Attitudes and Values of Primary School Pupils to Environment Protection[1]

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Abstract

Attitudes and values of primary school pupils towards environment protection emphasizing their real behaviour and action is described by 1) reasons why pupils hold certain attitudes and values, 2) factors influencing certain attitudes and values of pupils, and 3) crucial information and their sources. Aim is to gather data describing what motivates pupils to take action and to identify factors influencing pupils' thinking. Semi-structured interview with group of primary school pupils were conducted. Data were collected through series of open questions. Interview design is based on "The assessment of global competence in PISA 2018" and "Special Eurobarometer 468 – Attitudes of European citizens towards the environment" with parameters optimized for target group second-grade and fifth-grade pupils. We verified the main influencing factors of attitude development which were parents, teachers and classmates, but we also discovered the growing importance of school ethos.

Relevance of the pre-research topic

The pre-research topic (i.e. environment protection) has been supported by global society (a youth movement, e.g. "Fridays for future"), international and national strategies (e.g. Transforming our world – The 2030 agenda for sustainable development containing 17 sustainable development goals, comprehensive Plastics Strategy of EU until 2030 etc.) and educational documents (in Czech context, e.g. Framework Educational Programme for Basic Education, Strategy for global development education and awareness raising 2018-2020 and the related Action plan 2018-2020, Strategy for Educational policy

of the Czech Republic until 2020 emphasizing concepts of active citizenship and sustainable development).

The Czech Republic (as a member of United Nations Framework Convention on Climate Change) adopted the Paris Agreement (2016) and the related National Action Plan on Adaptation to Climate Change (elaborated by Ministry of Environment in the Czech Republic, 2017) aiming to address negative impacts of climate changes (especially long-term drought, floods, rising temperatures etc.).

According to a European public opinion survey (Eurobarometer 468 - Attitudes of European citizens towards the environment, climate change), one of the crucial topics was the growing amount of waste (40% of 27,881 respondents, in the Czech Republic 54% of 1,007 respondents).

Due to a long-term focus on the issue and its systematic implementation in curricular documents and school ethos in the Czech context (CSI, 2016), the topic seems to be appropriate to shape the pupils' attitudes and its influence on pupils' actions and behaviour.

Research problem and questions

The research topic is the process of shaping attitudes of primary school pupils. It has been explored through a specific global environmental issue: plastics and plastic waste.

It has been investigated through the following research questions: 1) What knowledge do pupils have about the environment, plastics and plastic waste? 2) What attitudes do pupils hold towards the environment, plastics and plastic waste? and 3) What are the key aspects influencing pupils' attitudes towards the environment, plastics and plastic waste?

The key contribution of the research is to gather data describing what motivates pupils to take action and to identify factors influencing their thinking with respect the selected global environmental issue (i.e. the use of plastics, growing amount of plastic waste), to promote the implementation of the affective domain in education and thus support a more balanced development of the pupils' personalities and to contribute to the improvement of the process of education (its effective planning, teaching, assessment and evaluation) in primary schools.

The research key problem and the assumed benefits are in consonance: a) with modern trends in education (e.g. Global Citizenship Education, Global Development Education in Czech context) which advocate strengthening competencies of pupils to become active citizens who will contribute to the development of a just and sustainable society, both locally and globally (Oxfam, 2016) and b) with key outputs of the Czech school inspectorate annual report on

global and development issues elaborated in 2016. Czech teachers and school management consider shaping pupils' attitudes and their empowerment to take action (with a local or global impact) as the main objective of global issues teaching (CSI, 2016).

Pre-research methodology

The pre-research data collection design was based on existing surveys and studies (i.e. IEA Civic Education Study 2002, International Civic and Citizenship Education Study 2008 and especially by OECD PISA comparative survey 2018). The key data was collected through semi-structured interviews with fifth-grade pupils from 4 primary schools (3 primary schools where the global issues were implemented through the Framework education programme for basic education and 1 primary school where global environmental issues were taught through special environmental programme). A visual representation of the pre-research context (stimulus) illustrated various global environmental issues (e.g. single-use plastic, plastic packaging, plastic waste, its sorting and recycling, water sources polluted by plastic waste etc.). The open questions focused on: 1) the pupils' knowledge (e.g. What can you see in the pictures? Can you describe what is happening there? What are the advantages of plastics compared to other materials? Can you give an example where use of plastics is important? etc.), 2) their real behaviour and actions (e.g. Is there anything that should be changed? How should the change look like? What have you done yet? What helps you? What are the obstacles to taking action?) and 3) the influential aspects and information resources (e.g. Where have you learned the things we're talking about today? There is someone in your area who inspire you to change thinking and action? etc.).

Key pre-research outputs

The cognitive component of attitude can be represented by pupils' statements (i.e. "Plastic waste dump can be in China but the waste has been sent there from Europe.", "Straws will be banned by the EU until 2021." and "There are plastic islands in the ocean.")

The affective component of the pupils' attitude (manifested through their experience) illustrated the key words with positive (e.g. photos of security plastic as a stimulus - security, hygiene, protection) or negative connotation (e.g. photos of ocean polluted by plastic waste as a stimulus - regret, problem, danger, disgust) through the use of photos. The pupils' responses at the level of behaviour and action correspond to three key ways of solving the problem: a) reduce (e.g. "We try to buy vegetables and fruits without plastic packaging.", "We don't use single-use plastic bags supermarkets provide to put fresh fruit and vegetable in, we put them in cloth bags."), b) reuse (e.g. "We fill the plastic bottles with water and use

them again."), and c) recycle (e.g. "We sort the plastic waste at home, we teach it our little brother too."). The pupils also defined behavioural change through facilitators and barriers related to external motives (e.g. "Recycling bins are placed in accessible and easy to find places, they look the same throughout Europe.", "Parents support me in plastic waste sorting." versus "Parents are not willing to have multiple baskets at home.").

The pre-research stage verified the following main influencing factors of attitude shaping: 1) parents and teachers as sources of information and also behaviour models, 2) educational environmental programmes which model desirable behaviour (e.g. Recycling bins and informative notice boards have been placed there), 3) inspiring peers (e.g. classmates, youtubers, representatives of youth movements), 4) public interest organizations (e.g. scouts) and 5) the internet as an important information source.

Future research

The design of the case study (in a future research project) will be based on the combination of the following data collection methods: 1) Interview (semi-structured interviews with pupils who are able to reflect on educational issues from every grade of elementary school as well as semi-structured interviews with teachers), 2) Observation (of teaching and school environment), 3) Questionnaire survey focusing on environmental awareness of fifth-grade pupils and 4) Analysis of school curriculum documents. The case study will be carried out at 5 primary schools where 1) global environmental issues have been implemented, based on Czech curricular documents and 2) the range of global environmental issues are tackled through special environmental programmes and projects (e.g. Eco-schools).

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