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ADDENDUM A

Researcher Declaration

Investigating the influence of academic self-confidence on Mathematics achievement.

To Whom It May Concern:

I, Erika van der Bergh, the researcher in the above mentioned topic, herewith declare that the questionnaires and interviews for the above mentioned study will not take up more than 50min of the participants (learners) time. The questionnaire will take up no more than 30 min of the participants' time, and the interviews will be 15-20min long. I, the researcher, will under no circumstances ask any personal questions during the interviews and will only pose questions that relates to the above mentioned research study. I, the researcher, will also provide refreshments to the participants that will be interviewed, with consideration to their dietary needs (e.g. HALAL, diabetic etc).

Kind Regards

Erika van der Bergh

ADDENDUM B

Participant Information

Dear Participant,

I would like to take this opportunity to inform you more about the research study that you are about to take part in:

The Research

I am investigating the influence of academic self-confidence on Mathematics achievement.

Academic self-confidence refers to a person's belief in their own ability to learn and perform in an academic area. For this study the academic area I will focus on is Mathematics. You will be asked to answer a questionnaire as honestly and truthfully as possible, this questionnaire will be close ended and you will only be required to tick the appropriate response. Thereafter 15 learners will be asked to do a follow up interview, these interviews will be done individually.

Confidentiality and anonymity:

I cannot promise to keep your participation in this study anonymous, in other words other people might know that you are participating in the study. However you should know that I will protect your privacy and that all the information you provide will be kept strictly confidential. This means that I will not use or publish your name in any part of my research, therefore all the information you provide me with, by means of the questionnaires and/or the interviews will be kept anonymous. You will also not be asked any personal questions.

Only the consent and assent forms signed will identify you personally and that information will be stored at North-West University. Your questionnaires will be labelled with a unique number so I can keep track of which questionnaires belong to you, but no one else will be able to identify you. The questionnaires will be stored in a locked cabinet in an office at North-West University for five years after I have published this study. Again only the members of the research team will have access to the information you provide.

Once information has been collected, I, the researcher will publish a summary in books, magazines, websites and talk about the results to people who are interested in this study. It is important for you as a participant to know that I am not interested in the responses of any one person, but will rather focus on what learners like yourself experience. Therefore your honesty would be greatly appreciated.

I would also like to thank you for your participation in advance.

Kind Regards
Ms. van der Bergh

ADDENDUM C

Ethics Letter of Approval

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
South Africa, 1900

Tel: (016) 910-3111
Fax: (016) 910-3116
Web: http://www.nwu.ac.za

Research Development
Tel: (016) 9103442
Tel: (016) 9103422
Email: 2294583.@nwu.ac.za

29 October 2012

Dear Dr M Nel

ETHIC CLEARANCE APPROVED

This letter serves to indicate that your ethics application was approved by the VTC Ethics Sub-Committee for Social and Behavioural Science (Humanities):

Faculty application number:	FH-SB-2011-001
Project leader:	Dr M Nel
Applicant:	E van der Bergh
Project title:	Investigating the influence of academic self-confidence on Mathematics achievement.
Approval date:	31 January 2011

Kindly remember to forward outstanding documents (if applicable) to the chairperson of the ethics sub-committee. Please remember to submit your proposal to Ms Daleen Claasens (Ext: 103441) for approval and title registration at the Faculty Board.

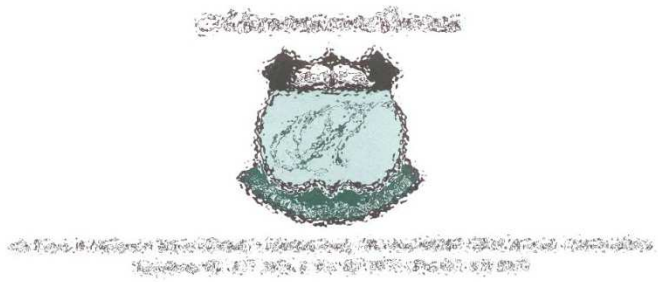
The VTC Ethics Sub-Committee for Social and Behavioural Sciences wishes you well with your project.

Yours sincerely

Susan Coetzee Van Rooy
Chair: VTC Ethics Sub-Committee: Social and Behavioural Sciences

ADDENDUM D

Permission to conduct research by the School



22 February 2011

Dear Mrs Van der Bergh

REQUEST TO CONDUCT RESEARCH AT METROPOLITAN-RAUCALL

I hereby grant Mrs E. Van der Bergh permission to conduct research in Metropolitan Raucall for her M.Ed study on *The influence of academic self-confidence on mathematics achievements.*

The following conditions apply:

- The study should take place outside official teaching time.
- A consent form should be drawn up and only learners whose parents have consented to their participation in this study may be involved.
- Parents should also receive a detailed proposal regarding the study – including time frames and the amount of time their child will be busy as a participant in the study.
- The parents and the school should be given feedback on the outcome of the study.
- The names of the learners/school may not appear in the research report without written consent from the parties.

Should you require any further information, please contact the undersigned.

Yours faithfully

M. Westerberg
PRINCIPAL

UNIVERSITY OF JOHANNESBURG

METROPOLITAN

ADDENDUM E

Permission to conduct research by the GDE

UMnyango WezeMfundo
Department of Education

Lefapha la Thuto
Departement van Onderwys

Enquiries: Nomvula Ubisi (011)3550488

Date:	**17 February 2011**
Name of Researcher:	**Van der Berg Schafer Erika**
Address of Researcher:	**8 Baviaanskloof Street**
	Albertsdal
	Alberton 1448
Telephone Number:	**0728506705**
Fax Number:	**N/A**
Research Topic:	**Investigating the Influence of Academic Self-Confidence on Mathematics Achievement**
Number and type of schools:	**1 Secondary School**
District/s/HO	**Johannesburg North**

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

Permission has been granted to proceed with the above study subject to the conditions listed below being met, and may be withdrawn should any of these conditions be flouted:

1. ***The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.***
2. ***The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.***
3. ***A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.***
4. ***A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.***
5. ***The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.***
6. ***Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.***
7. ***Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year.***
8. ***Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.***
9. ***It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.***
10. ***The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.***
11. ***The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.***
12. ***On completion of the study the researcher must supply the Director: Knowledge Management & Research with one Hard Cover bound and one Ring bound copy of the final, approved research report. The researcher would also provide the said manager with an electronic copy of the research abstract/summary and/or annotation.***
13. ***The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.***
14. ***Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.***

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

Nomvula Ubisi
DEPUTY CHIEF EDUCATION SPECIALIST: RESEARCH

The contents of this letter has been read and understood by the researcher.	
Signature of Researcher:	
Date:	20-02-2011

Office of the Chief Director: Information and Knowledge Management
Room 501, 111 Commissioner Street, Johannesburg, 2000 P.O.Box 7710, Johannesburg, 2000

ADDENDUM F

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
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Tel: **(016) 910-3076**
(016) 910-3094/073 88 33 064
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CONSENT FORM FOR PARTICIPANTS

Investigating the influence of academic self-confidence on Mathematics achievement.

SIGNATURE PAGE FOR PARTICIPANTS

"I have read the information given about this research study and have been given the opportunity to discuss any questions I had about it. All my questions have been answered to my satisfaction. I hereby consent to take part in this study. I realize that my participation is voluntary and that I am free to withdraw from the study at any time": (If you agree, please place an "✓" in the 'yes' boxes to show that you understand and agree with each statement. You do not need to consent to all study activities (questionnaire and interview) in order to participate)

1. I understand the information about the study provided in the Information Letter and all questions I had were answered. **Yes, I understand [ ]**

2. If I am uncomfortable answering any question, I may choose not to answer. **Yes, I understand [ ]**

3. Information will be collected directly from me by means of a questionnaire. **Yes, I understand [ ]**

4. I understand that the researcher is not interested in my response ONLY, but rather in the responses of a group as a whole. Therefore the information collected by means of the questionnaire will focus on the experience of a group of participants. **Yes, I understand [ ]**

5. The researcher may invite me to participate in a one-on-one interview and I understand that I have the right to refuse to do this if I wish. **Yes, I am willing to participate in an interview [ ] / NO, I am not willing [ ]**

6. I understand that what I say during the interview may be quoted in publications, presentations and the final report. However I also understand that I will never be identified personally. If I become concerned with anything I said, I can ask for parts, or all, of my questionnaire responses not to be quoted. **Yes, I understand [ ]**

_____	_____	_____
Full name of participant	Signature of participant	Date

ADDENDUM G

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
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CONSENT FORM FOR PARENTS

Investigating the influence of academic self-confidence on Mathematics achievement.

SIGNATURE PAGE FOR PARTENTS

"I have read the information given about this research study and my child has been given the opportunity to discuss any questions he/she had about it. All his/her questions have been answered. I hereby give consent that my child, _____ (child's full name), may take part in this study. I realize that his/her participation is voluntary and that we are free to withdraw from the study at any time": (If you agree, please place an "✓" in the 'yes' boxes to show that you understand and agree with each statement. You do not need to consent to all study activities (questionnaire and interview) in order to participate)

1. I understand the information about the study provided in the Information Letter and all questions my child had was answered. **Yes, I understand [ ]**

2. If my child is uncomfortable answering any question, he/she may choose not to. **Yes, I understand [ ]**

3. Information will be collected by means of a questionnaire. **Yes, I understand [ ]**

4. I understand that the researcher is not interested in my child's response ONLY, but rather in the responses of a group as a whole. Therefore the information collected by means of the questionnaire will focus on the experience of the group of participants. **Yes, I understand [ ]**

5. The researcher may invite my child to participate in a one-on-one interview and I understand that we have the right to refuse to do this if we wish. **Yes, my child may take part in the interview [ ] / NO, my child may not take part in the interview [ ]**

6. I understand that what my child say during the interview may be quoted in publications, presentations and the final report. However I also understand that he/she will never be identified personally. **Yes, I understand [ ]**

_____ _____ _____

Full name of Parent/Guardian Signature of Parent/Guardian Date

ADDENDUM H

NORTH-WEST UNIVERSITY
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Academic Self-Confidence in Mathematics Questionnaire

Identification Key and Year Mark:

In order for this research study to be successful I need to be able to identify your year mark (2011) for Mathematics, to do so I would like you to fill in an identification key as follows, Gr/Class/No (e.g. if you are in Gr.8P and you are number 13 on the class list your key will be **8/P/13**).

Identification Key:

2011 Mathematics End-Year Exam Mark and Promotion Mark (2011):

PLEASE **DO NOT FILL** IN YOUR YEAR MARK; I WILL DO SO USING YOUR IDENTIFICATION KEY!!!

Exam	Promotion

BASIC INFORMATION

In order to have the most success, I would like some basic information. Please mark your answer with an "**X**":

Gender:

❑ Female ❑ Male

Grade:

❑ Grade 8 ❑ Grade 9

Questionnaire

Part 1

Use the following scale to identify how confident you feel in certain situations.

1 – Not confident at all

2 – Slightly confident

3 – Moderately confident

4 – Very confident

Please answer ALL the questions simply by marking your answer with an "X".

	Very Confident			Not Confident at all
HOW CONFIDENT DO YOU FEEL....				
1. about your ability to do Mathematics	❑ 1	❑2	❑3	❑4
2. about your ability to do well in Mathematics	❑ 1	❑2	❑3	❑4
3. about your skills and knowledge to be successful in Mathematics	❑ 1	❑2	❑3	❑4
4. in your understanding of the unique Mathematical language	❑ 1	❑2	❑3	❑4
5. about learning Mathematical concepts successfully	❑ 1	❑2	❑3	❑4
6. when applying a Mathematical concept that you grasp	❑ 1	❑2	❑3	❑4
7. when applying a Mathematical concept that does not make sense to you	❑ 1	❑2	❑3	❑4
8. when attempting to solve a general Mathematical problem	❑ 1	❑2	❑3	❑4
9. when doing a more advanced Mathematical problem	❑ 1	❑2	❑3	❑4
10. when you fail to solve a Mathematical problem	❑ 1	❑2	❑3	❑4
11. when you successfully solve a Mathematical problem	❑ 1	❑2	❑3	❑4
12. about your own Mathematical abilities	❑ 1	❑2	❑3	❑4

13. about your Mathematical performances the past year	❑ 1	❑2	❑3	❑4
14. about remaining positive and motivated about Mathematics	❑ 1	❑2	❑3	❑4
15. accurately explaining complicated Mathematical concepts to a friend	❑ 1	❑2	❑3	❑4
16. about answering questions posed by the teacher in front of your peers	❑ 1	❑2	❑3	❑4
17. about asking your teacher to re-explain work that you did not understand in front of your peers	❑ 1	❑2	❑3	❑4
18. about asking your teacher to re-explain work that you did not understand after class	❑ 1	❑2	❑3	❑4
19. about your ability to solve a Mathematical problem through self-study	❑ 1	❑2	❑3	❑4
20. about doing revision everyday on the day's work in Mathematics	❑ 1	❑2	❑3	❑4
21. about effectively studying for a Mathematics exam/test on your own	❑ 1	❑2	❑3	❑4
22. about producing your best in a Mathematics assessment	❑ 1	❑2	❑3	❑4
23. in your ability to pass a Mathematics assessment on your first attempt	❑ 1	❑2	❑3	❑4
24. about the year-end exam you wrote for Mathematics this year	❑ 1	❑2	❑3	❑4
25. about doing Mathematics next year	❑ 1	❑2	❑3	❑4

Part 2

1. Please write what you THINK your Year-End Mark for Mathematics in 2011 will be:

2. What do you WANT to achieve as your Year-End Mark for Mathematics in 2012:

3. Do you feel confident in your ability to achieve your answer in Part 2 number 2?

❑ YES ❑ NO

ADDENDUM I

Pilot Study: Participant Feedback

Please answer the following questions about your experience of this questionnaire.

Time used to complete the questionnaire:

❑ 10 min ❑ 15min ❑ 20min ❑25min ❑ 30min ❑ 30min +

Did you understand all questions?

❑ Yes ❑ No

If NO, please indicate which questions you did not understand:

_____

_____.

Are there any other issues you would like to bring to the researcher's attention?

_____

_____

_____

_____

_____.

THANK YOU FOR YOUR TIME AND PARTICIPATION IN THE PILOT STUDY.

IT IS GREATLY APPRECIATED!

TEACHERS FEEDBACK

- **Teacher 1:** Need to allocate questions that would be appropriate for teachers.
- **Teacher 2:** All questions are excellently formulated and easy to understand.
- **Teacher 3:** No comments.
- **Teacher 4:** Very Good.

The teacher's feedback in person was very positive, the Mathematics HOD said she was impressed by the way the questions were asked and how the researcher elaborated about the matter at hand, both Math teachers felt that the questions asked are questions Mathematics educators often wonder about.

GRADE 11 LEARNERS FEEDBACK

- **Learner 1:** (10min). Understand all questions.

  "There are other factors that influence a learner's ability to do their best in Mathematics as well; never the less confidence plays an important role."
- **Learner 2:** (10min). Understand all questions.

  No additional comments
- **Learner 3:** (10min). Understand all questions.

  No additional comments
- **Learner 4:** (10min). Understand all questions.

  No additional comments
- **Learner 5:** (10min). Understand all questions.

  No additional comments
- **Learner 6:** (10min). Understand all questions.

  "No. I am fully satisfied with this questionnaire and how it was conducted."
- **Learner 7:** (10min). Understand all questions.

  "No it was a straight forward questionnaire with questions relevant to maths and what a grade 11 student thinks about maths."
- **Learner 8:** (10min). Understand all questions.

  No additional comments

ADDENDUM J

Sample Selection for Interviews

Weak Learners: BELOW 50% (23 learners, every 5th learner)					
Chosen numbers: 001; 006; 011; 016x (017); 022x (023)					
	ID KEY	Interview Consent	CASS	EXAM	PROM
001	8R38	✓	38	35	38
002	8N36	×	42	34	40
003	8H35	×	42	35	40
004	9J13	×	43	36	41
005	9J04	✓	45	34	42
006	9J30	✓	48	27	43
007	8R12	✓	49	32	44
008	8H07	✓	47	40	45
009	8H33	✓	46	43	45
010	9S14	✓	49	33	45
011	8H10	✓	43	35	46
012	9B29	×	51	34	46
013	9J21	✓	50	34	46
014	8N03	×	47	48	47
015	8N11	×	47	45	47
016	8N12	×	48	42	47
017	9B24	✓	50	40	47
018	9B26	✓	54	30	48
019	9J15	×	50	42	48
020	8R11	✓	48	53	49
021	8N34	✓	50	43	49
022	9B09	×	53	37	49
023	8R06	✓	55	29	49

Average Learners: 50%-75% (137 learners, every 28th learner)					
Chosen numbers: 001; 029x (030); 057; 085x (086); 113					
	ID KEY	Interview Consent	CASS	EXAM	PROM
001	9J29	✓	52	48	51
002	9S18	✓	56	33	50
003	8S23	×	56	34	50
004	8H01	×	54	42	51
005	9B16	✓	51	52	51
006	8R02	×	54	67	52
007	8N38	×	55	43	52
008	9J01	✓	58	35	52
009	9S36	✓	55	43	52
010	8R24	✓	52	56	53
011	8N18	✓	51	60	53
012	9B34	×	55	47	53
013	9J35	✓	57	41	53
014	8R25	✓	54	55	54
015	8H03	×	56	48	54
016	8H04	✓	54	54	54
017	8H06	✓	55	49	54
018	9J10	✓	58	45	54
019	8R08	×	56	51	55
020	8R29	✓	57	47	55
021	8N25	✓	53	60	55
022	8H19	✓	56	54	55
023	9B03	✓	60	41	55
024	9J18	✓	60	40	55
025	9J22	×	56	52	55
026	8R16	✓	59	48	56
027	8R30	✓	47	44	56
028	8N32	✓	58	48	56
029	8H12	×	59	49	56
030	8H15	✓	56	57	56
031	8H16	✓	58	48	56
032	9B02	×	62	39	56
033	9S08	✓	57	55	56
034	9S16	×	59	48	56
035	9S20	✓	57	52	56
036	8R20	×	58	52	57
037	8N10	✓	58	55	57
038	8N15	✓	58	54	57
039	8N16	✓	56	59	57
040	9B10	×	58	52	57
041	9B19	×	59	49	57
042	9J07	×	61	43	57
043	8R01	✓	60	53	58
044	8R19	×	59	55	58
045	8R32	✓	59	56	58
046	8R33	×	62	49	58
047	8N21	✓	58	61	58
048	8H31	✓	60	52	58
049	9J02	✓	63	42	58
050	9S02	✓	64	39	58
051	8N22	✓	61	50	59
052	8N33	✓	60	55	59
053	8H02	×	62	49	59
054	8H21	✓	60	58	59
055	9J33	×	62	51	59
056	9S22	✓	63	48	59
057	8R23	✓	62	56	60
058	8N08	×	63	51	60
059	8H13	✓	61	56	60
060	9B13	✓	61	57	60
061	9B20	✓	62	54	60
062	9S15	✓	65	45	60
063	8R22	✓	67	43	61
064	8R31	×	61	59	61
065	8H23	✓	63	54	61
066	8H29	×	61	61	61
067	9B35	×	64	53	61
068	9S19	×	66	44	61
069	8R36	✓	64	56	62
070	8N05	×	64	56	62
071	8N09	✓	62	60	62
072	8H38	✓	64	56	62
073	9S01	✓	66	52	62
074	8R17	✓	62	64	63
075	8N13	✓	61	70	63
076	8N24	✓	64	61	63
077	8H27	✓	64	61	63
078	9J26	✓	66	55	63
079	9S31	✓	66	55	63
080	8H17	×	68	52	64
081	9B17	✓	69	51	64
082	9B25	×	65	62	64

083	9S10	✓	67	55	64
084	9S17	×	67	57	64
085	8R27	×	67	61	65
086	8N37	✓	64	66	65
087	9B21	×	68	56	65
088	9B32	✓	67	59	65
089	9J06	✓	68	54	65
090	9J09	✓	67	58	65
091	9S11	×	68	57	65
092	8R04	✓	64	71	66
093	9S12	✓	70	56	66
094	9S33	✓	68	58	66
095	8R13	✓	69	63	67
096	8R21	✓	70	59	67
097	8N26	×	65	72	67
098	8H24	×	68	61	67
099	9J31	✓	71	55	67
100	9S32	✓	72	52	67
101	8R03	✓	69	65	68
102	8R07	×	68	70	68
103	8R14	×	70	61	68
104	8R28	✓	69	66	68
105	8R35	✓	69	63	68
106	8N19	✓	67	69	68
107	9B05	✓	70	61	68
108	9B12	✓	70	64	68
109	9J28	✓	68	67	68
110	9S29	×	72	55	68
111	8R09	✓	71	63	69
112	8H18	×	70	68	69
113	8H28	×	69	70	69
114	8H34	✓	70	67	69
115	8H36	✓	70	67	69
116	9J12	✓	73	57	69
117	9S34	✓	72	61	69
118	9B11	×	73	63	70
119	9B14	✓	73	60	70
120	9B18	×	71	69	70
121	9J19	×	72	65	70
122	9J24	×	74	58	70
123	9S30	✓	73	62	70
124	8H09	✓	72	69	71
125	9B01	✓	75	56	71
126	9B37	✓	74	66	72
127	9J32	×	76	63	72
128	9S21	✓	74	66	72
129	9S35	✓	75	66	72
130	8R26	✓	70	79	73
131	9J11	✓	74	72	73
132	8R15	✓	71	81	74
133	8N06	×	73	80	74
134	8N29	✓	74	74	74
135	8H37	✓	76	68	74
136	9B22	×	76	70	74
137	9J20	✓	77	64	74

Strong Learners: ABOVE 75% (32 learners, every 7th learner)

Chosen numbers: 001; 008; 015; 022; 029

	ID KEY	Interview Consent	CASS	EXAM	PROM
001	8R05	✓	76	71	75
002	8N02	×	75	74	75
003	9B27	✓	76	72	75
004	9J16	×	77	68	75
005	9S24	×	78	66	75
006	8R18	✓	76	75	76
007	8R37	✓	76	76	76
008	8N14	✓	74	83	76
009	9B04	✓	79	70	76
010	9B23	✓	79	66	76
011	8J23	✓	80	64	76
012	8R10	✓	77	77	77
013	8H25	×	77	81	78
014	8R34	✓	79	83	80
015	8N31	✓	80	80	80
016	9B15	×	82	72	80
017	9J08	✓	81	75	80
018	9J34	×	83	69	80
019	9S06	×	81	75	80
020	9S09	×	83	73	80
021	9S27	✓	82	71	80
022	9S28	✓	82	73	80
023	8N27	✓	80	86	81
024	9B28	×	83	77	81
025	9B36	✓	83	80	82
026	9S13	✓	86	70	82
027	8H11	✓	82	88	83
028	8N17	✓	81	96	85
029	9B30	✓	87	82	86
030	8H08	×	86	90	87
031	9J03	✓	90	83	88
032	9J17	×	95	90	94

(Highlighted learners chosen for interviews)

ADDENDUM K

Coded Transcripts for Interviews

CODED TRANSCRIPTS

Weak Performing Learners' Transcripts

1.

Interview Transcript: 8R38- EXCLUDED FROM DATA ANALYSIS (Contradictory)

Researcher: Interview with 8R38. Good morning. Tell me how do you feel about Mathematics?

8R38: Uh, uh, uh, I feel, I feel quite confident while I'm doing Mathematics, but there are some points where I get stuck but quite join, quite enjoy doing Mathematics and I quite feel confident when I am doing it. Even if I don't understand I will make my way through it, and I will still be able to do it.

Comment [E1]: UNSURE

Comment [E2]: Contradictory Statement

Researcher: How do you feel about your ability to do Maths?

3R38: Uhm, uh, I'm not that weak or nor am I that strong. I'm just there I know I can do it, but I know I'm not, I know I'm not, I'm not that weak to know that I can't do anything nor am I that strong that I could do just anything, I know I can do a sum if I like know it quite well, so I can do it, and I feel, I feel quite well doing it, and I am confident about doing it.

Comment [E3]: Contradictory Statement

Researcher: Do you think your confidence has an influence on your performances in Maths?

3R38: Uh, yes I do think so, coz if I am doing Maths and I don't have the confidence in me, I won't be able to do anything. I won't be able to know if it's right or wrong. So if I have the confidence in me, I will be able to know if I'm doing the right thing, even if it's, even if it's wrong, I'll be, I'll still be able to do it, because I know what I'm doing is right, because I have the confidence in me.

Comment [E4]: Contradictory Statement. This statement is not logical, and makes no sense.

Researcher: When you are faced with a very difficult problem that you are struggling to solve, how does that make you feel?

3R38: Uhm, bad. Uhm, that will make me feel, uhh, I, I'll feel, uh, a bit uneasy with the sum, because I don't know about it, but I will still try what I know from what I've learned, so I'll still try to figure it out, although even if it is wrong, I will still try to do it, and yeah I'll still try it.

Comment [E5]: NURVOUS. Learners seems confused and anxious.

Researcher: And when you are faced with the difficult problem, do you still feel that confidence?

3R38: Uhm, okay, uhm, not my, maybe not that confident, it might become a bit low. But I still have that confidence in me that I'll be able to do it, but yeah I do have the confidence it just goes a bit low at that time, but I still do it.

Researcher: If a friend ask you to explain a difficult problem; do you feel that you have the ability to explain Mathematics to them?

3R38: If if it's difficult...if it is easy then I'll try my best to try and tell her what it is, but if it is a bit difficult I will, I will tell her that I'm not quite sure but I will still tell her what I know about the sum.

Comment [E6]: Will explain even if unsure

Researcher: Do you actually believe that you can do Maths?

3R38: Uhh, yes I think I can do Maths.

Researcher: Explain why you do this?

3R38: I feel so coz I, uhh, okay for what I've been doing now, like I, coz, like I can do Maths, it's just sometimes I, you don't give that much to Maths, that you study well and stuff like that, but I know I can do Maths if I do, I study hard for my exam, I know I can do Maths, coz Maths for me is quite easy to do, coz you just have to learn your formulae and then you will be able to do it. So I think it is quite easy to the other subjects I do, I do think that.

Comment [E7]: Statement contradicts her actual marks in Maths

Researcher: Let's talk about last year's mark, how do you feel about your performance in Grade 8? I see that you had a promotion mark of 38%, so how do you feel about your performance last year?

3R38: I felt, I felt bad, coz this was my fault, I did not give that much to my Maths, I did not study that hard, that I should have, oh, coz maybe I wasn't that concentrative to my work, coz if I was, coz my previous results was much much better than these ones. It was just, I did not, I did not go that much with my Maths. I did not do an effort to do well in Maths, but I think I can do better if I study well, and I, I concentrate, uh, concentrate with my Maths work. And uhh, I have the confidence in me, so I think I can do much much better than what I've done last year.

Comment [E8]: Learner performed poorly again at the end of Gr. 9 and decided to drop Maths as a subject

Researcher: And then you mentioned that you did better before, assuming that you are talking about Primary School, do you feel that there is a huge gap between Primary School Math and High School Maths?

3R38: Oh, no I don't think so, I don't think so. Coz it was like the same, the teacher would like you know explain the work and then we got, uhh, two or three exercises to do, so I think it was just the same. But I just think I did not do, I wasn't that concentrative to my Maths work, and I didn't do that effort to do well. Just that's all, but I don't think there was a gap.

Researcher: How do you feel about Algebra?

3R38: Uhhh, Algebra, if, if I know, I know everything, like if I know the formulae of how to solve x and stuff like that, so I think it is quite easy. It is easy, like I do find Algebra quite easy but, if you know, if I study the formulae that I know I can do it so it is quite easy, I'll be able to do it.

Comment [E9]: Use the word easy extensively. Seems like learner is trying to convince herself.

Researcher: Okay and Geometry, how do you feel about Geometry?

3R38: Oh, Geometry, ah, Geometry is okay, but just sometimes I get stuck by the angles, and uhm, but those angles are easy it's just that I need to know it, then I'll be able to do it, but it's like Algebra.

Researcher: And how are you feeling about Mathematics this year? How are you coping this year in Grade 9?

3R38: Uhm, I try my best to cope well, coz I have to make it into Grade 10, but uhm, I am trying my best. Better than last year, that I was, trying to do my work and understand what my teacher explains. But just one thing I'll be like wow hay and then and then sometimes I just can't concentrate. But I am trying much harder than last year, and I know I can, I do well than last year. And I hope I do better.

Researcher: And are you planning to take Mathematics up to Grade 12?

3R38: Ohhh, uhhh, I'm not that sure about that, coz I'm not, I'm not, my career I thought about is not going to bring Mathematics that I am going to become, but if I do have a choice I will take up my Mathematics, but what I am going to become when I am done studying, that doesn't relate with Maths. So I haven't thought about Maths, but I will, if there is an option, I will, I would have, I would take Maths.

Researcher: How do you feel when you answer an exam question in Mathematics?

3R38: Uhm, if, it depends on the question, if it's, if it's,if, uhhh, if it's a question that I can do I feel confident about it, uhh, and if it's a question that I am not quite sure about, uh, I'll still try my best to do it, but I won't feel that much confident in me. But I'll still try my best to solve it, with all the ability I have in me in order to get it right. And I will try my best to do it, but uhh, if it's the best I can do it is okay, but if it is not, I will have this thing I will read it twice, trice to think over of what the question is actually asking, but I will still do it.

Researcher: Do you think Maths is a very important subject?

3R38: Oh, yes I think so, coz, uhh, coz whatever you want to become, if you have studied Maths and you have a degree in Maths I think you can take up any job, if you have Maths, I think Maths is very important, uh, subject in your life and I think I would, I should do it, because it's, coz even if you don't succeed in other things if you have Maths, then I think you would be able to go on in it.

Researcher: Thank you very much.

Comment [E10]: Learner seemed very confused and anxious throughout the interview

2.

Interview Transcript: 8H10

Researcher: 8H10, how do you feel about Mathematics?

8H10: I don't really like working with numbers.

Researcher: Why?

8H10: Because I don't like working with numbers, so Maths is not one of my, like, maths is not one of my really nice subjects. But it is like you have to have it in life. Maths is everyday.

Researcher: Okay, and how do you feel about your ability to actually do Maths?

Comment [E11]: Negative emotion [Theme 1]

Comment [E12]: Dislikes Maths [Theme 1]

8H10: Like if I really like want to do it, like if I concentrate and everything, I will do really good. But then if I never want to do it, I tend to get lazy in Maths.

Researcher: And do you think the laziness has an influence on your marks?

8H10: Yes, a big one.

Researcher: Do you think that if you are confident in your ability to do Maths that it will reflect on your performance in Mathematics?

8H10: Yes, I do.

Researcher: Why do you say so?

8H10: Because I am confident and if I do like study it will increase my marks.

Researcher: And then when you encounter a difficult problem, how does that make you feel?

8H10: I am not really that stressed about it, I'd be like calm and careful.

Researcher: If you are calm do you then tend to usually solve these difficult problems?

8H10: Most of the time yes

Researcher: How does it make you feel if you actually solve a very difficult problem?

8H10: Really good.

Researcher: Can you explain Mathematical problems to your friends?

8H10: Yeah, it depends.

Researcher: It depends on what?

8H10: Like if I never know how to do it, then like I'd tell them to ask someone else, (unclear).

Researcher: If you struggle with Maths, do you ask for help or do you just leave it?

8H10: I ask for help, like if I struggle normally like I figure it out fast but if not yeah I ask for help.

Researcher: Where do you ask for help?

8H10: Tutors or I have a (unclear) at home and she also helps me with Maths

Researcher: Do you believe that you can do Maths?

8H10: Yes

Researcher: Why?

8H10: Because I am confident in what I do.

Researcher: Last year you had a promotion mark of 46%, how do you feel about your Gr. 8 performance?

8H10: I wasn't doing well because I was playing around.

Researcher: Do you think that your playing around had an influence on your marks?

8H10: Yes, it brought down my marks.

Researcher: Do you think you could have done better?

8H10: Definitly.

Researcher: I see your exam mark was 35%, how did you feel during the exam, did you feel it was a difficult paper?

Comment [E13]: Concentrating = better marks [Theme2]

Comment [E14]: Confidence influence performance

Comment [E15]: Working hard improve performance

Comment [E16]: RELAXED

Comment [E17]: Learner's performance doesn't show this

Comment [E18]: Positive emotions towards success [Them 1 and Theme 3]

Comment [E19]: Only willing to explain when work is understood [Theme 2]

Comment [E20]: Do not ask educator? [Theme 4]

Comment [E21]: Admits to not working hard

8H10: This year?

Researcher: No, last Exam, the end year exam last year.

8H10: I did not really study...(unclear)

Comment [E22]: Admits to not studing

Researcher: How are you managing with Mathematics this year?

8H10: I am paying more attention because I am not playing around, so I'm managing.

Researcher: And do you think that paying attention is helping your marks?

8H10: I hope so.

Researcher: Do you feel that you can go to a teacher and ask them for help if you have a problem?

8H10: Yes, I do, but I will try it first.

Comment [E23]: Theme 4

Researcher: Do you do that, or do you prefer to rather go to your friends?

8H10: I prefer the teacher, because they have more information than my friends.

Comment [E24]: Would rather ask the educator than friends

Researcher: Tell me where you well prepared in Primary school for High School Maths?

8H10: I wasn't sure about the explaining, so I wasn't that good with Maths

Researcher: Are you going to take Maths up to Gr. 12?

8H10: Yes.

Researcher: Do you think that the bases you have now for Gr. 8 and 9 will help you, or do you feel it is unnecessary?

8H10: I think it is gonna help a lot.

Researcher: Is there anything else that you would like to add about Mathematics, which you feel is important?

8H10: Like you need it in your everyday life, it's like you have to do it. Just now you have a problem, so you work out the answer it's like calculating sums so that's why it is very important

Researcher: Thank you very much!

3.

Interview Transcript: 8R06

Researcher: Interview with 8R06. Right. Tell me how do you feel about Mathematics?

8R06: I don't like Maths.

Comment [E25]: Negative emotion [Theme 1]

Researcher: Okay, why do you say that?

8R06: Because, like, when you factorise, since the beginning of the year you understand everything but as it goes through the year you just don't understand. And you go for extra classes but it just does not help that much.

Comment [E26]: Not understanding cause negative feelings [Theme 1 and 2]

Researcher: Okay. So how do you feel about your ability to do Maths?

8R06: Not good.

Comment [E27]: Negative Emotions [Theme 1]

Researcher: So do you also question your ability to do Maths?

8R06: Yes.

Researcher: Would you say that you feel confident when you do Maths?

8R06: No. Not at all.

Comment [E28]: Not confident about Math ability [Theme 1]

Researcher: Okay, I see that your promotion mark last year was 49%. How do you feel about that?

8R06: Not good, it is very, very, very bad.

Researcher: When you face a difficult problem in Maths, how does that make you feel?

8R06: Stressed

Comment [E29]: Negative Emotion [Theme 1]

Researcher: Stressed?

8R06: Yes and under pressure.

Comment [E30]: Negative Emotion [Theme 1]

Researcher: And why do you feel under pressure?

8R06: Because if you cannot get the difficult problem and then you don't understand the thing properly, then you feel like, I fail this test because I don't know this.

Comment [E31]: Not understanding = poor performance = negative feelings [Theme 1 and 2]

Researcher: Do you think that the moment you start stressing it makes it worse?

8R06: Sometimes.

Researcher: And when you face a difficult problem and you sit with it and solve it eventually and you have it correct. How does that make you feel?

8R06: Proud, like wow I did that.

Comment [E32]: Success = positive feelings [Theme 1]

Researcher: Can you explain Mathematical problems to your friends?

8R06: If I understand it yes.

Comment [E33]: Only willing to explain when understand [Theme 2]

Researcher: So you must feel confident in your abilities to explain?

8R06: Yes.

Researcher: Do you believe that you can do Maths?

8R06: Yes.

Researcher: Explain why you say this.

8R06: Because only if I understand Maths then I can do it. But also if you know the basic things that you are suppose to know and apply it, then you can do it.

Comment [E34]: Understand = Success [Theme 2]

Researcher: Do you think you were prepared well for Mathematics in Primary School?

8R06: No.

Researcher: So do you think there is a gap between Primary School Maths and High School Maths?

8R06: Yes. Not a big gap but there is a gap.

Researcher: Are you planning on doing Mathematics until Grade 12?

8R06: Yes.

Researcher: Why do you want to do Maths?

8R06: Because it is an important subject, because if you go to university most of the areas that you want to study for needs Maths.

Comment [E35]: See importance for further education

Researcher: How do you feel about your performances in Grade 8?

8R06: It wasn't good. The first term was okay, but then the second, third and fourth term I did not do good at all.

Researcher: Is there anything that you think you could have done differently, to help you, or someone else that could have helped you to do better?

8R06: My brother did help me last year. But I also think it is the way the teacher explained.

Comment [E36]: Educator explanation (S) [Theme 4]

Researcher: And this year, how do you feel about your Maths this year?

8R06: I am struggling a bit with exponents, but I am sure I will be fine.

Researcher: Is there anything else that you would like to add about Mathematics, what you feel about Maths that you think people should know? Is there anything you could add to this interview, which you think is important?

8R06: Uhmm, no.

Researcher: Also, let's say someone gives you a problem and a solution, but no one explains how the solution was derived. Do you think that you can figure out how the solution was given?

8R06: If I can use my calculator yes.

Comment [E37]: Relies on external factors and technology

Researcher: And if it's an algebraic problem?

8R06: I think I will figure it out but it would take very, very long.

Researcher: Do you feel more confident when you use a calculator.

8R06: Yes

Researcher: So you think that helps?

8R06: Yes.

Researcher: Do you think being confident helps you in any way in your Maths?

8R06: Yes, if you're confident you are confident, and if you are confident you do good in Maths.

Comment [E38]: Confidence = better performance [Theme 1]

Researcher: Thanks very much.

4.

Interview Transcript: 9B24

Researcher: Interview with 9B24. I see that you had a promotion mark of 47%, how did that make you feel?

9B24: Uhm, terrible.

Comment [E39]: Negative Emotions [Theme 1]

Researcher: Why?

9B24: Coz, I want to do accounting when I grow up, and getting a mark like that is just...yeah.

Researcher: And how does that make you feel about Maths?

9B24: I don't really like it, like....uhm...like it is just impossible.

Comment [E40]: Negative emotion [Theme 1]

Researcher: Do you feel Maths is impossible?

9B24: Yes, mam. Because you try and you study for it and then sometimes the marks just come back...yeah...unbelievable.

Comment [E41]: Learner seems demotivated

Researcher: Do you feel that you don't understand Maths, or do you feel you understand it but just don't get the marks for it?

9B24: Mam, I understand Algebra, that part I get very well, but Graphs and stuff...uhu...I don't get it.

Comment [E42]: Do not understand [Theme 2]

Researcher: How do you feel about your ability to perform in Mathematics?

9B24: This year I am trying to be positive, but then I think I can do better, I am not sure.

Researcher: So Maths make you feel very unsure?

9B24: Yes, definitely.

Researcher: How would you describe your confidence levels, when it comes to doing Maths?

9B24: From 1 to 10?

Researcher: Yeah, okay, if you want to give it a 1-10. 1 being you don't feel confident at all, or 10...

9B24: 4.

Comment [E43]: Not very confident about Math ability [Theme 1]

Researcher: Why do you feel that you are not that confident?

9B24: Okay, like some things just brings down your confidence levels. In Primary it was all great and 100% and then you come to High School and it's like 40%.

Researcher: So do you feel that there is a big gap between Grade 7 and Grade 8?

9B24: Yes, mam, like a big gap.

Researcher: Do you think you are prepared well in the Primary school, basically in the intermediate phase before going to the senior phase?

9B24: Not really, because things there are very, very easy, and then you come here and things are not as easy. So, I guess if we did sums more difficult in Primary School we would be more use to doing it in High School.

Comment [E44]: Feels that gap between easy/difficult problems are big from Primary to High school

Researcher: Okay, so when you are faced with a difficult problem that you struggle with, how does that make you feel?

9B24: Frustrated, like pulling all my hair out. I just feel like giving up and pulling my hair out. Urrrghh. It's irritating.

Comment [E45]: Negative Emotion [Theme 1]

Researcher: And if you try the problem and after a while you succeed, and you actually solve the problem. How does that make you feel? If it was a very difficult problem, which you had difficulty solving, yet solved it in the end. How does it make you feel?

9B24: Not happy, it's just like....I got done with it.

Comment [E46]: Relieved to have it done but still show negative emotions [Theme 1]

Researcher: So are you more satisfied that you are done?

9B24: Yes, I am more satisfied that I am done with it, than actually getting the answer right.

Researcher: If your friends ask you to explain something in Maths to them. Do you think that you have the ability to actually explain the work to them?

9B24: If I understand it, I can explain it very well.

Comment [E47]: Willing to explain only if it's understood

Researcher: And do you think your understanding of a Maths problem is linked to how confident you feel about explaining the work?

9B24: Yes, kind of. If you don't understand something you can't really explain it, and you get scared that you are giving that person the wrong answer.

Comment [E48]: Understanding = boost confidence

Researcher: Do you believe that you can actually do Maths?

9B24: Yes.

Researcher: With 100% certainty?

9B24: Yes.

Researcher: Explain to me why you feel this?

9B24: Because I believe that everything in life was made by another human, and therefore if that person can reach there, I should also can.

Comment [E49]: This answer makes no sense

Researcher: How do you feel about your Grade 9 performance last year?

9B24: Terrible, I did not expect it to be that low.

Comment [E50]: Negative Emotion [Theme 1]

Researcher: So do you expect more?

9B24: I expected more, because I went out of there thinking "yeah I did well", because I studied and then the marks came and I was like "what happened?".

Comment [E51]: Don't understand the poor marks.

Researcher: I see that you had 40% for the exam, so what you are saying is that, that was not what you expected.

9B24: Definitely not, because I went home and I studied the whole weekend and I got there and I was prepared and what I thought I was writing, I thought was right. I felt it was a little bit difficult but I expected about 60%-70%, but not 40%.

Comment [E52]: Felt like there was no reward in good marks after studying hard

Researcher: How are you managing with Maths this year in Grade 10?

9B24: Uhm, we have this Maths Olympiad thing we go to , extra classes and so on, and just giving myself more time to study, because before I wouldn't do my homework, but now I study and I give myself a hour just to go through my Maths.

Comment [E53]: Work harder

Researcher: Do you feel like taking an hour out of everyday to practice Maths, will have a good influence on your marks this year?

9B24: It already has a good influence on my marks. Now it is like I get 70% instead of 40%. So hopefully by the end of the year, I will have good marks.

Comment [E54]: Hard work improves marks [Theme 3]

Researcher: And do you think that there is a big gap between grade 9 and 10 work? Basically between Senior and FET phase?

9B24: Right now, not really, because I find that Ms. Levendis is explaining exactly the same things you explained to us last year. So right now it is still easy, but then I am sure that as we go on it will get a bit harder. And like Trigonometry is easy.

Researcher: That is everything I wanted to ask. Thank you very much.

5.

Interview Transcript: 9J30

Researcher: Interview with 9J30. How do you feel about Mathematics?

9J30: It's okay, sometimes it can be difficult and stuff.

Comment [E55]: Average emotion [Theme 1]

Researcher: Would you say you like or dislike it more?

9J30: At the moment I dislike it.

Comment [E56]: More negative towards Math [Theme 1]

Researcher: Why do you dislike it at the moment?

9J30: Because some things are not easy to grasp, uhm, especially because of previous years.

Comment [E57]: Negative emotions cause by not finding the work easy [Theme 1]

Researcher: So how do you feel about your ability to do Maths?

9J30: Uhm, not so confident.

Comment [E58]: Not confident

Researcher: Right, and do you think that confidence has an influence on your performance in Mathematics?

9J30: Yes.

Researcher: Why do you say so?

9J30: Because if you are not confident then you don't do...you end up not doing good.

Comment [E59]: Confidence influence performance (1) [Theme 1]

Researcher: Do you think that, that if you are confident, or if you are not confident, that you can do something to help boost yourself to do better in Maths?

9J30: (Unclear)

Researcher: Do you think that there is something else you can do, despite being confident?

9J30: Yeah, you can go for extra lessons, and uhm, yeah and try and focus more in class.

Comment [E60]: Extra work to perform better

Researcher: Okay and when you are faced with a difficult problem in mathematics, which you are struggling to solve, how does that make you feel?

9J30: It does not change how I feel, I just leave it out and move on.

Comment [E61]: Neutral [Theme 1]

Researcher: Do you ever attempt to do a difficult problem or do you just tend to leave it?

9J30: Uhm, most of the time I will just leave it out completely.

Comment [E62]: Do not bother to attempt difficult problems [Theme 3]

Researcher: If you where to try and solve a difficult problem and you succeed, and you solve it correctly, how do you think that would make you feel?

9J30: Wha, joyful and glad.

Comment [E63]: Successfully solving problems = positive emotions [Theme 1 and 3]

Researcher: Okay, do you feel that you can explain mathematics to your friends?

9J30: Certain aspects yes.

Researcher: Like what?

9J30: Like, well now that we started with Trig and it is easy because I go for extra classes and so on.

Comment [E64]: Only willing to explain work that the learner finds easy (understands) [Theme 2]

Researcher: So you think you can help people with certain topics but not all?

9J30: Yeah only certain topics.

Researcher: Do you belief that you can do mathematics?

9J30: Yeah, I do belief that I can do it if I stay focussed and so.

Researcher: Right. If we take a look at your marks last year, your promotion mark was 43%, how do you feel about your performances in Grade 9 last year?

9J30: I think that was, uhm, I don't think I did that well, I think I could do better.

Comment [E65]: Not satisfied with marks

Researcher: Why do you think that you got that mark? What were the factors that influenced your marks?

9J30: Friends, because in class you sit with your friends, and you don't pay attention, you try to amuse them.

Comment [E66]: Negative influence in class

Researcher: So how are you managing with your Maths this year?

9J30: Well Trigonometry is okay, but the other math is not that good.

Comment [E67]: Negative. Still not coping.