

Volume 3 Number 1 March 1991 ISSN 1013-3445

*Evidence Of Students' Performance In Expository Passages
And Non-Mathematical Documents: Data From The Pilot
Version Of The IEA Research Study*

R. Moyana

*Evidence Of Acquisition Of Reading Skill Related To
Mathematics: Data From The International Literacy
Study Pilot Testing: The Case Of Zimbabwe*

G. Jaji

*A Comparative Analysis Of Student Achievement By School
Type In Zimbabwe Secondary Schools*

L.M. Nyagura

*Career Aspirations Of University Of Zimbabwe Geography
Undergraduate Students And The Supply Of
Graduate Geography Teachers*

L.M Zinyama

*Skilled Labour Markets In Zimbabwe: A Case Study Of
Mechanical Engineering Personnel*

P. Bennell, D. Katsidzira and F. Madziya

Zimbabwe ~~Journal of~~ Educational Research

The ZJER is published three times a year by the University of Zimbabwe, Human Resources Research Centre (HRRC).

Editor: L.M. Nyagura of University of Zimbabwe

Editorial Board

Cowden E.M. Chikombah
University of Zimbabwe
Meshack J Matshazi
University of Zimbabwe
Levi M Nyagura
University of Zimbabwe

Editorial Advisory Board

Patrick M Haamujompa
University of Zambia
Ansu K Datta
University of Botswana
Peter R Moock
World Bank
Issa M Omari
I.D.R.C
Kenneth King
University of Edinburgh

ORDERING INFORMATION

ZJER
HRRC, Faculty of Education
University of Zimbabwe
P O Box MP 167
Mount Pleasant,
Harare
Zimbabwe

Zimbabwe Journal of Educational Research
Volume 3 Number 1 March 1991

CONTENTS

Evidence Of Students' Performance In Expository Passages And Non-Mathematical Documents: Data From The Pilot Version Of The IEA Research Study R. Moyana	1
Evidence Of Acquisition Of Reading Skill Related To Mathematics: Data From The International Literacy Study Pilot Testing: The Case Of Zimbabwe G. Jaji	23
A Comparative Analysis Of Student Achievement By School Type In Zimbabwe Secondary Schools L.M. Nyagura	43
Career Aspirations Of University Of Zimbabwe Geography Undergraduate Students And The Supply Of Graduate Geography Teachers L.M Zinyama	62
Skilled Labour Markets In Zimbabwe: A Case Study Of Mechanical Engineering Personnel P. Bennell, D. Katsidzira and F. Madziya	76

Career Aspirations Of University Of Zimbabwe Geography Undergraduate Students And The Supply Of Graduate Geography Teachers

*L M Zinyama,
Department of Geography, University of Zimbabwe*

Introduction

The University of Zimbabwe was founded in the mid-1950s and enrolled its first group of students in the Faculties of Arts, Science and Education in March 1957. It was to remain the only university in the country for over 30 years until the founding of the National University of Science and Technology in Bulawayo, which is scheduled to admit its first students in 1991. The University of Zimbabwe, as the only institution of higher learning, has therefore had a key role in the training and development of high-level manpower for the country, particularly since independence as the new state of Zimbabwe has sought to expand, both socially and spatially, the level and pattern of socio-economic development. In order to meet this challenge, student enrollment in the university has increased during the past decade from 2240 in 1980 to over 9300 in 1990.

The Department of Geography was established in 1967 and enrolled its first group of 48 undergraduate students in March 1968 (Zinyama, 1988). The department accepts students through both Faculties of Arts and Science, as well as small numbers occasionally from the Faculty of Social Studies. The numbers of undergraduate students in the department increased during the first post-independence decade from 73 in 1980 to 251 in 1990. Since its establishment, the department has produced over 550 graduates, 21% with single subject Honours degrees and 79% with General degrees majoring in geography plus one other subject. A large majority (78%) of the graduates were in the Faculty of Arts, with Science graduates comprising 21% and

Social Studies the remaining 1%. The annual average number of students graduating with a geography major has increased from 21 in the 5-year period 1976-80 to 49 in the period 1986-90.

Before independence, the majority of geography graduates from the University of Zimbabwe, particularly blacks, used to become teachers in secondary schools. Employment opportunities outside the teaching profession were severely restricted for blacks. Since 1980, however, employment prospects for geography graduates have widened considerably. Although this trend is still on a small scale, it nonetheless is following the pattern in developed countries where only a minority of geography graduates now become teachers. In the United Kingdom, for instance, only about 20% of the annual output of geography graduates in the early 1980s were likely to seek employment in education. The remainder got employed in a wide spectrum of jobs in administration, business, commerce, industry and the environmental field (Balchin, 1983; Briggs, 1988). A sample survey conducted in late 1986 of all British students who obtained their first degrees in 1980 found that, in terms of all jobs held by geography graduates over the six years, 22% were in banking and finance, followed by education with 19% and public administration with 17% (Johnston, 1990). At the University of Glasgow, 28% of the geography graduates between 1981 and 1987 went into business and finance as their first destinations after university while only 18% went into teacher training (Briggs, 1988).

The Department of Geography at the University of Zimbabwe does not have accurate longitudinal data on the employment history of its former students. However, informal contacts between staff and former students show that a small but growing number of geography graduates are finding employment in government departments and non-governmental organizations concerned with peasant agriculture and rural development such as the Departments of Rural Development and of Agricultural Technical and Extension Services (Agritex), natural resource management such as the Department of Natural Resources, in research posts in the Central Statistical Office, or as professional urban and rural planners after undergoing formal postgraduate training. While this trend has certainly been welcome, it has however reduced the flow of geography graduates into the teaching profession and even led to the loss of experienced serving teachers from the post-primary school levels.

In the meantime, the country has witnessed a massive expansion of its education system at all levels from primary to tertiary. At the secondary school level, the number of pupils in Forms I-VI increased during the past decade from 74321 in 1980 to 641005 in 1988 while the number of registered secondary schools increased from 197 to 1484 during the same period (Republic of Zimbabwe, 1990). Thus, even though the enrolment of undergraduate geography students in the Department of Geography has increased considerably since 1980, the output has not been sufficient to meet the greatly increased demand for graduate geography teachers.

Both government and educationists have endeavoured during the past decade to alleviate the critical shortage of trained and qualified teachers, particularly science teachers (including geography) for the upper secondary school level. In the short and medium term, the government has recruited teachers outside the country to work in Zimbabwe on contract. These expatriates would be replaced by trained Zimbabweans as and when the latter become available. Meanwhile, at the University of Zimbabwe, the Faculty of Education in 1984 restructured its Bachelor of Education (B.Ed.) degree programme by making it more subject-specific so that trained but non-graduate teachers could acquire the necessary content in their specialist subject to enable them to teach classes up to A-level. Geography was one of the subjects that was introduced in the revamped B.Ed. degree programme, with the first intake at the beginning of 1985. So far, the programme has been offered on a part-time basis over three years. The first group of 24 students successfully completed their studies for the B.Ed. (Geography) degree at the end of 1987, and the second group of 29 completed at the end of 1989. The third and fourth intakes were due to complete at the end of 1990 and 1991 respectively. The new B.Ed. programme in the Faculty of Education has therefore provided an additional source of teachers who are qualified to teach at all levels of the secondary school system, although the numbers involved to date are small in relation to national needs.

Given the critical shortage of qualified teachers and the small number of new entrants into the teaching profession by geography graduates, this paper examines the career aspirations of undergraduate students in the Department of Geography at the University of Zimbabwe and their perceptions of teaching as a

career. Thus, the paper seeks to provide some insights into the likely levels of future supply of geography teachers in the country. As noted by Unwin (1990), the future health of geography as a discipline depends to a large extent on the dedication and inspiration of geography teachers at the school level. It is thus important that highly qualified geographers continue to be attracted into the teaching profession in adequate numbers while those who are already there are retained.

The analysis in the paper is based on the assumption that, given current manpower and material resources, the Department of Geography has almost reached its undergraduate capacity with an annual intake of 130 first year students. Any significant increase in the output of geography graduates who are qualified to teach up to the highest level of the secondary school system can therefore be expected to come from the B.Ed. programme in the Faculty of Education (especially now that the programme is being changed, with effect from 1991, from the current three years part-time to two years full-time study) and perhaps, in the future, from the National University of Science and Technology in Bulawayo and the planned private university near Mutare.

The data for the study were derived from a questionnaire survey of first and third (final) year geography students conducted during October 1990. A total of 141 students completed the questionnaire, 83 (58.9%) in first year and 58 (41.1%) in their final year (Table 1). The former represented three-quarters of all the first year students in the department in 1990 while all but one of the final year students were surveyed. All the respondents were General degree students, of whom 96 (68.1%) were registered in the Faculty of Arts and 45 (31.9%) in the Faculty of Science. Among other things, the questionnaire asked the respondents about their secondary school background, parental employment, choice of degree programme at the time of applying for admission into the university, level of contentment with geography as one of their major subjects, employment and career preferences and dislikes and reasons thereof, and their perceptions of teaching as a career.

Table 1
Distribution Of Respondents By Sex, Degree
Programme And Year Of Study

	First Years			Third Years			All Respondents		
	M	F	Total	M	F	Total	M	F	Total
Arts	45	13	58	28	10	38	73	23	96
Science	14	11	25	16	4	20	30	15	45
Total	59	24	83	44	14	58	103	38	141

Preferred Courses On Initial Application

It has often been said that because of the diffuse and generalist nature of geography and the lack of a direct career path, pupils at secondary school and even university undergraduates have little or no idea about the career prospects for geography graduates, unlike other disciplines such as law, agriculture, medicine or engineering. The only career perceived as open for geography graduates is teaching. Geography would therefore be selected for study only as a last resort or as the third of the three subjects that UZ General degree students in the Faculties of Arts and Science are required to study during the first year. Only those applicants who have more or less already decided that they would like to teach after graduation would therefore list as their first choice of study programme the BA or BSc General degree with geography as a major subject.

The respondents were asked whether the programme they were studying - either BA or BSc General - had been their first choice when they applied for admission into the university. Only 40% reported that the programme was their first choice. The other 58% were studying for a degree that had not been their first choice. A slightly larger proportion of the Science students (62%) than Arts students (58%) had not intended to take the degree for which they were now studying. Among the 96 Arts

students alone, the BA General degree was the most popular programme, with 43% reporting that they had listed it as their first choice on their application forms, followed by the BSc degree in rural and urban planning with 27% and law which was the first choice for 14% of the respondents. Among the Science students, the BSc General degree had been the first choice for 36% of the respondents, followed again by rural and urban planning with 24% and business studies which had been the first choice for 9%.

In so far as a large proportion of the respondents would have preferred to study other programmes than either the BA or BSc General degree, it was necessary to establish how far they were now satisfied with their current studies and particularly with having taken geography as a major subject. It was hypothesized that the extent to which they found the subject interesting would influence whether they pursued it after graduation, particularly as teachers. The respondents were asked to rank, on a five-point scale, how far they were contented studying geography, from being very unhappy with a score of 1 to being very happy with a score of 5. Only 9% reported that they were unhappy or very unhappy while a further 8% were just about happy. Another 28% were fairly happy while a small majority of 52% reported that they were very happy doing geography. There was no difference in the responses between first and final year students, with 80% in each case reporting that they were fairly happy to very happy. However, 85% of the Arts students were fairly happy to very happy, against 69% of the Science students. It appears that a larger proportion of Science students would prefer to study other subjects or degree programmes than geography. Moreover, 15% of the Science students reported that they were unhappy or very unhappy. Arts students on the other hand appear to have a more positive attitude towards geography as an academic subject.

Career Preferences Of The Respondents

The respondents were asked to list three careers which appeal most and three that have the least appeal to them. Teaching has traditionally been the most obvious career for geography graduates, particularly those whose degree had an Arts bias. It was therefore not surprising that teaching was the most popular career with 40% of all the respondents (Table 2). Other preferred

occupations were in planning, geological work, natural resource and environmental management, the tourism industry and rural development. It would appear that the respondents' perceptions were in part influenced by the experiences of former geography graduates who, as mentioned earlier, have found employment in these sectors in recent years. While in some careers such as planning formal postgraduate training would be essential, in other cases this is not necessary. The other occupations therefore provide employment opportunities for geography graduates directly from university. There are notable differences in the career aspirations of Arts and Science students (Table 2). Among the Arts students, the five most preferred careers in order of preference were teaching, planning, meteorological work, resource-environmental management and in agriculture and rural development. All these areas are closely related to, and represent obvious employment outlets for geography graduates where they can apply their skills and training. On the other hand, the most favoured careers for the Science students were in geological work, computing and statistics, teaching, planning and meteorological work. Career aspirations in geological work, computing and statistics were derived from the students' other major subjects such as geology, computer science, statistics and mathematics, rather than from geography.

While 40% listed teaching as one of their three career preferences, another 42% of the respondents listed it as one of their least appealing careers. Other unpopular occupations were medicine and clerical/secretarial work which were listed by 7% of the respondents each and the armed forces with 6%. The wide gap between teaching and the second ranked least favoured careers suggests that a large proportion of the respondents had quite definite views either for or against teaching than they had for other occupations. Asked whether they would consider teaching as a career after graduation, 39% of the respondents said they would not, 58% said they would while 3% were undecided. Again, a larger proportion of Science (56%) than Arts (32%) students were averse to teaching as a career. Whereas 37% of the first year students were not interested in a teaching career, a somewhat larger proportion (41%) of the final year students were disinclined to take up teaching as a career. The latter have had three years of exposure to university geography and are more aware of the alternative career opportunities available to geography graduates.

Table 2
Ten Careers/Employment Sectors With
Most Appeal To The Respondents

Career	% of all respondents (N=141)	% of Arts (N=96)	% of Sciences (N=45)
Teaching	40	48	22
Planning	24	28	16
Meteorological work	18	21	13
Geological work	17	0	53
Environment/resources management	14	16	9
Lecturer - tertiary level	13	10	18
Tourism industry	11	12	10
Rural development/agriculture	9	13	2
Computers/statistics	9	2	22
Accountancy	8	8	7

Although new graduates may take teaching immediately after leaving the university, it is even more important that the profession retains them permanently, especially as they are aware of other jobs where they could also apply their geographical skills and training. Some new graduates may join teaching only temporarily while they look for other employment. The respondents were therefore asked to indicate on a five-point scale ranging from highly unlikely to highly likely, the likelihood that, if they went into teaching immediately after graduation, they would still be there at the end of three years. Two-fifths reported that it was unlikely or highly unlikely that they would still be teaching at the end of the three years. Eighteen percent said this was likely while a further 29% reported an even greater likelihood that they would still be teaching at the end of the three years.

From the foregoing, it appears that some 40% of the students studying geography in the Department of Geography do not consider teaching as a live-long career. They are likely to take up teaching only temporarily while they look for other employment. This represents quite a substantial loss to the recruitment pool

for graduate geography teachers and does not augur well for overcoming the shortage of high-level teaching professionals. It is therefore pertinent to seek explanations as to why teaching is perceived the way it is, either positively or negatively, by the respondent geography undergraduate students.

Reasons For And Against Teaching As A Career

The respondents had been asked whether they would consider teaching as a career. Those who answered positively were then asked to give up to three reasons why they found teaching appealing to them. Likewise, those who had said no were asked to list up to three reasons why they found teaching unappealing as a career. The reasons given for and against teaching as a career are summarized in Tables 3 and 4 respectively.

The reasons given by those who were favourably disposed towards teaching have been summed into three categories, namely, (1) those related to teaching in general, some of them altruistic, (2) those related to current working conditions for teachers, and (3) those related to, and arising from, the subject that they have trained for and are likely to teach after graduation (Table 3). In the first category, the principal reasons for wanting to teach were a wish to share knowledge and to help others, while others thought it would enable them to keep up-to-date academically, including the possibility of pursuing postgraduate studies, possibly in education. Some respondents said they enjoyed working with children, while others thought that teaching was fairly easy and interesting work. A small proportion expressed the view that they would go into teaching primarily because the current national economic conditions with high unemployment made it the only sector in which getting a job was still easy.

Table 3
Reasons Why Teaching Was Appealing
To The Respondents

Reasons	% of respondents (N = 81)
Reasons pertaining to teaching generally	
1. I can share my knowledge with and help others	23
2. It keeps me up-to-date academically	23
3. It is easy/interesting/challenging work	22
4. I just like teaching	15
5. I like working with children	10
6. It is not difficult to get a job	9
7. It gives one the chance to work in different areas	7
Reasons pertaining to working conditions	
1. Good school holidays	20
2. Good salary	15
3. There is job security	6
4. There are good working conditions generally	5
5. Cheap accommodation in rural areas is provided	4
6. One can work with little supervision	4
7. It is an attractive white collar job	2
Reasons pertaining to the subject - geography	
1. Geography is an interesting subject to teach	23
2. Geography teaches about everyday lives	11
3. Geography helps in understanding world problems	10
4. There is a high demand for geography teachers	4
5. Geography is a prestigious subject to teach	2

The most important factor relating to working conditions concerned the provision of regular school holidays every three months. One-fifth of the respondents in favour of teaching listed this as one of their reasons for wanting to join the profession. Other reasons were that graduate teachers were now paid relatively good salaries that are comparable to similar grades in the public service, greater job security, and the availability of free or subsidized housing if one works in the rural areas or at mission boarding schools. Finally, the main subject they expect to teach after graduation appeared to influence the respondents' perceptions of the teaching profession. Thus, 23% of the respondents reported that geography was an interesting subject which they would enjoy teaching. Other attributes of the subject that accounted for a positive perception of teaching pertained to its practical utility and contribution towards a better understanding of national and international problems such as environmental degradation and economic development.

The reasons given by those respondents who disliked teaching as a career were mainly concerned with current working conditions in the teaching profession (Table 4). The major discouraging factor with 54% of the respondents in this category were the low salaries for graduate teachers in comparison to other occupations, particularly in the private sector. Nearly two-fifths of the respondents felt that teaching was tedious, while 29% complained about long working hours both in the classroom and after school marking and preparing lessons. Promotion prospects were also perceived as very limited. A small proportion of the respondents also gave personal characteristics as reasons why they would not want to teach. These included shyness, not having the right temperament to deal with difficult children, speech problems and the need for postgraduate professional training for the Graduate Certificate in Education before one could become a qualified teacher.

Table 4
Reasons Why Teaching Was Not
Appealing To The Respondents

Reasons	% of respondents (N = 56)
Reasons pertaining to working conditions	
1. Teachers are poorly paid	54
2. Teaching is tedious, boring	38
3. There is too much work and long hours	29
4. Promotion prospects are limited	20
5. Other jobs are more interesting and better paid	13
6. I do not like teaching/white collar jobs	11
7. Poor working conditions without fringe benefits	11
8. Teachers are lowly rated in society	9
Reasons pertaining to personal characteristics	
1. I lack the confidence/I am shy	13
2. I am impatient with children/with the public	13
3. I dislike talking/I talk too slowly	11
4. I would need a teaching certificate first	7
5. I have a speech/health problem	5
6. Teaching is for older people	2

Concluding Remarks

Geography is one of the subjects facing a critical shortage of qualified and trained teachers at the secondary school level in Zimbabwe. This paper has examined some of the factors that are having an influence on the supply of geography graduates into the country's education system. It has been shown that teaching is not considered as attractive by geography undergraduate students as other occupations such as planning, environmental management or geological work. Prospective graduates with a Science bias in their studies are particularly indisposed towards teaching than are those from the Arts. Working conditions, particularly salaries, were given as the major factors why the teaching profession is unable to attract and retain geography graduates. A necessary sequel to this study is a

survey of geography graduates which would investigate, among other things, their employment histories since graduation and the perceived relevance of geography in their jobs and career advancement.

On the other hand, professional geographers will view the widening employment opportunities for geography graduates as a welcome and healthy development for the future of the discipline. For a long time, geography has been viewed by employers and the public at large as preparing people for the teaching profession alone. The employment of geography graduates in other fields is an indication that the value of a geographical training with its unique emphasis on the acquisition of the three basic communication skills of literacy, numeracy and graphicacy is gradually being appreciated by employers, especially in the public sector. Indeed, evidence from developed countries suggests that geographers, once in post, progress faster than graduates from most other disciplines (Balchin, 1983). This seems to be related to their adaptability and ability to cope more readily with problems as a result of their training in data collection, problem identification and analysis, information retrieval, and their skill in the literary and graphical presentation of findings.

REFERENCES

- Balchin, W.G.V. (1983) Careers for graduate geographers, *The Geographical Review*, Vol.149, No.3, pp.334-341.
- Briggs, J. (1988) Jobs for geographers: some hard evidence, *Geography*, Vol.73, part 2, pp.137-140.
- Johnston, R.J. (1990) Moving on: postgraduate training, first destinations and later stops in the careers of geography graduates, *Area*, Vol.22, No.2, pp.137-149.
- Republic of Zimbabwe (1990) *Annual Report of the Secretary for Primary and Secondary Education for the Year Ended 31 December 1988*, Harare.

Unwin, T. (1990) The attitudes of final year geography undergraduates to teaching as a career, *Geography*, Vol.75, part 3, pp.227-237.

Zinyama, L.M. (1988) Geography in Zimbabwe, *Professional Geographer*, Vol.40, No.2, pp.223-227.



This work is licensed under a
Creative Commons
Attribution – NonCommercial - NoDerivs 3.0 License.

To view a copy of the license please see:
<http://creativecommons.org/licenses/by-nc-nd/3.0/>

This is a download from the BLDS Digital Library on OpenDocs
<http://opendocs.ids.ac.uk/opendocs/>