Investigating the impacts of Global Education curriculum on the values and attitudes of secondary students

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Abstract
Each year, World Vision and AusAID devote substantial resources to their educational programs. These initiatives include the production and dissemination of Global Education related instructional materials and the provision of professional learning for teachers. Given the substantial funds involved, it is important that we evaluate the effectiveness of such initiatives. Are they for example enhancing students’ knowledge and understanding of global issues? Do they have a positive impact on attitudes and values of students? Do they enhance students’ sense of self or personal identity? Do they make students more predisposed to support programs that seek to alleviate poverty in developing countries? And, do they promote active and informed global citizenship? The purpose of this study is to investigate how the study of Global Education impacts student knowledge, understanding, attitudes and values. The research reported here explores student attitudes and values using quantitative data extracted from a total of 521 pre- and post- questionnaires. The authors will discuss that, despite the anticipated positive effect of the Global Education program, the results revealed an element of intolerance in the students’ responses.

Introduction

Global Education and Education Philosophies
Geography provides students with opportunities to gain knowledge of people and countries beyond their personal and local experiences. Adding global education to the curriculum with its global perspective, examination of contemporary global issues, and educating students to be global citizens that empathise and understand other people, cultures and countries, involves resocialisation of individuals and advancement of social and civic.

Curriculum as social reconstructivism is central to John Dewey and Paulo Freire’s educational philosophy. Dewey (1916) supports curriculum that focuses on student experiences and the constructive application of information acquisition and imagination to improve the social condition. For Freire (1972), schools are places for cultural reconstruction and that education is a process of critical awareness that draws on people’s ideas and perceptions to question and challenge injustices.

In broad terms, global education reflects these two strands of progressive education. The first is focused on the development of the individual and the student’s experiences (Dewey, 1916). The other is concerned with creating a more just and equitable society (Freire, 1972). For authors like Dewey and Freire learning is about effecting change at the personal and social level (Breithorde & Swiniarski, 1999). Thus global education with its emphasis on self and society can be viewed as a resocialisation approach as argued by Rapoport (2013) or reflecting Goodson’s (1990) concept of curriculum as social construction, in both in process and practice.

Global Education in Australia
Global education in Australia was established as a curriculum approach in a national statement titled Global Perspectives: A statement on global education for Australian schools, first published in 2002 (Curriculum Corporation, 2008). Global education can be traced back to the growing international concern for social and global inequalities in the 1960s and 1970s (Curriculum Corporation, 2008) and the emergence of international studies and development education (Dyer, 2005; Bliss, 2007; Zhao, Lin, & Hoge 2007; Fujikane, 2003).

The current Global Perspectives document encompasses five key learning areas reflecting themes in global education such as Interdependence and Globalisation, Identity and Cultural Diversity, Social Justice and Human Rights, Peace Building and Conflict Resolution, and Sustainable Futures (Curriculum Corporation, 2008). These learning areas are interdisciplinary and the objective is to integrate global perspectives across the curriculum.
A key goal of the Melbourne Declaration on Educational Goals for Young Australians (MCEECDYA, 2008) is that the national curriculum enables students to become active and informed citizens. Although a number of statements in the Melbourne Declaration (MCEECDYA, 2008) incorporate a focus on global education including global knowledge, global skills and global studies, global education is not a key perspective or key capability. It is however inferred in other initiatives in the Australian Curriculum (ACARA, 2013) such as Asia and Australia’s engagement with Asia.

The overall consensus is that global education is a good thing for 21st century learning in a global economy. It can be empowering and transformative in terms of the way in which students view the world (Bliss, 2005a; Dyer, 2005; DERC, 2013); it extends students’ understanding and acceptance of difference (Gore, 2004) and provides opportunities for students to develop positive and responsible values and attitudes and become active global participants (Curriculum Corporation, 2008; DERC, 2013).

Some Issues Relating to Global Education in Canada, UK and USA

Despite global education’s presence in the education discourse in Australia, the UK and USA a number of authors (Zhao, Lin, & Hoge 2007; Hicks, 2003; Bourn & Hunt 2011) have found that there is a lack of specific research on the effectiveness of the various global education programs. One of the reasons for this absence of research may be due to how global education as a concept is viewed and applied.

This is compounded by the absence of a universal definition (Bliss, 2005a); the nuanced meanings of global education (Dyer, 2005); and the many terms used by educators including global dimension, global citizenship, development education, and global education (DERC, 2013; Hicks, 2003). A further dilemma identified by a number of authors (Bliss 2005a; Dyer, 2005; Hicks, 2003) is the existence of related fields such as peace education, environmental education, development education and sustainable education that have separate identities but are part of global education.

Generally, there are common elements in the rationale and outcomes of global education programs (Bliss, 2007) but as noted by Tye (1999, as cited by Hicks, 2003) differences exist across countries in relation to forms, connections and multiple perspectives. In the UK and USA, global education has been conceptually contested, criticised and reviewed by all sides of politics (Merryfield & Kasai, 2004; Zhao, Lin, & Hoge, 2007; Agabaria, 2011).

The effectiveness of global education in the USA has been questioned by a number of researchers (Lansford, 2002; Merryfield & Kasai, 2004; Zhao, Lin & Hoge, 2007; Gaudelli & Heilman, 2009). These authors have raised concerns about students’ rudimentary knowledge and critical capacity to understand complex global issues. Similarly in Canada, research indicates that the implementation of global education was weak or uneven (Mundy & Manion, 2008) due to low levels of teacher knowledge in this area. This was seen as a factor in Canadian youths’ limited knowledge of global issues.

Research undertaken in the United Kingdom found that without an opportunity to learn in school about global issues 34 per cent of adults surveyed (aged 15 years and over) were not interested, engaged or supportive of positive social action. In comparison, this disengagement reduced significantly to 1 in 10 for those that learnt about global issues at school (DEA, 2010).

Role of Teacher and School

Buchanan and Harris (2004), Marshall (2007) and Bourn and Hunt (2011) note the development of a global perspective in UK schools was linked to local stimuli associated with multicultural communities, languages spoken at school, and teacher commitment. This reflects Dyer’s (2005) view that the quality of global education is dependent on the teacher and the learning space created by the teacher.

Teachers’ experiences, knowledge and critical capacity influenced the teaching of complex global issues (Merryfield & Kasai, 2004; Zhao, Lin, & Hoge, 2007). This is reaffirmed in research by Dyer (2005) Bliss (2005b, 2005c, 2007), and Gallavan (2008) revealing that factors such as age, life experiences, bias, prejudices and subject discipline may contribute. Boon (2011), however, argues that more research needs to be conducted to gain a better understanding of influences that shape pre-service teachers’ beliefs, values and ethics.

Many teachers report that they feel inadequately trained to teach global issues (Merryfield & Kasai, 2004). Not surprisingly research confirms the importance of teacher training in addressing global education knowledge and understanding (Donnelly, Bradbery, Brown, Ferguson-Patrick, Macqueen, and Reynolds, 2013; Holden & Hicks, 2007; Power, 2008) including career long professional learning (Buchanan & Harris, 2004; Mulraney, 2006) and provision of appropriate support and resources (Larsen & Faden, 2008; Mundy & Manion, 2008).

Teaching and learning resources provided by NGOs for global education have not always been
successfully integrated in schools and classrooms such as in Canada (Mundy & Manion, 2008) and the UK (Bourn & Hunt, 2011). Contrary to the overseas experience, internal research by World Vision (2011) revealed teachers in Australia that utilised NGO resources had a positive impact on student knowledge, values and attitudes. Witteborn (2010), however, questions the role of NGOs and argues they promote values, practices and a vision of global citizenship that is “choreographed by donor countries”. This concern is echoed by Bliss (2005b; 2007) and Mangram and Watson (2011) and as noted by Tye (1999, as cited by Hicks, 2003) it could be argued that global education is a rich world initiative reflecting an Anglocentric perspective (Berry & Smith, 2009).

Inclusion of Values and Attitudes

Students participating in global education are introduced to a more critical and informed way of viewing the world. Kriewaldt (2003) argues from a reconstructionist perspective that students develop knowledge and skills through the study of countries, people and places, and by examining different perspectives. The importance of multiple perspectives is embodied in Australia’s national statement first published in 2002 (Curriculum Corporation, 2008).

Submissions by the National Geography Curriculum project team (Berry & Smith, 2009) to ACARA argued that students should be able to develop values and attitudes through the exploration of ethical dilemmas and critical analysis of differing viewpoints. In exploring values in Geography, Kriewaldt (2003) notes that teachers and curriculum material may draw from a range of ideologies and teachers should help students to develop informed opinions.

In the process of challenging or influencing students’ perspectives, Bliss (2005a) notes that content and practice are linked. The how and who we teach has an impact on students’ outcomes – as informed, responsible global citizens. Ultimately, Bliss (2005b) sees teaching values as an integrated process often requiring “mindset changes” in moving students beyond thinking and feeling to acting.

Research on the transformative nature of the broader Australian program Values in Action Schools Project reveals students can be supported to develop a deeper understanding of complex issues (Lovat, Clement, Dally, & Toomey, 2010). Similarly, research on Asian studies by Griffin, Woods, and Dulhunty (2004) found a correlation between students’ understanding/achievement levels and the teacher’s commitment. Kriewaldt (2003) argues that values are central to geographical education and that both teachers and students should deconstruct the ideological framework that positions their values through the study of people and places and multiple perspectives. The challenge for teachers is whether to stay neutral or play the role of devil’s advocate to illuminate alternative perspectives (Kriewaldt, 2003).

Purpose of the Study

The purposes of this research were to find out (a) after completing a unit of work in global education to what degree did it enhance students’ knowledge of global issues? (b) to what degree did it have a positive impact on attitudes and values of students? (c) to what degree did it enhance students’ sense of self or personal identity? and (d) to what degree did it promote active and informed global citizenship?

Measuring Values and Attitudes

The Global Education Values and Attitudes Questionnaire (GEVAQ) was developed using concepts expected to be taught in the Global Education framework (Curriculum Corporation, 2008). Items for the questionnaire were developed by operationalising concepts relating to the values and attitudes expected to be developed in the Global Perspective curriculum. Where possible, insight from recent research literature was used to inform the development of the items. For example, sense of community is one of the desired outcomes of the Global Education framework. There exists a body of literature that has investigated that particular concept. Therefore, key studies (for example, McMillan & Chavis, 1986; Chiessi, Cicognani, and Sonn (2010) were used to conceptually frame sense of community and its various dimensions and generate items for the questionnaire. Care and compassion were conceptualised using the operational definitions concerning the desire to do something about the suffering of others and related concepts developed by Martins, Nicholas, Shaheen, Jones, and Norris (2013), Gelhaus (2012), and others. A comprehensive explanation of the development of the GEVAQ will be reported in a forthcoming article.

The study reported here is predicated on the notion of values as an individual’s ideas about what is important, worth being or worth doing, and standards about what is desirable and what is not (Fraenkel, 1977; Newman, 2004). It is also predicated on a definition of attitudes as dispositions or feelings towards things (Stankov, 2011; Wells, 2011) and that these can be positive or negative or other (Griffin et al., 2004; Tarry & Emler, 2007; Wells, 2011). The proposition that
values and attitudes can be the same thing, or are at least interrelated, has been put forward by several scholars in an attempt to describe how they are linked (Mellor & Kennedy, 2003; Wells, 2011). For example, someone can have a feeling that they are part of a community which could be described as the same as an attitude to community (Chiessi et al., 2010), while at the same time holding sense of community as important (valuing it). Values are known to influence attitudes and behaviour, and can be extrapolated from the actions of individuals to some degree (Dilmac, Kulaksizoglu, & Eski, 2007).

Values and attitudes have been described as concepts that cannot necessarily be seen or felt but that exist in the mind (Griffin, Woods, & Dullhunty, 2006). They appear to operate in the realm of feelings and perceptions (Dilmac et al., 2007). Values in particular have been the subject of a large body of qualitative literature (for example, Hamston, Weston, Wajsenberg, & Brown 2010; Marvul, 2012). However, it is possible to measure values and attitudes using quantitative methods (Griffin et al., 2006; Mellor & Kennedy, 2003; Stankov, 2011; Tarry & Emler, 2007). In a study of the attitudes of young adults, for instance, elements of the concept of compassion were effectively and successfully operationalised into a scale using a questionnaire (Martins et al., 2013).

Method

Ethics approval to conduct the study was obtained from the relevant ethics committee at Macquarie University prior to commencement of the study. The GEVAQ was tested using data from the first participating school to see if items were understandable and, therefore, dependable, as measures of values and attitudes. Examination of descriptive data for each item revealed no problems items and the questionnaire was deemed ready for use in other schools.

The GEVAQ was administered to students in Years 7 and 8 in the nine independent secondary schools that agreed to participate in the larger study. The survey was completed twice, firstly prior to the delivery of a global perspectives curriculum, and second, immediately after that series of learning experiences ceased. The aim of this was to determine what, if any, attitudinal or value changes occurred in the students as a result of a global education curriculum.

Given this design, the first survey can be viewed as a pre-test while the second (identical to the first) as a post-test. The response rate was 85%, reflecting 521 participants from a pool of 621 who returned usable surveys. All participants in the pre-test were also participants in the post-test.

Results

Data from both administrations of the GEVAQ were entered on to an SPSS database. Inspection of the frequencies for all items revealed no abnormalities. What follows is an account of the factor analysis and subsequent comparisons of means.

Factor Analyses

Factor analysis was conducted in order to arrive at a coherent, statistically supported, and reliable set of scales representing the values and attitudes that are expected to be developed in the global education curriculum. Data from the pre-test were entered into an SPSS database and subjected to factor analyses. A ten factor solution was identified that reflected those values and attitudes. Results are displayed in Table 1. The table shows the factor names based on the items that comprised them, the number of the items and a sample of them.

Reliabilities of each of the ten scales were considered moderate to very strong and each factor comprised items that were easy to interpret as scales measuring particular values or attitudes. These scales were comprised of the individual GEVAQ items that loaded on each of the factors. Social justice, for example, comprised seven of the GEVAQ items relating to elements of social justice. Sample items for each of the factors are presented in Table 1. The scores for each cluster of items comprising each factor could then be combined to calculate means. Given the success of the factor analyses to identify cogent global education scales, the next stage of the statistical analysis, comparison of means of pre-tests with the post-tests, to identify differences could be carried out.

Comparisons across all schools

Means for each of the above factors were calculated for the pre-test and post-test data. Subsequently they became means for particular values and attitudes for the cohort of students participating in this study. These were compared mathematically and also subjected to a paired-samples t-test to identify differences that were statistically significant (p=0.01, 0.05, 0.10). Given the exploratory nature of the research, a significance level of 0.10 was considered acceptable (Gay & Airasian, 2000).

Factors that had significantly different means were subjected to Cohen's d analyses to calculate the effect size reflected in the difference. The effect size statistic, in essence, could be interpreted as
an estimate of the impact the global education curriculum had on student values and attitudes. These comparisons are displayed in Table 2.

Statistically significant differences were identified for 4 out of the 10 values and attitudes comparisons: Social justice, Personal identity, Sense of community – membership, and Environmental sustainability. These four were subjected to a Cohen’s d analysis to determine the magnitude of the difference (Hittleman & Simon, 2002) and hence be able to determine the effect size indicated by the difference.

The attitude and value that had the largest difference, and consequently the largest effect size, was Personal identity. The effect size (d=0.94) was considered large statistically (Hittleman & Simon, 2002). The other three values and attitudes subjected to these calculations had effect sizes below 0.20 which,

Table 2: Comparison of differences

<table>
<thead>
<tr>
<th>Factor</th>
<th>M1</th>
<th>SD</th>
<th>M2</th>
<th>SD</th>
<th>Diff</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social justice</td>
<td>8.15</td>
<td>1.34</td>
<td>8.32</td>
<td>1.25</td>
<td>+0.17</td>
<td>-2.06**</td>
<td>0.18</td>
</tr>
<tr>
<td>Personal identity</td>
<td>5.88</td>
<td>1.36</td>
<td>6.96</td>
<td>1.78</td>
<td>+1.08</td>
<td>-10.82*</td>
<td>0.94</td>
</tr>
<tr>
<td>Respect for rights of others</td>
<td>9.03</td>
<td>1.22</td>
<td>9.04</td>
<td>1.10</td>
<td>+0.01</td>
<td>-0.26</td>
<td>- -</td>
</tr>
<tr>
<td>Empathy for others</td>
<td>8.90</td>
<td>1.23</td>
<td>8.91</td>
<td>1.18</td>
<td>+0.01</td>
<td>-0.10</td>
<td>- -</td>
</tr>
<tr>
<td>Antipathy towards global issues</td>
<td>4.44</td>
<td>1.71</td>
<td>4.40</td>
<td>1.84</td>
<td>-0.04</td>
<td>0.35</td>
<td>- -</td>
</tr>
<tr>
<td>Sense of community – shared emotional connection</td>
<td>8.30</td>
<td>1.45</td>
<td>8.39</td>
<td>1.50</td>
<td>+0.09</td>
<td>-0.95</td>
<td>- -</td>
</tr>
<tr>
<td>Sense of community – membership</td>
<td>7.41</td>
<td>1.46</td>
<td>7.57</td>
<td>1.53</td>
<td>+0.16</td>
<td>-1.73***</td>
<td>0.16</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>8.29</td>
<td>1.22</td>
<td>8.43</td>
<td>1.24</td>
<td>+0.14</td>
<td>-1.78***</td>
<td>0.15</td>
</tr>
<tr>
<td>Cooperation and care</td>
<td>8.72</td>
<td>1.16</td>
<td>8.73</td>
<td>1.17</td>
<td>+0.01</td>
<td>-0.81</td>
<td>- -</td>
</tr>
<tr>
<td>Tolerance of difference</td>
<td>8.63</td>
<td>1.23</td>
<td>8.55</td>
<td>1.32</td>
<td>-0.08</td>
<td>1.08</td>
<td>- -</td>
</tr>
</tbody>
</table>

* p=0.01, ** p=0.05, *** p=0.10  M1= Mean (pre-test)  M2=Mean (post-test)
while significant, could be considered as weak (Hittleman & Simon, 2002).

A mathematical comparison of the means for each revealed changes that were in the expected directions for all but one of the values and attitudes. Specifically, means for Social justice, Personal identity, Respect for rights of others, Empathy for others, Sense of community – shared emotional connection, Sense of community – membership, Environmental sustainability, Cooperation and care, and Tolerance of difference were expected to increase in the post-test compared to the pre-test and the mean of Antipathy towards global issues was expected to decrease in the same interval. The increases were as anticipated for all but Tolerance of difference.

The pattern of mean change between pre-test and post-test was similar across all nine schools. Figures 1 and 2, showing means from two of the schools (referred to as ‘A’ and ‘B’), illustrates this similarity. Some minor, non-significant, school-based differences, such as those between Sense of Community – membership in Figures 1 and 2, were observed in comparisons between schools. However, the general trends for each factor were quite similar.
On inspection of individual school scores those for Antipathy towards global issues were the most variable across the nine schools, as shown in Figure 3, and this would account for the smaller than expected change result. Nevertheless, in half of the schools the mean for this factor increased, suggesting that the students felt more opposed to global issues such as foreign aid after the global education program and this requires further investigation.

The means for Tolerance of difference did not increase as expected. Figure 4 shows the means for this factor across the nine participating schools. The differences were very small and this would explain why the overall change was not significant statistically. Nevertheless, it is worth reporting that the mean did increase, in absolute terms from pre-test to post-test, in four schools, decreased in four schools and remained the same in one school (see result for ‘4’ in Figure 4).
Discussion and Conclusion

The results suggest that the global education curriculum had positive effects on students’ values and attitudes regarding related issues. Increases in value and attitude means could be interpreted as students placing greater importance on particular values or having a more positive disposition towards them than previously would have been the case. This is a valuable finding pointing to the potential for global education curricula to influence value and attitude change.

The strongest impact appeared to be on students’ personal identity or, put another way, the global education curriculum in these schools appeared to have the strongest influence on students’ sense of self. In a recent theoretical paper drawing on other scholars, Almond (2010) makes clear the connection between values taught in schools and the development of student religious and cultural identities. In an earlier study, Dinter (2006) described how various aspects of school curriculum can impact on identity formation. Therefore, the finding reported here could be explained, potentially, as the outcome of a program directed at personal values and a resulting student satisfaction with how they are developing as individuals.

The results for Tolerance of difference were not expected, but could be explained in terms of the students already having achieved a threshold level of tolerance via their earlier studies of global issues and exposure to inequity and injustice via social and other electronic media. Social media, for example, has been shown to have influences on attitudes on young adults (Livingston, Gianfrotne, Korf-Uzan, & Coniglio, 2014). It may also reflect the nature of the schools included in the sample. The means for each of the global education values and attitudes factors were generally moderate to high even at the pre-test stage, which would partly account for the low difference calculations. There are possible explanations for this. During interviews conducted as part of the larger study, some students indicated that they had experienced global education programs or units of work of a similar nature previously. If that is the case, then the higher means might be interpreted as a logical consequence of formative value and attitude development arising from the previous learning experiences.

Another explanation for the higher pre-test means relates to the faith-based nature of the participating schools. All nine schools have faith-based origins and cater to the predominant religious denominations of their communities. There is a body of literature that recognises the highly normative nature of faith-based schools, and how common religious values such as respect, human dignity and concern for others may be reflected in the attitudes and behaviour of students and teachers (Crick & Jelfs, 2011; Dorner, Spillane, & Pustejovsky, 2011; Street, 2007). The findings could therefore point to an artefact of school and wider culture.

This study has, of course, limitations that prevent us from generalising for all schools. First of all, and most importantly, the study represents a snapshot of a curriculum program over a short period of time. A better explanation of the impacts of global education programs on student values and attitudes would obviously be achieved via longitudinal studies where students have been exposed to such curricula over a longer period of time. Secondly, the study was conducted in independent, faith-based, schools and this could have influenced the level of means, as a baseline measure, in the pre-test. A more comprehensive study, involving government schools and perhaps Catholic systemic schools also, is needed to gain a more accurate picture of the impacts of global education curricula on students from a variety of religious and cultural backgrounds.

These limitations notwithstanding, the findings suggest that a global education curriculum has the potential to influence the values and attitudes, and by extension, the behaviour and inclinations of students to issues ranging from social justice and tolerance to their own identities as global citizens. This kind of personal development is certainly in line the broad aims of the Melbourne Declaration, which espouses, among other ideals, the creation of generations of individuals who are “active and informed citizens” (MCEETYA, 2008). While the direct line between values and attitudes and actions can be sometimes obscured by other motivations, there lies in such curricula as Global Education the potential to influence values in ways that will more likely lead to changed attitudes and, as a consequence, behaviour and choices (Newman, 2004). In relation to dispositions that are in line with the notion of “active and informed citizens” from the Melbourne Declaration or, beyond this, succeeding in the constantly changing and challenging wider world, the findings we have reported here are encouraging.

The next phase of the larger study involves an analysis of the qualitative data collected during the course of the research. Also to be examined is the data related to knowledge acquisition. Subsequent research papers will detail the findings of these analyses.
References


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