

# TABLE OF RANDOM NUMBERS

23795	97705	43923	81292	39907	67758	10202	24311	92262	94571
57096	70158	36006	25106	92601	54650	27591	66340	81852	85246
52750	69765	42110	38252	80201	21099	70577	98650	32570	70616
90591	58216	04931	78274	10943	27273	28333	26528	05363	70678
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57292	76721	75277	37751	79009	75957	22333	80932	63678	98611
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61795	15534	45465	68798	02943	90934	63729	64185	67378	68604
18021	45643	82756	50833	16365	87969	78079	76533	91675	22641
52404	24573	72667	17693	04332	43579	24459	88992	88875	22902
53104	80180	30612	24735	63414	67892	37053	68277	82713	08798
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96198	06398	76790	63703	85749	07026	46901	62065	04240	55270
64823	65665	43284	84972	92214	97669	62556	62765	96414	61991
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30047	05312	47866	90067	41508	44709	70493	08790	93571	01781
27052	80915	10914	62544	01245	59280	95348	12568	98058	34935
84438	29174	15154	97010	53558	58741	53713	05690	67826	68041
09083	21005	15203	76311	39195	62019	29929	58151	94437	43455
96548	06390	56577	99863	58951	08673	26284	11180	96169	71823
68927	37828	17069	73928	26582	08496	19678	85603	80533	29303
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15246	16092	88491	46453	01504	61322	55766	05181	89467	54054
97306	47296	94565	29597	34592	67680	33930	77474	13161	68380
72990	71948	34123	04318	55899	96852	90471	84147	73053	73654
89228	75728	32272	24197	71581	14731	42090	12581	27281	29504
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79344	21677	43388	36013	37128	48252	36783	30953	41674	30600
92450	37916	46903	53061	38117	65493	06579	21503	56726	81829
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66570	93573	73521	99191	90791	94440	83853	07269	45272	64172
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39257	41070	52928	62728	18733	89729	45718	71281	20705	79362
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42990	06851	87583	09817	30589	15822	16152	29534	83027	09408
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86485	43039	06163	11600	12947	98321	65895	16677	14185	33029
17387	35584	21532	93242	02735	40710	67210	80906	34297	72084
47896	15137	02461	91770	15902	18042	06513	70892	68573	87932
84184	56437	29770	82718	34059	51473	18661	86916	96651	94597
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98539	19670	23783	44554	84825	42986	78079	94383	22338	78442
63597	40735	54417	90536	73859	72462	53993	79332	75583	52779
38517	84270	50087	72740	50600	47352	72497	06823	32505	26791
48604	54578	50541	85598	64948	74747	56505	28597	21571	31350
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81614	71577	67147	16496	09674	01166	92134	30464	32758	32617
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26898	99502	71809	56125	59522	71932	01420	48187	04168	69516
41654	14153	63170	43854	66892	83658	31487	89733	96068	10647
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51798	42888	68819	40101	49411	75175	31774	47688	95759	47900
34747	35088	75466	81577	26417	11784	02602	99474	91981	69855
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37927	16126	53019	63467	09774	46307	52037	97127	15291	14392
10780	04029	59044	01725	52129	81525	50568	77550	49856	08063
78016	62918	31163	46180	58803	71302	58383	77846	02395	77173

## GAUTENG DEPARTMENT OF EDUCATION



## RESEARCH REQUEST FORM

## REQUEST TO CONDUCT RESEARCH IN INSTITUTIONS AND/OR OFFICES OF THE GAUTENG DEPARTMENT OF EDUCATION

## 1. PARTICULARS OF THE RESEARCHER

<b>1.1</b>	<b>Details of the Researcher</b>	
<b>Surname and Initials:</b>	BOPAPE J.	
<b>First Name/s:</b>	JOHANNAH	
<b>Title (Prof / Dr / Mr / Mrs / Ms):</b>	Ms	
<b>Student Number (if relevant):</b>	649 811 6	
<b>ID Number:</b>	620915 0576 08 1	

<b>1.2</b>	<b>Private Contact Details</b>	
<b>Home Address</b>	<b>Postal Address (if different)</b>	
6 LINDBOOM CRESENT	P. O. BOX 42557	
ORCHARDS EXT 16	BOORDFONTEIN	
THE ORCHARDS	0201	
<b>Postal Code:</b>	<b>Postal Code:</b> 0201	
<b>Tel:</b> (012) 549 4352		
<b>Cell:</b> 072 9973836		
<b>Fax:</b> ( )		
<b>E-mail:</b> jhnbopape@yahoo.com		

## 2. PURPOSE & DETAILS OF THE PROPOSED RESEARCH

<b>2.1</b>	<b>Purpose of the Research (Place cross where appropriate)</b>
	<i>Undergraduate Study - Self</i>
	<i>Postgraduate Study - Self</i> <span style="float: right;">X</span>
	<i>Post-Doctoral Study</i>
	<i>Private Company/Agency – Commissioned by Provincial and/or National Government Department/s</i>
	<i>Private Research by Independent Researcher</i>
	<i>Non-Governmental Organisation</i>
	<i>National Department of Education Commissioned Study</i>
	<i>Commissions and Committees</i>
	<i>Independent Research Agency</i>
	<i>Statutory Research Agency</i>
	<i>Independent Study by Higher Education Institution</i>

<b>2.2</b>	<b>Full title of Thesis / Dissertation / Research Project</b>
	PROFESSIONAL DEVELOPMENT OF TEACHERS FOR EFFECTIVE ENVIRONMENTAL EDUCATION

<b>2.3</b>	<b>Value of the Research to Education (Attach Research Proposal)</b>

<b>2.5</b>	<b>Student and Postgraduate Enrolment Particulars (if applicable)</b>
<i>Name of institution where enrolled:</i>	UNISA
<i>Degree / Qualification:</i>	M.ED (ENVIRONMENTAL EDUCATION)
<i>Faculty:</i>	EDUCATION
<i>Department:</i>	ENVIRONMENTAL EDUCATION
<i>Name of Supervisor / Promoter:</i>	PROF J. G. FERREIRA



APPENDIX C

Date:	20 August 2005
Name of Researcher:	Bopape Johannah
Address of Researcher:	6 Lindeboom Crescent
	Orchards Ext 16
	0201
Telephone Number:	(012) 5494352
Fax Number:	N/A
Research Topic:	Professional Development of Teachers for Effective Environmental Education
Number and type of schools:	18 Primary Schools
District/s/HO	Tshwane 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.

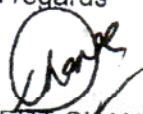
Permission has been granted to proceed with the above study subject to the conditions listed below being met, and may be withdrawn should any of these conditions be flouted:

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.*

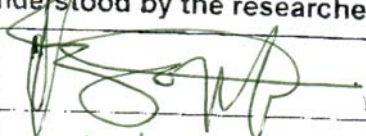
4. A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, 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 Senior Manager (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 Senior Manager: Strategic Policy Development, Management & Research Coordination 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 Senior Manager 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



ALBERT CHANEE  
ACTING DIVISIONAL MANAGER: OFSTED

The contents of this letter has been read and understood by the researcher.	
Signature of Researcher:	
Date:	30/11/06

**APPENDIX D****PILOT INSTRUMENT****QUESTIONNAIRE****PROFESSIONAL DEVELOPMENT OF TEACHERS FOR  
EFFECTIVE ENVIRONMENTAL EDUCATION****RATIONALE**

This questionnaire is intended to elicit your responses on:

- Your general knowledge and attitude towards Environmental Education
- Your views towards the future position of Environmental Education in the school curriculum

**REQUEST: -**

Please write where space is given

Please cross (X) the appropriate box

LETTER TO THE RESPONDENTS EXPLAINING THE PURPOSE OF THE  
RESEARCH

The Principal

\_\_\_\_\_ Primary School

Brits Area Project Office

Dear educator

The researcher has been given permission to conduct the study on the theme: Professional development of teachers for effective Environmental Education in the Brits Area Project Office of the North West Province.

Take your time to complete the questionnaire to the best of your ability. The questionnaire is aiming to collect data, which will be analysed to establish whether there is a need for professional development of teachers in Environmental Education since Environmental Education themes have been infused across all learning Area of the Revised National Curriculum Statement and Outcomes Based Education.

The questionnaire is to be completed by particular Intermediate Phase educators who shall have been selected for the study. The respondents (i.e. selected educators) will remain anonymous. Information and the results of the survey will be treated private and confidential. It will be my pleasure to send the summary of the survey to your school if you so wish. Mark with a cross (X) in the appropriate column at the end of the questionnaire to indicate if you would like your school to receive the results or not.

Would you please return the questionnaire by the 30TH October 2004? The researcher will collect them during the first week of November 2004. If you have any concerns or questions, please feel free to contact me at these numbers: 012 549 4352 (H)/ 072 997 3836 (W).

Thanking you in advance

Yours faithfully

J BOPAPE



QUESTIONNAIRE NUMBER

SCHOOL NUMBER

CIRCUIT NO


Office use

V1		1-3
V2		4-5
V3		6

SECTION A

QUESTION 1: BIOGRAPHICAL DATA

Make a cross (X) in the relevant block

1.1 Gender

Male	1
Female	2

V4		7
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1.2 Age group

20 - 30 years	1
31 - 40 years	2
41 - 50 years	3
Above 50	4

V5		8
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1.3 Where do you live? Mark only one block

Informal settlement	1
Rural area	2
Peri urban area (Township)	3
Urban area (Town)	4
Farm	5

V6		9
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1.4 Where is your school situated?

Informal settlement	1
Rural area	2
Peri urban area (Township)	3
Urban area (Town)	4
Farm	5

V7		10
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1.5 Years of experience in teaching

Less than 5 years	1
5 - 10 years	2
11 - 20 years	3
More than 20 years	4

V8		11
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1.6 Position held

Educator: Post level 1	1
Head of Department: Post level 2	2
Deputy/Principal: Post level 3	3
Principal: Post level 4	4
Other	5

V9		12
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1.7 Professional Training

PTC	1
PTD/STD	2
UED	3
SED/HED	4
Other	5

V10		13
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1.8 Academic Qualifications

Matric/Std 10	1
3 year Degree	2
Honours	3
Masters	4
Other ( busy with Matric/Undergraduate studies)	5

V11		14
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1.9 Learning areas you teach

Maths Literacy, Maths and Maths Science	1
Natural Science and Technology	2
Language, Literacy and Communications	3
Human Sciences, Economic and Management Science	4
Arts, Culture and Life Orientation	5

V12		15
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1.10 In <sup>do</sup> which grade are you teaching?

Grade 4	1
Grade 5	2
Grade 6	3

V13		16
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1.11 Were you made aware of Environmental Education while training as a teacher?

Yes	1
No	2

V14		17
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1.12 Do you possess a qualification in Environmental Education <sup>?</sup> / you ask 2 questions <sub>or busy studying its course?</sub>   
 <sub>here - ask only 1.</sub>

Yes	1
No	2

V15		18
-----	--	----

1.13 Does your school have a laboratory or science room?

Yes	1
No	2

V16		19
-----	--	----

1.14 Do you belong to an Environmental club or organization / association?

Yes	1
No	2

V17		20
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SECTION B

Question 2

Question 2.1

*Have attended*

1. Did you attend any course or training in Environmental Education this year?

Yes	1
No	2

V18	21
-----	----

2. Did you attend any course or training in Outcomes Based Education this year?

Yes	1
No	2

V19	22
-----	----

3. In which manner were the courses indicated in 1 and 2 presented?

Formal manner initiated by the Department of Education	1
Circulars / Readings provided by the Department of Education	2
Private study	3
Private sector or NGO's	4
By principal, deputy or Head of Department	5

V20	23
-----	----

4. Who was responsible for the presentation of the courses/workshops above?

Department of Education	1
Non Governmental Organization	2
School Management (Principal, deputy or head of department)	3
Non Governmental Organization	4

V21	24
-----	----

5. How does your school assist you as a teacher in professional development? (cross as many variables as necessary)

Send you to attend courses or workshops	1
Motivate you to read and study further	2
Informal and individual discussion with teachers	3
Working sessions during meetings	4

V22	25
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6. Which institution/sector in your opinion, should take the responsibility in the training of teachers in Environmental Education?

Colleges of Education	1
In-service centres/Teachers' centres	2
Private Sectors/Non Governmental Organizations	3
Universities	4
Department of Education	5

V23	26
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7. What form of credit should educators who underwent training courses above obtain?

A raise in category level	1
A salary increase	2
Acknowledgement only	3
None	4

V24	27
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8. Doing a course which prepares a teacher to being professionally competent in Environmental Education would be regarded ~~by me~~ as:

Knowledge expansion	1
Continuing education	2
Becoming a better educator/Further study	3
Unnecessary	4

V25      28

9. Does your school receive in-service training in Environmental Education?

Yes	1
No	2

V26      29

*How DO YOU TRAIN A SCHOOL SITES A BUILDING?*

10. Does your school receive any training in Outcomes Based Education?

Yes	1
No	2

V27      30

11. In which leaning area do you think Environmental Education is most relevant?

Mathematics	1
Natural Science and Technology	2
Language, Literacy and Communication	3
Human Sciences, Economic and Management Sciences	4
Arts, Culture and Life Orientation	5

V28      31

12. How impotant do you consider Environmental Education to be in the Primary school Curriculum?

Very important	1
Important	2
Not important	3

V29      32

13. Do you think there is a need for you to receive training in Environmental Education ?

Yes	1
No	2

V30      33

14. Do you think it is possible to teach about environmental issues in or through your learnig areas?

Yes	1
No	2

V31      34

15. If you are given a chance to attend a professional developmental course or training in Environmental Education, what would be your area of need?

Knowledge about relevant content	1
Skills needed in teaching Environmental Education	2
Both of the above	3
I have no need for further development	4

V32      35

**Question 2.2**

From this table choose by making a cross(X) in the appropriate box of this table with regard to the following statements:

STATEMENTS	Yes	No	Unsure		
1. Does your school have an Environmental Education policy?				V33	36
2. Do you think Environmental Education is important like other learning areas?				V34	37
3. Do you think Environmental Education deserves to be a learning area on its own?				V35	38
4. Do you think Environmental Education should be taught in schools?				V36	39
5. Are you involved in implementing Environmental Education in your class and school?				V37	40
6. Do you think learners should participate in tree planting, spring day and looking after gardens?				V38	41
7. Is it necessary for your school to save water and electricity?				V39	42
8. Is it necessary for your school to recycle bottles, paper, tins to raise funds?				V40	43
9. Do you think that the outcomes in the Revised National Curriculum Statement or OBE are relevant to Environmental Education?				V41	44
10. Do you think schools should take part in excursions and field trips?				V42	45
11. Have you heard or read about the World Summit for Sustainable Development?				V43	46

**Question 3**

Show by making a cross(X) in the appropriate box whether you agree with the following statements:

STATEMENTS	Strongly agree	Disagree	Un	Dis	Strongly Disagree		
			Decided	Agree			
1. Man has the ability to change the environment						V44	47
2. All living things depend on air, water, food and land for survival						V45	48
3. Plants, minerals, soil, water and animal populations need to be conserved for future generations						V46	49
4. Plants and animals depends on each other in many ways						V47	50
5 Burning of coal releases gases into the atmosphere which affects the survival of living things and causes air pollution						V48	51
6. People must live in harmony with nature in order to survive						V49	52
7. I am willing to be involved in a project to develop a school garden						V50	53
8. Tree planting days will increase public awareness of the necessity of trees						V51	54
9. I am willing to be involved in a tree planting campaign						V52	55
10. Family planning is important to avoid over population						V53	56
11. Conservation is the responsibility to be shared by individuals, industries, social groups, all levels of government and education						V54	57
12. It is important to repair leaking taps						V55	58
13. I would be willing to use public transport to reduce air pollution						V56	59
14. Every time I go shopping, I am willing to take a bag so that there is no need to get a plastic one from the shop						V57	60
15. When shopping, I avoid buying products known to be harmful to the environment						V58	61
16. I am not interested to learn about the reasons behind the disappearance of forests						V59	62
17. I normally leave the water running when I brush my teeth						V60	63
18. I take a shower instead of a bath to save water						V61	64
19. I make compost with wastes to fertilise the garden						V62	65
20. Only Science teachers should know how the environment works						V63	66

21. Use of unleaded petrol reduce air pollution						V64	67
22. I don't think it is my responsibility to teach environmental issues in the normal classroom situation						V65	68
23. I encourage people to start using electricity for cooking so that smoke pollution from homes should be reduced						V66	69
24. I always switch off lights when I don't need them anymore						V67	70
25. I encourage my learners to write in both sides of the paper						V68	71
26. I encourage my learners to pick up tins, bottles and papers at school.						V69	72
27. It is important to protect all useful animals						V70	73
28. It is my wish that I should point out to others not to smoke						V71	74
29. I shall support a campaign to kill all snakes because snake bites can be dangerous						V72	75
30. I will strive to study problems about nature						V73	76

Question 4

4.1 Indicate how frequently you used the following teaching methods in your classroom. Mark with a cross(X) against the appropriate block.

TEACHING METHOD	Very Often	Some times	Never		
1. Lecturing about the environment				V74	77
2. Discussing about the environment				V75	78
3. Dramatization: demonstrating actions observed outdoors				V76	79
4. Experimentation				V77	80
5. Fieldwork: making a record of an outdoor activity and evaluating reports				V78	81
6. Case studies: reading a passage about a particular environmental problem and to solve the problem				V79	82
7. Demonstrations: one visualised explanation of important facts, ideas, processes or methods that are done				V80	83
8. Excursions or study tours: outdoor activities				V81	84
9. Debates: role playing and simulated situations				V82	85
10. Brainstorming a theme during a lesson introduction				V83	86
11. Corporate learning				V84	87
12. Survey work: data collection				V85	88
13. Projects: self discovery of issues such as recycling of paper and tins				V86	89
14. Action research: problem solving				V87	90
15. Video shows				V88	91
16. Group work: working in groups to solve problems or doing projects				V89	92

4.2 Indicate by making a cross(X) in the appropriate box with regard to the most common excursions (study tours) undertaken by your school. (You can cross as many variables as you wish)

Study tours Educational outings or Excursions undertaken by your school					
1. Nature reserves e.g. Pilanesburg, Kruger National Park, Groenkloof Nature Reserves etc.				V90	93
2. Plant studies e.g. Botanical Gardens				V91	94
3. Animal studies e.g. Pretoria/Johannesburg zoo, Animal Farms etc.				V92	95
4. Parks e.g. South African National Parks, Fountains Valley, Burgers Park etc.				V93	96
5. Environmental awareness centre e.g. Social Education Centre				V94	97
6. Participating in environmental days e.g arbor day, Spring day, Heritage day				V95	98
7. Museum: Transvaal Museum, Museum of Science and Technology etc.				V96	99
8. Monument: Voortrekker Monument				V97	100
9. Exhibition shows: Pretoria show, Rand Easter show, Brits show, Science fair or expo				V98	101
10. Public service offices e.g. Post Offices, Hospitals, Aids Centres, Libraries etc.				V99	102
11. Factories: to explore issues of pollution, environmental management etc.				V100	103

12. Water purification plants: Waste management offices or officials		V101	104
13. Forests e.g. timber		V102	105
14. The coast e.g. Durban, Cape Town, Port Elizabeth etc.		V103	106
15. Recyclers e.g. collect a can, bottles or paper recyclers		V104	107
16. Visit to local rivers or streams		V105	108
17. Using the local community: there are a lot of elderly people and professionals who know about the environment		V106	109
18. Visiting building sites (construction)		V107	110
19. Mines e.g. platinum mines, Gold Reef City etc.		V108	111
20. Agricultural sites e.g. farms, vegetable gardens and orchards		V109	112

**SECTION C**

**QUESTION 5**

**OPEN QUESTIONS**

5.1 What is your understanding of Environmental Education?

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5.2 What is your understanding of Outcomes Based Education?

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5.3 Would you prefer to receive readily prescribed curriculum packages if expected to teach Environmental Education?

Please give reasons for your answer.

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Would you like your school to receive a summary of the results of the survey?  
Mark with a cross (X)

YES	NO
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**QUESTIONNAIRE**

**PROFESSIONAL DEVELOPMENT OF TEACHERS FOR  
EFFECTIVE ENVIRONMENTAL EDUCATION**

**RATIONALE**

This questionnaire is intended to elicit your responses on:

- Your general knowledge and attitude towards Environmental Education
- Your views towards the future position of Environmental Education in the school curriculum

**REQUEST: -**

Please write where space is given  
Please cross (X) the appropriate box

QUESTIONNAIRE NUMBER  
 SCHOOL NUMBER  
 CIRCUIT NO

03  
 09  
 D3

Office use

V1 0 0 13  
 V2 0 40  
 V3 0 6 3

SECTION A  
 QUESTION 1: BIOGRAPHICAL DATA

Make a cross (X) in the relevant block

1.1 Gender

Male	1	X
Female	2	

V4 1 7

1.2 Age group

20 - 30 years	1	
31 - 40 years	2	X
41 - 50 years	3	
Above 50	4	

V5 2 8

1.3 Where is your school situated?

Informal settlement	1	
Rural area	2	
Peri urban area (Township)	3	
Urban area (Town)	4	X
Farm	5	

V6 4 9

1.4 Years of experience in teaching

Less than 5 years	1	
5 - 10 years	2	X
11 - 20 years	3	
More than 20 years	4	

V7 2 10

1.5 Position held

Educator: Post level 1	1	X
Head of Department: Post level 2	2	
Deputy/Principal: Post level 3	3	
Principal: Post level 4	4	
Other	5	

V8 1 11

1.6 Professional Training

PTC	1	
PTD/STD	2	
UED	3	
SED/HED	4	X
Other	5	

V9 4 12

1.7 Academic Qualifications

Matric/Std 10	1	
3 year Degree	2	
Honours	3	
Masters	4	
Other ( busy with Matric/Undergraduate studies)	5	X

V10 5 13

1.8 Were you made aware of Environmental Education while training as a teacher?

Yes	1	<input checked="" type="checkbox"/>
No	2	<input type="checkbox"/>

V11	1	14
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1.9 Do you possess a qualification in Environmental Education?

Yes	1	<input type="checkbox"/>
No	2	<input checked="" type="checkbox"/>

V12	2	15
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SECTION B

Question 2

Question 2.1

1. Have you attended any courses or training in Environmental Education this year?

Yes	1	<input type="checkbox"/>
No	2	<input checked="" type="checkbox"/>

V13	2	16
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2. Have you attended any courses or training in Outcomes Based Education this year?

Yes	1	<input checked="" type="checkbox"/>
No	2	<input type="checkbox"/>

V14		17
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3. In which manner were the courses indicated in 1 and 2 presented?

Formal manner initiated by the Department of Education	1	<input type="checkbox"/>
Circulars / Readings provided by the Department of Education	2	<input type="checkbox"/>
Private study	3	<input type="checkbox"/>
Private sector or NGO's	4	<input type="checkbox"/>
By principal, deputy or Head of Department	5	<input checked="" type="checkbox"/>

V15	5	18
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4. How does your school assist you as a teacher in professional development? (cross as many variables as necessary)

Send you to attend courses or workshops	1	<input checked="" type="checkbox"/>
Motivate you to read and study further	2	<input type="checkbox"/>
Informal and individual discussion with teachers	3	<input type="checkbox"/>
Working sessions during meetings	4	<input type="checkbox"/>

V16	1	19
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5. Which institution/sector in your opinion, should take the responsibility in the training of teachers in Environmental Education?

Colleges of Education	1	<input type="checkbox"/>
In-service centres/Teachers' centres	2	<input type="checkbox"/>
Private Sectors/Non Governmental Organizations	3	<input type="checkbox"/>
Universities	4	<input checked="" type="checkbox"/>
Department of Education	5	<input type="checkbox"/>

V17	4	20
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6. Doing a course which prepares a teacher to being professionally competent in Environmental Education should be regarded as:

Knowledge expansion	1
Continuing education	2 <input checked="" type="checkbox"/>
Becoming a better educator/Further study	3
Unnecessary	4

V18 2 21

7. In which leaning area do you think Environmental Education is most relevant?

Mathematics	1
Natural Science and Technology	2 <input checked="" type="checkbox"/>
Language, Literacy and Communication	3
Human Sciences, Economic and Management Sciences	4
Arts, Culture and Life Orientation	5

V19 2 22

8. How important do you consider Environmental Education in the Primary school Curriculum?

Very important	1 <input checked="" type="checkbox"/>
Important	2
Not important	3

V20 1 23

9. Do you think there is a need for you to receive training in Environmental Education?

Yes	1 <input checked="" type="checkbox"/>
No	2

V21 1 24

10. If you are given a chance to attend a professional developmental course or training in Environmental Education, what would be your area of need?

Knowledge about relevant content	1 <input checked="" type="checkbox"/>
Skills needed in teaching Environmental Education	2
Both of the above	3
I have no need for further development	4

V22 1 25

Question 2.2

From this table choose by making a cross(X) in the appropriate box of this table with regard to the following statements:

STATEMENTS	Yes	No	Unsure			
1 Does your school have an Environmental Education policy?	X			V23	1	26
2 Do you think Environmental Education deserves to be a learning area on its own?	X			V24	1	27
3 Are you involved in implementing Environmental Education in your class and school?	X			V25	1	28
4 Do you think that the outcomes in the Revised National Curriculum Statement are relevant to Environmental Education?		X		V26	2	29
5 Have you heard or read about the World Summit for Sustainable Development?	X			V27	1	30

Question 3

Show by making a cross(X) in the appropriate box whether you agree with the following statements:

STATEMENTS	Strongly agree	Agree	Undecided	Disagree	strongly	Disagree			
1. All living things depend on air, water, food and land for survival					X		V28	4	31
2 Plants, minerals, soil, water and animal populations need to be conserved for future generations	X						V29	1	32
3 Burning of coal releases gases into the atmosphere which affects the survival of living things and causes air pollution	X						V30	1	33
4 People must live in harmony with nature in order to survive	X						V31	1	34
5 I am willing to be involved in a project to develop a school garden	X						V32	1	35
6 Tree planting days will increase public awareness of the necessity of trees	X						V33	1	36
7 Family planning is important to avoid over population	X						V34	1	37
8 Conservation is the responsibility to be shared by individuals, industries, social groups, all levels of government and education	X						V35	1	38
9 It is important to repair leaking taps	X						V36	1	39
10. When shopping, I avoid buying products known to be harmful to the environment	X						V37	1	40
11. I normally leave the water running when I brush my teeth	X				X		V38	4	41
12. I take a shower instead of a bath to save water	X				X		V39	1	42
13. Only Science teachers should know how the environment works					X		V40	4	43
14. Use of unleaded petrol reduce air pollution	X						V41	1	44
15. I don't think it is my responsibility to teach environmental issues in the normal classroom situation					X		V42	4	45
16. I encourage people to start using electricity for cooking so that smoke pollution from homes should be reduced	X						V43	1	46
17. I always switch off lights when I don't need them anymore	X						V44	1	47
18. I encourage my learners to write in both sides of the paper	X						V45	1	48
19. I encourage my learners to pick up tins, bottles and papers at school.	X						V46	1	49
20. It is my wish that I should point out to others not to smoke	X						V47	1	50

Question 4

4.1 Indicate how frequently you used the following teaching methods in your classroom.  
Mark with a cross(X) against the appropriate block.

TEACHING METHOD	Very often	Sometimes	Never			
1. Lecturing about the environment	X			V48	1	51
2. Discussing the environment	X			V49	1	52
3. Dramatization: demonstrating actions observed outdoors	X			V50	1	53
4. Experimentation	X			V51	1	54
5. Fieldwork: making a record of an outdoor activity and evaluating reports	X			V52	1	55
6. Case studies: reading a passage about a particular environmental problem and to solve the problem	X			V53	1	56
7. Demonstrations: one visualised explanation of important facts, ideas, processes or methods that are done	X			V54	1	57
8. Debates: role playing and simulated situations		X		V55	2	58
9. Brainstorming a theme during a lesson introduction	X			V56	1	59
10. Projects: self discovery of issues such as recycling of paper and tins	X			V57	1	60
11. Action research: problem solving	X			V58	1	61
12. Group work: working in groups to solve problems or doing projects	X			V59	1	62

4.2 Indicate by making a cross(X) in the appropriate box with regard to the most common excursions (study tours) undertaken by your school.  
(You can cross as many variables as you wish)

Study tours Educational outings or Excursions undertaken by your school			
1. Nature reserves e.g. Pilanesburg, Kruger National Park, Groenkloof Nature Reserves etc.			V60 0 63
2. Plant studies e.g. Botanical Gardens			V61 0 64
3. Animal studies e.g. Pretoria/Johannesburg zoo, Animal Farms etc.			V62 0 65
4. Parks e.g. South African National Parks, Fountains Valley, Burgers Park etc.			V63 0 66
5. Environmental awareness centre e.g. Social Education Centre			V64 0 67
6. Participating in environmental days e.g Arbor day, Spring day, Heritage day		X	V65 1 68
7. Museum: Transvaal Museum, Museum of Science and Technology Voortrekker Monument etc.			V66 0 69
8. Exhibition shows: Pretoria show, Rand Easter show, Brits show, Science fair or expo			V67 0 70
9. Public service offices e.g. Post Offices, Hospitals, Aids Centres, Libraries etc.			V68 0 71
10. Factories: to explore issues of pollution, environmental management etc.			V69 0 72
11. The coast e.g. Durban, Cape Town, Port Elizabeth etc.			V70 0 73
12. Recyclers e.g. collect a can, bottles or paper recyclers		X	V71 1 74
13. Visit to local rivers or streams		X	V72 1 75
14. Using the local community: there are a lot of elderly people and professionals who know about the environment			V73 0 76
15. Mines e.g. platinum mines, Gold Reef City etc.			V74 0 77

Would you like your school to receive a summary of the results of the survey?  
Mark with a cross (X)

<del>YES</del>	NO
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APPENDIX F: LETTER TO THE RESPONDENTS EXPLAINING THE PURPOSE OF THE RESEARCH

The Principal

\_\_\_\_\_ Primary School

Tshwane North District Office

Dear educator

The researcher has been given permission to conduct the study on the theme: Professional development of teachers for effective Environmental Education in the Tshwane North District Office of the Gauteng Province.

Take your time to complete the questionnaire to the best of your ability. The questionnaire is aiming to collect data, which will be analysed to establish whether there is a need for professional development of teachers in Environmental Education since Environmental Education themes have been infused across all learning Areas of the Revised National Curriculum Statement and Outcomes Based Education.

The questionnaire is to be completed by particular Intermediate Phase educators who shall have been selected for the study. The respondents (i.e. selected educators) will remain anonymous. Information and the results of the survey will be treated private and confidential. It will be my pleasure to send the summary of the survey to your school if you so wish. Mark with a cross (X) in the appropriate column at the end of the questionnaire to indicate if you would like your school to receive the results or not.

If you have any concerns or questions, please feel free to contact me at these numbers: 012 549 4352 (H)/ 072 997 3836 (W) or email: [jhnnbopape@yahoo.com](mailto:jhnnbopape@yahoo.com).

Thanking you in advance

Yours faithfully  
J BOPAPE