CONCEPTUALIZING THE EFFECTIVENESS RESEARCH OF AN ONLINE CURRICULUM FOR VIRTUE EDUCATION IN LATVIA

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Abstract. The necessity and unavoidability of moral education in school is well established, but there is still a lack of theoretical knowledge base (know-what) regarding what works effectively in character education. This paper addresses the conceptualization of a 3-year effectiveness research of the online curriculum for virtue education from grades 1 to 9. The goal of the research is to create new theoretical knowledge about what means effective moral education and about what makes an online curriculum for virtue education effective in Latvian context. The effectiveness research uses the randomised controlled trial approach and adopts an experimental trial design, using pre-, intermediate- and post-test with experiment and control groups clustered at the class level in three strata: grades 2-4, grades 5-7, and grades 7-9. The intervention will consist of the implementation of the full virtue education curriculum in the respective grades. A multicomponent questionnaire for pupils and focus-group discussion with teachers are used for data collection. The curriculum is highly coherent with global, national and sector priorities and has a strong potential for enhancing the quality of education and contributing to societal well-being in Latvia.

Keywords: basic education, curriculum research, effectiveness research, randomized control trial, virtue education.

Introduction

Character education, also called virtue education, is accepted as an essential part of 21st century school education (e.g., Fadel et al., 2015; Rubin, 2017; Retnowati et al., 2018; Singh, 2019). A good character, understood as "a set of personal traits or dispositions that produce specific moral emotions, inform motivation and guide conduct" (The Jubilee Centre, 2017, p.2), includes the cultivation of intellectual, moral, performance and civic virtues, guided by the meta-virtue of prudence. Character (virtue) education is a holistic kind of moral education which focuses on pupils’ acquisition of moral habits (virtues), instead of addressing solely pupils’ values, moral emotions or moral reasoning skills.

While there is awareness about the convenience of moral education at school (know-why) (e.g., Aldridge et al., 2020; Arthur & Harrison 2014; Arthur et al., 2017; Durkheim, 2012; Goodman, 2019; Harðarson, 2019; Pike et al., 2021) and
about the importance of collaboration of school, family and NGOs in this field (know-who) (e.g., Bates, 2019; Epstein et al., 2002; Vincent & Maxwell, 2016), there is an increasing interest regarding what works effectively in character education (know-what) (Berkowitz et al., 2008; Berkowitz et al., 2017). Effectiveness research in this field can be properly addressed by longitudinal studies (Wang et al., 2015). The aim of this paper is to present the conceptualization of a longitudinal (3 years) effectiveness research of the online virtue education curriculum for pupils in grades 1 to 9 (hereinafter: the e-TAP curriculum).

This research is the continuation of the postdoctoral research project "Arete-school" (2017-2020), which promoted virtue education at school and was supported by the European Regional Development Fund, and of the e-TAP project "Fit and feasibility trial of an online curriculum for virtue education" (2020-2021), funded by the Latvian Council of Science. During those two projects, the elaboration of the platform "Arete research" and two teacher training programmes were monitored and piloted. In 2021, the fit and feasibility of the e-TAP curriculum was studied: in spite of COVID-19 crisis, 259 voluntary teachers from 79 Latvian educational institutions approved the whole curriculum in their classes (in presence or online) in Spring 2021 and provided 1305 feedback questionnaires. The results of the analysis of this rich material were discussed with teachers and education policy makers in four online focus-group discussions in June 2021. The curriculum was improved and disseminated in Latvian schools in the Fall 2021. The study whose conceptualization is presented in this paper builds on those results for investigating the effectiveness of the e-TAP curriculum. The goal of the effectiveness research is to create new theoretical knowledge about what means effective moral education and about what makes an online curriculum for virtue education effective in Latvian context.

Rational of the study, social context: The research project seeks to foster youngsters’ personal flourish and Latvian social and economic development by providing new knowledge and innovative technical solutions for responding to the urgent challenges of implementing virtue education under the COVID-19 crisis and beyond. The research is based on the conviction that current and future challenges in Latvia and globally can be addressed by a research-based effort on development of youngsters’ virtuous character during school years, helping them to grow as whole persons and to show a responsible ethical behaviour. The scientific justification of the research is articulated around two questions:

Why virtue education in Latvia? The current needs for moral education in Latvia were revealed by a need analysis implemented in 2018-2019 (Surikova & Pigozne, 2018; Fernández González, 2019a), which involved more than 2250 respondents from different educational sectors: 77% of respondents believed that school and teachers play an important role in pupils' moral education, and 92% believed that pupil's virtues can be directly promoted at school.
Why a longitudinal effectiveness study? This could be better understood in the light of the recent socio-political developments regarding virtue education in Latvia. During the last six years, virtue education has been under intensive discussion, following the adoption of upbringing guidelines (Cabinet of Ministers, 2016), which include 12 virtues and 10 values to be taught at school. The guidelines of the educational content reform project "School-2030" (Skola2030, 2017) integrate these objectives and use the language of virtues and values. However, in spite of those political developments, and apart from individual efforts of teachers and schools, and some methodological materials regarding value education (grades 1 to 6) prepared by the National Centre for Education of the Republic of Latvia (2016), the e-TAP curriculum is the only existing curriculum specifically for virtue education in Latvia. As it became apparent in the mentioned focus-group discussions (e-TAP project, June 2021), this context originated high expectations in the educational sector regarding this curriculum. It is therefore necessary to establish solidly the scientific foundations of this new curriculum: in 2021, after studying its fit and feasibility to the Latvian context (Fernández González et al., 2021a, 2021b) and making the necessary adaptations, it is time to investigate scientifically its effectiveness, which can only be properly addressed by the longitudinal study for 2022-2024 whose conceptualization is presented in this paper. In addition, the empirical research about the effectiveness of the e-TAP curriculum would be useful for improving it in further implementations.

Based on the needs analysis, the goal set for the research is to create new theoretical knowledge about what means effective moral education and about what makes an online curriculum for virtue education effective in Latvian context. As a practical implication of the research, a curriculum whose effectiveness has been scientifically studied will be offered to teachers. This research represents a real theoretical and practical contribution to the knowledge base of the educational science in Latvia. The research question leading the inquiry is: What is the effectiveness of the e-TAP curriculum? Concretely, how does it enhance the development of pupils’ moral self (including moral awareness, moral emotions and engagement, moral reasoning, moral behaviour, and moral self-assessment), considering pupils’ developmental stages, gender, and school contexts? What are the pedagogical conditions for sustainable effectiveness of the e-TAP curriculum?

**Conceptualization of the 3-year long effectiveness research**

**Research paradigm and design:** This study adopts the practitioner action research paradigm (Efron & Ravid, 2019), in which students and senior experts are involved as practitioner researchers for getting insights that might improve their future practice. This curriculum research (Stenhouse, 1975) explores the curriculum effectiveness using randomised controlled trial (hereinafter: RCT), the
gold standard methodology for social science research (Torgerson & Torgerson, 2013) which was already used to measure the impact of character education interventions (Arthur et al., 2014; Davison et al., 2014). RCT allows to avoid selection bias at the point of group formation. It will be the first such longitudinal RCT in Latvia in this field (and it is rarely done abroad also). The study adopts an experimental trial design, using pre-, intermediate-and post-test with experiment and control groups. It is a multi-school RCT clustered at the class level in three strata (education levels): grades 2-4, grades 5-7, and grades 7-9), involving overall 60 classes for three years (2022-2024). Considering that the complexity of character and virtue constructs makes evaluating character traits particularly challenging (Harrison et al., 2016), the research adopted an original synthetic approach: re-centring the effectiveness research on the development of the moral person through the lens of the "Self-of-virtue" theory (Fernández González, 2019b, 2019c), investigating whether the e-TAP curriculum enhances pupils’ moral self, which includes four components: 1) understanding of character growth; 2) commitment to virtue growth; 3) practical involvement in virtuous behaviour; and 4) personal and social recognition/identity. Those four components are addressed by the intervention, and they were operationalized in the structure of the questionnaire used for the effectiveness research.

Representativity and sampling: In 2021-2022, a random representative sample of students from grades 2, 5 and 7 will be chosen, considering that in 2020-2021 there were 19 925 pupils in grade 1, 17 910 in grade 4 and 20 743 in grade 6 (general education day schools excluding special schools) (Ministry of Education and Science, 2021). Using a representative sample of 400 pupils per grade (20 classes), the results will be generalisable to the 634 such schools with an error of 5% (Fisher, 1990; Fisher et al., 1995). The sample is large enough not to miss modest but educationally important differences. Using G*power 3.1 software, it was found that such a sample would allow for a trial power of 80% with medium effect size (0.5) at a significance level of 0.05. The sampling technique will be multistage sampling, an extension of cluster sampling which involves selecting samples from samples (Robson & McCartan, 2016): initially a cluster sample of ca. 60 schools (20 schools for each stratum) will be chosen randomly among the 634 schools. Each school will be asked to involve on voluntary bases at least one class in the research, ensuring equal chance of selection by applying randomisation on each stratum (grades 2, 5 and 7). A final poll of ca. 60 participating classes (keeping the same class teacher during the whole trial) will be defined and each class will be allocated randomly to the control or experiment group. The allocation ratio will be 1:1 (no attempt will be made to equalise the number of pupils in each group). Class teachers’ compliance and intention to implement intervention will be checked. See in Table 1 the data collection schedule and groups.
Table 1: Number of classes involved in the RCT per year and level (made by the Authors)

<table>
<thead>
<tr>
<th>Year</th>
<th>Group</th>
<th>Grades 2-4</th>
<th>Grades 5-7</th>
<th>Grades 7-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2022</td>
<td>Baseline</td>
<td>20 (grade 2)</td>
<td>20 (grade 5)</td>
<td>20 (grade 7)</td>
</tr>
<tr>
<td>May 2023</td>
<td>Control</td>
<td>10 (grade 3)</td>
<td>10 (grade 6)</td>
<td>10 (grade 8)</td>
</tr>
<tr>
<td></td>
<td>Intervention</td>
<td>10 (grade 3)</td>
<td>10 (grade 6)</td>
<td>10 (grade 8)</td>
</tr>
<tr>
<td>May 2024</td>
<td>Control</td>
<td>10 (grade 4)</td>
<td>10 (grade 7)</td>
<td>10 (grade 9)</td>
</tr>
<tr>
<td></td>
<td>Intervention</td>
<td>10 (grade 4)</td>
<td>10 (grade 7)</td>
<td>10 (grade 9)</td>
</tr>
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</table>

**Intervention:** The longitudinal intervention will be implemented in the experiment group (and concealed from the control classes) within the same 10 classes in each level for two academic years (2022-2023 and 2023-2024). The intervention will consist of the implementation of the full e-TAP curriculum (8-12 lessons per year) by class teachers in their form time. Teachers will be instructed to stress the curriculum aspects linked with the four components of development of the moral self (webinars in August 2022, school induction), and they will be supported and monitored by the scientific team (individual mentor/expert allocation).

**Data collection:** A multicomponent questionnaire for pupils, which has already been developed and checked for construct validity, will be used. The questionnaire captures the four components of development of the moral self and includes standardized measures (adapted when necessary). It has two parts. The Part A has four sections: 1) character growth understanding and mindset scale (adapted from Dweck, 2000); 2) moral growth attitude; 3) practical involvement (Virtue Grit Scale, adapted from Duckworth, 2016; and Brief Moral Resilience Scale, adapted from Smith et al., 2008); and 4) personal and social recognition. The Part B (only for the grades 7-9) addresses moral growth components through a written semi-structured life-story interview (Matsuba & Walker, 2005). The questionnaire will be translated into Latvian and adapted (simplified for the lower strata), using an age-sensitive language. Control and experiment classes will fill it 3 times (May 2022 pre-test; May 2023 intermediate test; and May 2024 post-test). In addition, three focus-group discussions (one per education level) with 10 teachers (implementors) will be organized after stages 2 and 3 of data collection for gaining insights on the results.

**Data processing and analysis:** As regards data analysis, the trial is conceived as a superiority trial, i.e., the statistical tests will test whether the intervention groups are significantly different from the control groups. The analysis will compare mean scores adjusted for baseline variables using regression-based methods with SPSS software. Secondary analysis (subgroup analysis by gender, grade, school type) will also be implemented. The clustering will be considered in the analysis. Qualitative data analysis will be implemented using NVivo software.
Reliability of the study: The construct validity of RCT questionnaire and iterative reliability tests (Cronbach’s alpha) will enhance the reliability of the study. The reliability of the interpretation of results will be reinforced by respondents’ involvement in the data interpretation.

Ethical aspects: The leader of the study will be responsible of compliance with the European Code of Conduct for Research Integrity (ALLEA, 2017). Ethical approval will be requested from the Research ethics committee of the University of Latvia before the research. Informed consent will be sought from participants (teachers, principals, pupils and legal representatives if younger than 14). The questionnaires will be anonymous and focus group materials anonymised. Participants’ names will be pseudonymised, no visual material will be used. Data confidentiality will be ensured (protected storage of paper and digital surveys/transcripts/files). As regards the RCT trial, the research does not measure individuals’ moral level nor compares individual children or classes, as data analysis is done in an aggregated way. Long-term engagement with the control classes for providing virtue education support after the trial will be established for avoiding resentful demoralisation (control classes’ feeling of being let down).

Expected results: Trial results will be reported according to CONSORT (2010) criteria and flow diagram. The project will create new knowledge about the effectiveness of the e-TAP curriculum, providing answers to questions such as: Does the e-TAP curriculum contribute to the development of pupils’ moral self? Does it enhance pupils’ understanding of moral growth and awareness of moral emotions? Are pupils receiving the curriculum becoming personally engaged to their own moral growth? Do they engage practically in moral growth activities that strengthen their moral reasoning and habits (virtues)? Does the curriculum help pupils’ moral selfhood to thrive?

Discussion

The question whether this curriculum is coherent with global, national and sector priorities is discussed further. The global relevance of embedding values and attitudes in the curriculum has been compellingly highlighted by the recent report of the "Future of Education and Skills 2030" project of the Organisation for Economic Co-operation and Development (OECD, 2021), which argues that clearly articulated and experienced values and attitudes can support students’ positive lifelong learning outcomes and promote a more equitable and just society, and that "curricula can provide the opportunity for students to develop knowledge, skills, as well as values and attitudes that can support them to thrive and shape a better future towards increased well-being at individual, societal, and environmental levels" (Executive summary).
The project is also coherent with several of the priorities of the Latvian National Development Plan for 2021-2027 (Saeima, 2020), for instance, the priorities "Knowledge and skills for personality and country development" (pp. 30-42) (the research focus is on personality moral growth) and "Strong families, healthy and active people" (pp. 14-29) (topics addressed by the curriculum). The project is also in line with some of the Priority axes for Science in 2018-2021 in Latvia (Cabinet of Ministers, 2017), such as the axe No 8 "Open and Inclusive Society" (the curriculum proposes virtue-based solutions to reduce social inequality and promote inclusion enhancing the virtues of respect, compassion, and service); and the axe No 5 "Latvian patriotism, language and values" (virtue education brings into practice universal human values, including patriotism).

In addition, the project addresses several of the 6 priorities identified in the "Latvian Guidelines for Scientific, Technological Development and Innovation for 2021-2027" (Cabinet of Ministers, 2021a, p. 18): responding to the increasing demand for digital competences in education caused by COVID-19, the study contributes to the digitalization of education by validating an online research-based curriculum. It also addresses the priorities "Research for society" (it responds to a recent societal and educational need analysis), "Integration of higher education and research" (4 students will collaborate with 4 senior researchers and 2 senior experts during the project), "Digital transformation and open science" (several evidence-based, open access publications are foreseen), and "Innovation: stimulating development, promoting implementation" (the project is an effectiveness research of an innovative online curriculum for virtue education).

Moreover, the study is in line with the "Education Development Guidelines for 2021-2027" (Cabinet of Ministers, 2021b), which states that one of the future emphases of Latvian education (individual level) is on "developed character traits, values and habits" (p. 16) including "in general education … the development of value-based habits" (task 2.1.1., p. 50).

In conclusion, the research project has a high potential for enhancing the quality of education and contributing to societal well-being in Latvia: it provides virtue-based solutions to reduce social inequalities and promotes inclusive attitudes by reinforcing the virtues of respect, compassion, and helpfulness. The new knowledge gained from the project will answer the question: how to effectively foster students' moral development during school? How to support teachers in their educational work in an appropriate and relevant way? By the end of the project, the effectiveness of the e-TAP curriculum for virtue education will be scientifically tested through a longitudinal study; and a free-access online virtue education curriculum will be offered to teachers of grades 1-12, relevant and appropriate to the Latvian educational context and the needs of the students. The project will be carried out in cooperation with Latvian education administrations and educational institutions in all Latvian regions, policy makers, and the project "School-2030".
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