEPONDERHOUD

VELDNOTAS:

Hierdie onderhoud is onder 'n koelteboom gevoer, en deur middel van 'n klankkasset opgeneem en later verbatim getranskribeer. Die keuringskriteria waarvolgens studente in hierdie fokusgroep ingedeel is, was studente wat 'n lae wiskundeangstelling in die SOW behaal het, maar nogtans suksesvol in wiskunde presteer. Die simbool "O" dui die navorser aan, terwyl respondente met "R1", "R2" en dies meer aangedui sal word.

Die onderhoud is in Engels met agt studente gevoer.

O: ***Do you feel that tutorials are improving your mathematics performance?***

R2: *I did very badly in test one, because I didn't attend the tutorials, but now I do and I can see they help me a lot.*

R5: *I have also missed some of the tutorials, but I like it a lot, 'cause we are so few. We all get attention, and the tutor is not so in a hurry.*

R1: *I feel that it's a good thing we do some more problems from class, ... uhm sometimes I need to do more of the same thing before I get it well.*

R7: *Yes, I believe the tutorials help me a lot 'cause I get time to practise maths.*

R6: *I feel that the tutorials help me to find the tools to solve maths problems. Some students ...they use other methods than I did, ... uhm and then I see I like their method more. And now I know I can use their method, 'cause the tutor said it's right.*

O: **What about tutorials do you regard as positive?**

R1: *I am forced to practise. I sometimes get tired if I have to practise at home. I give up when I can not solve the problem.*

R8: *I think because we have time to practise more problems, and some are difficult, we learn more.*

R2: *I like the small group most. We all get time to do work on the board and nobody laughs if it is wrong. I also like the tutor, he is not so fast as the lecturer.*

R3: *I think it's a good thing that the tutor is a senior student, 'cause he can tell us all the secrets of success.*

R4: *I am used to work alone. I do not like to work in a group, but I know as an engineer I will be part of a team. I hope the tutorials will help me to get used to working in groups.*

R6: *I didn't have a very good maths teacher, and he was never willing to look at our own methods. His method was the only method. I like it that we can use more than one correct method at the tutorial classes.*

O: **What are the qualities required by a student to be successful in tertiary maths?**

R6: *You must spend enough time at your studies, especially maths. You need to practise a lot, and not just the night before the test.*

R4: *I find that if I do not do my homework, I am lost in class the next day. Even sometimes I can not solve the problem from homework, but then I know I must watch out the next day when you explain it.*

R7: *When I don't understand in class, I ask. I practise almost every day for about 90 minutes. I don't want to say it was easy, but with hard working I got good marks.*

R3: *I think you must try harder problems too. I try to work out difficult problems everyday and I always do corrections in class.*

R8: *A good student will practise many problems and do his homework every day, and ... uhm not be absent from class.*

R2: *I think you have to work with a study timetable, so that you do not have to cram all the work the night before the test.*

R5: *I think I should work more regularly, and not only when we write test.*

R1: *A good student will practise every day and also try some tough problems as to improve his problem solving skills.*

O: ***If you are not performing to your satisfaction, what do you do wrong?***

R7: *I do not have enough time, all the tests and ... uhm assignments are coming in the same week. I can not get everything done.*

R5: *I am too much nervous when I have to write test. I even had my student number wrong on the script. I do not know what to do about it.*

- R8: *When we wrote the first test I was still staying in Hammanskraal. I got home after nine at night and had to leave very early in the morning. I also didn't have a calculator then. When you explained the radians I could not practise. But it's better now. I live in the township now.*
- R3: *I also live in the township, but it is too much noisy where I live. I find it hard to work there, but I can not stay on campus late 'cause I am too afraid to walk home at night.*
- R2: *I am sometimes absent from lectures and then I can see that I have missed out on a lot of work. I think one should not miss class.*
- R1: *I give up too quickly.*
- R6: *I'm not asking questions in class, cause it never helped me at school. I will have to learn to ask questions now.*
- R4: *I am sometimes late for class and then I miss the explanation of the homework.*

BYLAAG I