Evaluation of an educational exhibition on global issues and consumer responsibility: From involvement to hopelessness

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Abstract

The article presents the evaluation of an interactive exhibition for secondary education students (15-19 years old), focusing on global problems and consumer responsibility. The evaluation was conducted in three schools. Data were obtained from interviews with teachers (N=3) and questionnaires (N=204) distributed among students after the exhibition. For the analysis, both quantitative and qualitative approaches were used.

The results suggest that the exhibition was successful in terms of involving students and increasing their awareness of the problems. Some students evaluated the exhibition as manipulative. An unintended effect of the exhibition was students’ feeling of hopelessness. This article discusses the results and suggests a change in strategy when dealing with global problems in schools.

Key words:

global problems and issues; evaluation; exhibition; development education; consumer responsibility

Abstrakt

Článek prezentuje zhodnocení interaktivní výstavy určené pro středoškolské studenty (věk 15-19 let), která se zaměřuje na globální problémy a zodpovědnost konzumentů. Zhodnocení bylo provedeno na třech školách. Data byla získána formou rozhovoru s učiteli (N=3) a dotazníky rozdanými studentům po konci výstavy (N=204). K analýze dat byly použity jak kvantitativní tak kvalitativní přístupy.

Z výsledků je možné vyvodit, že výstava byla úspěšná z hlediska zaujetí studentů a zvýšení jejich povědomí o daných problémech. Někteří studenti však zhodnotili výstavu jako manipulativní. Nevýznamným efektem výstavy byl pocit bezmoci mezi studenty. Tento článek diskutuje zjištěné poznatky a navrhne změnu strategie v případě výuky a aktivit o globálních problémech.

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Introduction

The issues of interconnectedness between our consumer behaviour and poverty in developing countries are important but difficult educational areas. According to Rickinson (2001), students usually are aware of the problems, declare pro-environmental attitudes and concern for the future. On the other hand, their knowledge is full of misconceptions and they are usually not willing to sacrifice their consumer life-style.

The gap between awareness and action has been largely analyzed. According to Hungerford and Volk (1990), awareness of an issue is not a single precondition of an intention to act. Human behaviour is shaped by an interplay of cognitive, affective, and conative variables. According to their theory of responsible behaviour, there are three levels of variables: entry-level variables (e.g. environmental sensitivity), ownership variables (e.g. in-depth understanding of an issue), and empowerment variables (e.g. locus of control, perceived action competence).

There is ongoing discussion about the correlation of these variables. According to Meinhold and Malkus (2005), attitudes and behaviour are correlated, but behaviour also correlates with other variables (self-efficacy) that do not correlate with attitudes. As Thapa (1999) found, students might declare pro-environmental attitudes but they still do not act in a pro-environmental way. Similarly, other scholars regard the correlation between attitudes and behaviour as weak (Hines, Hungerford & Tomera, 1986-7, Hungerford & Volk, 1990).

A feeling of guilt is another variable that appears in the model described by Bamberg and Möser (2007). They assume that the feeling of guilt is caused by issue awareness, being confronted with a perceived social norm, and by the internal attribution of an issue. A feeling of guilt weakly correlates with personal norms and attitudes.

Other scholars highlight the importance of empowerment variables (like self-efficacy, perceived control, locus of control, etc.) for the intention to act: people are not likely to act if they do not believe they are capable of a particular behaviour. Because of this, people with positive experience of responsible behaviour will be more likely to choose to modify their behaviour again in the future (Ajzen, 1991, Bandura, 1977, Hines, Hungerford & Tomera, 1986-7, Hungerford & Volk, 1990).

Despite many uncertainties in this area we might summarize that responsible consumer behaviour is not a simple function of increased awareness about global issues. A successful programme should also deal with attitudes, personal norms, perceived control or action competence to support behavioural change. Such a strategy calls for a well-prepared educational programme.

Students are usually confronted with global issues in informal educational settings. Electronic media seems to be the most important information source for students (Yurttas and Sülün, 2010, Clovek v tisni, 2012). However, this might result in developing or deepening existing misconceptions.

For example, in the Czech Republic, approximately 47% of high school students consider poverty as a serious issue (Clovek v tisni, 2012). However, only 20% of students believe they can make a difference and only a half of these are intent on action.

This opens up the question of how schools should be involved in teaching these issues. Nagel (2005) warns that a side-effect of poorly designed global educational programmes might be ‘learned hopelessness’ and apathy. Students interpret the problems as unsolvable and do not believe in their capacity to have any influence in making change.

According to Elam and Trop (2011), programmes concerning sustainable development should involve four dimensions: they should contain academic, instructional
teaching, multidimensional and cross-curricular perspectives and emotional learning. To meet these criteria, we probably need long-term educational programmes, including students’ investigation of an issue or their civil action. However, what effect could a short, 1-3 hour global educational programme have on students? Could such difficult objectives be achieved in such a short time?

On the basis of previous research we might assume that even short global educational programmes might be effective to some extent. Bahk (2011) found a positive impact of the movie Medicineman on students’ attitudes towards tropical forest protection. Nolan (2010) reported increased climate change awareness and attitudes among viewers who watched the film The Inconvenient Truth. However, such awareness did not lead respondents to behavioural change.

In the Czech Republic, no information about the impacts of short global educational programmes has been published. This paper presents a case study of an interactive exhibition 'The Supermarket, the WORLD' designed by the Czech non-profit organization NaZemi, in co-operation with organizations Zivica (Slovakia), Fair Trade Hellas (Greece), and Humanitas (Slovenia). In this paper, we analyze how secondary school students from three Czech schools perceived the exhibition.

**Programme**

The mobile exhibition allows students to explore it in their own schools. It introduces secondary education students to the unintended impacts of our consumer behaviour on people and the environments in developing countries. To develop such awareness, students investigate the exhibitions five sections, each of which presents a specific topic. For example, in the textile department, students are introduced to the impacts of cotton production on the health of people local to and environment of the Aral Sea. The advertisement department raises environmental and social issues connected with the Coca-Cola Company. Every department communicates one or two messages connected to the main concept of the exhibition ('our consumer behaviour often has serious environmental and social impacts and because of this we should choose the sustainable option when there is a choice). For all the concepts communicated by the exhibition, see Appendix 1.

The exhibition is highly interactive. In the mobile telephone department, students can open and get inside a big mobile phone and interactively investigate the social and environmental impacts of its production. The exhibition also shares short stories of people influenced by the presented product.

Teachers facilitate the work within the exhibition in a 60-90 minute educational programme. Teachers introduce the exhibition and at the end discuss the issues with students (NaZemi, s.d.).

There were two different strategies applied by the teachers in the investigated schools. At two schools, teachers simply introduced students to the exhibition, provided time for independent investigation of the exhibition, and then debriefed their experience and new learning. One of these teachers used a slightly different strategy when he asked students to investigate one of the presented issues and then share their findings with the rest of the class.

**Evaluation methodology**

The evaluation plan of this exhibition was designed in September 2012. In this paper, we focus on analysing how students evaluated the exhibition and how the exhibition influenced students’ thinking on developmental and consumer issues.
The evaluation summarizes results from three case studies representing schools implementing the exhibition in October – December 2012. In each of them, students’ and teachers’ perspectives are combined.

As a first step in the evaluation process, the evaluator visited the exhibition and analysed issues that might be connected with it. For obtaining data from the respondents, two instruments were used. Teachers’ responses were obtained by interviews, varying in length from 21-50 minutes. The interviews focused on sensitizing concepts that emerged from evaluators’ initial analyses of the exhibition. The evaluator investigated the way teachers facilitated the exhibition, how students reflected the issues, what emotional reactions appeared, and how teachers evaluated the exhibition. Altogether, three teachers (two men and one woman) were interviewed.

The evaluator was a man, age 39, working at a university, with experience in evaluation of environmental educational programmes. His experience might influence the way the interviews were conducted. For example, the evaluator assumed that the balance of presented information might be questionable and such an assumption led him to include this topic in his interview guideline.

To obtain data from students, they were asked to fill in questionnaires 2-4 weeks after visiting the exhibition. The questionnaires contained a set of quantitative and qualitative items concerning the attractiveness of the exhibition, students’ emotional reactions, new concepts learned by students, linking the concepts with students’ life, students’ evaluation, and demographic items. For a deeper analysis of the way students linked the issues with their lives, the questionnaire Global Consumer Responsibility employing a 4-item Likert scale was developed. (For more details, see Appendix 2.)

For the purpose of evaluation, each of the groups (of students from different schools) was first analysed separately. On the basis of these case studies, an aggregated analysis was conducted. In this paper, because of space constraints only aggregated data will be presented. Because of this, the limits of the study must be considered. There was a high level of heterogeneity in the sample of students. Two of the three schools focus on science, humanities, and social science education (‘gymnasium’). The third is a school providing vocational training in hotel services and catering. The sample of students is presented in Table 1.

### Table 1 Sample of students

<table>
<thead>
<tr>
<th>N</th>
<th>Average age</th>
<th>SD</th>
<th>Mode</th>
<th>Girls %</th>
<th>Boys %</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>17.1</td>
<td>1.34</td>
<td>18</td>
<td>51</td>
<td>42</td>
</tr>
</tbody>
</table>

Notice: 7 % of the respondents did not provide information about their gender, N = number of respondents, SD = standard deviation

In light of these facts, we strongly warn against overgeneralization of the presented results. Even if the data exhibits common patterns, they only represent the schools involved in the study. In spite of this, we believe that the results might be a good start to investigate more general questions concerning how short global educational programmes might be interpreted by students.

**Results**

According to the results, students enjoyed the exhibition and appreciated its interactivity (see Table 2). The majority of them did not suggest any changes and
recommended it for further presentation. All of the teachers reported their satisfaction in the exhibition.

**Table 2 Satisfaction with the exhibition**

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Strongly disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exhibition was boring</td>
<td>202</td>
<td>39</td>
<td>53</td>
<td>6</td>
<td>0.5</td>
</tr>
<tr>
<td>Presented information was new for me</td>
<td>202</td>
<td>1</td>
<td>21</td>
<td>57</td>
<td>20</td>
</tr>
<tr>
<td>The exhibition repeated what I had already heard.</td>
<td>204</td>
<td>10</td>
<td>42</td>
<td>37</td>
<td>11</td>
</tr>
</tbody>
</table>

Although most of the students reported that the exhibition exposed them to new information, half of them also reported that it repeated what they had already heard. It might be assumed that the exhibition presented a mixture of ‘old’ and ‘new’ information for the respondents.

The exhibition presented potentially controversial issues. Because of this, students were asked to assess if the issues were presented in a fair and balanced way (see Table 3):

**Table 3 Fairness in presenting the issues**

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Strongly disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presented information well-balanced the point of view of more stakeholders.</td>
<td>201</td>
<td>3</td>
<td>41</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>The exhibition manipulated me towards pre-stated ‘truths’.</td>
<td>200</td>
<td>7</td>
<td>38</td>
<td>44</td>
<td>9</td>
</tr>
</tbody>
</table>

As we can see, half of the students questioned the objectivity of presented information. According to one student (male):

“The exhibition made no effort to present different points of view. It highly tended to a typical ‘eco-dogmatism’, such as ‘evil’ corporations torture little kitties...’

In one of the groups, a teacher reported that a criticism was followed by a defense of students’ life style and their favourite products.

More than half of the students reported that the exhibition shocked them (see Table 4).

**Table 4 Emotional reactions to the issues**

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Strongly disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

The content of the exhibition was shocking. As one of the respondents (female) stated:

‘The content of the exhibition was shocking because most of the things I had not known and then learned surprised me and I do not think they are right.’

Such an emotional reaction was marginal in the group of catering students, contrasting with the other groups. In all of the groups, girls expressed a higher level of shocked reaction (N=103, M=2.75, SD=0.72) than boys (N=86, M=2.28, SD=0.77, z=-3.75, p<0.001).

Students reported having been shocked by information about the social and environmental impacts of consumer products, or by their intensity:

‘(…) I had never had any idea about where to get information about such things or that a company such as Coca-cola could have a negative impact somewhere in the world …’ (girl)

As the teachers mentioned, when students discussed connections between their lifestyle and presented problems, a large area of controversy appeared. Some students questioned the objectiveness of presented information. In one of the groups, students even questioned the teacher’s integrity suggesting he also bought Coca-cola products. Most of the students agreed that the exhibition presented choices for responsible behaviour but an even smaller minority declared being motivated to change their behaviour (see Table 5):

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Strongly disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exhibition clearly demonstrated what a person should do to help to moderate the issues.</td>
<td>204</td>
<td>3</td>
<td>23</td>
<td>47</td>
<td>27</td>
</tr>
<tr>
<td>The exhibition inspired me to start doing something differently.</td>
<td>204</td>
<td>12</td>
<td>58</td>
<td>26</td>
<td>4</td>
</tr>
</tbody>
</table>

The lack of reported motivation corresponds with scepticism expressed by students and reported by the teachers. As one of the students (boy) noticed,

“I don’t feel that I can do anything about the drying Aral Sea in Russia or with the practice of sandblasting jeans.”

Girls reported a higher level of motivation towards adopting responsible behaviour (N=103, M=2.36, SD=0.65) than boys (N=86, M=2.01, SD=0.69, z=-3.11, p<0.001). Gender aspects appeared also in the test of Global consumers’ responsibility, where girls scored higher (N=104, M=11.83, SD=2.23) than boys (N=86, M=10.45, SD=2.45, z=-3.86, p<0.0001).
Discussion

In light of the mentioned limits of the study, we might suppose that the exhibition provoked varying degrees of emotional reactions among the students. We might assume that these reactions might mobilise a chain reaction from apathy to responsible action.

Apathy vs. involvement appeared as a very clear theme. On the basis of students’ reactions and teachers’ responses we can suppose that most students were engaged with the exhibition and liked the way the issues were presented. Students’ satisfaction with the way the exhibition was designed motivated them to investigate presented issues.

There are a few distinctive features of the exhibition with a high motivational potential. According to Cordova and Lepper (1996), contextualization, personalization, and provision of choice enhance students’ motivation. By organizing the exhibition into themes and providing real-life stories, students investigated the issues in a contextual framework. By offering an opportunity to participate in activities (for example, with the big mobile phone), students had the opportunity to make a choice and to play. By linking the presented issues with students’ lives, students could ‘personalize’ this experience.

Because of this, we might suppose that satisfaction with the exhibition is an important precondition for motivating students. Motivation opens an opportunity for learning (Kovalik, 1994, Cordova & Lepper, 1996). Students reflected new knowledge that could be categorized as ‘issue awareness’, ‘relationship awareness’, and ‘perceived control’. These categories emulated three levels of variables in the model of responsible environmental behaviour described by Hungerford and Volk (1990). Most of the students reported various levels of issue awareness and relationship awareness. The empathy they expressed might increase their attitudes and, as a result, their motivation towards responsible behaviour (Berenguer, 2007, 2008, Stern, 2000).

However, most of them did not feel motivated towards adopting responsible behaviour. How can this be explained?

We might assume that the presentation of the issue confronted with a discourse of guilt. This assumption is supported by the defensive strategies exhibited by some students (confronting the teacher, questioning the objectivity of the exhibition). One of the teachers made an interesting point that the students have no real opportunity to influence the issues. He believed that the aim of the exhibition is to encourage in the students a sense of humility when faced with their responsibility for problems they cannot change. However, even if a feeling of guilt did correlate with personal norms and attitudes (Bamberg & Möser, 2007), attitudes are probably not the main precondition for responsible behaviour (Hines, Hungerford & Tomera, 1986-7, Hungerford & Volk, 1990). Moreover, the feeling that the issues are too big for students to make any change might actually make them feel hopeless and decrease their self-efficacy.

As a result, even if the exhibition changed students’ awareness, attitudes or personal norms, such a change is not an adequate precondition for a behavioural change. The scepticism reported by students and their teachers leads us to suggest that the exhibition did not increase the level of students’ empowerment variables (perceived control over the issues, locus of control). Such variables are more likely to be developed on the basis of our own, successful experience (Ajzen, 1991, Bandura, 1977, Hines, Hungerford & Tomera, 1986-7, Hungerford & Volk, 1990).

Although the exhibition declared its success in generating awareness and discussion of the issues at regional level, there are no follow-up programmes where students could try to take their own civil action or make their own independent investigation of the issues (with the exception of one of the schools). Fox (2010) introduces how such a programme could work. In a one-year elementary school programme students were introduced to the concept of poverty in a sequence of instrumental lessons. They were then invited to choose their own local or global issue, investigate it, plan, and implement their own civil action (e.g. raising money for local homeless people). We suggest that if a global
educational programme aspires to motivating students to adopting responsible behaviour, students should be provided with an opportunity for independent investigation of an issue and conducting a school project in response.

Other factors influencing the students’ interpretation of the exhibition might be in play. The study discovered gender differences when girls were more sensitive to issues than boys. This result is supported by other studies when girls tend to have more pro-environmental attitudes and intention to act (Rickinson, 2001, Boeve-de Pauq et al, 2011).

Students’ social status or their political beliefs might be other important factors. Zia and Todd (2010) found that conservative respondents are less concerned about global warming or poverty issues than liberal respondents. It might be supposed that students from rich families are more conservatively oriented and likely to reject content which is critical of corporate business practice.

Finally, pro-environmental orientation of adolescents might be connected with their personal dispositions, such as responsibility, open-mindedness, or perceived behaviour control. In contrast, egocentrically oriented students might be more selfish and less open to the issues presented by the exhibition.

Conclusion

At the beginning of this paper, we asked what effect short global educational programmes might have on students. In the light of this study we can assume that such effects could be a double-edged sword. The exhibition was successful in increasing students’ awareness and changing attitudes toward global issues. On the other hand, feelings of hopelessness and having no answer to the question ‘what can I do about it?’ was an unintended effect of exposing students to a discourse of guilt. Moreover, half of the students questioned the objectivity of the presented information about the issues.

We suggest that the problem is not in the exhibition itself but in the way it is implemented. If teachers used the exhibition as a starting point for a follow-up project, there would be a chance to challenge students’ hopelessness and give them space for optimism. Alternatively, the exhibition might be used in the middle of a long-term educational programme as one of various information sources. Both strategies would correspond with recommendations for sustainable development programmes described in various educational guidelines (Eilam & Trop, 2011, Simmons et al., 2009).

On the basis of these findings, we conclude that the exhibition is a strong tool for increasing students’ awareness of global issues. Because of this, it could be recommended for further use, also in informal settings. However, its use as a single tool might lead to unintended side-effects.

In light of the limited scope of the study we do not assume that the results provide an answer for the long-investigated gap between knowledge and action. However, they might provide an important starting point for a discussion about the strategy for teaching global problems in schools. The results clearly articulate that even a well-prepared short educational programme focusing on global issues might bring unintended negative side-effects, if it does not provide enough time for students to deal with larger, complicated, and emotional issues. To avoid this, a dramatic change in strategy for dealing with global issues in schools should be encouraged, in favour of long-term, project-based educational programmes.

Even though we do not want to over-generalize our findings beyond the scope of the evaluation sample, we believe that they might be useful for designing further research in such an important area. The study suggests some future directions for such research. A researcher could investigate the effect of an educational programme on selected
empowerment variables, such as locus of control or perceived control. In this case, pre-and post-experimental/control group design would be appropriate. Because of the emotional reactions that appeared in the study, an in-depth qualitative study of participants in such a programme could bring new insights into the way students interpret an issue. To better understand these questions could help in designing further educational programmes and also in the way we encourage students towards responsible consumer behaviour.

Acknowledgment

The author of the study would like to thank to the authors of the exhibition for an opportunity to evaluate their educational programme, their openness to received feedback, and willingness to share its results.

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  http://dx.doi.org/10.1177/0963662509357871
### Appendix 1 Concepts communicated by the exhibition

<table>
<thead>
<tr>
<th>Department</th>
<th>Concept</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothes</td>
<td>Water consumption</td>
<td>Big amount of water is used for cotton production. Consumption of water might cause serious environmental issues, e.g. drying of the Aral Sea.</td>
</tr>
<tr>
<td></td>
<td>Impacts of textile production</td>
<td>Our clothes are produced in developing countries. Production is connected with issues, like children-work, harming of human health and employees’ rights, or environmental degradation.</td>
</tr>
<tr>
<td>Mobiles</td>
<td>War of resources</td>
<td>Precious metals are needed for production of a mobile phone. Their mining feeds civil wars in developing countries.</td>
</tr>
<tr>
<td></td>
<td>Electronic waste</td>
<td>Electronic waste from mobile phones often ends in developing countries.</td>
</tr>
<tr>
<td>Chocolate</td>
<td>Fair Trade</td>
<td>Of the Fair-Trade chocolate, producers get higher share than of a common product.</td>
</tr>
<tr>
<td>Advertisement</td>
<td>Coca-Cola</td>
<td>Coca-Cola harms the environment, human health and rights in developing countries. Many personalities and organisations protest against it.</td>
</tr>
<tr>
<td></td>
<td>Slogans</td>
<td>Advertisement can contradict reality. Even the slogans of the NGOs might be distorted.</td>
</tr>
<tr>
<td>News</td>
<td>Sandblasting</td>
<td>Sandblasting of jeans seriously effects employees’ health. By the effort of international campaigns it is possible to persuade companies to stop using this practice.</td>
</tr>
<tr>
<td></td>
<td>Recycling</td>
<td>Precious metals of the mobile phones might be recycled. An example of a successful campaign is a mobile collection in the ZOO of Prague.</td>
</tr>
<tr>
<td></td>
<td>Coca-cola</td>
<td>Because the Coca-cola company harms the environment and human rights in developing countries, it is boycotted by many schools.</td>
</tr>
<tr>
<td></td>
<td>Fair Trade</td>
<td>Buying a Fair Trade product, we help the producers from developing countries to moderate their poverty.</td>
</tr>
<tr>
<td>The exhibition</td>
<td>Consumer’s responsibility</td>
<td>Our consumer behaviour often has serious environmental and social impacts and because of this we should make the most sustainable choices.</td>
</tr>
</tbody>
</table>

Notice: Exact formulations of the messages were formulated by the evaluator.
Appendix 2 Global consumers’ responsibility items

- My actions influence lives of people even in very far countries.
- When I buy a pair of jeans, I influence lives of people in developing countries.
- Even a common person like me can decrease the poverty of developing countries by his/her action.
- I influence lives of people in developing and other countries in the world by my shopping.

The instrument was tested on the research sample (N=204, Cronbach alpha=0.7).
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