Educational perspectives on learner awareness of hazards and disasters

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in

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University of Pretoria, South Africa

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Co-Supervisor: Prof. WJ Fraser

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“As we go about our daily business, the solid Earth seems safe enough, but there’s far more going on beneath the surface than meets the eye. Things can change in a devastating flash through floods, earthquakes and other disasters that displace or kill the whole communities of people. The more we understand the natural forces that control the familiar landscapes of water, rocks and soils the better we can calculate – and minimise – the risks to people and property.”
(Frost-Killian, 2008: 28)
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Most importantly this effort is dedicated to my mother Marandela, who even though she cannot read and write, has instilled in all her children perseverance and the importance of striving for the sky irrespective of limitations and barriers.

I Thank You
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For the degree: Philosophae Doctor in Curriculum and instructional design and development.

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ABSTRACT

The global community is experiencing an increasing number of disasters that ranges from earthquakes, floods, storms, epidemics, fires, landslides, hurricanes, tsunamis and social conflicts that result to loss of life and properties. South Africa is dominated by localised incidents, such as wild fires, seasonal flooding, droughts and accidents in the mining industry. Resource-poor communities such as those residing in many parts of South African informal settlements, currently live with a range of stresses and risks including climate risks, HIV/AIDS and access to insecure land.

While disaster relief has been at the forefront for quite a long time, communities are increasingly looking at disaster risk reduction as the best solution to safeguard human lives and property. Scholars and policy makers are relying on disaster preparedness and resilience as strategies to ensure disaster risk reduction. Disaster education has emerged as a pinnacle for both the preparedness and resilience by teaching communities about the prevalence of hazards and associated vulnerabilities.

The aim of this investigation was to determine how education in particular, curriculum and instructional design contributes to learners’ awareness of hazards and disasters. A mixed method research was used to address the question combining questionnaires, interviews and document study as data collection strategies. The questionnaires were distributed to 150 educators from schools located in informal settlements of Ivory Park in Gauteng, Brits in North West Province, Isipingo in KwaZulu-Natal, Bizana in the Eastern Cape and Khayelitsha in the Western Cape. Interviews were conducted with 5 curriculum specialists, 3 disaster specialists and 2 disaster lectures.

The findings of the investigation is that the South African National Curriculum Statements explicitly prescribe hazards and disaster learning outcomes only for Grade 7 Social Science and is silent in other grades and learning areas. Some scholars pointed out that there is no adequate translation of curriculum policy provisions to classroom practice in South Africa, which raises questions on the extent to which learners from South African schools are taught about hazards and disasters as prescribed in the National Curriculum Statements. The investigation also found that educators are overburdened with administrative work and would not be in the position to collaborate with one another.
to develop learning programmes and to teach indigenous knowledge or hazards and disasters.

In this study, it is argued that for education to make effective contribution to learners’ awareness of hazards and disasters, the national curriculum should focus on the broad learning outcomes used as guideline to develop learning programmes for disasters and hazards that are provincial, district and local areas specific. The development and teaching for hazards and disasters should be specified in all grades across all learning areas. Another argument presented in this study is that the National Disaster Management Centre should play a crucial role in mobilising other stakeholders involved in disaster risk reductions to develop learning programmes as they have hands-on experience of managing disasters so that alleviate the burden for educators to be gathering data for learning programme development.
Concepts

1. Curriculum
2. Instructional Design
3. Hazards
4. Disasters
5. Vulnerability
6. Resilience
7. Informal Settlements
8. Indigenous Knowledge
9. Local Knowledge
10. Integrated teaching and learning
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune deficiency Syndrome</td>
</tr>
<tr>
<td>DBE</td>
<td>Department of Basic Education</td>
</tr>
<tr>
<td>FIFA</td>
<td>Federation for International Football Association</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>ICSU</td>
<td>International Council on Science previously known as the International Council for Scientific Unions</td>
</tr>
<tr>
<td>IKS</td>
<td>Indigenous Knowledge Systems</td>
</tr>
<tr>
<td>IOM</td>
<td>International Organisation for Migration</td>
</tr>
<tr>
<td>ISDR</td>
<td>International Strategy for Disaster Reduction</td>
</tr>
<tr>
<td>NCS</td>
<td>National Curriculum Statements</td>
</tr>
<tr>
<td>NDMC</td>
<td>National Disaster Management Centre</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualifications Framework</td>
</tr>
<tr>
<td>OBE</td>
<td>Outcomes-Based Education</td>
</tr>
<tr>
<td>SAQA</td>
<td>South African Qualifications Authority</td>
</tr>
<tr>
<td>SABC</td>
<td>South African Broadcasting Corporation</td>
</tr>
<tr>
<td>SARS</td>
<td>Severe Acute Respiratory Syndrome</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>XDR TB</td>
<td>Extreme-Drug Resistant Tuberculosis</td>
</tr>
<tr>
<td>MDR TB</td>
<td>Multi-Drug Resistant Tuberculosis</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environmental Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>UK</td>
<td>Unite Kingdom</td>
</tr>
</tbody>
</table>
## Figures, Tables and Pictures

### Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2.1</td>
<td>Disaster tree depicting the overview of disasters by Shaluf (2007)</td>
<td>24</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>Depiction of hazards that took place in 2008, <a href="http://www.infoplease.com/world/disasters">www.infoplease.com/world/disasters</a></td>
<td>26</td>
</tr>
<tr>
<td>Figure 2.3</td>
<td>Comparison of formal and informal settlements nationally and in four major South African cities by Napier and Rubin (2002:5)</td>
<td>37</td>
</tr>
<tr>
<td>Figure 2.4</td>
<td>The conceptual framework emanating from the literature study</td>
<td>78</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>Chart display of educator responses on the likelihood of their area being affected by disasters</td>
<td>116</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>Chart display of educator responses in relation to the inclusion of hazards and disaster learning outcomes in the national curriculum</td>
<td>138</td>
</tr>
<tr>
<td>Figure 4.3</td>
<td>Chart display of educators’ responses to determine whether they teach learners about disasters in schools</td>
<td>148</td>
</tr>
<tr>
<td>Figure 4.4</td>
<td>Chart display of educators’ responses to whether they include the teaching of hazards and disasters in their learning areas</td>
<td>149</td>
</tr>
<tr>
<td>Figure 4.5</td>
<td>Chart display of educators’ responses to the use of an integrated teaching strategy to enhance learners’ awareness of hazards and disasters</td>
<td>149</td>
</tr>
<tr>
<td>Figure 4.6</td>
<td>Chart Display of educators’ responses to the inclusion of indigenous knowledge as a teaching strategy to enhance learners’ awareness of hazards and disasters</td>
<td>151</td>
</tr>
<tr>
<td>Figure 4.7</td>
<td>Chart display of educators’ responses to exposing learners to observe real-life or visual representation of disasters</td>
<td>167</td>
</tr>
<tr>
<td>Figure 4.8</td>
<td>Chart display of educators’ responses to teaching learners to identify potential hazards in their environment</td>
<td>168</td>
</tr>
<tr>
<td>Figure 4.9</td>
<td>Chart display of educators’ responses to checking whether learners discuss what they have been taught with parents</td>
<td>169</td>
</tr>
<tr>
<td>Figure 4.10</td>
<td>Chart display of educators’ responses to whether they are teaching learners ways in which to respond appropriately when faced by disasters</td>
<td>170</td>
</tr>
<tr>
<td>Figure 4.11</td>
<td>Chart display of consolidated educators’ responses to learner’s awareness of hazards and disasters</td>
<td>179</td>
</tr>
</tbody>
</table>
Tables

Table 2.1 The NQF Education and Training Band adapted from SAQA position paper (2001) 59
Table 3.1 Scientific paradigms and their elements (Healy and Perry:2000) 83
Table 3.2 Table depicting the link between the research questions, research methods and data collection sources 107
Table 4.1 Triangulation of data collected through interviews, questionnaires and literature study 183

Pictures

Picture 1.1 Depiction of Ivory Park Informal Settlement situated next to multiple storm water pipes and heavy electric cables 14
Picture 2.1 A picture of Khayelitsha shacks built next to the railway track 35
Picture 2.2 Ivory Park informal settlement depicting shacks, high voltage electric cables and sewerage pipe running over some shacks 39
Picture 4.1 A depiction of vulnerabilities at Khayelitsha informal settlement 180
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>i.</td>
</tr>
<tr>
<td>Personal Declarations</td>
<td>ii.</td>
</tr>
<tr>
<td>Ethics Clearance</td>
<td>iii.</td>
</tr>
<tr>
<td>Statement of the editor</td>
<td>iv.</td>
</tr>
<tr>
<td>Abstract</td>
<td>v.</td>
</tr>
<tr>
<td>Concepts</td>
<td>vii.</td>
</tr>
<tr>
<td>Figures, Tables and Pictures</td>
<td>viii.</td>
</tr>
<tr>
<td>Acronyms</td>
<td>x.</td>
</tr>
</tbody>
</table>

1. **Chapter 1: The need for enhancing learners’ knowledge and skills for responding to hazards and disasters**
   1.1 Introduction                                                      | 1        |
   1.2 Background to the study                                          | 2        |
   1.3 Problem statement                                                | 7        |
   1.4 The main research question and secondary research questions      | 12       |
   1.5 Rationale for the study                                          | 12       |
   1.6 Significance of the study                                        | 13       |
   1.7 Aim and objectives of the study                                  | 15       |
   1.8 Conceptual framework guiding the empirical data collection for the study | 15       |
   1.9 Research design and methodology                                 | 20       |
   1.10 Conclusion                                                      | 21       |

2. **Chapter 2: Literature review on the contribution of education to learners’ awareness of hazards and disasters**
   2.1 Introduction                                                      | 22       |
   2.2 Overview of disasters                                             | 22       |
   2.3 The conceptual framework elements guiding the investigation      | 31       |
   2.3.1 The importance of addressing vulnerability in disaster reduction | 31       |
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.2 Enhancing learners’ resilience to disasters through education</td>
<td>42</td>
</tr>
<tr>
<td>2.3.3 Raising awareness of disasters through education</td>
<td>46</td>
</tr>
<tr>
<td>2.3.4 Raising disaster awareness through indigenous and local knowledge</td>
<td>51</td>
</tr>
<tr>
<td>2.3.5 The role of national education in raising awareness of hazards and disasters</td>
<td>56</td>
</tr>
<tr>
<td>2.3.5.1 The role of curriculum in enhancing learners’ awareness of hazards and disasters</td>
<td>60</td>
</tr>
<tr>
<td>2.3.5.2 The role of instructional design in enhancing learners’ awareness of hazards and disasters</td>
<td>71</td>
</tr>
<tr>
<td>2.4 The need for empirical data to address the questions arising from literature study</td>
<td>76</td>
</tr>
<tr>
<td>2.5 Summary of key issues emanating from the literature study</td>
<td>76</td>
</tr>
<tr>
<td>2.5.1 The conceptual Framework for the study</td>
<td>77</td>
</tr>
<tr>
<td>2.6 Conclusion</td>
<td>78</td>
</tr>
<tr>
<td>3. Chapter 3: Research approach, strategies and methods applied during the course of the investigation</td>
<td>80</td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>80</td>
</tr>
<tr>
<td>3.2 Research design: qualitative, quantitative and mixed method research</td>
<td>80</td>
</tr>
<tr>
<td>3.3 Data collection through documents review, questionnaires and interviews</td>
<td>88</td>
</tr>
<tr>
<td>3.3.1 An overview of data collection methods used in this study</td>
<td>88</td>
</tr>
<tr>
<td>3.3.2 Data collection through literature and document review</td>
<td>90</td>
</tr>
<tr>
<td>3.3.3 The use of questionnaires as a data collection tool for this study</td>
<td>90</td>
</tr>
<tr>
<td>3.3.3.1 The reliability of data collected through the questionnaires in this study</td>
<td>92</td>
</tr>
<tr>
<td>3.3.3.2 Validity of phrasing the questions as depicted in the questionnaires</td>
<td>94</td>
</tr>
<tr>
<td>3.3.4 Data collection through interviews</td>
<td>99</td>
</tr>
<tr>
<td>3.4 The research sample that applies to this investigation</td>
<td>102</td>
</tr>
<tr>
<td>3.4.1 Research sample for questionnaires</td>
<td>102</td>
</tr>
</tbody>
</table>
3.4.2 Research sampling for interview participants
3.5 Data analysis approach applied in this study
3.5.1 Data analysis of the responses retrieved from the questionnaires
3.5.2 Data analysis of interviews responses and document study
3.5.2.1 Coding of the interview transcripts to enable analysis of interview data
3.6 Measures to address validity and reliability of the study
3.7 Research limitations for the study
3.8 Conclusion

4. Chapter 4: Analysis and discussions of the results of the investigation
4.1 Introduction
4.2 An analysis of data collected to address sub-question 1: What disasters are prevalent in South Africa?
4.2.1 An analysis of data collected through literature and policy documents
4.2.2 Questionnaire response in relation to the prevalence of disasters in South Africa
4.2.2.1 Chart display of educators responses on the likelihood of their area being affected by disasters
4.2.2.2 Educators’ general comments related to the prevalence of hazards and disasters in South Africa
4.2.3 Interview responses in relation to the prevalence of disasters in South Africa
4.2.4 Document and picture analysis in relation to the prevalence of hazards and disasters in South Africa
4.2.5 Discussions on the findings of questionnaires, interviews and literature review in relation to the prevalence of hazards and disasters in South Africa
4.3 An analysis of data collected to determine the extent of South African communities’ vulnerability to disasters
4.3.1 Educator responses to the extent in which South African communities are vulnerable to disasters 126
4.3.2 Interview responses in relation to the extent to which South African communities are vulnerable to disasters 127
4.3.3 Documents and picture analysis depicting the extent to which the informal settlements are vulnerable to disasters 131
4.3.4 Discussion of the data collected through interviews, questionnaires and literature review to address the extent to which communities are vulnerable to disasters 132
4.4 An analysis of data collected to determine how the national curriculum caters for the teaching of hazards and disasters 135
4.4.1 Literature review to determine how the national curriculum caters for the teaching of hazards and disasters 136
4.4.2 Questionnaire responses in relation to the inclusion of hazards and disasters learning outcomes in the national curriculum 137
4.4.2.1 Chart display of educators’ response to the inclusion of hazards and disaster learning outcomes in the national curriculum 137
4.4.3 Interview responses on how the national curriculum cater for the teaching of hazards and disasters in schools 139
4.4.4 Discussions of literature review, interviews and questionnaires on how the national curriculum caters for the teaching of hazards and disasters in schools 144
4.5 An analysis of data collected to determine the extent to which integrated teaching and indigenous knowledge contribute to learners’ awareness and resilience to disasters 146
4.5.1 Educators response on the extent in which indigenous knowledge and integrated teaching contribute to learners’ awareness of hazards and disasters 146
4.5.1.1 Chart depiction of the educators’ response to the teaching of hazards and disasters in schools 146
4.5.1.2 Inclusion of natural and human-induced hazards and disasters in the
learning area when teaching learners

4.5.3 Educators’ response to whether they use integrated teaching strategy to enhance learners’ awareness of hazards and disasters

4.5.4 Educators’ responses on the inclusion of indigenous knowledge as a teaching strategy to enhance learners’ awareness of hazards and disasters

4.5.5 Educators’ comments on the inclusion of indigenous knowledge and integrated teaching as strategies to enhance learners’ awareness of hazards and disasters

4.5.6 Interview responses on the inclusion of indigenous knowledge and integrated teaching strategies to enhance learners’ awareness of hazards and disasters

4.5.7 Interview responses on the inclusion of indigenous knowledge and integrated teaching strategies enhance learners’ awareness of hazards and disasters

4.5.8 Interview responses to the use of an integrated teaching strategy to enhance learners’ awareness of hazards and disasters

4.5.9 Discussions of how indigenous knowledge and integrated teaching strategies enhance learners’ awareness of hazards and disasters

4.6 Empirical data collected to identify other teaching strategies that could enhance learners’ awareness of hazards and disasters

4.6.1 Educators’ response to the question on what other teaching strategies could enhance learners’ awareness of hazards and disasters

4.6.1.1 Educators’ responses to the provision of an opportunity for learners to observe a real life or visual representation of hazards/disasters incidence

4.6.1.2 Educators’ response to teaching learners how to identify potential hazards in their environment

4.6.1.3 Educators’ response to checking whether learners discuss what they have learned about hazards and disasters with their families
4.6.1.4 Educators response to whether they teach learners how to respond when faced with disasters 170
4.6.1.5 Comments from educators on the use of other teaching strategies to enhance learners’ awareness of hazards and disasters 171
4.6.2 Responses to the question of whether other strategies could enhance learners’ awareness of hazards and disasters 172
4.6.3 Discussion on what other teaching strategies could enhance learners’ awareness of hazards and disasters 175
4.7 Discussions on whether the empirical data presented has provided conclusive evidence to determine how education contributes to learners’ awareness of hazards and disasters 176
4.7.1 Discussion of the educators’ response in relation to the main research questions 176
4.7.1.1 Comments from questionnaire responses to whether education contributes to learners’ awareness of hazards and disasters 178
4.7.2 Discussions on how the interview responses addressed the main research question 181
4.8 Triangulation of empirical and literature data collected to determine whether education contributes to learners’ awareness of hazards and resilience to disasters 182
4.9 Conclusion on the empirical data collection to determine whether education contributes to learner awareness of hazards and disasters 187

5. Chapter 5: Findings, recommendations and implications of the investigation on learners’ awareness of hazards and disasters

5.1 Introduction 188
5.2 Summary of the problems that led to the study 189
5.3 Summary of the research question and sub-questions 191
5.4 Summary of the aim and objectives of the study 192
5.5 Findings of the literature review 193
5.6 Findings of the empirical investigation 200
5.6.1 Findings of quantitative study on learner awareness of hazards and disasters 201
5.6.2 Findings of the qualitative study on the contribution of education to learner awareness of hazards and disasters 203
5.7 Significance of this study to the South African education system 206
5.8 Other insights emerging from the study 209
5.8.1 The prevalence of epidemics as leading to disasters in South Africa 211
5.8.2 Vulnerability of informal settlements and associated educational requirements 213
5.8.3 The need to include indigenous knowledge to enhance learner awareness to hazards and disasters 214
5.8.4 The contribution of instructional design and development to learners’ awareness of hazards and disasters 216
5.9 Recommendations and implications 217
5.9.1 Recommendations to Higher Education sector 218
5.9.2 Recommendations to the Department of Education 219
5.9.3 Recommendations to stakeholders 221
5.9.4 Recommendations to communities 221
5.9.5 Recommendations to policy developers 222
5.10 Implications of the study on enhancing learners’ awareness of hazards and disasters 223
5.11 Shortcomings and limitations of the investigation 225
5.12 Suggestions for further research 226
5.13 Summary of the investigations 227
5.14 Conclusion 232
List of references 234
Appendix B: Data collection instruments
Appendix C: Approval letters from the Provincial Departments of Education