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BYLAE

1. Etiese klaring
2. Brief aan Onderwysdepartement
3. Brief aan hoofde
4. Brief aan leerders
5. Brief aan ouers
6. Terugvoering aan leerders

OP CD

7. Kwalitatiewe data
   7.1 Beskrywende statistiek
   7.2 Korrelasies
   7.3 Stapgewyses regressieanalise
8. Kwantitatiewe data – fokusgroeponderhoude
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8. Kwantitatiewe data – fokusgroeponderhoude
BYLAAG A: Etiese klaring
UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE

DEGREE AND PROJECT
PhD
Die verband tussen emosionele intelligensie, studie-oriëntasie in wiskunde en die middel-adolessent se wiskundeprestasie

INVESTIGATOR(S)
Cathariena Petronella Erasmus

DEPARTMENT
Educational Psychology

DATE CONSIDERED
24 August 2012

DECISION OF THE COMMITTEE
APPROVED

Please note:
For Masters applications, ethical clearance is valid for 2 years
For PhD applications, ethical clearance is valid for 3 years.

CHAIRPERSON OF ETHICS COMMITTEE
Prof L Ebersohn

DATE
24 August 2012

CC
Jeannie Beukes
Prof. J.G. Maree

This ethical clearance certificate is issued subject to the following conditions:
1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students’ responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.
BYLAAG B - Brief aan Onderwysdepartement
Dear

I wish to apply for permission to conduct research in the Department of Education: North West.

The details of the project are as follows:

<table>
<thead>
<tr>
<th>Purpose of the Research</th>
<th>Post-graduate study - Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Thesis</td>
<td><em>Die verband tussen emosionele intelligensie en middel-adolescente se wiskundeprestasie</em></td>
</tr>
</tbody>
</table>
| Value of the Research to Education | a) To establish the relationship between:  
  - the factors of emotional intelligence,  
  - the dimensions of study orientation in Mathematics and  
  - the middle adolescent’s achievement in Mathematics  
  b) To contribute to the literature with regards the possible relationship between emotional intelligence and achievement in Mathematics of the middle adolescent.  
  c) To contribute to the literature with regards factors that contributes to achievement in Mathematics. |
| Postgraduate enrolment particulars | Institution: University of Pretoria  
Degree: D.Ed  
Faculty: Education  
Department: Educational Psychology  
Supervisor: Prof. J.G. Maree |
| Proposed research methods | • Questionnaires  
• Interviews |
| Use of official documents | December 2009 marks in Mathematics of participants |
Furthermore I request your permission to conduct interviews with a small group of students to explore their experiences of Mathematics as a subject, and to distribute the above-mentioned questionnaires among the learners.

Please note that all information supplied will be treated with confidentiality and outcome of the research will be made available on request. Tape recordings/data will be kept under lock and key and will be destroyed after completion of the research study.

Thank you for your attention

Yours sincerely

PETRO ERASMUS
Researcher / Educational Psychologist

Professor J.G. MAREE
Supervisor
BYLAAG C: Toestemmingsbrief van Onderwysdepartement
OFFICE OF THE DISTRICT DIRECTOR

To: The Educational Psychologist
   Pedro Erasmus

From: Mr Monale
      The District Director

Date: 31 March 2010

Subject: Approval of proposal

Your correspondence dated the 15 March 2010, received on the 30 March 2010 is hereby acknowledged with thanks.

Your proposal is hereby approved on condition that no lesson or normal learning and teaching will be disturbed and prior arrangements with those schools are made.

Looking forward to your usual cooperation

Yours truly,

Mr B Monale
District Director

cc: Mrs S.N. Semaswe
    Executive District Manager
BYLAAG D: Brief aan hoofde
To: The District Manager
Cc: Principals of Secondary Schools
     The Chairperson of the School Governing Body (SGB)
RE: Request to conduct research
DATE: 15 March 2010

The purpose of this letter is to request permission to involve Grade 9 and Grade 11 learners in my research study. A copy of the approval of the North West Department of Education to conduct research in schools is attached.

As part of my Doctoral Degree at the University of Pretoria, I am conducting research to establish what role emotional intelligence plays in maths achievement. Research in this area will contribute to the knowledge of factors that contribute to achievement in Mathematics.

Standardized questionnaires will be used to obtain profiles of the learners’ present level of emotional intelligence and their general orientation towards maths. An interview will be conducted with a small group of learners to explore their experiences of maths as a subject.

Please note that learners are at liberty to withdraw from this study at any time, without penalty or pressure to provide reasons to me, as the researcher. A registered psychologist will be available when the learners complete the questionnaires, should any student have any questions or concerns about any aspect of the research process. The learners will take part in one session of approximately two hours to complete the questionnaires. This time will be arranged in consultation with the
management of the school to ensure that this does not affect teaching time.

Please note that all information supplied will be treated with confidentiality and outcome of the research will be made available on request. Tape recordings/data will be kept under lock and key and will be destroyed after completion of the research study.

Should you have any queries or comments regarding this research study, you are welcome to contact me.

Your cooperation is highly appreciated.

Yours in Education

PETRO ERASMUS
Researcher / Educational Psychologist

Professor J.G. MAREE
Supervisor
BYLAAG E: Brief aan leerders
Dear learner

You are kindly requested to complete the following two questionnaires that will be handed to you in the next few days. The aims of the questionnaires are:

- To assess your attitude and study orientation towards Mathematics.
- To assess your emotional intelligence. Emotional intelligence measures your understanding of yourself and others, how you relate to others and how you adapt and cope with your immediate surroundings.

The ultimate aim of the research study is to establish what role emotional intelligence play in maths achievement.

It will take approximately two hours to complete both questionnaires.

I assure you that all information supplied will be treated as CONFIDENTIAL at all times and that it will NOT be made available to any unauthorized user. Tape recordings/data will be kept under lock and key and will be destroyed after completion of the research study.

Please note that you are at liberty to withdraw from this study at any time, without penalty or pressure to provide reasons to me, as the researcher. In this regard, I will undertake to ensure that participating in this study does not disadvantage you. A Psychologist will be available should you wish to have a confidential discussion regarding any aspect of this research project with her.

Should you have any queries or comments regarding this research study, you are
welcome to contact me.

Your cooperation is highly appreciated.

Yours in Education

PETRO ERASMUS
Researcher / Educational Psychologist

Professor J.G. MAREE
Supervisor

CONSENT

I, ____________________________, have read and understand the aims of this research study.

On condition that the information provided by me is treated as confidential at all times, I hereby give consent that it may be used for research purposes. Furthermore, I give consent that the school may provide my marks to the researcher on condition that these will also be treated as confidential.

_____________________________  _______________________
Signature of participant        Date
BYLAAG F: Brief aan ouers
To: Parents/Guardians of Grade 9 and Grade 11 Mathematics/Mathematical Literacy learners

RE: Request to conduct research

DATE: 1 May 2010

The purpose of this letter is to request permission to involve your Grade 9 or Grade 11 child in my research study. Approval from the North West Department of Education to conduct research in schools has been given.

As part of my Doctoral Degree at the University of Pretoria, I am conducting research to establish what role emotional intelligence plays in maths achievement. Research in this area will contribute to the knowledge of factors that contribute to achievement in Mathematics.

Standardized questionnaires will be used to obtain profiles of the learners’ present level of emotional intelligence and their general orientation towards maths. An interview will be conducted with a small group of learners to explore their experiences of maths as a subject.

Please note that learners are at liberty to withdraw from this study at any time, without penalty or pressure to provide reasons to me, as the researcher. A registered psychologist will be available when the learners complete the questionnaires, should any student have any questions or concerns about questionnaires. The learners will take part in one session of approximately two hours to complete the questionnaires.
This session will be arranged in consultation with the management of the school to ensure that this does not affect teaching time.

Please note that all information supplied will be treated with confidentiality and outcome of the research will be made available on request. Tape recordings/data will be kept under lock and key and will be destroyed after completion of the research study.

Should you have any queries or comments regarding this research study, you are welcome to contact me.

Your cooperation is highly appreciated.

Yours in Education

PETRO ERASMUS
Researcher / Educational Psychologist

Professor J.G. MAREE
Supervisor

CONSENT

I, ________________________________, the parent/guardian of ________________________________, give my consent that he/she may participate in the study and that the information may be used for research purposes. Furthermore, I give consent that the school may provide his/her marks to the researcher on condition that all the information will be treated as confidential at all times.

______________________________  ________________________________
Signature of parent               Date
BYLAAG G: Terugvoering aan leerders
Dear Student

Thank you once again for participating in the research project aimed at exploring the relationship between maths and emotional intelligence.

Attached please find your EQ (Emotional Intelligence) profile and the SOW (Study Orientation in Mathematics) profile. When reading this report please remember the following:

- There are no right or wrong profiles
- The profiles indicate the level of functioning on that specific day
- The EQ (Emotional Intelligence Profile) can be interpreted as follows:
  - Area for enhancement
  - Effective functioning and
  - Enhanced area
- The SOW (Study Orientation in Mathematics) can be interpreted as follows:
  - 0-39% - Clearly negative study orientation or aspect of it
  - 40-69% - Neutral but can contribute to positive or negative orientation or aspect of it.
  - 70-100% - Clearly positive study orientation or aspect of it.

Best wishes for your studies

Kind regards

PETRO ERASMUS

Researcher
BYLAAG H: (CD) –

KWANTITATIEWE DATA

Korrelasies

Regressieanalise

KWALITATIEWE DATA

Fokusgroeponderhoude