Editorial

We are very pleased to release the publication of this new issue. The articles in this issue deal with some interesting aspects of sustainability, sustainable development and sustainable education. Throughout the last three issues, we have been developing and consolidating a very close and constructive cooperation with the staff of Urmia University, especially Javad Gholami who has been the guest editor of the preceding and current issues of JTES. We feel very privileged for striking this partnership and are looking forward to strengthening it in the upcoming issues.

In further pursuit of the aims of ESD, the next issue of the journal is to address transdisciplinarity framework in viewing the issues of sustainability, sustainable education, and sustainable development. We invite all those interested for their active cooperation and engagement in our annual JTES and DCSE Journals’ network conference in Riga in 2017 (https://du.lv/en/the-15th-bbccjes-conference-in-riga-november-16-18-2017/)

This issue contain ten scholarly papers covering a large spectrum of key issues in the domain of sustainable teacher education and practices, representing a wide geographical distribution of research contexts. The paper by Laura Stanszus, Daniel Fischer, Tina Böhme, Pascal Frank, Jacomo Fritzsche, Sonja Geiger, Julia Harfensteller, Paul Grossman, and Ulf Schrader focuses on emotions and presents an account of the development of a mindfulness intervention in the thematic context of sustainable consumption (BiNKA-training) that was delivered in different educational settings.

Mohammad Mohammadi and Khaled Morali have investigated continuous professional development (CPD) for teachers through workshops to train teachers in order to promote sustainable professional growth. This study also examined EFL teachers’ beliefs and attitudes toward CPD among EFL teachers and compared it to their beliefs after attending workshops for PD.

The paper by Abdulwali H. Aldahmash, Saeed M. Alshmrani, and Abdo N. Almufti investigates teacher’s views about the nature of their experiences with conscious reflective practices through a three dimensional survey distributed among male and female high schools science teachers.

The paper by Chinedu I. Okeke and Pamela N. Mtyuda investigates the perspectives of teachers on job dissatisfaction through a qualitative case study on teachers from secondary schools. They employed semi-structured interview and narrative analysis model in their data collection and analysis. This study discusses how teacher satisfaction is connected with the sustainability of social transformation.

The paper by Eva Carbach and Daniel Fischer provides an exploration of sustainability reporting as an emerging field in educational practice. While sustainability reporting has been widely established in corporate sector, public organizations, and higher education institutions, the school system has been slowly responding to the potentials of this approach. In this study, the authors offer a qualitative investigation in the perceived benefits and challenges of implementing sustainability reporting in the school sector in Germany and provide insights into how reporting on a school’s sustainability-related activities can be organized, what potentials it offers for schools, and what obstacles need to be overcome in the implementation process.
The paper by Viktorija Šipilova, Inta Ostrovska, Elita Jermolajeva, Ludmila Aleksejeva, and Dmitrijs Olēhnovičs is devoted to the evaluation of sustainable development in rural territories using the conception of smart specialization. The authors offer a methodological solution for such an evaluation within the framework of national research programme EKOSOC-LV and apply it to the case of Latgale region and its districts in Latvia. Their main findings outline challenges and possible solutions for sustainable development in rural territories.

The paper by Daina Vasilevska, Baiba Rivza, Tatjana Pivac, Vilija Alekneviciene, and Agnieszka Parlińska focuses on the growing popularity of distance education as one of the new and perspective forms of completing higher education around the world. The Latvian model of distance education is passing the stage of formation and approbation in the market of educational services. The objective of this research was to find out the opinion of the students from Poland, Lithuania, Latvia, Serbia, and Belarus on the expediency of distance education.

The paper by Igor Korsun is concerned with the affects of the choice of professions by learners on the prestige of professions of technical directions. Learners could appreciate educational materials truly if they do not see the need to study them. This study is aimed at creating a general technique for the formation of learners’ interest in physics in the context of sustainable development of education in the sort and long runs.

The paper by Pärje Õlavere and Anu Tammik discusses systematic implementation of value education in educational institutions as part of the national program called Values Development in Estonian Society 2009–2013 (Ministry of Education and Research, 2009) in Estonia. The aim of the study was to ascertain the values of the heads of preschool child care institutions, teachers, and parents as well as their conceptions of values education.

The last paper in this issue by Lucy M. George Lekunze and B. Ivan Strom covers bullying as a worldwide concern and erroneous perceptions of the phenomenon could underscore unsustainable interventions. The purpose of this qualitative exploratory case study was to examine how some high school teachers in New Jersey perceived student bullying. While unveiling inconsistencies between causes of bullying and interventions, the researchers offer recommendations for leadership and suggestions for future research.

Finally, we wish to extend our gratitude to all of the researchers, members of the editorial board, language editors, and reviewers of the journal for their wonderful contributions and immense cooperation.

Ilga Salīte,
Dzintra Iliško,
Javad Gholami
Education for Sustainable Consumption through Mindfulness Training: Development of a Consumption-Specific Intervention

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Abstract

Several widespread approaches to Education for Sustainable Consumption (ESC) have emerged from the tradition of consumer information. A major shortcoming of such cognitive-focused approaches is their limited capacity to facilitate reflection on the affective processes underpinning people’s engagement with consumption. More holistic pedagogies are thus needed to increase the effectiveness of ESC. The concept of mindfulness has recently received growing attention in research on sustainable consumption, given its potential to address both cognitive and affective processes and to stimulate reflection on the drivers of often routinized consumption practices. Despite this recent interest, mindfulness has to date not been systematically connected to ESC. This paper provides a reflexive case study of the development of mindfulness-based intervention (MBI) specifically tailored to ESC (“BiNKA-training”). It elaborates the conceptual connections between mindfulness and ESC, offers insights into the process of adapting MBI to ESC and concludes with lessons learnt and an outlook on future work seeking to tap the potential of MBIs to form more holistic approaches to sustainability education.

Keywords: education for sustainable consumption, mindfulness-based stress reduction, curriculum development, mindfulness, ethics, sustainable consumption, values, intervention design.

Aim of the Paper

This paper provides a reflexive case study of the development of a mindfulness training programme specifically tailored to the context of Education for Sustainable Consumption (ESC), the so-called BiNKA-training. The training is a core element of
the research and development project BiNKA (German acronym for “Education for Sustainable Consumption through Mindfulness Training”) set out to empirically investigate the relationship between mindfulness and sustainable consumption with an intervention study.

The first section of the paper provides some background by discussing the relevance of mindfulness for ESC. The second section describes the research in the foundational phase. A critical step in this phase of the development process was the selection of adequate components from the two fields of mindfulness-based interventions (MBIs) and ESC that were then to be assembled to create a consumption-specific MBI. The third section expands on how the findings of the previous phases were integrated and used to build, test and revise the prototype of the BiNKA-training. The final design and curriculum of the training is presented that has resulted from this process. The paper concludes by offering some critical reflections of the development process, lessons learnt in this transdisciplinary endeavour and ways forward for future work in this field.

Mindfulness and Education for Sustainable Consumption: Making the Connection

The nexus of education, consumption and sustainable development has been at the top of the agenda since the very inception of the political process towards sustainable development at the Rio Conference in 1992. Today, 25 years later, both education for sustainable development (ESD) and sustainable consumption (SC) are prominently addressed as distinct Sustainable Development Goals (numbers 4 and 12) in the United Nations’ post-2015 agenda (United Nations, 2015). Education for Sustainable Consumption has emerged as a field of scholarship, policy and educational practice that aims at connecting the discourses around consumer education, ESD and sustainable consumption (Adomflent et al., 2014). ESC extends the scope of traditional consumer education approaches that were guided by the ideal of the informed consumer and consequently emphasised awareness raising and the transmission of information and knowledge to foster individual behavioural change (McGregor, 2005). With ESC comes a greater appreciation of and engagement with notions such as civic agency and citizenship, ethical considerations (e.g., good life, responsibility) and the overall aim to strengthen the capacity of consumers to contribute to a broader societal transformation towards sustainable development. This reorientation went alongside the development of more comprehensive learning outcomes that had been conceptualized as key competencies for sustainable consumption (Fischer & Barth, 2014; Rieckmann, Mindt, & Gardiner, 2017). Key competencies as learning objectives in ESC seek to (1) nurture cognitive, motivational and volitional dispositions, (2) are guided by the idea of critical, self-determined and self-reflexive individuals and (3) promote the capacity of learners to actively and responsibly contribute to advancing overall societal progress towards sustainability. To this end, it facilitates the deliberative processes underpinning social change, instead of simply pursuing behavioural change as a primary educational objective (for a more comprehensive discussion see Fischer & Barth, 2014). A major task for research in ESC is thus to advance learning settings that effectively address both cognitive and affective learning outcomes and promote a reflexive engagement with sustainable consumption challenges. Given the predominance of cognitive approaches in traditional consumer education, there is a strong need to advance a deeper engagement with affective processes in ESC.
Mindfulness has the potential to support this endeavour and strengthen ESC in multiple ways. It is defined here as the unbiased awareness that emerges through intentionally and continuously paying attention to subjective momentary experience with an open, accepting, benevolent, and compassionate attitude (Boehme et al., 2016). The concept of mindfulness has been increasingly researched in recent years, originally mainly in the clinical context, expanding into behavioural research (for more information see Bowen et al., 2006; Grossman, Niemann, Schmidt, & Walach, 2004) and beyond science into multiple societal areas, e.g., education (see, e.g., Mindfulness All-Party Parliamentary Group, 2015).

In general, mindfulness is considered to bear the potential to bring together cognition and affection, thus extending and complementing dominating concepts of ESC. It is seen to encompass the reflection of individual values and actions in each given moment and therewith to potentially strengthen people’s ability to deliberatively focus their mind in a way that they become more sensitive for their own values, emotions and ensuing actions. This ability would promote the alignment of intentions with actual behaviour and consequently the adaption of actions towards more sustainable consumption patterns. The ongoing, mainly conceptual discussion of how mindfulness can promote positive changes in consumption behaviour and support (E)SC will be summarised in the following four main potential mechanisms of change (for a more comprehensive review of the current literature see Fischer et al., 2017):

1. **Disruption of routines** or switching off the autopilot (Grossman et al., 2004) by enhancing introspective capacities and thus providing the grounds for changing previously unconscious routines is a broadly recognised potential effect of mindfulness practice. For ESC this could mean that unconscious, non-sustainable consumption choices could be elucidated and diminished (Rosenberg, 2004; Bahl et al., 2016).

2. Secondly, mindfulness practice is deemed to support an enhanced awareness of immediate daily experiences. In the current research, it has been shown to reduce self-perceived inattention to one’s own behavioural patterns which is associated with the attitude-behaviour-gap (Chatzisarantis & Hagger, 2007). That way, it is associated with a greater capacity to make more congruent choices that may potentially narrow the attitude-behaviour-gap and support more sustainable consumption patterns (Ericson, Kjønstad, & Barstad, 2014; Rosenberg, 2004).

3. Mindfulness practice may thirdly be conducive to the clarification of values and supporting the role of non-material values in people's lives (Ericson et al., 2014). According to Buddhist psychology, mindfulness practice has the aim of counteracting unwholesome qualities (greed, delusion, aversion – which are frequently referenced in sustainability literature, too) by cultivating openness, generosity, kindness and mental clarity (Grossman, 2015). The fostering of such benevolent attitudes is also thought to increase individual well-being, which in turn is associated with an increase in intrinsic and socially oriented values and behaviour and a decrease in materialistic, hedonistic values (Kasser et al., 2014; Burroughs & Rindfleisch, 2002; Richins & Dawson, 1992).

4. Lastly, the fourth mechanism refers to recent findings according to which pro-social behaviours are explicitly increased through meditation practices...
(Lim, Condon, & DeSteno, 2015; Leiberg et al., 2011). This process is seen to be initiated through the development of compassion (especially in other-oriented techniques such as loving-kindness/metta meditation) (Condon et al., 2013). Pro-social behaviour is consecutively positively linked to pro-environmental intentions and behaviour (Pfattcheicher et al., 2016; de Groot and Steg, 2008; Steg et al., 2014, in Fischer et al., 2017).

Despite the apparent conceptual connections and the increased interest of researchers, the potential of mindfulness for (E)SC so far remains a scarcely researched area (Rosenberg, 2004), even less so when it comes to intervention studies (Fischer et al., 2017).

**Laying the Foundations**

In the initial phase of development, both existing MBIs and potentially suitable ESC-formats were screened and reviewed to identify solid foundations to build the BiNKA-training on.

**Mindfulness-Based Interventions**

In recent years, numerous mindfulness-training formats have been conceptualised. One of the first tasks in developing the training was to analyse existing formats with regard to their suitability to serve the objectives of the proposed intervention. This analysis was predicated on seven criteria elaborated by the research team (see Harfensteller, 2016, for a more detailed discussion of the process). The MBI to be chosen should

1. be empirically tested and validated;
2. be multiple-week-long with daily individual practice as well as one longer session to account for the need of a regular meditation practice to induce physiological changes (Carmody & Baer, 2008);
3. have a clear focus on mindfulness meditation instead of multiple/other meditation techniques, e.g., transcendental meditation;
4. contain mostly exercises and practices that include experience-based knowledge and are highly applicable to and integrable into participants day-to-day-life (daily-life focus);
5. provide the possibility for thematic combination of meditation practice with the topic of (sustainable) consumption (especially food and clothing) to allow for the integration of ESC elements (consumption focus);
6. incorporate both cognitive and affective training units for key competencies that are deemed relevant to an experienced meditation teacher as well as current research on the topic of ESC (Carmody & Baer, 2008; Ericson et al., 2014; Fischer & Barth, 2014) (BiNKA-training focus);
7. be specific to the project target groups (secondary school students, university students, employees) or be easily adaptable to them.
Table 1
Examples of MBIs Evaluated with Selection of Criteria for the BiNKA Curriculum

<table>
<thead>
<tr>
<th>MBI</th>
<th>MBSR</th>
<th>MBCT</th>
<th>MSC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>Mindfulness-Based Stress Reduction</strong></td>
<td><strong>Mindfulness-Based Cognitive Therapy</strong></td>
<td><strong>Mindful Self-Compassion</strong></td>
</tr>
<tr>
<td><strong>Author/year</strong></td>
<td>John Kabat-Zinn/2019</td>
<td>Zindel Segal &amp; Mark Williams/2008</td>
<td>Kristin Neff &amp; Christopher Germer/2015</td>
</tr>
<tr>
<td><strong>Source</strong></td>
<td>umassmed.edu/cfm</td>
<td>oxfordmindfulness.org</td>
<td>centerformsc.org/meditations</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td>Secular stress-reduction programme based on the four pillars of traditional mindfulness practice</td>
<td>Programme for people with psychological illness, mainly depression, based on MBSR</td>
<td>Programme to develop self-compassion and emotional resources for healthy people, loosely based on MBSR</td>
</tr>
<tr>
<td><strong>Time requirements</strong></td>
<td>8 sessions à 2.5-3 hrs, 1 session 4 hrs, 45 min. individual practice, 6 times a week</td>
<td>8 sessions à 2.5 hrs, 1 session 4 hrs, 45 min. individual practice, 6 times a week</td>
<td>8 sessions à 2.5 hrs, 1 session 4 hrs, 30 min. individual practice, 7 times a week</td>
</tr>
<tr>
<td><strong>Consumption focus</strong></td>
<td>Mindful eating exercise on the Day of Mindfulness</td>
<td>Not observed</td>
<td>Not observed</td>
</tr>
<tr>
<td><strong>Daily-life focus</strong></td>
<td>Diary of pleasant and unpleasant daily situations</td>
<td>Exercise “Walking the street” mindfully, group reflection</td>
<td>Exercise “Promise to myself”, reflect on priorities in everyday life and learn to focus on them</td>
</tr>
<tr>
<td><strong>BiNKA-training focus</strong></td>
<td>(1) Self-acceptance, trust and gratefulness are repeatedly addressed</td>
<td>Not observed</td>
<td>(1) Dealing with (difficult) feelings is at the core of the training</td>
</tr>
<tr>
<td></td>
<td>(2) Exercise to eat a meal mindfully and observe what you really need</td>
<td></td>
<td>(2) Raising awareness of one’s own needs</td>
</tr>
</tbody>
</table>

Mindfulness-Based Stress Reduction (MBSR) was chosen as the format most suitable according to the selection criteria. The programme was developed in 1979 at the Centre for Medicine, Health Care and Society of the Massachusetts University Medical School by Jon Kabat-Zinn, originally for the treatment of chronic pain patients. It runs for 8–10 weeks, with typically a single 2.5-3-hour group session a week, one additional all-day session and individual 45-min daily meditation practice, mindful yoga exercises, and informal mindfulness in daily live (Kabat-Zinn, 1991).

The format is most widely used and validated in mindfulness research to date and its effects have been repeatedly confirmed in multiple studies with healthy and clinical populations (Grossmann, 2004; Creswell, 2017). In light of this, the MBSR format is considered a solid benchmark for effective mindfulness trainings. Furthermore, despite its secular focus, it is closely aligned with the traditional Buddhist understanding of mindfulness and comprises all conventional mindfulness practices (Kabat-Zinn, 2011). Another reason for prioritising MBSR over the other available formats is the programme suitability for more than one target group as well as the possibility for adapting it to different thematic contexts. As shown in the development of Mindfulness-Based Cognitive-
Therapy (MBCT, Teasdale et al., 2000), it is possible to accommodate didactic and content in the MBSR programme structure without compromising the major aim of developing mindfulness competency.

**Education for Sustainable Consumption: Formats**

The development of the BiNKA-training was further implemented by a review of different ESC formats (Fischer, 2016). Rather than achieving comprehensiveness, the review sought to identify different educational formats that could be of use for adapting general mindfulness training to the specific thematic and institutional contexts of the BiNKA-Training. In the review, educational formats were defined as distinct practical approaches used in pedagogical work to foster learning processes in the field of sustainable consumption. Such practical approaches may comprise assignments, exercises and other learning activities that include specific requests to learners. Educational formats were considered relevant when they were compatible with:

1. the distinct time limitations imposed by the format of an 8-week mindfulness training;
2. the thematic scope of the mindfulness training that was focused on reflection of needs and personal development as well as on consumption in the areas of food and clothing;
3. the distinct populations targeted in the BiNKA-training (secondary school students, university students, employees); and
4. the competence orientation of the mindfulness training that focused on awareness, reflection and sensations.

Educational formats were collected from the two most prominent strands in ESC: consumer education and ESD. Data was collected from two popular German reference databases for learning materials from both strands (www.bne-portal.de and www.materialkompass.de). The selected formats were then clustered according to two aspects: their thematic focus (happiness and needs, food and clothing, consumption and advertising and personal development) and the competencies primarily addressed by the formats (awareness of problems and one’s individual impact on them, personal values, norms and needs and aspects of external and self-determination). The clusters were not meant to be distinct, but rather indicated emphasis on the materials reviewed. As a result of the review, several educational formats from the field of ESC with different thematic and competence-related foci were identified (see examples in Table 2).

### Table 2

**Examples of Potentially Relevant ESC Educational Formats for the BiNKA Curriculum**

<table>
<thead>
<tr>
<th>Educational format</th>
<th>Needs analysis</th>
<th>Food diary</th>
<th>Brands make friends</th>
<th>I am OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Group exercise</td>
<td>Written task</td>
<td>Creative design</td>
<td>Self-reflection</td>
</tr>
<tr>
<td>Objective</td>
<td>To reflect human needs and strategies of need satisfaction</td>
<td>To document nutrition behaviour and reflect on it</td>
<td>To raise awareness of how branding has been internalised</td>
<td>To gain confidence in one’s own capabilities</td>
</tr>
</tbody>
</table>

Sequel to Table 2 see on the next page.
Developing the BiNKA-Training

As the development of the training has undergone through numerous stages that may prove relevant for further development of similar interventions, the following part describes the decisions that have formed the design of the final curriculum in some greater detail. After that, the final curriculum is presented.

Development: Finding the Balance

A major challenge in the process of developing the training was to find the balance between mindfulness elements (both cognitive and affective) and ESC elements (that are mostly cognitive-based) compromising neither the key practice of mindfulness, nor the educational requirements of ESC (see Figure 1).

![Figure 1. BiNKA-training on the spectrum between mindfulness and ESC](image)

The initial consideration of potentially valuable ESC elements for the BiNKA-training, as well as the most suitable foundation of a mindfulness programme was subject to a thorough discourse in the transdisciplinary project team. Psychologists, ESC and sustainability experts as well as mindfulness experts from both theory and practice discussed the preliminary results of the reviews of the prior development phase and mutually decided on keystones for the subsequent development steps.
A persistent controversy was surrounding the question of blending and balancing ESC and mindfulness elements. On one side of the controversy, there was an assumption that adapting the training too little and remaining too close to “pure mindfulness” would hardly impact consumption-related attitudes and behaviours. On the other hand, it was argued that adapting the original MBSR format too much toward “pure ESC” training would diminish the benefits associated with a certain intensity of mindfulness training and reliance on a regular and consistent practice. What was agreed upon was that the explicit intention of the training was to make people consume in a more sustainable way, according to their own consumption-related values. The mean for propelling that change was primarily the cultivation of introspective capacities, potentially leading to an increased awareness of one’s needs and (partially unconscious) consumption patterns.

A risk was seen in the provision of too overtly consumption-related information, as this might potentially confound these intrinsic values with extrinsic normative ideas. Moreover, there would have been a risk of participants perceiving the training as intrusive, or even manipulative, in the sense that they felt pushed to consume in a certain way when presented with a lot of fact-based ESC input. Consequently, it was decided to limit the conveyance of such input within the training to a minimum. Another aspect in support of this decision referred to the evaluation of possible effects of the training. A high dose of ESC fact-based input would have made it impossible to attribute measured changes in consumption behaviour to mindfulness practice. However, as the main objective underpinning the research project was to elucidate the potential of mindfulness to promote the acquisition of key competencies and foster sustainable consumption, it was decided to orientate the training closer towards classical mindfulness training than an ESC course.

Initial Training Blueprint

For the construction of the BiNKA-training, several adaptations of the traditional MBSR format were needed. Firstly, in order to meet the practical constraints of the target groups (especially the employees at their companies and the secondary school students at school), the sessions were shortened from 150 to 90 minutes as well as the daily practice from 45 to 20 minutes for adults and 15 minutes for secondary school students, respectively. Secondly, the selected ESC as well as consumption-specific mindfulness elements had to be included in the training. Thus, some MBSR-specific content had to be eliminated in order to make space for ESC elements in an already diminished time frame, which led to a fundamental restructuring of the entire training. On the grounds of the initial analysis and the ensuing team debates, the MBSR teacher team developed a first detailed blueprint of the training, which was presented to the entire research team and, after minor adjustments, piloted in two settings (with university students and employees). After the completion of the pilot trainings, interviews were conducted with participants and the course teachers and the results were fed back and discussed with the team.

Revision and Secession School Training

At this point of revision, some elements were considered unsuitable and thus removed from the curriculum. An example for this is an exercise that exposed participants to photographs of factories with poults (consumption area of food) or female sewers working
under insupportable conditions (consumption area of clothing), and asked them to observe their thoughts, feelings and body sensations. Other elements such as the task to go shopping in a mindful way turned out to be suitable for the context of the training and were kept in the curriculum and given more time if needed and possible. Thus, based on those findings and changes, the structure and timing of each session was refined again.

While initially the training with secondary school students (grade 10, aged 15–16) and adults was identical, it became clear during 2 test runs that the school training required more fundamental and specific changes of the initial blueprint. This was due to the special preconditions of the target group (adolescents) and the setting (implementing the training into the school context). For example, it showed effective to include a higher frequency of switching between sitting and standing/walking, as well as to allocate time during sessions to reflect on certain questions in written form as a preparation and basis for group discussions. The adaptation process was inspired by a literature review on mindfulness programmes and formats especially for children and adolescents (e.g., Broderick & Frank, 2014; Kaltwasser, 2008; Meiklejohn et al., 2012; Rechtschaffen, 2016).

Result: The BiNKA Curriculum

The final BiNKA-training for all target groups comprises eight weekly sessions of 90 minutes and one longer session (“Day of Mindfulness”) of four hours. The training sessions are built on one another and intertwined in form and content. In the first half of the training, the sessions are more mindfulness-focused, whereas in the second half, they are more consumption-specific. The topics of the BiNKA-session are the following:

1. Introduction – What is Mindfulness?
2. Obstacles and Challenges in Meditation
3. (Dis-)Satisfaction and Other Similarities
4. Emotional Intelligence – Be Mindful with what You Feel
5. Desires and Needs – Open Up towards Life
6. Compassion – Kindness towards Myself and Others
7. Mindful Consumption – To Have and to Be
8. A Mindful World – Inside Out

The topic of each session is addressed in “insight talks” between a teacher and participants, reflexive dyads/triads or group discussions as well as in the guided meditation practice (see Figure 2 for a more detailed overview of the different elements used in a prototypical session). Each session includes formal and informal mindfulness exercises. The formal mindfulness practice refers to a practice with a clearly defined procedure and time frame and comprises different types of mindfulness meditation such as body scan, sitting and walking meditation with focus on the breath, and loving kindness/metta meditation. The informal mindfulness practice aims at transferring mindfulness into everyday life activities such as eating, shopping, showering, or walking. The “Day of Mindfulness” involves an intensive formal practice of mindfulness meditation as well as mindful potluck meal in silence. In addition to the weekly training sessions, the participants are encouraged to practice formal meditation autonomously on a daily basis (20 minutes for employees and university students and 15 minutes for secondary school students) and keep a practice diary on their experiences and reflections. In order
to support the participants in these autonomous practices, audio recordings of guided meditations are provided (see mindfulness-and-consumption.de for sample downloads). Moreover, the participants get a specific task to practice mindfulness informally at home (e.g., “mindful shopping”).

Figure 2. Elements of a prototypical BiNKA-session (proportions vary depending on session focus and group dynamics)

To give a more thorough impression of BiNKA-specific content, three concrete examples from different stages of the training are illustrated hereafter. The chosen examples are exemplary for (1) newly constructed, consumption-specific mindfulness exercises, (2) the fusion of an ESC format with mindfulness practice, and (3) the adaptation (e.g., deepening) of certain MBSR content to promote the ethical stance inherent in mindfulness considered relevant for sustainable consumption. Session 7 “Mindful Consumption – To Have and to Be” represents the most consumption-focused session of the BiNKA-training and is described in detail in appendix I.

(1) The homework “Mindfulness in Everyday Life: Mindful Shopping” aims at facilitating the introspection and reflection of subjective (consumption-specific) behavioural patterns and invites the participants to go shopping with a conscious activation of all of their senses. Participants are asked to slow down their usual routine so that they are able to observe their body sensations, their thoughts, and feelings more closely in any given consumption situation they select (e.g., shopping for groceries or clothes). The participants are then asked to reflect on their observations and to write them down in their practice diaries (week 1).

(2) The exercise “Interdependence: A Pair of Jeans Travels around the World” combines ESC and mindfulness and seeks to increase the participants’ awareness of the social and global dimensions of their personal consumption practices as well as their capacity to reflect on these dimensions. The participants are guided through the different stages of the production of blue jeans in a visual
journey and constantly encouraged to be in contact with their sensory experience (e.g., the feeling of their pants on their legs) and other inner reactions (e.g., thoughts, emotions) (week 7).

(3) The practice of loving kindness/metta meditation has been more deeply embedded in the BiNKA-training than it is found in standard MBSR interventions. The reason for this is that the qualities addressed by these types of practices (namely benevolence and compassion) are closely connected to the reflection and transformation of one’s behaviour and were thus deemed as crucial by the project team (see Section 2). Metta meditation is introduced in two steps: first, the practice of embodied kindness and compassion towards oneself; second, expanding that practice by including others (people, living beings, nature). Apart from the practice and reflection in the training session, the participants are encouraged to read a text written by the trainer on “Mindfulness in Action – The Embodiment of Compassion” in the course handout as well as to practice the embodiment of compassion in their everyday lives (week 5 to 8).

Critical Reflection and Lessons Learnt

As described before, the BiNKA-training is consumption-specific mindfulness intervention that was developed to contribute to the advancement of ESC by strengthening affective learning and exploring the potentials of mindfulness to make changes towards more sustainable consumption practices. During the process of developing the training, certain aspects of the initial strategies were proved to be useful and were extended, while others turned out to be less helpful with regard to the overall purpose of the project. Two major lessons learnt are particularly relevant for the application of adapted MBIs within the framework of ESC and will be critically reflected hereafter: (1) emphasis should be laid on practices that stimulate participants’ engagement with their inner affective processes and help to elucidate these processes and make them accessible for reflection (e.g., through self-discovery and openly turning to individual ethical values, needs and behavioural patterns) rather than on external cognitive input; (2) for mindfulness practices to unfold their full and long-lasting potential for ESC, continuous practice and re-examination of consumption-related processes and experiences are required rather than one-shot intervention.

Rather Affective and Implicit than Cognitive and Explicit Learning Strategies

Focusing on Introspection and Self-Discovery

Steady voluntary personal engagement and comprehension are fundamental for any kind of affective learning (Nelson & Creagh, 2013; Bandura & Schunk, 1981). This holds especially true for introspection processes as they are very individual tasks, which neither can be guided nor observed beyond a certain threshold by any external entity/person. Furthermore, specific and ongoing training is required to acquire awareness of those – mostly unconscious – inner occurrences that inherently impact everyday behaviour and underlying bodily functions (Petitmengin, 2006). As Petitmengin states, “Our most immediate and most intimate experience that which we live here and now is also that most foreign to us and the most difficult to access” (Petitmengin, 2006, p. 230). The need to focus on supporting the emergence of introspection/self-reflection and affec-
tive competencies to explore – and thus become able to change – individual (consumption-related) values, attitudes and actions proved to be an essential insight to take from the process of developing the training, far more than was expected beforehand.

Promoting Implicit Ethical Values of Mindfulness

In contrast to affective learning and introspection, cognitive focused learning is more concerned with the acquisition of external information and conscious thought processes (Bandura & Schunk, 1981). Ethical or moral values conveyed in that way may trigger resistance or superficial acceptance that does not change individual value systems. The practice of mindfulness, on the other hand, envisages ethical development based on intuitive and affective understanding of what is right and wrong (Monteiro, Musten, & Compson, 2014). In traditional mindfulness and Buddhist teachings, the practice of meditation and awareness of our body/mind experiences bear the intention to transform the aforementioned unwholesome emotions and actions (namely greed, anger and delusion) into wholesome or “right” emotions and ethical actions (namely generosity, compassion and wisdom) (Grossman, 2015) in order to help alleviate suffering in oneself and the world. It is notable that, despite the minor stance, ethical education took so far in contemporary mindfulness research (Monteiro, 2016). Kabat-Zinn in the creation of MBSR has stressed the importance of MBIs to be grounded in a universal “dharma” understanding that is congruent with Buddhist dharma, but not constrained by traditions (Kabat-Zinn, 2011). The aim of the training was to support participants’ capacity to reflect on their needs and increase their awareness of the ethical values they hold. Thus, it emerged as increasingly important in the course of developing and focusing of the training to consider the ethical dimension of mindfulness more strongly throughout the course of sessions.

Long-Lasting Change through Long-Term Practice instead of Short-Lasting Change through Short-Sighted Interventions

Behaviour Change Takes Time

One of the key characteristics of the BiNKA-training is its understanding of mindfulness that is rooted in the genuine ethical background of MBSR and mindfulness in Buddhism. According to this positioning, the aim was to stimulate reflection of intrinsic moral values and perceived inconsistencies in terms of attitude-behaviour-gaps, rather than to induce short-term and likely superficial changes on the behavioural level. Radical shifts in consumption patterns based on self-reflected ethical values, however, may take time to realise – presumably more time than an 8-week-training course can provide. This does not mean that consumption-specific mindfulness intervention is ineffective, but is important to consider when evaluating behavioural effects resulting from participation in the BiNKA-training.

Mindfulness Practice and SC Knowledge: A Hermeneutic Circle

Consideration of personal needs, (sustainable) consumption patterns and ethical values will per se depend on the individual knowledge base of sustainable consumption of the individual. To put it the other way round: practice and experience in mindfulness are required to be able to develop the ability for advanced introspection and, thus, to recognise one’s own unconscious behavioural patterns in the area of (sustainable) con-
Education for Sustainable Consumption through Mindfulness Training.

As stressed, such awareness is pivotal for aligning one’s own behavioural patterns more closely to inherently held values. Little or no prior knowledge of sustainable consumption provides a less nuanced ground for reflection than a more comprehensive understanding of the challenges inherent in consumption practices. Even though, as clearly stated above, there are good reasons to keep the conveyance of extrinsic consumption related values and cognitive ESC knowledge to a minimum; reliance on “plain” mindfulness practice without a certain background for the introspection would not support ESC either. Thus, rather than to conceptualise (cognitive) knowledge of (sustainable) consumption (as a contribution of ESC) and the ability to reflect on affective processes in one’s own consumption behaviour (as a contribution of mindfulness) as two separate entities, both are more appropriately understood as interacting and potentially reinforcing each other as they evolve and mature. Therefore, traditional one-time intervention may have only limited effects. Against this background and based on the experiences made in the development and implementation of the training, the project team concluded that it might be fruitful to integrate mindfulness and ESC over a longer period of time (while possibly less time-intensive and with a higher focus on individual practice) in a hermeneutic circle or spiral to further increase the potency of the intervention. This may also involve a more explicit ESC-oriented course prior or in parallel to the BiNKA-training instead of trying to minimise information about the inclusion of consumption-related content in advance of the training.

Conclusion

The starting point of this paper has been that there is a need to overcome the predominance of cognitive approaches in ESC and to stimulate a more holistic engagement with affective processes in learners. The critical case study presented on the development and implementation of consumption specific mindfulness training in educational settings has provided some insights that may promote future work in the field. The task itself required a team of both researchers from different fields and practitioners experienced in guiding learners in mindfulness. The assembly of the team ensured that the development of the curriculum was implemented by a rich and diverse body of different knowledge backgrounds and that quality criteria from different fields were met. The process of co-designing the training also revealed that values acted as a key concept in all related fields. Hence, future research on consumption-specific mindfulness trainings in educational settings may seek to further elaborate on the role of values and ethics. A possible next step can be to incorporate ethical education more explicitly as from a “right” mindfulness perspective, cultivating the “Noble Person” that transcends self-interest and lives for the well-being of others (Monteiro, 2016; Grossman, 2015). This may also benefit from a deeper understanding of mindfulness (Bodhi, 2011) and help respond to the challenge that, if not adequately met, may limit the potential of mindfulness for ESC. The challenge is the extension of the scope of mindfulness to a broader issue of social change and the reform of structures of systems of consumption and production. If mindfulness remains confined to the immediate inner world and to private consumption practices, it may effectively prevent the transformation of political and economic structures sustaining unsustainable consumption practices. Hence, a crucial task for the further elaboration of MBIs in ESC is to connect inner and outer worlds as well as individual and social change agency.
Acknowledgements

The authors would like to thank the entire project team and the project partners for their valuable feedback in the course of the development of the training as well as for their dedication and enthusiasm in supporting the intervention study. Another big thank you goes to the participants in the courses for their openness and insightful feedback. The present research has been made possible through funding received from the German Ministry for Education and Research (BMBF) in the project BiNKA (Education for Sustainable Consumption through Mindfulness Training) under grants 01UT1416 and 01UT1416B.

References


Education for Sustainable Consumption through Mindfulness Training


Session 7 – “Mindful Consumption – To Have and to Be”

The seventh session of the BiNKA-training connects formal mindfulness meditation with its practical dimension and incorporates the reflection of questions like “What has mindfulness to do with my consumption behaviour?” and “What does mindful consumption mean to me personally?” guided and facilitated by the trainer. Additionally and very importantly, the practice of loving kindness/metta meditation is deepened during the session and at home. The focus of the session is explicitly laid on the individual and the social/global dimension of mindful consumption. The cultivation of wholesome emotions (e.g., benevolence and compassion) instead of unwholesome emotions (e.g., greed and hatred) is shown as a way to establish an inner state of wellbeing and bliss, in contrast to the attempt to satisfy this need through excessive consumption and the accumulation of possessions. Moreover, light is shed onto the impact of one’s consumption decisions (e.g., “Interdependence: A Pair of Jeans Travels around the World”) and the participants are encouraged to practice benevolent and compassionate behaviour in everyday life.

Table 3

<table>
<thead>
<tr>
<th>Procedure of Session 7</th>
<th>Element of session</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop-in: Feeling the clothes on the skin</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Brief repetition of Session 6 and introduction of Session 7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Guided meditation (metta stage 2): benevolence and compassion with oneself and others</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Feedback/reflection of meditation practice and homework in group setting</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Mindful movement/relaxing the body</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Informal exchange in dyads/triads: consumption behaviour in the context of mindfulness</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Feedback/reflection in group setting</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Consumption-specific mindfulness exercise “Interdependence: A Pair of Jeans Travels around the World”</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Feedback/reflection in group setting and interactive insight talk of teacher and participants: Mindful consumption</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Setting an intention; reference to homework and course handouts</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Exploring Change in EFL Teachers’ Perceptions of Professional Development

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Abstract
Continuous professional development (CPD) is important for teachers in attaining sustainable education. Accordingly, exploring teachers’ perceptions could be a significant endeavor as teachers’ beliefs impact their classroom practices, thereby, impacting student learning and, thus have educational implications. Therefore, this study was designed to investigate this fundamental issue via establishing professional development workshops to train teachers in order to promote sustainable professional growth. It examined 86 EFL teachers’ beliefs and attitudes toward CPD before and after attending workshops for professional development. The data were collected through a questionnaire and a follow-up interview. Paired-samples t-tests were run to measure differences between responses of pre and post surveys. Moreover, raw frequencies and percentages were calculated in order to prioritize the items the teachers selected in each variable. The findings demonstrate that beliefs about CPD can change. Survey data collected before and after professional development workshops revealed a statistical significant shift in EFL teachers’ beliefs. This finding was also supported by semi-structured interviews. In addition, the results also revealed that the participants perceived customized professional development programs with professional development framework as a beneficial tool to be included in the professional development programs. The study may have some pedagogical implications to be utilized in the educational process directed at sustainable professional development.

Keywords: belief change, professional development, sustainable professional growth, teachers’ perceptions.

Introduction
The field of English Language Teaching (ELT) is subject to rapid changes. Professional development can contribute to the effectiveness of ESL/EFL teachers by providing continuous individual and collective improvement that is necessary to adequately address the heightened expectations for improving student learning outcomes (Elmore, 2002; Fullan, 2007). The ideas of Teachers’ Professional Development emphasize that teachers are individuals with marvelous potential and sustainable development; it requires teachers to become learners, researchers, and cooperator; it prompts teachers to reflect on their
teaching practices more rationally, improve professional standards, manifest sustainable professional quality, and realize professional ideal (Jiang, 2017).

Knapp (2003) points out that professional development is a critical link to improve teaching. Therefore, teachers need regular opportunities to update their professional knowledge and skills. The complex organizational nature of educational centers, accompanied by evolving pedagogies, requires multiple professional development strategies to effectively address needs, respond to emerging trends in teaching and learning and facilitate improvements. There is, thus, a constant need, in dealing with teachers’ professional development, to study, experiment, discuss and reflect on teachers’ perceptions of professional development, the educational needs of their student populations, and learning opportunities that are open to them.

Recent changes in society, economy and politics have had a huge effect on education. The changing roles of teachers, the growing demands and expectations of the society and policy makers require high quality teacher education and professional development programs. English teachers are also challenged daily with a diverse range of students they face in their classrooms. Moreover, teacher education programs may not meet the rising expectations evoked by the authorities, parents and learners. Hence, teachers should continue their learning while they are working (Borko, 2004; Gandara, Maxwell-Jolly, & Driscoll 2005; Gusky, 2002; Mann, 2005). Recent studies have explored teachers’ beliefs about professional development (e.g. Buczynski & Hansen, 2010; Chang, Jeon, & Ahn, 2014; Hung & Yeh, 2013; Kumba & Nkumbi, 2008; Powell, Terrell, Furey, & Scott-Evans, 2003; Smith & Gillespie, 2007; Tang, Lee, & Chun, 2012). Yet, the beliefs of EFL teachers about CPD have been largely ignored (Gholami & Qurbanzada, 2016; Pipere, Veisson, & Salite, 2015).

The current study addresses this gap in more practical research by examining EFL teachers’ beliefs about CPD before and after engaging them in workshops and activities related to professional development. This study could be beneficial to the field as it informs teacher educators, supervisors and educational officials about their teachers’ beliefs. It goes without saying that if teachers’ beliefs are effectively targeted, we can pave the way to better prepare teachers in teacher education programs to promote educational success for their sustainable professional development.

Literature Review

The professional development of teachers is studied and presented in a myriad of ways in the literature. Numerous studies point to the effectiveness of professional development in the field of ELT (e.g. Jiang, 2017; Komba & Nkumbi, 2008; Lier, 2002; Mann, 2005; Salite, 2015; Wharton, 2003; Yadav, 2011; Yoo, 2016).

Teacher beliefs is defined as teachers’ “implicit assumptions about their students, classroom, learning, and the subject matter to be taught” (Kagan, 1992, p. 66). Teachers’ beliefs include a variety of different aspects of beliefs about English as a subject and its teaching and learning, as well as the perceived professional growth, the satisfaction of the participating teachers, and the teachers’ opinions, values, etc. (Jiang, 2017; Leder, Pehkonen, & Torner, 2002). Teachers’ perceptions are generally considered to have a powerful impact on teachers’ cognition and practice. A teacher’s beliefs impact his or her behavior, thereby impacting student learning. (Borg, 2003; Smith & Gillespie, 2007; Tang, Lee, & Chun, 2012). The way in which teachers come to conceptualize themselves
as teachers and develop explanations for their own classroom practices tends to be filtered through their beliefs (Johnson, 1999). Teachers’ beliefs about good teaching are reflected in their everyday teaching practice and affect their decision-making in the classroom. This is why no new curricula would ever be implemented if teachers do not support them. Therefore, it is necessary to determine if EFL teachers are mentally ready to implement the changes needed to achieve the educational goals of a modern society (Akbari & Tajik, 2012; Gao & Ma, 2011).

Different scholars define CPD in different ways. But, they express similar ideas. The term

continuing professional development is a planned, continuous and lifelong process whereby teachers try to develop their personal and professional qualities, and to improve their knowledge, skills and practice, leading to their empowerment, the improvement of their agency and the development of their organizations and their pupils (Padwad & Dixit, 2011, p. 7).

Participation in professional development programs is believed to have some impact on the teachers’ ability to acquire and critically develop the knowledge, skills, and emotional intelligence essential for good professional thinking, planning, and practice with their students and colleagues through every phase of their teaching profession (see Borko, 2004; Buczynski & Hansen, 2010; Day, 1999; Gabriel, Day, & Allington, 2011; Poskitt, 2005). Due to the role of English as a global language, examining professional development programs and teachers’ beliefs about CPD seems to be an essential issue. Providing adequate professional development programs depend on insights into the beliefs of ELT teachers. These beliefs are critical due to their impact on teachers’ sustainable behavior.

The sustainability of professional development for teachers has become one of the key priorities in the field of teaching. Obviously, an analysis of sustainable effects is crucial too (Loucks-Horsley, Stiles, & Hewson, 1996). Hargreaves and Fink (2003) stated, “Sustainable improvement requires investment in building long term capacity for improvement, such as the development of teachers’ skills, which will stay with them forever, long after the project money has gone” (p. 3). Our use of the term sustainability in professional development for English teachers refers to the capacity to achieve durability in effective teaching practice. Our primary consideration of sustainability is from the perspective of achieving shifts in knowledge, skills, and attitudes that contribute to lasting change in quality teaching and learning practices.

Like other countries, English teachers in Iran are provided with opportunities for professional development in different forms. However, they have been far from satisfactory when it comes to opportunities to take part in extended and collaborative professional development. Furthermore, EFL teachers in Iran do not participate in well-designed professional development programs. The English teaching profession in Iran is characterized by inadequate and ineffective pre-service education, poor teacher preparation, and lack of professional development support (Jamshidi & Sadeghi, 2014; Nargesy, 2012; Shahmohammadi, 2012).

The review of teacher professional development literature shows that there is some concern and movement towards improving the quality of teaching by engaging teachers in professional development activities (Kennedy, 2005; Whitcomb, Borko, & Liston,
2009). In the realm of second language teacher education, despite much work in professional development, only a few studies have dealt with this particular issue in the Iranian context. Thus, attempts were made to investigate the attitudes of Iranian EFL teachers toward professional development activities as well as their perceptions of possible barriers to the implementation and evaluation of CPD. The research was guided by this question: How do EFL teachers’ pre-existing beliefs about professional development change following CPD workshops?

Focusing on the importance of professional development in ELT and EFL teachers’ perceptions about it, the present study addressed the following research questions:

1) Are there any significant differences between teachers’ perceptions about the underlying reasons toward professional development before and after attending workshops?

2) Are there any significant differences between teachers’ perceptions about different types of professional development before and after attending workshops?

3) Are there any significant differences between teachers’ perceptions about engagement with professional development activities before and after attending workshops?

4) Are there any significant differences between teachers’ perceptions about constraints teachers face in their professional development before and after attending workshops?

5) Are there any significant differences between teachers’ perceptions about the facilities they prefer to receive for effective professional development before and after attending workshops?

6) Are there any significant differences between teachers’ perceptions about the evaluation criteria they prefer for professional development before and after attending workshops?

**Methodology**

**Context of the Study**

English teacher education in Iran subsumes initial teacher education, which embodies the main part of the teacher education program, and in-service training, which is a limited scheme. English teachers in private language schools also attend teacher training courses (TTC) at private language centers. The importance of teachers’ professional development is fully recognized by the Iranian authorities, and in recent years, there have been some activities and programs for teachers’ development (Jamshidi & Sadeghi, 2014).

Private language schools in Iran provide both intensive and extensive English language courses based on the principles of communicative approaches. Typically, English courses are taught by non-native English-speaking teachers who hold university degrees (e.g., BA/MA) in teaching English as a foreign language (TEFL). The main objective of these courses is to enable students to communicate with others in English in both oral and written modes. Preparatory courses for international tests, such as the International English Language Testing System (IELTS) and the Test of English as a Foreign Language
(TOEFL) Internet-based Test (iBT), are also offered. The language schools where this study was conducted offer English conversation courses for all proficiency levels.

Participants

The participants, 86 non-native English-speaking teachers, were selected out of teachers teaching English classes in private language schools through stratified random sampling. Out of the selected participants, 22 also participated in the interview phase of the study. The subjects were male and female teachers whose age ranged between 22 and 45 years. The sample was selected from 16 top English language teaching schools in Iran. All teachers had a Bachelor’s Degree in teaching EFL and had attended pre-service teacher training courses at private schools. The participants’ first languages were Kurdish and Persian. The teacher participants’ experience varied from less than two years to 15 years, and they were teaching low-intermediate to advanced levels of proficiency courses to both male and female adults with different ages.

Instruments and Procedures

To design a survey that would accurately measure EFL teachers’ beliefs, we first interviewed 43 English teachers and examined the relevant PD course books and activities. Based on that information, we adapted a questionnaire from Chang, Jeon and Ahn (2014). Taking the Iranian context into account, we made some modifications with regard to the survey items for CPD forms and activities from Foord (2009). Three experts from the field checked the modified version of the survey. The survey was piloted with a small group of EFL teachers. The participants provided feedback and instrument was revised accordingly. The questionnaire had three sections. The first section was designed to collect background information about the teachers, including their gender, university degree, and teaching experience. The second section asked the teachers about their attitudes toward current PD situation and, the section aimed to elicit information about the constraints and supports about PD. Based on the survey results seven interview questions were constructed to complement the quantitative data. Semi-structured interviews were conducted at the end of the workshops to look more deeply at the concepts addressed in the survey.

One of us administered the professional development Survey at the start of the workshops in spring (2016). The activities of the workshops took the teachers through a series of varied tasks that progressively developed their knowledge of classroom practice and language. The aim was to motivate the teachers by means of interactive tasks which engaged the teachers in and provided an appropriate level of cognitive challenge. The tasks were logically staged and took the teachers through a complete learning sequence. The materials covered a range of levels from pre-service to experienced teachers to explore professional development in more depth. The main activities of professional development sessions were hands-on activities, interactive tasks, collaborative work, reflections, and discussions, self-monitored practice. The strategies we employed incorporated teacher networks, collaborations, action research, mentoring programs, and peer coaching, as we believe these address complex and multifaceted needs, including that of sustainable teaching practice.
The participants were informed that their confidentiality would be strictly observed. During the last week of the sessions, depending upon the workshop schedules, the same professional development survey was administered again. Data collection among all of the teachers resulted in 97 surveys. However, only the participants that completed both the pre and post surveys were included in the study. In total, 86 surveys met the inclusion criteria. The qualitative data were gathered via semi-structured interviews. The purpose of these interviews was to exemplify and provide external validation for the beliefs expressed in the surveys. In this section, 22 teachers were randomly selected and invited to participate in the interview, which was conducted in Persian and English. The interviews were recorded with the consent of the participants and transcribed by the researchers. The interviews were conducted by one of us and held in a small, quiet room in private language schools. Each interview took 25 minutes. It should be noted that the teachers did not know the interview questions in advance.

Data Collection and Analysis

To find answers to our research question (Do EFL teachers’ pre-existing beliefs about CPD change following PD workshops?), we first needed to establish what beliefs the teachers held prior to the workshops. We achieved this goal through a descriptive analysis of the questionnaire, administered before the participants attended the workshops. Content analysis and descriptive analysis were also used to analyze the results of the interviews. After ensuring that the collected data met the assumptions of the t-test and that the questionnaire data, enjoyed an acceptable level of reliability (0.88), paired-samples t-tests were run for pre and post scores to indicate any change in the teachers’ beliefs. The alpha level was set at $p < .05$ for the t-tests. Moreover, raw frequencies and percentages were calculated in order to prioritize the items the teachers selected in each variable. The qualitative data from the interviews were also integrated to support the survey findings. Triangulation of the quantitative and qualitative data, which is one of the merits of mixed methods design, further ensured the validity of the collected data. All the statistical analyses were done through using Statistical Package for the Social Sciences (SPSS), Version 22.

Results

This study was conducted to investigate the perceptions of non-native EFL teachers about CPD. As the first question, the teachers were requested to check the most important reasons to pursue CPD. The results in this regard are presented in Table 1.
Table 1
The Differences Between Teachers’ Perceptions about the Underlying Reasons to Pursue PD Before and After Attending the Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL</strong></td>
<td>Pre survey</td>
<td>0.58 (0.094)</td>
<td>3.516</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.51 (0.148)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>being assigned to a new task</td>
<td>Pre survey</td>
<td>1 (0.001)</td>
<td>16.22</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.24 (0.432)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>improving teaching effectiveness</td>
<td>Pre survey</td>
<td>0.38 (0.489)</td>
<td>-11.684</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>1 (0.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meeting requirements for promotion</td>
<td>Pre survey</td>
<td>0.92 (0.275)</td>
<td>14.2</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.19 (0.391)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meeting requirements for a higher annual salary</td>
<td>Pre survey</td>
<td>0.76 (0.432)</td>
<td>14.83</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.02 (0.152)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>competing with newly appointed teachers</td>
<td>Pre survey</td>
<td>0.69 (0.467)</td>
<td>1.424</td>
<td>84</td>
<td>0.156</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.58 (0.496)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meeting needs in society</td>
<td>Pre survey</td>
<td>0.28 (0.451)</td>
<td>-12.078</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.94 (0.235)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>preparing for future education</td>
<td>Pre survey</td>
<td>0.33 (0.471)</td>
<td>-11.268</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.95 (0.212)</td>
<td></td>
<td></td>
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<tr>
<td>Other</td>
<td>Pre survey</td>
<td>0.33 (0.471)</td>
<td>1.728</td>
<td>84</td>
<td>0.086</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.21 (0.409)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2
Prioritizing the Most Important Reasons for Continuing Professional Development

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>being assigned to a new task</td>
<td>Pre survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>21 (24.4)</td>
<td>5</td>
</tr>
<tr>
<td>improving teaching effectiveness</td>
<td>Pre survey</td>
<td>33 (38.4)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>meeting requirements for promotion</td>
<td>Pre survey</td>
<td>79 (91.9)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>16 (18.6)</td>
<td>7</td>
</tr>
<tr>
<td>meeting requirements for a higher annual salary</td>
<td>Pre survey</td>
<td>65 (75.6)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>2 (2.3)</td>
<td>8</td>
</tr>
<tr>
<td>competing with newly appointed teachers</td>
<td>Pre survey</td>
<td>59 (68.6)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>50 (58.1)</td>
<td>4</td>
</tr>
<tr>
<td>meeting needs in society</td>
<td>Pre survey</td>
<td>24 (27.9)</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>81 (94.2)</td>
<td>3</td>
</tr>
<tr>
<td>preparing for future education</td>
<td>Pre survey</td>
<td>28 (32.6)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>82 (95.3)</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>Pre survey</td>
<td>28 (32.6)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>18 (20.9)</td>
<td>6</td>
</tr>
</tbody>
</table>

We also prioritized the reasons the teachers had for continuing professional development. Table 2 shows that, in the pre-survey, “being assigned to a new task” was the first priority, while, in the post-survey, the first priority was “improving teaching effectiveness”.

The second question targeted the teachers’ perception about forms of CPD and asked them to rate the effectiveness of each form. Table 3 shows the teachers’ responses to the question: ‘What forms does your own CPD take and how effective is each form?’

Table 3
The Differences Between Teachers’ Perceptions about Effective Types of CPD Before and After Attending the Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>Pre survey</td>
<td>0.93 (0.14)</td>
<td>-30.818</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>1.68 (0.173)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD activities you do alone</td>
<td>Pre survey</td>
<td>2.37 (0.595)</td>
<td>-10.33</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.42 (0.727)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD Activities with your students</td>
<td>Pre survey</td>
<td>1.74 (0.689)</td>
<td>-22.474</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.73 (0.445)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD Activities with your colleagues</td>
<td>Pre survey</td>
<td>0.92 (0.578)</td>
<td>-26.187</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.3 (0.615)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD Activities with your school</td>
<td>Pre survey</td>
<td>1.51 (0.851)</td>
<td>-16.284</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.26 (0.513)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD Activities with your profession</td>
<td>Pre survey</td>
<td>1.34 (0.745)</td>
<td>-19.632</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.5 (0.699)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>volunteer activities</td>
<td>Pre survey</td>
<td>0.05 (0.212)</td>
<td>-2.971</td>
<td>84</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.36 (0.957)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Pre survey</td>
<td>0.52 (0.878)</td>
<td>-0.397</td>
<td>84</td>
<td>0.691</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.58 (1.034)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4
Prioritizing the Most Effective Forms of Professional Development

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD activities you do alone</td>
<td>Pre survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>PD Activities with your students</td>
<td>Pre survey</td>
<td>81 (94.2)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>PD Activities with your colleagues</td>
<td>Pre survey</td>
<td>66 (76.7)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>PD Activities with your school</td>
<td>Pre survey</td>
<td>67 (77.9)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>85 (98.8)</td>
<td>2</td>
</tr>
<tr>
<td>PD Activities with your profession</td>
<td>Pre survey</td>
<td>76 (88.4)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>volunteer activities</td>
<td>Pre survey</td>
<td>3 (3.5)</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>12 (14)</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>Pre survey</td>
<td>24 (27.9)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>22 (25.6)</td>
<td>3</td>
</tr>
</tbody>
</table>

After the teachers answered this question, we were also able to prioritize the most effective forms of professional development. Table 4 presents the results in this regard.
The third question was designed to elicit the teachers’ perceptions about their involvement in professional development activities. Table 5 shows the teachers’ responses to the question: ‘What kind of activities are you involved in for each form of CPD?’

Table 5
The Differences Between Teachers’ Perceptions about Engagement with PD Activities Before and After Attending the Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>Pre survey</td>
<td>1.66 (0.307)</td>
<td>-63.155</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4.03 (0.164)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>activities you can do independently to develop yourself and your teaching</td>
<td>Pre survey</td>
<td>1.73 (0.434)</td>
<td>-48.305</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4.14 (0.162)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities you can do and which involve your students</td>
<td>Pre survey</td>
<td>1.94 (0.445)</td>
<td>-36.898</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4 (0.260)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities you can do in collaboration with your fellow teachers</td>
<td>Pre survey</td>
<td>1.68 (0.361)</td>
<td>-55.415</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4.12 (0.190)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible development actions &amp; opportunities involving you in the wider context of your school</td>
<td>Pre survey</td>
<td>1.53 (0.328)</td>
<td>-54.226</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.99 (0.263)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible PD actions &amp; opportunities</td>
<td>Pre survey</td>
<td>1.4 (0.240)</td>
<td>-56.798</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.9 (0.328)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6
Prioritizing Teacher’s Involvement with Different Forms of Professional Development

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>activities you can do independently to develop yourself and your teaching</td>
<td>Pre survey</td>
<td>1.73 (0.434)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4.14 (0.162)</td>
<td>1</td>
</tr>
<tr>
<td>Activities you can do and which involve your students</td>
<td>Pre survey</td>
<td>1.94 (0.445)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4 (0.260)</td>
<td>3</td>
</tr>
<tr>
<td>Activities you can do in collaboration with your fellow teachers</td>
<td>Pre survey</td>
<td>1.68 (0.361)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4.12 (0.190)</td>
<td>2</td>
</tr>
<tr>
<td>Possible development actions &amp; opportunities involving you in the wider context of your school</td>
<td>Pre survey</td>
<td>1.53 (0.328)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.99 (0.263)</td>
<td>4</td>
</tr>
<tr>
<td>Possible PD actions &amp; opportunities</td>
<td>Pre survey</td>
<td>1.4 (0.240)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>3.9 (0.328)</td>
<td>5</td>
</tr>
</tbody>
</table>

Similar to the previous question, we also prioritized the activities the teachers stated they were involved in for each form of CPD. The results in this regard are provided in Table 6.

The next section of the questionnaire dealt with the constraints and supports for CPD.

The first question in this section asked the teachers to check the major constraints in pursuing CPD and other means of improvement.

Table 7 shows the teachers’ responses to the question: ‘What are the major constraints in pursuing CPD and other means of improvement?’
Table 7
The Differences Between Teachers’ Perceptions about Constraints Teachers Face in PD Before and After Attending the Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>Pre survey</td>
<td>0.71 (0.094)</td>
<td>8.172</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.57 (0.124)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teaching load</td>
<td>Pre survey</td>
<td>1 (0.001)</td>
<td>8.011</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.57 (0.498)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lack of customized CPD programs</td>
<td>Pre survey</td>
<td>0.66 (0.476)</td>
<td>-5.833</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.98 (0.152)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lack of cooperative development with colleagues</td>
<td>Pre survey</td>
<td>0.65 (0.479)</td>
<td>-0.16</td>
<td>84</td>
<td>0.873</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.66 (0.476)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>obligation to meet criteria university evaluation</td>
<td>Pre survey</td>
<td>0.58 (0.496)</td>
<td>-3.213</td>
<td>84</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.8 (0.401)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pressure from promotion or contract</td>
<td>Pre survey</td>
<td>0.64 (0.483)</td>
<td>5.657</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.24 (0.432)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>Pre survey</td>
<td>0.74 (0.439)</td>
<td>8.529</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.2 (0.401)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 7, the maximum mean in the pre-survey is related to “teaching load”, while, in the post-survey, “lack of customized CPD programs” has the maximum mean.

Table 8
Prioritizing the Main Constraints for Continuing Professional Development from Teachers’ Perceptions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>teaching load</td>
<td>Pre survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>49 (57)</td>
<td>4</td>
</tr>
<tr>
<td>lack of customized CPD programs</td>
<td>Pre survey</td>
<td>57 (66.3)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>84 (97.7)</td>
<td>1</td>
</tr>
<tr>
<td>lack of cooperative development with colleagues</td>
<td>Pre survey</td>
<td>56 (65.1)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>57 (66.3)</td>
<td>3</td>
</tr>
<tr>
<td>obligation to meet criteria university evaluation</td>
<td>Pre survey</td>
<td>50 (58.1)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>69 (80.2)</td>
<td>2</td>
</tr>
<tr>
<td>pressure from promotion or contract</td>
<td>Pre survey</td>
<td>55 (64)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>21 (24.4)</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>Pre survey</td>
<td>64 (74.4)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>17 (19.8)</td>
<td>6</td>
</tr>
</tbody>
</table>

As Table 8 shows, in the pre-survey, “teaching load” was the first priority, and, in the post-survey, “lack of customized CPD programs” was the first priority.

The next question asked the teachers to check the supports they preferred for effective CPD.

Table 9 reveals the teachers’ responses to the question: ‘What support would you prefer for effective CPD?’
Table 9

The Differences Between Teachers’ Perceptions about the Supports they Preferred to Receive for PD Before and After Attending Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>Pre survey</td>
<td>0.66 (0.136)</td>
<td>4.759</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.57 (0.101)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teaching load lessened</td>
<td>Pre survey</td>
<td>1 (0.001)</td>
<td>7.823</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.58 (0.496)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPD as optional not obligatory to all</td>
<td>Pre survey</td>
<td>1 (0.001)</td>
<td>0.001</td>
<td>84</td>
<td>0.999</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>1 (0.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>building up learning community</td>
<td>Pre survey</td>
<td>0.59 (0.494)</td>
<td>-4.331</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.87 (0.336)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>officially authorized leave for CPD</td>
<td>Pre survey</td>
<td>0.52 (0.502)</td>
<td>8.109</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.25 (0.212)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>customized CPD programs</td>
<td>Pre survey</td>
<td>0.63 (0.486)</td>
<td>-1.824</td>
<td>84</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.76 (0.432)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>Pre survey</td>
<td>0.24 (0.432)</td>
<td>0.544</td>
<td>84</td>
<td>0.587</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.21 (0.409)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The maximum mean in the pre-survey is related to both “teaching load lessened” and “CPD as optional not obligatory to all” while, in the post-survey, only “CPD as optional not obligatory to all” has the maximum mean.

Table 10

Prioritizing Different Supports the Teachers Preferred for Effective Professional Development

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>teaching load lessened</td>
<td>Pre survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>50 (58.1)</td>
<td>4</td>
</tr>
<tr>
<td>CPD as optional not obligatory to all</td>
<td>Pre survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>building up learning community</td>
<td>Pre survey</td>
<td>51 (59.3)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>75 (87.2)</td>
<td>2</td>
</tr>
<tr>
<td>officially authorized leave for CPD</td>
<td>Pre survey</td>
<td>45 (52.3)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>4 (4.7)</td>
<td>6</td>
</tr>
<tr>
<td>customized CPD programs</td>
<td>Pre survey</td>
<td>54 (62.8)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>65 (75.6)</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>Pre survey</td>
<td>21 (24.4)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>18 (20.9)</td>
<td>5</td>
</tr>
</tbody>
</table>

As Table 10 shows, in the pre-survey, both “teaching load lessened” and “CPD as optional not obligatory to all” were the first priority, and in the post-survey, only “CPD as optional not obligatory to all” was the first priority.

The last question in this section targeted the teachers’ attitudes toward the criteria they would prefer for evaluation of CPD. Table 11 shows the teachers’ responses to the question: ‘What criteria would you prefer for evaluation of CPD?’
Table 11
The Differences Between Teachers’ Perceptions about the Criteria they Preferred for Evaluating PD Before and After Attending Workshops

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Mean (SD)</th>
<th>T</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>Pre survey</td>
<td>0.58 (0.104)</td>
<td>-1.317</td>
<td>84</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.61 (0.143)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>training sessions for professional learning</td>
<td>Pre survey</td>
<td>0.66 (0.476)</td>
<td>-6.576</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>1 (0.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teacher evaluation by student</td>
<td>Pre survey</td>
<td>0.79 (0.409)</td>
<td>11.609</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.13 (0.336)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>research and publication</td>
<td>Pre survey</td>
<td>0.69 (0.467)</td>
<td>2.358</td>
<td>84</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.51 (0.503)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>participating in academic associations</td>
<td>Pre survey</td>
<td>0.21 (0.409)</td>
<td>-10.213</td>
<td>84</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.83 (0.382)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>self-evaluation</td>
<td>Pre survey</td>
<td>0.94 (0.235)</td>
<td>-1.666</td>
<td>84</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.99 (0.108)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>Pre survey</td>
<td>0.23 (425)</td>
<td>0.181</td>
<td>84</td>
<td>0.857</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>0.22 (0.417)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 11, the maximum mean in the pre-survey is related to “self-evaluation”, while, in the post-survey, “training sessions for professional learning” has the highest mean.

Table 12
Prioritizing Different Evaluation Criteria the Teachers Preferred for Evaluation of Effective Professional Development

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency (%)</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>training sessions for professional learning</td>
<td>Pre survey</td>
<td>57 (66.3)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>86 (100)</td>
<td>1</td>
</tr>
<tr>
<td>teacher evaluation by student</td>
<td>Pre survey</td>
<td>68 (79.1)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>11 (12.8)</td>
<td>6</td>
</tr>
<tr>
<td>research and publication</td>
<td>Pre survey</td>
<td>59 (68.6)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>44 (51.2)</td>
<td>4</td>
</tr>
<tr>
<td>participating in academic associations</td>
<td>Pre survey</td>
<td>18 (20.9)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>71 (82.6)</td>
<td>3</td>
</tr>
<tr>
<td>self-evaluation</td>
<td>Pre survey</td>
<td>81 (94.2)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>85 (98.8)</td>
<td>2</td>
</tr>
<tr>
<td>other</td>
<td>Pre survey</td>
<td>20 (23.3)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Post survey</td>
<td>19 (22.1)</td>
<td>5</td>
</tr>
</tbody>
</table>

As Table 12 shows, in the pre-survey, “self-evaluation” was the first priority, while, in the post-survey, it was “training sessions for professional learning” which was the first priority.
Discussion

The present study aimed at exploring if EFL teachers’ beliefs could change through professional development workshops. The teachers, in this study, were asked about different aspects of CPD, such as its types, activities, facilities, constraints, evaluation criteria, and the appropriate implementation of them. The findings revealed that there were significant differences between pre and post surveys. Both qualitative and quantitative findings indicated a positive overall change in the alignment of the teachers’ beliefs with the current research and professional development workshops.

The study found that after the workshops, the teachers showed greater acceptance of customized CPD programs. This finding aligns with that of Chang et al. (2014). It was revealed that the participants perceived the customized CPD programs as beneficial tools to be included in professional development programs. The participants further reported several serious barriers to the application of professional development activities as well as the evaluation criteria and use of its result in the Iranian professional development courses.

The study revealed that successful professional development and changes should start from teachers and with an acknowledgement of their educational needs, their teaching context in which CPD is to be implemented as well as within an understanding of the socio-cultural context. This appears to be one of the key ingredients in the success of CPD. Another important issue is the institutional climate, and whether educational officials provide adequate support for successful professional development. This means that a supportive institutional climate should not be undervalued or neglected by institutional leaders for the sake of short-term goals imposed by the authorities. This finding is in line with that of the literature (Borko, 2004; Pedder & James, 2012; Timperley, 2008, 2011).

Recommendations on how to support the necessary changes involve starting with teachers’ current beliefs and practices, allowing each teacher to find his or her own way of incorporating the lessons and ideas that are set out into her or his own patterns of classroom work. If teachers are committed to engaging in problematizing their own practice, seeking evidence to evaluate their practice in order to judge where changes are needed, and then acting on their decisions, they are, thus, engaging in assessment for learning processes with respect to their own professional learning (Black et al., 2003; Hayward & Hedge, 2005; Pedder & James, 2012; Timperley, 2011).

In addition, our triangulation of the qualitative and quantitative data shows that the findings are in line with those of Borg (2003), Kagan (1992), Pajares (1992), and Tang, Lee, and Chun (2012). Teacher’s beliefs are generally considered to have a powerful impact on their reasoning and practice. Also, this study showed that the teachers considered CPD as their own responsibility. The common belief about professional development is that teachers know their field best and their CPD can be pursued in isolation too. This supports the teachers’ tendency to choose professional development activities they can do alone more in both the pre and post surveys. However, a collaborative professional learning environment is recognized in the literature as a critical component in the success of continuing professional development for any group.

Overall, the change in EFL teachers’ beliefs about CPD may be due to the following reasons: Firstly, evaluation of CPD and use of its results is one of the main reasons. The kinds of CPD in which teachers engage are strongly affected by the evaluation criteria
for their professional effectiveness that educational officials have designed. The evaluation system in Iran has had an undesirable wash-back effect on professional development, restricting the forms or activities that EFL teachers pursue for their professional learning. Teaching loads and the amount of teaching hours were also identified as constraints inhibiting successful professional development for the EFL teachers in this study. As the research literature suggests, educational officials should work to remove constraints identified as inhibiting effective professional learning so that teachers could have time and opportunities to reflect on their own practice and to pursue sustainable professional development through sharing their ideas and experiences with their colleagues. Taken together, there is little incentive and willingness on the part of EFL teachers to develop professionally.

Secondly, lack of consistent CPD framework has a major role in pursuing CPD based on a guided model. An important part of CPD for English teachers is having a recognized framework of stages and pathways through which they can progress. This way, teachers can identify the stage they are at and compare their skills, behavior, and knowledge to those represented in the framework in order to improve their teaching skills. In this respect, in the CPD workshops, we introduced a CPD model based on this research study. We designed a framework for EFL teacher’s practice which describes the types of professional development practice that should be implemented, when and how often they should be implemented. This was a model of a teacher needs-based professional development program.

Thirdly, school climate and lack of cooperation among the teachers for building up a learning community for co-operative development was another factor. The most direct contextual factor assumed to influence teachers’ learning is the learning environment (Clarke & Hollingsworth, 2002; Gholami, Sarkhosh, & Abdi, 2016).

Regarding the interviews, the feedback provided was very positive. The teachers believed that interpersonal relationships were strengthened, which made it easier to share experiences, both positive and negative. Elham’s comments are the most compelling.

*The workshops definitely helped us to develop a collaboration spirit among ourselves. I felt like we all stuck together in order to overcome the challenges that each one of us had. The training helped me have a sense of belonging and become integrated into the school. The teachers were given an environment in which they could know each other better and feel comfortable about clarifying doubts with each other, as well as sharing ideas and solutions for issues.* (Elham, EFL teacher, Interview: 11/08/2016)

Another teacher pointed out that “most schools do not have a communication channel where teachers’ voices are heard and fed back into the decision making process in teacher evaluation.” He added that “most decisions are made by authorities and are handed down to the majority of teachers.” (Hamid, EFL teacher, Interview: 11/08/2016)

From these comments we can clearly see the sense of community which was built up during the study. As stated by Ortega and Fuentes (2015), communication skills are very important skills, which are not developed as much as they should be in pre-service teacher education programs. Therefore teachers cannot communicate as effectively as they should. Running the activities in teacher professional development programs in a cooperative way seems to be an effective strategy in promoting the sense of community among the teachers.
Teachers wish to obtain sustainable professional development which helps them to improve classroom teaching. Thus, collaborative learning seems to be a useful approach to gain this kind of development. As an essential constituent in the practical teaching situation, the peers in the situation are rich resources for teachers to acquire professional development. And in that interaction, the cooperation of teachers’ reflection can be promoted and maintained.

Another noteworthy finding of the present study was that the teachers found the CPD being optional and not obligatory to all to be the first support in having effective professional development programs.

Finally, this study found that the impact of professional development programs on sustainable teaching practice can also be assessed from the teachers’ insight and reflection of what constitute significance in relation to their own personal and professional needs and development. This finding is in line with that of (Powell, Terrell, Furey, & Scott-Evans, 2003) and; Gabriel et al., (2011). The teachers in this study in general believed that certain professional development programs they attended had a significant impact on their development as teachers.

Professional development programs also help teachers to become more knowledgeable in the subject content taught and, thereby, promote sustainable development of teachers in line with the educational reform policies endorsed by the UNESCO (2005). Put another way, participation in professional development programs is believed to have some impact on the teachers’ ability to acquire and critically develop their knowledge, skills and emotional intelligence essential to have good professional thinking, planning and practice with their students and colleagues through every phase of their teaching lives (Besong & Holland, 2015; Borko, 2004; Buczynski & Hansen, 2010; Day, 1999; Gabriel et al., 2011; Poskitt, 2005).

Taking into account all the above-mentioned points, most teachers in this study are aware of the need for CPD and are more active in individual as well as collaborative developmental activities. And, most importantly, most teachers, gained confidence in what they are doing. This is critical in promoting sustainable growth. From many of these comments, it must be clear to the reader that the effective professional development programs can open up a number of pathways to sustainable development.

However, the seeds of a “CPD attitude” and a commitment to career-long sustainable professional development should be established in teachers during pre-service and in-service training. Such programs should be designed to move the teachers from the supervisor-dependency state to a high level of autonomy, which they need in order to face the challenges of full-time teaching. The Teachers in this study realized the change, as evidenced in comments like the one below:

_This study changed my ideas about PD. I became more autonomous. I found the new way of CPD very interesting and useful for me. I’m much more confident in teaching than before. The CPD workshops helped me to transform the traditional teaching approach to more effective teaching in the classroom. I think this is a milestone in my entire teaching professional career_ (Parya, EFL teacher, Interview: 11/08/2016)

The change in pedagogic beliefs and values was welcomed by this group of teachers, but, at the same time, based on some of the interviews that this transition was not easy. Some teachers also stated that PD workshops helped them to prepare more efficiently
and effectively and adapt to the demands of the teaching profession and the institution as is shown in an EFL teacher’s comments:

*I started questioning my beliefs and role as a teacher, and began reflecting on my experiences in the classroom. PD workshops were an opportunity to construct and reconstruct my knowledge of and about teaching and have broader perspectives about language teaching.* (Zohreh, EFL teacher, Interview: 11/08/2016)

More than half of the participants in the interviews mentioned that taking training courses as a means of professional development is not taken into account in teacher evaluation at their language schools. The findings regarding the ways of evaluating professional development among teachers, and how that evaluations are used are in line with those of Chang et al. (2014). In the absence of systematic PD evaluation, there might be a risk that opportunities for professional development will be missed. Language school officials should employ alternative assessments in order to systematically evaluate and review their approaches to CPD.

Conclusions, Implications and Suggestions for Further Research

This study showed that EFL teachers have a need for CPD to meet various demands in response to the changes and new findings in the field of ELT. The findings also revealed that the ways in which EFL teachers continued their own professional development was strongly influenced by the language school evaluation. We suggest that too much evaluation, works against genuine continuing professional development for any group of teachers. Therefore, there is a clear need for alternative ways to improve professional learning, which see teachers as agents of change in their own professional development. A key learning point from the findings of this study is that officials need to be much less directive and rigid in terms of evaluating teachers’ performance in order to engage them in CPD activities.

Teachers’ beliefs towards CPD have a major impact on the extent to which teachers engage in such programs. In designing a CPD program then, language schools need to consider not just the kinds of activities that are offered to the teachers, but also their attitudes and beliefs conducive to an effective CPD programs.

This study has some implications for educational practice. In pre-service teacher education programs, teachers should be provided with opportunities for acquiring pedagogical knowledge of CPD and translating it into classroom practice. This knowledge can be crucial for designing powerful environments to foster teacher learning.

Our findings have clear implications for teacher education programs. With the range of English learners and lack of well-designed professional development programs to prepare ELT teachers to teach language effectively, it is highly important to examine the misconceptions of EFL teachers and to bring about positive changes in their knowledge, attitudes, and beliefs. This study shows that relevant and practical workshops in professional development are a positive step towards preparing English teachers to deal with the challenges they face in their classrooms. We believe those altering teachers’ beliefs, and, thus, decision-making processes and instructional practices, is the first step in improving instruction and achievement for English learners. Moreover, providing professional development programs to local contexts offers two significant benefits.
First, it facilitates greater contextualization enabling us to more effectively target and address specific needs. Second, this facilitates customization, combating the limitations of decontextualized offerings. Also, the potential for cooperative and collaborative engagement within disciplinary-based communities is enhanced, all of which make this a sustainable development.

This study has some limitations, which, in turn, provide some suggestions for further research. First, this study focused only on EFL teachers in Iran. As such, future studies might need to delve into other teachers’ perceptions from other nationalities. Second, only some aspects of PD conducive to sustainable and effective teaching were explored in our study with a limited number of participants. Future research can expand this line of inquiry. Another limitation is related to long-term effects of belief change. It is possible that even though the teachers in this study had more positive views of professional development after the workshops, they may fall back into the older ones later in time. Therefore, based on the findings of this study, we cannot claim that the participants’ beliefs would change permanently. Future studies should be longitudinal and follow EFL teachers into their classrooms in order to determine whether there are long-term effects. Developing or adapting a more comprehensive questionnaire, and validating the instrument with a large number of random samples of participants can boost the validity and reliability of the instruments and findings. Likewise, in-depth case studies of teachers can also shed more light on teachers’ perceptions about and practices in other dimensions of professional development. This may include an in-depth exploration of the perceptions of university lecturers, teacher educators and supervisors about sustainable professional development.

References


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Secondary School Science Teachers’ Views about Their Reflective Practices

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Abstract

The importance of reflection in teaching and learning lies in encouraging one to view problems from different perspectives. Reflective practice can be useful in designing teacher education and sustainable professional development. Conscious reflection is an important element for helping teachers and learners in problem-solving and decision-making processes and fostering their critical-thinking abilities. The aim of the present research was to investigate teachers’ views about the nature of their experiences with reflective practices and reflective teaching. A survey consisted of three dimensions used to collect the data. It was distributed to 458 (237 male and 221 female) science teachers working at high schools in Saudi Arabia. The results have indicated that teacher practices of almost all reflective activities included in the three dimensions “the extent of practicing reflection”, “areas of practicing reflection”, and “ways of practicing reflection” are at “high” level from their point of view. The results have also shown that there are no significant differences in the teachers’ views about their practices of reflective activities related to their gender, or experiences in the teaching profession.

Keywords: reflection, reflective practice, consciousness, sustainable professional development.

Introduction

For educational improvement, teacher professionalism is essential. There is much interplay between primary and reflective consciousness that can foster teacher sustainable professional development (Reid & Horváthová, 2016). Yoo (2016) has argued that to ensure sustainable development, educators should focus on studies related to teacher programmes. In addition, Back et al. (2009) stress that the development of reflection on practice is essential for sustainable professional development. One of the important natural phenomena that has a notable effect on sustainable professional development is conscious reflection. The relation between reflection and consciousness is simple, if teachers reflect critically on their work or PD providers reflect carefully on the programs, then they can make conscious choices about their experience, which in turn may enable them to strengthen the quality and effectiveness of their work (Reagan, 1993; Adeyemi,
1996). In this regard, McIyntre (1993: p. 43), McIyntre (1993: p. 43) state that teachers’ experience turns to be “automated or intuitive, dependent on understandings that are not usually articulated, that learning for them is dependent on bringing to consciousness and examining the assumptions and considerations which make sense of their actions as teachers”. Zahvi (2006) characterises reflection as higher-order monitoring and defines it as “the process whereby consciousness directs its intentional aim at itself, thereby taking itself as its own object”. Osterman and Kottkamp (2004), in their turn, describe reflection as a professional development strategy that can equip professionals with “opportunities to explore, articulate and represent their own ideas and knowledge”. Therefore, McAlpine and Weston (2000) argue that reflection is helpful in fostering professional growth. On the other hand, Dewey asserts that the purpose of reflective practice is to direct the teacher in taking actions and making decisions. He adds that reflection is a holistic orientation to teaching that can be helped to acquire, rather than a procedure that can be taught (Zeichner & Liston, 1996).

In general terms, reflection is considered to be “an important human activity in which people recapture their experience, think about it, mull over & evaluate it” (Boud, Keogh, & Walker, 1985, p. 19). It is considered as intellectual and affective abilities in which individuals engage to explore their experiences in order to achieve new understandings and appreciations. On the other hand, Loughran, (1996: p. 4) considers reflection as a process that may be applied in puzzling situations to help the learner make better sense of the information at hand and to enable the teacher to guide and direct learning in appropriate ways.

Jerez (2008, p. 91) asserted that PD programs use reflection to develop teaching, Tate & Sills (2004, p. 126) also stress the role of reflection on learning by saying “We learn through critical reflection by putting ourselves into the experience & exploring personal & theoretical knowledge to understand it & view it in different ways”. Teachers generally reflect on their teaching and students’ learning in order to improve their practice and cognitive awareness of their reflective processes (Tomlinson, 1999a; 1999b; McAlpine, Weston, Berthiaume, & Fairbank, 2004).

Revonsuo (2006, p. 10) indicates that biological realism deals with consciousness as a “real natural biological phenomenon”. He describes self-conscious reflection as the highest level of operation of a human brain. In addition, Zahavi (2004d, p. 14) states, “Consciousness is inherently temporal, and it is as temporal that it is pre-reflectively aware of itself”.

Conscious reflective practice can be useful in designing sustainable teacher education (Raid & Horvathova, 2001c; and Soobik, 2014) and sustainable professional development (Sarsar, 2008). Donald Schon considers it to be an important factor for helping teachers and learners in problem-solving and decision-making processes and fostering their critical-thinking abilities. He notes that this can be done through the process of the reflective conversation approach. In this regard, he states, “The reflective practitioner re-frames problems to create a reflective conversation in which practice ‘talks back’. In this reflective conversation, the practitioner’s effort to solve the reframed problems yields new discoveries, which call for new reflection-in-action. The process spirals through stage appreciation, action, and re-appreciation. The unique and uncertain situation comes to be understood through the attempt to change it, and changed through the attempt to understand it” (Schon, 1983, p. 132). Similarly, Griffiths & Tann (1991, p. 100) state, “reflective teaching requires that public theories are translated into personal
ones and vice versa unless teachers are going to allow themselves to be turned into low-level operatives, content with carrying out their tasks more and more efficiently, while remaining blind to large issues of the underlying purposes and results of schooling”.

Regarding the meaning of reflective practice concept in teaching, this concept has been introduced as thinking critically about what is happening in the classroom where the teacher teaches (Campoy, 2010). This can be done through critical observation of his/her practices in the classroom and their critical evaluation by gathering information, then it is possible to manipulate practices and use them to modify his/her behaviour. Richards (1990) describes reflective teaching as a transfer from the ordinary to higher-level awareness of teaching practice. Pollard and Tann (1989) describe reflective teaching as a systematic process of investigating teachers’ own practice. Hubball, Collins and Pratt (2005, p. 60) define reflective practice as “the thoughtful consideration and questioning of what we do, what works and what doesn’t, and what premises and rationales underlie our teaching and that of others”. Generally, Dewey defines reflective practice as an “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends…” (1933, p. 6). From Dewey’s point of view, reflective teachers depend on reasoned principles while teaching rather than acting routinely and following instructions without questioning. They critically think about their own teaching practice and try to solve problems, which might be related to their educational and social contexts.

The dominant theme for reflective practice is the theory-practice interrelation. Day (2001) indicates that theories can be used to reflect on practice and then reflection may lead the participant to critique his or others practice. He states, “Without routinely engaging in reflective practice, it is unlikely that we will be able to understand the effects of our motivations, prejudices, and aspirations upon the ways in which we create, manage, receive, sift, and, evaluate knowledge” (Day, 1999b, p. 229). On the other hand, Cimer, Cimer, & Vekli (2013), Craig (1994) argue that teacher’s awareness of the term “reflective practice” and the importance of being reflective may not really apply to their real-life teaching experience and stress that knowledge may not lead to action because teaching theories do not control classroom actions.

Concerning the benefits of conscious reflection and hence conscious reflective practice, we are convinced that reflection on teaching practice is important for educators and teachers all over the world. It helps Professional Development Programmes (PDP) providers make teachers’ professional development programmes more effective and sustainable (Ried & Hrvathova, 2016; Pipere, Veisson, & Salite, 2015; Jerez, 2008). Reflection on teaching is also important in fostering students’ learning (Tate & Sills, 2004, p. 126). Therefore, reflecting in practice enables teachers to challenge teaching practices and then to perform well in lesson design, curriculum decision-making, class management, and execution of teaching activities. Reflection in action may also help teachers deal with the school and other teaching contexts where it is difficult to find time away from the students to reflect with colleagues. In addition, Moon (1999) further identifies the ways in which reflection plays an important role in learning:

- Reflection slows down activity: the learner has time to process the material, linking it to previous ideas;
- Reflection gives learners a sense of ownership of taught material, making it more personally meaningful;
Reflection encourages metacognition, the awareness of one’s own cognitive processes; and
Reflection encourages students to challenge their learning, resulting in a greater commitment.

Aim of the Study

The motive behind the study is to shed light on the role of conscious reflective practice on Saudi teachers’ professionalism and their sustainable professional development. The research tries to unveil whether the Saudi science teachers are aware of reflective practices and whether they apply them or not. The paper also attempts to show what strategies the participants use to reflect. In addition, we have discussed the effect of gender, experience, and type of educational background variables on teachers’ reflective practices. More specifically, the research tries to find answers to the following questions:

- To what extent do the teachers involve reflection in the classroom while teaching?
- How do teachers consciously reflect on their practice?
- What strategies do teachers use to reflect on their practice?
- Do gender, the length of experience, and level of education make a significant difference in teachers’ conscious reflection?

Methodology

A descriptive method was used for this study. Hence, the study followed the survey research design to generate relevant data in the study about the nature of secondary school teachers’ experiences and implementation or practice of conscious reflective practice activities in their professional life.

Participants

The sample of the study involved 458 secondary school science teachers (237 male and 221 female) working at high schools located in the governorates of Hhael and Hafer-Albaten in Saudi Arabia. The participants’ experience in teaching ranges between 1 to 30 years of experience in science teaching. These experiences are categorised into three types: those who served less than 5 years (145), those who had 5 to 10 years of experience (121) and, finally, those who had more than 10 years of experience (146). Regarding their academic level, 388 of the participants are holders of BA degrees and the other 42 just have the diploma, (5) of the teachers have the MA degree, and 32 of them hold PhD.

Regarding the type of certificate, it was found that 411 of the participants have an educational background and hold a certificate, while 44 do not have any educational background or educational certificate. The domains of specialisation of the participants are physics (65), chemistry (71), and biology (84).
The Questionnaire

In this study, the survey research design has been used to investigate the nature of secondary school teachers’ experiences and implementation of reflective practice in their professional life. Therefore, a questionnaire has been adopted from Celes, (2010), and modified in accordance with the aims of the study in order to collect data. The questionnaire consists of three parts. The first part includes the instruction to the participants in addition to three questions about gender, experience, type of certificate, and the level of education. The second part of the questionnaire shows a list of 20 reflection practices for the participants to select how frequently they practice each item (never, rarely, sometimes, often, or usually). The questionnaire has been found to be reliable. The SPSS has been used to find the reliability coefficient of the questionnaire (Alpha = 0.8602).

Internal Consistency

Pearson correlation coefficient (Pearson Correlation) of collected data has been used to identify the consistency of each item with the dimension (see Table1). The table shows that all items are related to their domains with a statistical level significance of ($\alpha \leq 0.01$), with high and medium values, as the correlation coefficient in all paragraphs is 0.407 and 0.792. Carpenter and Hanafi (2013) indicated that the value is medium if between (0.3) and (0.7), and high if higher than (0.7).

Table 1

<table>
<thead>
<tr>
<th>Domain</th>
<th>Item</th>
<th>Correlation</th>
<th>Item</th>
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<td>4</td>
<td>0.674**</td>
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<td></td>
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<td>0.719**</td>
<td>6</td>
<td>0.711**</td>
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<tr>
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<td>0.703**</td>
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<td>0.785**</td>
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<td>Ways of practicing reflection</td>
<td>1</td>
<td>0.407**</td>
<td>4</td>
<td>0.792**</td>
<td>7</td>
<td>0.716**</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.554**</td>
<td>5</td>
<td>0.765**</td>
<td>8</td>
<td>0.740**</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.711**</td>
<td>6</td>
<td>0.789**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at ($\alpha=0.01$)

Reliability

To calculate the reliability of the survey, Cronbach Alpha coefficient (Cronbach’s Alpha) has been calculated. The Cronbach Alpha values for the first domain “Extent of practicing reflection” were 0.811. For the second domain “Areas of practicing reflection” values accounted for 0.771, and for the third domain “Ways of practicing reflection” – 0.844. The Cronbach Alpha value for the whole survey was 0.898, these values give a positive indication towards using the tool, and the reliability of the data collected.
Results

A survey with a five-point Likert scale (very high, high, medium, low, and very low) has been prepared and distributed to the sample. The study tool response ranges between lower level “very low”, as represented numerically by (1), and higher level “very high”, which is represented numerically by (5). To help interpreting the results, the responsiveness of the sample to each item has been set according to the following standards: very low (1 to 1.80), low (> 1.80 to 2.60), medium (> 2.60 to 3.40), high (> 3.40 to 4.20), and very high (> 4.20 to 5.0).

Table 2
Descriptive Statistics for the First Dimension of the Reflective Activities’ Instrument “The Extent of Practicing Reflection”

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Level of practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Practicing reflection during writing the lesson</td>
<td>3.92</td>
<td>0.773</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>Practicing reflection while doing the lesson</td>
<td>3.75</td>
<td>0.802</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Practicing reflection at the end of the lesson</td>
<td>3.71</td>
<td>0.866</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Practicing reflection after the completion of teaching a unit or a chapter of the book</td>
<td>3.64</td>
<td>0.869</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Practicing reflection after a visit by the supervisor or the principal</td>
<td>3.84</td>
<td>0.843</td>
<td>High</td>
</tr>
<tr>
<td>6</td>
<td>Practicing reflection after a meeting with parents</td>
<td>3.62</td>
<td>0.930</td>
<td>High</td>
</tr>
<tr>
<td>7</td>
<td>Practicing reflection after finishing a training session</td>
<td>4.05</td>
<td>0.866</td>
<td>High</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.79</td>
<td>0.580</td>
<td>High</td>
</tr>
</tbody>
</table>

The results in Table 2 show that the means of sample responses to the items related to the domain “The extent of practicing reflection” range between 3.62 and 4.05, which indicates that all are located at the level of practice “high”. The highest item in this domain exercised by teachers is “Practicing reflection after finishing a training session” with an arithmetic mean of 4.05, and a standard deviation of 0.088, while the least exercised item is “Practicing reflection after a meeting with parents” with an arithmetic mean of 3.62, and a standard deviation of 0.930.

Table 3
Descriptive Statistics for the Second Dimension of the Reflective Activities’ Instrument “Areas of Practicing Reflection”

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Level of practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lesson planning</td>
<td>3.99</td>
<td>0.741</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>Selection of teaching method or activities suitable for the subject to be taught</td>
<td>4.03</td>
<td>0.783</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Class management</td>
<td>4.04</td>
<td>0.878</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Selection of evaluation and assessment strategies</td>
<td>3.88</td>
<td>0.866</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Preparation and implementation of procedural or action research aimed to detect and fix errors in the teaching process</td>
<td>3.68</td>
<td>0.898</td>
<td>High</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.93</td>
<td>0.603</td>
<td>High</td>
</tr>
</tbody>
</table>
The data in Table 3 show that the mean of respondents’ responses on the second dimension “Areas of practicing reflection” ranges from 3.68 to 4.04. This indicates that all items of this dimension gained a higher level of practice from teachers’ point of view. Teachers highly feel they are practicing meditation when planning a lesson while choosing teaching methods, classroom management, and in the selection of methods and procedures for the assessment, and when preparing research. The area that gained the highest level of practice as seen by teachers is classroom management with an arithmetic mean of 4.04 and standard deviation of 0.878. The least practice area is preparing and implementing procedural or action research designed to detect and repair errors in the teaching process with an arithmetic mean of 3.68 and a standard deviation of 0.898. The results show that all teachers’ answers to items fell into the high-ranking level of practice.

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Level of practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mind reflection alone</td>
<td>3.97</td>
<td>0.789</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>Reflecting in writing alone</td>
<td>3.65</td>
<td>0.884</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Mind reflection with another person within the school</td>
<td>3.54</td>
<td>0.902</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Mind reflection with another person outside the school</td>
<td>3.41</td>
<td>0.991</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Reflection in writing with another person within the school</td>
<td>3.29</td>
<td>1.11</td>
<td>Medium</td>
</tr>
<tr>
<td>6</td>
<td>Reflection in writing with another person outside the school</td>
<td>3.19</td>
<td>1.10</td>
<td>Medium</td>
</tr>
<tr>
<td>7</td>
<td>Mind reflection in writing with a group of teachers within the school</td>
<td>3.74</td>
<td>0.956</td>
<td>High</td>
</tr>
<tr>
<td>8</td>
<td>Mind reflection in writing with a group of teachers outside the school</td>
<td>3.44</td>
<td>1.09</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>3.53</strong></td>
<td><strong>0.680</strong></td>
<td><strong>High</strong></td>
</tr>
</tbody>
</table>

According to Table 4, the means for respondents’ response to “Ways of practicing reflection” range between 3.19 and 3.97. All of these values are located in the high level of practice, except two: item 4 “Mind reflection with another person outside the school” and item 5 “Reflection in writing with another person within the school”. They gained a medium level of practice according to the teachers’ views. The results show that six of the teachers’ answers to items fall into the high-ranking level of practice, while two of the answers to items “Reflection in writing with another person within the school”, and “Reflection in writing with another person outside the school” fell into “medium” ranking level of practice.
Table 5  
ANOVA Test of the Differences between Teachers according to Their Experience with Reflective Activities

<table>
<thead>
<tr>
<th>Domain</th>
<th>&lt; 5 years (N=145)</th>
<th>Mean</th>
<th>SD</th>
<th>5 to 10 years (N=121)</th>
<th>Mean</th>
<th>SD</th>
<th>&gt; 10 years (N=146)</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>df</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of practicing reflection</td>
<td></td>
<td>3.806</td>
<td>0.604</td>
<td></td>
<td>3.693</td>
<td>0.576</td>
<td>3.785</td>
<td>0.577</td>
<td>1.353</td>
<td>409</td>
<td>0.260</td>
<td></td>
</tr>
<tr>
<td>Areas of practicing reflection</td>
<td></td>
<td>3.885</td>
<td>0.673</td>
<td></td>
<td>3.909</td>
<td>0.586</td>
<td>3.926</td>
<td>0.568</td>
<td>0.169</td>
<td>409</td>
<td>0.845</td>
<td></td>
</tr>
<tr>
<td>Ways of practicing reflection</td>
<td></td>
<td>3.491</td>
<td>0.703</td>
<td></td>
<td>3.598</td>
<td>0.627</td>
<td>3.455</td>
<td>0.705</td>
<td>1.542</td>
<td>409</td>
<td>0.215</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that there are no significant differences among teachers in all three areas of reflection according to their experience in teaching profession.

Table 6  
t-Test of the Differences in Reflective Activities between Teachers according to Their Gender

<table>
<thead>
<tr>
<th>Domain</th>
<th>Male (N=237) Mean</th>
<th>SD</th>
<th>Female (N=221) Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of practicing reflection</td>
<td>3.7864</td>
<td>0.575</td>
<td>3.7975</td>
<td>0.586</td>
<td>0.203</td>
<td>456</td>
<td>0.839</td>
</tr>
<tr>
<td>Areas of practicing reflection</td>
<td>3.9179</td>
<td>0.589</td>
<td>3.9328</td>
<td>0.620</td>
<td>0.263</td>
<td>456</td>
<td>0.792</td>
</tr>
<tr>
<td>Ways of practicing reflection</td>
<td>3.5163</td>
<td>0.719</td>
<td>3.5454</td>
<td>0.637</td>
<td>0.457</td>
<td>456</td>
<td>0.648</td>
</tr>
</tbody>
</table>

Similarly, Table 6 shows that there are no significant differences among teachers in all three areas of reflection with regard to their gender.

Discussion

This research has shed light on the nature of science teachers’ reflective practice in high schools in Saudi Arabia. It is obvious that gender, experience, and education do not play a role in teachers’ reflection. However, teachers’ awareness of the importance of reflection in their professional growth does not necessarily mean that teachers apply conscious reflection in their teaching experience. Teachers have been found to make decisions based on context evaluation while teaching. However, the participants do not follow up by reflecting on their actions and assess the effectiveness of the decision they made in the classroom.

The present study indicates that nearly all teachers included in the study indicate that they highly practice reflection in their profession. Several similar studies (Ried & Hrvathova, 2016; McAlpine & Weston, 2000; Osterman & Kottkamp, 2004; Hung, 2008; Heng & Khim, 2004) suggest that conscious reflection fosters professional growth. This indicates that teacher preparation institutes give enough importance to reflective skills to be used in their future profession. The second area of reflection “areas of practicing reflection” is similar to reflection-in-action as described by Schön (1987). He suggested that this type refers to the importance of teachers’ awareness of their decisions while they work and in their ability to take the necessary actions towards the following actions.
Secondary School Science Teachers’ Views about Their Reflective Practices

There is no doubt that conscious reflection is essential for sustainable professional growth (Ried & Hrvathova, 2016) and more effective teaching. The teachers indicate that they practice almost most reflection types included in the area “ways of practicing reflection” when they reflect alone, but the level of their reflection is found to be medium when they reflect with other teachers within the school or outside the school (Table 4). This may indicate that teachers do not practice reflection in groups, whether inside or outside the schools. This is because they are not involved in any type of community of practice as was indicated in our previous study (Aldahmash, 2016). Teachers’ ways of practicing reflection are similar to reflection-on-action that is type of reflection described by Schön (1987). He indicates that reflection-on-action engages the teacher with many processes, which enhance professional growth such as reviewing, analysing and evaluating the situation. The present research shows that a majority of teachers are highly aware of the contexts where they teach and that they practice both levels of reflections.

In order to help teachers become more reflective, it is recommended that teacher professional development programmes include materials that help teachers acquire reflective abilities (Kabadayi, 2016; Ferraro, 2000). It is also recommended that providers should also include reflective practice in their CPD programmes. Teacher’s supervisor should ask the teacher to write a reflective journal by the end of every academic year.

Despite the fact that teachers have indicated that they are practicing reflection, it is not clear whether they are aware of the term “reflection” or not. Therefore, it is important to conduct a research study on teachers’ perspectives or understanding of conscious reflection. It is also important to conduct a research study to investigate if the teacher really practices conscious reflection in the real classroom. In this regard, Cimer, Cimer, & Vekli (2013); Craig (1994) argue that teachers may have knowledge of the term “reflective practice” and the importance of being consciously reflective, but they may not really apply it to their real-life teaching experience, and hence most knowledge does not directly lead to action.

References


Aldahmash, A. H. (2016). Saudi Arabian science teachers’ trends in science teaching practices of teaching related scientific activities according to their supervisor’s perspective and the supervisor’s estimates of the importance of such practices. Journal of Educational and Psychological Studies – Sultan Qaboos University, 10(3), 577–595.


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Teacher Job Dissatisfaction: Implications for Teacher Sustainability and Social Transformation

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Abstract

Teachers play a key role in the social transformation agenda. This agentic position of the teacher implicates an agenda for sustainability programmes that position them for this complex responsibility. A qualitative case study research design was employed to obtain the perspectives of teachers on job dissatisfaction. The researchers followed a semi-structured interview approach to explore teachers’ broader understanding on causes of job dissatisfaction among them. Data was interpreted through the narrative analysis model. Results indicate that a lack of resources, overcrowded classes and lack of discipline among learners were serious sources of dissatisfaction among teachers. Administrative issues, lack of recognition by principals and parents for good work done also caused dissatisfaction among teachers in this study. It was also indicative that job dissatisfaction caused disengagement of some teachers with a consequent lack of focus on professional activities and being negative in their job. The study concludes that teacher satisfaction is germane for the sustainability of social transformation.

Keywords: Agency, dissatisfaction, education, teacher sustainability, transformation.

Research shows that workers who feel undervalued and unappreciated may consider leaving their jobs for something else (Calitz, Roux, & Strydom, 2014). The job satisfaction of teachers, particularly at secondary school level, is vital. The value of secondary education is equally undeniable. It is very important to provide teachers with the facilities so that they must be satisfied with the status of their job. Better performance of teachers can only be expected if they are satisfied with their jobs.

The researchers informally observed the course of numerous school visits, on-site monitoring and support visits, examination of school documents, schools records, attendance registers and leave record books that every week at least 3 teachers handed in. There were also red lines drawn against names of teachers in the attendance registers indicating absence from school or late coming to school. A common complaint among teachers was that their job security was not guaranteed these days. Many new teachers were employed on a temporary basis. Some of them had been placed on the list of
temporary teachers for as long as ten years at the time of this study. Promotions are rare; one can enter as post level one teacher and go into retirement, about 25 years later, and still be a post level one teacher. Given the above situation, the current study investigated the teachers’ perspectives on the causes of job dissatisfaction among senior secondary school teachers in one Eastern Cape Education District.

**Maslow’s Hierarchy of Needs**

Maslow’s hierarchy of human needs is one of the motivational theories associated with Abraham Maslow in 1943 (Peretomode, 1991; Spector, 2008). The theory is also a content theory of motivation, which focuses on the factors within persons that start, energize, direct, maintain and stop behaviour. It can motivate or discourage human behaviour in the sense that its positive influence causes satisfaction, while its negative influence causes dissatisfaction and causes one to react either positively or negatively. Maslow postulated five basic human needs, including physiological, safety and social needs as well as higher needs: ego or esteem need and self-actualisation. Physiological needs consist of the need for basic biological needs, which include the need for food, water, air, sexual gratification and other primary needs such as shelter, clothing, etc. When the physiological needs are not satisfied, no other need will serve as a basis for motivation (Maslow, 1954; Spector, 2008).

Once physiological needs are satisfied, then newer needs emerge. In the school system, the salary one earns enables him or her to satisfy these needs but if the needs go unfulfilled it results in dissatisfaction, which affects productivity and quality performance at work. Safety needs emerge once the physiological needs are achieved. This includes the need for security, safety, protection against danger and accidents (threats, deprivation, psychological harm, economic disaster) and stability in the physical and internal events of day-to-day life. School teachers are willing to have the feeling that their job and accommodation is secured When such confidence is lacking, it threatens their performance and work commitment (Perrachione, Rosser, & Petersen, 2008). While almost all teachers work hard in order to satisfy their needs, they constantly struggle to meet their various needs.

**Teacher Wellbeing in the Context of Sustainability**

Teacher wellbeing is pivotal for achieving a well-sustained social transformation that is greatly required within the South African educational institutions and larger society. However, where the wellbeing of teachers is relegated, a situation may arise in which a key agent for achieving sustainable social transformation may be ill-prepared to partake in such a process. According to Wensing and Torre (2009, 5), if we are to achieve sustainability “teachers and school boards must collectively adopt a broader scope of education and action... one that is both informational and transformational”. To achieve these objectives requires that teachers constantly engage in self-action research that is implemented in order to gain new experience as well as improve wellbeing.

Research plays an important role in revealing the everyday understanding of the teachers’ psychosocial, intellectual as well as material needs; the outcome of which will conflate into improvement of the teachers’ wellbeing. That is why Tillmanns, Holland,
Lorenzi and McDonagh (2014: 5) suggest that “empowering teachers to reframe mind-sets, particularly those that result in unsustainable behaviours and/or actions”, may be central to achieving teacher sustainability necessary for social transformation. However, it should be noted as earlier argued by Lukk, Veisson and Ots (2008: 36) that the success of sustainable transformation through any form of education “will ultimately depend on the decisions individuals and groups make regarding their own behaviour and the bottom-line of these decisions is their value systems.

As functional education is a key to teacher sustainability and social transformation, continuing professional teacher development that impacts their wellbeing should not only target the academic dimension; such a programme should also be geared towards empowering teachers to engage in the self-study. Such self-intuition is necessary since it enables the teacher to actively engage in those activities that will enable the improvement of behaviour necessary for sustainability (Wensing & Torre, 2009). Therefore, Jonane (2015: 53) notes that “education for sustainable development requires new ways of conceiving goals, tasks, organisation of learning, and the teacher training”.

**Job Dissatisfaction**

Job dissatisfaction is by definition unpleasant, and most individuals are conditioned, probably even biologically-driven, to respond to unpleasant conditions by searching for mechanisms to reduce dissatisfaction (Okeke & Dlamini, 2013; Afshar & Doosti, 2016). This drive towards adaptation is as natural and inevitable in the workplace as it is in any other environment (Chan, 2002). Prior theory and research (Farrell, 2000) suggest that employees respond to job dissatisfaction in one of the four ways: exit, voice, loyalty and neglect.

Firstly, and consistent with the turnover literature (Farrell, 2000), dissatisfied employees may quit an organisation altogether in response to their job dissatisfaction (exit). Secondly, dissatisfied employees may choose to remain in their organisation and actively try to improve conditions, actively searching for and coming up with new ways of doing things also advocating changes to make things better (voice). Thirdly, employees may remain in the organisation but respond passively to their job dissatisfaction by accepting the status quo without raising any objections or making any suggestions for improvement (loyalty). Lastly, employees may remain in the organisation and exhibit passive withdrawal behaviours such as putting forth less effort (neglect) (Farrell, 2000; Muguongo et al. 2015; Wambugu & Busienei, 2015).

**Causes of Teacher Job Dissatisfaction**

The retention of teachers has been a very challenging phenomenon, not only in the South African education system, but also in many different education systems across the globe (Naseem & Salman, 2015). Dissatisfaction has been deduced by researchers as posing a major challenge for the retention of teachers and other workers (Calitz, Roux, & Strydom, 2014). Such a scenario appears to threaten the agentive roles of teachers for sustainability and social transformation in schools and larger society. A study of 110 teachers in Abbottabad, Pakistan, by Naseem and Salman (2015) suggests that factors such as gender, education, marital status, relationship with the supervisor/
principal and co-workers as well as sense of job security are correlates of either satisfaction or dissatisfaction among the participants.

An effective teaching force is essential for the sustainability and social transformation of the society across countries. Gkolia, Belias and Koustelios (2014: 321) note that “teachers who are satisfied with their jobs usually have a high degree of professional capabilities and feel that they could manage, organise and perform task”. In Zimbabwe, Adebayo and Gombakomba (2013) explored the dimensions of teacher job satisfaction from a sample of 161 primary school teachers. The study found out that “teachers were not paid adequate salary and that they were rarely provided with non-financial incentives” (Adebayo & Gombakomba, 2013: 316). It is obvious from the study that the sustainability of teacher retention will almost be guaranteed in a climate where teacher job security, infrastructure and teaching resources as well as financial incentives are guaranteed.

Yet, studies have reported a relationship between the individual’s psychosocial wellbeing and his/her job satisfaction or dissatisfaction levels. In Madrid and Almeria, Spain, 68 secondary school teachers from varying cultural background were sampled by Briones, Tabernero and Arenas (2010). The aim of their study was to establish the effects of several demographic and psychosocial factors involved in teachers’ job satisfaction or otherwise. Results of the study revealed that “self-efficacy in teaching, perception of emotional exhaustion and personal achievement, as well as perceived support from colleagues and the head teacher play important role in teachers’ job satisfaction” (Briones et al., 2010: 119). The authors concluded that those whose psychosocial wellbeing was negative would most certainly experience discontentment with respect to their approaches to their work commitments.

Within the South African context, many studies have identified various problem categories that can cause job dissatisfaction among teachers (van der Westhuizen, 2004; Adu & Okeke, 2016; Afshar & Doosti, 2016). It has been noted that the new democratic dispensation in the country has intermittently introduced changes in education, and in many instances principals and teachers have found it difficult to adapt to these changes (Masitsa, 2004). In addition, Smit (2002) notes that problems within the teachers are generally perceived as deficiencies or inadequacies, which exist within a person. Similarly, role conflict, stress, personal development, professional development, morale as well as personal and professional aims can all be seen as problems within a person that can be sources of dissatisfaction (Song & Alpaslan, 2015; Adu & Okeke, 2016; Gu, 2016).

Studies have also indicated that there are problems in the classroom that teachers have to contend with daily, which can be sources of job dissatisfaction among the affected teachers. Lack of textbooks, learners’ discipline, class size, assessment, issues with HIV/AIDS, Whole-School Evaluation (WSE) and relationship with learners are the problems a teacher has to face within the classroom (Van Houtte, 2006; Okeke, Adu, Drake, & Duku, 2014; Gu, 2016; Shumba, Maphosa, Rembe, Okeke, & Drake, 2016b). It should be noted that not all teachers are soundly equipped to deal with these problems.

One of the complex problems in the work environment of the teacher is the physical working conditions and the lack of physical facilities she or he has to cope with every day, especially subjects such as science and technology. Other problems in the work environment are related to factors within the work itself (van Houtte, 2006). It has also been noted that the values of a society can be viewed as problematic if a person’s (i.e.
teacher’s) values differ from those of the society (van der Westhuizen, 2004). Problems in the community are related to parental involvement, the post 1994 political climate in South Africa and the socio-economic climate.

The level of provisioning in respect to education human resources is generally expressed in terms of a learner-teacher ratio. The allocation of funds by the South Africa’s National Treasury to provinces is largely aimed at ensuring that a certain learner-teacher ratio applies in schools. However, learner-teacher ratios are often confused with class size whilst it is a fact that class sizes are generally considerably higher than the prevailing learner-teacher ratio. A class size is not only a function of how many learners go to school. It is also dependent on the number of physical infrastructure units, such as the capacity of the classrooms to accommodate teachers and the subjects on offer (DoE, 2005).

A study by French and Wagner (2010) has found out that children are taking turns to learn under trees and sometimes share the teachers’ staffroom as a make-shift classroom. In other cases, two complete classes would be housed within one physical class building with both teachers teaching on opposite ends of the classroom. This erodes the semblance of quality teaching and learning that is supposed to have a bearing on the children. Given these scenarios, it is imperative to deal with issues of job dissatisfaction through an empirical study that is aimed at further exploring this particular phenomenon. By so doing, it was researchers’ expectations that this paper would contribute towards knowledge that might facilitate the strengthening of teachers to enable them to continue their agentic roles towards sustainability and social transformation.

Research Methodology

Design and Sample

The qualitative case study research approach was followed because it sought to understand the teachers’ perspectives on causes of job dissatisfaction among senior secondary school teachers in one Education District in the Eastern Cape Province. A case study is ideal when a holistic, in-depth investigation is required to understand a particular phenomenon or experience (Babbie, 2008; Okeke, 2010; Creswell, 2014). The target group was purposefully selected from schools that have a cosmopolitan staff composition with various race groups, gender and also teachers with varying years of teaching experience. The sample size for the study comprised of 12 senior secondary school teachers from the six Circuits in the participating Education District, 3 schools from the rural areas and 3 schools from the urban areas.

Instrument and Data Analysis

Semi-structured interview and the focus groups discussions were used to obtain information on participants’ perceptions, opinions, beliefs and attitudes towards their jobs as teachers. Moreover, both instruments were carefully organised to enable the researchers to seek broader explanations on teachers’ perspectives on causes of job dissatisfaction among senior secondary school teachers. The questions provided an opportunity for both the interviewers and the interviewees to discuss the topic as
comprehensively as possible. Qualitative research often seeks to illuminate the ways individuals interact to sustain or change social situations. The researchers were personally involved in the process of data collection. With the permission of the participants, tape-recording instrument was used in all the sessions of the data collection procedure.

The narrative analysis model (Taylor-Powell & Renner, 2003) was adopted in the analysis of data obtained from the fieldwork. Taylor-Powell and Renner (2003) suggest that this model is relevant in analysing data obtained through individual interviews and the focus group discussion (MacMillan & Schumacher, 2010). Within the narrative analysis framework, the researchers were able to transcribe, synthesise, organise, analyse and interpret the data. Synthesising and organising of data involved a coding process that allowed for data reduction in order to sieve data of impurities from the emerging themes and categories. Findings are presented descriptively.

Ethical Considerations

The researchers were ethically responsible for protecting the rights and welfare of the participants, which involved issues such as physical and mental r. Ethical approval was obtained from the Research Ethics Committee at Fort Hare University and from the Department of Education in the Eastern Cape Province where the schools chosen for this study were situated. The researchers also wrote letters to the School Governing Boards (SGBs), Principals, Schools Management Teams (SMTs) and Head of Department at schools (HODs) asking and receiving permission to conduct the fieldwork.

All the information obtained in the study was treated confidentially. The participants were assured that the collection of data from the interviews was for academic purposes only and no information would be revealed that might result in embarrassment or direct negative consequences. A sense of caring and fairness was part of the researchers’ thinking, actions and personal morality. The study therefore ensured that ethical and legal guidelines set by the national government were followed.

Results

Views on Causes of Job Dissatisfaction

Qualitative data confirmed general dissatisfaction with facilities to make teaching and learning easy, especially for practical lessons. For instance, findings showed that there were no resources at all for schools in the rural areas; teachers shared teaching resources with the other schools that had them. Findings also indicated that overcrowding in classrooms made it impossible for teachers to maintain discipline in their classrooms when dealing with adolescents. Discipline was a big problem on its own for all schools, especially for the combined high and primary schools.

Forms of Intrinsic Motivators

20 percent of the teachers confessed that they joined the teaching profession only as a source of income. One participant emphasised the joy of doing his work as a teacher as expected, so as to avoid stress while another participant said that his joy
comes from working with his students. This study investigated various indicators of intrinsic motivators including job satisfaction derived from teaching; enjoyment of teaching; the challenging and competitive nature of teaching; recognition; career development; control over others; teaching as one’s goal in life and usefulness to the community among others. To ensure teacher sustainability and retention, which enable them to continue to perform their agentic roles, it is imperative to understand various sources of teachers’ intrinsic motivation.

**Forms of Extrinsic Motivators**

Teachers mentioned administrative issues – large class sizes, poor salaries. Although they were overworked they were underpaid compared to private sector employees. Lack of merit appointments to senior posts, inequality in teaching loads between management and staff were also mentioned. Data also revealed some relationship problems. For instance, participants complained about lack of unity amongst colleagues in 80 percent of the schools. There were also issues with professional jealousy and they were not recognised by their principals for good work done because of favouritism.

Findings suggested that the teacher participants also encountered student related problems – poor discipline, laziness, disrespect to teachers and school rules by students, students coming late to school, high absenteeism and absconding. Again, results indicated that teachers also emphasised the importance of the climate of the school, which provided a major setting for learners to develop new and different relationships with peers and teachers. On the academic instruction and curriculum the teachers complained that focus was administrative not holistic, only the maintenance of records and assessment tasks were time-consuming and impeded progress. On the other hand, there was a lack of professional development and a drop in pass rate requirements lowered the standard. On the other hand, teachers further complained about district officials who did not have enough knowledge to be able to help them.

**Teachers’ Performance in Schools**

Results indicated that 89 percent of teachers came early to their schools; attendance registers in all the schools also confirmed this scenario. Results equally suggested that 98 percent of teachers did regular testing and feedback given to students. The exams analysed showed that either the students were lazy or teachers were not doing enough. Findings also suggested that teachers complained of too much of administrative work that they were faced with, although the introduction of CAPS (Curriculum Assessment Policy Statement) aimed at reducing too much administrative work for teachers. In addition, results suggested that only 39 percent of the teacher participants were efficient at disciplining students, while 61 percent feared for their lives due to a lack of security measures in place to protect them from radical students. Moreover, 84 percent of teachers supervised all school activities. Findings also indicated that 82 percent of teachers prepared lesson plans before going to class and the researchers were able to check on all that from the teachers’ files. It was therefore thought that the performance of these teachers was average despite the fact that their motivation was inadequate.
Problems Encountered by Teachers in the Schools

Lack of teachers in critical subjects in most senior secondary schools in the Education District was found in the study to be the major problem that had contributed to a high rate of failure in the Matric examination among students. Results were also indicative of the fact that most teachers who were deeply in debt had opted to resign so as to get money to pay off their debts. Currently, Eastern Cape features a hugely unbalanced distribution of teaching staff at the senior secondary school level.

Aspirations to Become a Teacher

Results suggested that 80 percent of teachers chose teaching to help young children to develop as responsible individuals in the society. Moreover, 89 percent of them had a passion for teaching their classmates whilst they were still students.

Discussion

Views on Causes of Dissatisfaction

General dissatisfaction was expressed with regard to their physical working conditions. The data obtained by means of semi-structured open-ended questions confirmed that previously disadvantaged schools experienced problems with infrastructure that hampered the delivery of quality public education. The teachers referred to poor facilities, absence of maintenance, serious water shortage, and poor roads leading to the rural schools. It was mentioned that the roads were particularly bad when it rained. They also referred to electricity problems and the unkempt school environments. The surroundings included dilapidated buildings, tall grass and overgrown shrubs that made the schools look uninviting.

Earlier studies (Okeke & Dlamini, 2013; Dlamini et al., 2014; Afshar & Doosti, 2016), pointed out that positive work environment was very important for the workers’ physical, mental and emotional health. According to Khan (2003), favourable working conditions would boost teachers’ job satisfaction. Iwu and Iwu (2013) observed that a lack of adequate infrastructure was a major factor that inhibited the effective management of schools. A lack of adequate resources for teaching could also lead to increased workload for educators. Low teacher satisfaction is expected to correlate with the outcomes of work stress, that is, psychological distress and low self-esteem (Ho & Au, 2006; Okeke et al., 2014; Gu, 2016; Shumba et al., 2016b). The after-effect of chronic stress is burnout (Cunningham, 1983). Teachers under stress experience feelings of exhaustion, irritability, tension, and headache frequently (Dunham, 1984; Okeke et al., 2014; Adu & Okeke, 2016).

Forms of Intrinsic Motivators

Findings in this study confirmed those documented in many studies (e.g., Dinham & Scott, 1999; 2000a), which noted that the main sources of teacher job satisfaction were the daily satisfaction derived from working with children, aiding their development and seeing them being actively involved in the society whilst making a contribution to the welfare of others. Many expressed the joy of seeing past students in their school establishing
themselves in the society and earning a good living. A well-oiled education system is important for a number of reasons, including human development and the maintenance of socially responsive economic and political systems (Modisaotsile, 2012). This hints that an educated population remains the fundamental platform for meeting most of the other Millennium Development Goals (MDGs). With the acknowledgement that the youth of today is the ultimate leaders of tomorrow, most governments make significant efforts to invest in their education. It is disheartening to learn that such efforts do not always yield the intended results.

The South African education system is in crisis. This is attested by Modisaotsile (2012), who affirms that there are many indications, such as high enrolment rates and increasingly poor grade 12 output each year. Long-serving teachers also derived high levels of satisfaction when working collaboratively with colleagues and achieving personal professional growth. Teachers being interviewed also confirmed earlier findings that salary, short working hours and holidays were not high in their satisfaction list. According to the teachers’ opinions, these were merely associated benefits that made the profession more attractive. All teachers interviewed revealed that their primary source of satisfaction was the children themselves. Many recounted different experiences of ‘miracles’, which they performed while taking care of their students. These findings confirm the results obtained by Bucknell and Thomas (1996); Muguongo et al. (2015); Wambugu and Busienei (2015); Afshar and Doosti (2016), Mtyuda and Okeke (2016) who contended that satisfaction through working with children, forming relationships with them, having the opportunity to contribute to the growth and achievement of young individuals may be common internationally, regardless of the country and context.

The emotional rewards of teaching affect what teachers teach, the way it is taught and the modalities and curricular adaptations, which they undergo in order to make sure that all students under their care are benefiting from the teaching they are providing. Many teachers spoke about “loving their children”, “going out of their way to help them” and “establishing a warm and safe environment in their classrooms”. From the interviews, it became clear that long-serving teachers have successfully attempted to develop warm and lasting emotional relationships with students and their parents although some of the parents were not as co-operative as they were not staying with their children throughout the year. Such relationships are so inherent in this work that “...separating myself from such experiences is almost impossible” (participant’s statement from FG2).

An area from which teachers appear to derive a sense of self-fulfilment and satisfaction is their contribution to the society. They highlighted the importance of being able to guide students in their life choices and thus effectively contributing to the society. Most teachers emphasised their commitment to the society as an important precept towards their general job satisfaction despite the negative effect that social problems had on their work and the “lack of respect for teachers nowadays”. Most teachers felt proud that some of their past students were teachers themselves and that they followed in their own footsteps. In this regard, Warren (2003) claims that what seems to happen to people externally is not as important as their internal emotions. The effect of those internal emotions and thoughts is the most important motivator. People tend to be motivated by different internalised, and often invisible, negative emotions such as guilt, anger, resentment, expectancies, materialism and an overwhelming need for acceptance, appreciation and recognition by others.
Forms of Extrinsic Motivators

Most of the teachers interviewed stated that during their career they had some opportunities for professional growth but they would have liked tailor-made courses which took into account their experience. These comments clearly indicate that the teachers’ sense of satisfaction is related to intellectual and professional stimulation and also opportunities for growth. As long as teachers are provided with opportunities for innovation, stimulation of their intellectual curiosity and increased creative outputs, they will still be kindling the passion for their profession and further contribute towards students’ achievements.

Nevertheless teachers participating in the study highlighted the importance of good salary. Many teachers, in the first part of the study, felt that their salary was rather low compared to the amount of work they performed and the salaries of other professions. This implies that the more the teachers are paid incentives, the better their job satisfaction is. Khan (2003) maintained that teachers with low salaries were more likely to remain in their jobs if the school system provided financial and non-financial incentives to compensate for the salary shortfall. As one teacher from FG2 stated, “...if I am paid for the amount of hours I spend correcting and preparing material for the next day, then my salary will have to be at least double” (her emphasis). Another teacher, however, had a different view about teachers’ benefits and stated that for many teachers benefits such as salary, short hours and holidays are important factors when one chooses a profession.

Problems Encountered by Teachers in the Schools

The study also researched sources of dissatisfaction among school teachers. These were ranked according to the number of times mentioned by the teachers. Students’ failure, the effect of social problems, work overload as well as a lack of discipline among students, respect from students and parents, recognition from society, autonomy as a result of perceived centralisation collegial relationships, not to mention time constrictions and extensive syllabi were the factors considered by teachers as contributing to job dissatisfaction. Most teachers recounted that the major source of dissatisfaction lay in the failure of students to achieve the desired academic outcomes. As one teacher emphatically puts it:

*I plan, I organise, I approach students as groups and individually, I speak to their parents... but sometimes there are situations that you cannot do away with... there are situations where all your efforts result in nothing... These are, by far, most dissatisfactory.*

Work overload is an expression, which came up often during interviews. Teacher participants seemed to derive particular dissatisfaction with the amount of paper work they did, especially “piles of copybooks”, “file keeping”, “printed lesson plans”, “schemes of work”, “individualised educational plans” and “paperwork, paperwork, paperwork... all the time” (teachers’ emphasis). Most teachers commented that while they saw the validity of organising one’s work, teaching became “too technical” and “(work overload)... is robbing the joy of teaching”.
Many social problems were mentioned in the interviews. These included both the teachers’ social problems and those of the students. Social problems interfere in communication processes between teachers and students and these have an effect on the performance of both teachers and students in the teaching and learning process. Among those mentioned were the steady rise in family problems, increased number of marital separations and divorces, ill-discipline in the classrooms, poverty and others. During interviews, teachers shared intense feelings of dissatisfaction as a result of having to deal with the effects of social problems in their classrooms. A number of teachers shared the fact that many a time they had to deal with students’ lack of resources themselves. As one teacher states:

*It is not the first time that I had to deal with pupils who did not have lunch or adequate stationery, especially for me as I am an Accounting teacher. These are the things which everyone takes for granted but they are very much in existence... yes in 2014! There is no recognition whatsoever for the work a teacher does where she/he have to go beyond their duties to make sure a child gets the necessary care. This is very disappointing and de-motivating.*

Most of the teachers interviewed insisted that respect towards teachers from both parents and students had diminished. Most comments conveyed the sense of disenchantment resulting from the perceived expectations for respect and recognition which had never been fulfilled through the years. This had given rise to general feelings of dissatisfaction and low morale. The lack of respect and recognition of teachers has been the subject of research in many studies (Demirta, 2010; Basaka & Ghoshb, 2011; Song & Alpaslan, 2015; Mtyuda & Okeke, 2016). The respondents concurred that violent behaviour constituted a definite problem among learners in senior secondary schools, and that bullying was a common problem that needed to be addressed. This general concern about a lack of discipline in classes and schools was also shared by most teachers in all the schools researched. The goals of discipline are to provide a safe environment for all educators, but it is also the responsibility of the learners to show respect and accept discipline from their educators. Hence, these sources of dissatisfaction are not unique to the Education District where the study took place but are present in many countries across the world (Muguongo et al., 2015; Wambugu & Busienei, 2015; Afshar & Doosti, 2016).

**Aspirations to Become a Teacher**

Research findings indicated that a majority of the respondents were intrinsically motivated; 90 percent of these teachers agreed that they chose the teaching profession because they had passion for teaching. Skaalvik and Skaalvik (2007), Okeke and Dlamini (2013), Dlamini et al. (2014), Afshar and Doosti (2016) found that teachers’ self-efficacy influenced their teaching behaviour and their students’ motivation and achievement. Self-efficacy is a person’s judgment about being able to perform a particular activity. It is a person’s I can or I cannot belief (Betoret, 2006). These teachers, irrespective of the unexpected conditions of work they were met with, still expect other teachers to possess the characteristics that are acceptable to the profession.
Conclusion

The study concludes that teacher satisfaction is germane for the sustainability of social transformation. In particular, for social transformation to be achieved through the education agency, the satisfaction of teachers must be taken very seriously. The recognition of various contributions teachers are making to a human being and the society at large is germane to teacher job satisfaction. This is because such practice brings about a sense of fulfilment and self-actualisation, and is the driving force that propels the individual teacher to greater performance. This is a crucial factor for teachers because it improves the standards of their teaching.

However, this study found that insufficient support and recognition from the Department of Basic Education (DBE) was a significant source of dissatisfaction and contrary to what teachers expected when they were appointed. The above-mentioned negative views of the teachers concerning the policies and practices of the DBE seemed to have caused disengagement of some teachers, with a consequent lack of focus on professional activities, and being negative and critical about the DBE, parents and learners. This is a cause for concern because disengagement erodes the quality of teaching and learning at schools.

Recommendations

Based on the findings and conclusions of the study, the researchers recommend that the Department of Basic Education should work out incentive packages to increase teachers’ motivation to teach in senior secondary schools. Special attention should be devoted to increasing teachers’ salaries because a majority of them (teachers) complained about the inadequacy of their salary to meet their needs. Increasing teachers’ salaries will increase their morale to teach. This is because the teachers must be interested in what they teach and in the children when they are teaching. If they are not interested in the work themselves, they can never motivate the class to learn.

The Education District officials, especially subject advisors who help with the teaching and learning at schools need to be developed more through content gap workshops usually organised by the provincial officials so as to be more productive in helping teachers at schools. Regular visits to the schools would motivate the teachers to be more regular and early in school and avoid divided attention of searching for secondary employment.

Awards could be instituted for better performance. Areas such as school and pupil discipline, teacher performance, pupil attendance and achievement, as well as community and parent participation in school activities should be rewarded to serve as motivation.

Limitations of the Study

The researchers experienced two key limitations in undertaking this study as it was conducted during the time of revision for senior secondary school teachers who were preparing their students for the end of the year examinations. According to the researchers’ plan, the transcription was to take only a week. However, the process took longer, the challenge encountered started with the delay in conducting interviews at the requested time due to the writing of examinations and marking of examination scripts. Such limitations may have impacted the quality of the obtained data.
References


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Sustainability Reporting at Schools: Challenges and Benefits

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Abstract
Despite advances made there is still an implementation gap with regard to Education for Sustainable Development (ESD) in formal educational systems at the school level. The present paper focuses on sustainability reporting as a recently emerging practice in the school sector. It presents the approach and findings of an exploratory interview study at three pioneer schools in Germany that have started to establish sustainability reporting mechanisms. The study has examined how the reporting process is evaluated by project managers with regard to its benefits and challenges. Findings support the potential of sustainability reporting at schools to contribute to an increase in students’ participation in sustainability-related activities at school, create accountability concerning the school’s efforts, help structure the existing sustainability projects and demonstrate new possible courses of action. The high expenditure of time, the teachers’ high workload and lack of support given to the teachers have been identified as major challenges of the reporting process. Further directions for future research into reporting practices at schools are given.

Keywords: Sustainability reporting, school development, Education for Sustainable Development.

Introduction

A key theme in the debate about Education for Sustainable Development (ESD) relates to the issue of how educational institutions should respond to the challenges posed by the idea of sustainability. The final report of the United Nations World Decade on ESD has found that in the community of scholars and practitioners closely associated to UNESCO most experts favour approaches that seek to deeply integrate ESD or even use it as a guiding idea for the redesign of the educational system rather than to merely add parts of ESD to existing practices (Kalaitzidis, 2013; Wals, 2012; Lukk, Veisson & Ots, 2008). In line with this, it can be observed that ESD is strongly responsive to the trends in general educational policy towards promoting school autonomy and expanding school-community interlinkages in many countries, particularly in Europe (Christ & Dobbins, 2016, Million, Heinrich & Coelen, 2015).

The main aims pursued with these activities are to improve and enhance students’ educational experience by comprehensively focusing on all facets of a school’s learning and teaching settings and the broader landscape of institutions offering learning experiences.
This is particularly reflected in UNESCO Global Action Programme (GAP) (UNESCO, 2014). In two of its five priority action areas (numbers 2 and 5), it places special emphasis on the conception of schools as elements in broader educational landscapes and on the need to develop educational institutions not only with regard to formal teaching, but more broadly by considering campus, curriculum and community. In this spirit, several national and international initiatives have sought to advance different networks of sustainable schools (Rickinson, Hall & Reid, 2015; Lysgaard, Larsen & Løessøe, 2015; Ilisko & Badyanova 2014; Cincera & Krajhanzl, 2013). Likewise in academia, whole-school approaches to the incorporation of sustainability into the educational institutions’ structures and practices have attracted increasing attention in the field of ESD research (Salter, 2015; Barth, Fischer, Michelsen, Nemnich & Rode, 2012).

With this increased attention on school holistic sustainability performance, two major challenges for schools arise. Many schools are still struggling to advance from a stage of experimenting with and assimilating to ESD on a project basis (also referred to as a \textit{bolt-on approach}) to a more structural and strategic incorporation of ESD into the school’s mission (\textit{built-in approach}) (Sterling & Thomas, 2006). Hence, the first challenge is to explore appropriate tools and approaches capable of uplifting fragmented activities towards more integrated efforts. The second challenge is closely related to this. The growing awareness of ESD as a future-oriented educational concept that prepares learners for the challenges of the 21st century challenges schools to account for the ways and the extent to which they actually engage with sustainability issues.

Sustainability reporting represents an established and well-elaborated approach to address both challenges. It allows organisations to communicate how it is performing, what strategy it is pursuing and what goals it is steering toward. Furthermore, it has been shown to be able to establish a process of integrating existing activities and developing these further in a more concerted approach. Sustainability reporting has initially emerged in the business sector and then increasingly spilled over also into the public sector (Kolk, 2003; Dumay, Guthrie, & Farneti, 2010; Thijssens, Bollen & Hassink, 2016). Higher education institutions have been first to respond to this trend in the education sector, with several elaborated assessment and reporting schemes and systems in place today (Ceulemans, Molderez, & van Liedekerke, 2015; Fischer, Jenssen, & Tappeser, 2015). In the literature on higher education for sustainable development, sustainability reporting is conceived to perform several different functions. In particular, it is used to analyse the ongoing sustainability performance, discover potential for improvement and help derive further measures from them (Lozano, 2006; Adomfent & Michelsen, 2006). In the primary and secondary school sector, however, there is an apparent paucity of research on how sustainability reporting has been used as an instrument in the context of whole-school development towards sustainability. The present paper addresses this research gap and offers a qualitative exploration into the experiences of German front-runner schools that have published a sustainability report. This study seeks to identify benefits and challenges that school actors perceive to come with publishing a sustainability report. By pursuing this question, the research presented advances the understanding to what extent sustainability reporting as an approach to whole-school development can help to implement ESD comprehensively in schools.

In what follows, we will provide some context to the study by giving a brief introduction into existing approaches to implement ESD in the German school system and into the role that communication and reporting play so far.
Background: ESD in the German School System

In Germany, several political declarations and statements reaffirm the importance that is ascribed to the promotion of a comprehensive engagement with ESD in public schools. A prominent example is a joint declaration of the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) and the German Commission for UNESCO (DUK) that admits the implementation of the concept of ESD in German schools (Deutsche UNESCO-Kommission (DUK) & Kultusministerkonferenz (KMK), 2007). The release of an action plan for the national implementation of UNESCO GAP is announced for spring 2017. Despite this political backing from the federal level, the implementation of ESD has been impeded by the specific conditions of the education system in the past decade. The public school system in Germany is substantially shaped by the distribution of authorities and competencies between the state and the federal levels. The federalism reform enacted in 2006 has strengthened the role of the 16 states that since then have been bearing the sole responsibility for the public school system in their territories. This situation has resulted in a number of different school types (e.g., comprehensive secondary schools) and different lengths of educational phases (e.g., four or six years of primary education) among the states. One of the remaining leverage points at the federal level is to promote innovations through the major pilot programmes. Examples for the major federal initiatives promoting the implementation of ESD in public schools are BLK-21 and TRANSFER-21 (Haan, 2006) and the activities implemented under the umbrella of the UN Decade. In a more decentralised manner, ESD has also been promoted by more self-sustained national and international networks, such as the European ENSI network (Breiting, Mayer & Mogensen, 2005). It can be stated that communication and reporting have been addressed as pivotal domains in these programmes, in particular with regard to self-evaluation and auditing (TRANSFER-21 ‘Quality and Competencies’ Working Group, 2007). While the documentation and communication of self-evaluation and auditing indeed reflect key functions of sustainability reporting, the systematic effort of compiling and utilising sustainability reports has not been given much if any consideration. Likewise, and despite considerable progress made, the situation today is still characterised by a lack of institutionalisation: ESD has not been prominently featured so far in school inspection schemes or as a compulsory cross-curricular theme and its implementation in a whole-school approach is at best encouraged. The adoption of ESD in schools still depends to a significant extent on the initiative of engaged actors within the system (Kolleck, 2015; Schellenbach-Zell & Gräsel, 2010). Hence, in order to implement ESD in the German School System, effective methods and instruments are needed.

Study Design

Research Question

In light of (1) the search for approaches to engage schools to systematically adopt ESD in the whole-institution perspective and (2) the lack of research on the practice of sustainability reporting in German public schools, the following research question has been framed for the study: How is sustainability reporting at schools evaluated by project managers with regard to its benefits and challenges?
Methods

The present study focuses on German schools that have already published a sustainability report. Given the lack of studies in this research field, this study is of an explorative character. In order to convey an open and nonbiased perspective on what people in charge of drafting the school sustainability report perceive as benefits and challenges of sustainability reporting at schools, a qualitative research approach has been followed. The developed approach comprises the following three steps: (1) the internet research to identify front-runner schools that have published a sustainability report, (2) a questionnaire sent to these schools in order to gain additional background information for final sampling, and (3) expert interviews with selected case schools. As steps 1 and 2 aim at defining a selection of schools for an in-depth analysis, they will be presented together in the further sections as the sampling approach underpinning this study.

Sampling

As the first step, the internet search was performed to identify existing sustainability reports published by schools. Inclusion criteria for this step were as follows: (a) the document had to be explicitly self-referenced as a sustainability report (Prexl, 2010), (b) it was issued officially by a public school in Germany and (c) the persons responsible for the reporting process were still available. In total, ten schools were identified in this step.

In the second step, a questionnaire was given to all ten schools in order to collect additional background information on the institution and the process of sustainability reporting. The schools were asked to report on who initiated the development of a sustainability report (multiple selections from a total of eight different stakeholder groups), the level of student involvement in the reporting process (4-point Likert scale from very low to very high) and number of people involved (open answer). Additionally, the type of school and the number of sustainability reports published were noted. The questionnaire was returned by eight schools (see Table 1).

Table 1

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Student participation</th>
<th>Type of initiator</th>
<th>Published sustainability reports</th>
<th>Number of involved people</th>
<th>Included in final sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>Vocational college</td>
<td>Low</td>
<td>Teacher, external organisation</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>School 2</td>
<td>Elementary</td>
<td>Very low</td>
<td>Parents</td>
<td>3</td>
<td>X</td>
</tr>
<tr>
<td>School 3</td>
<td>Elementary</td>
<td>Low</td>
<td>Principal</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>School 4</td>
<td>Vocational college</td>
<td>High</td>
<td>Teacher, external company</td>
<td>2</td>
<td>no answer</td>
</tr>
<tr>
<td>School 5</td>
<td>Upper secondary</td>
<td>Very high</td>
<td>Teacher, parents, principal</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>School 6</td>
<td>Upper secondary</td>
<td>Very high</td>
<td>Teacher, student</td>
<td>2</td>
<td>19</td>
</tr>
</tbody>
</table>

Sequel to Table 1 see on the next page.
Three schools were selected for further in-depth examination. The selection was made on the basis of purposeful sampling in diverse case mode (Seawright & Gerring, 2008). In this sampling approach, cases are selected that represent the greatest possible variance along pre-determined variables. In our case, we were particularly interested in variations in student participation, types of initiators and type of school. The three schools reflecting diverse cases along these dimensions were schools 2, 6 and 7 (final sample).

Expert Interviews

In each school, within the final sample semi-structured expert interviews were conducted to gain insight into the experiences made with the reporting process and explore perception of benefits and challenges. According to Meuser & Nagel (2009), experts are characterised by distinct and accessible knowledge in the limited area of interest. A unique feature of expert knowledge is that it is “linked with the power of defining the situation” (ibid.: 18). School-based sustainability reporting is a premature field of action for which no established procedures or standards are available. Thus, individuals in charge of managing the reporting process at school inevitably have to develop an understanding of what a sustainability report is all about and how it has to be developed within the organisational setting of the educational institution. For that reason, we carried out expert interviews with the project managers in each selected school: a parent (school 2), a teacher (school 6) and an assistant principal (school 7).

The interview guide was developed, taking into account previous qualitative studies on the implementation of sustainability at higher education institutions, whose informants were encouraged to report on their experiences in the chronological order of the implementation process and share their experiences and reflections (Barth, 2013, Disterheft, Caeiro, Azeiteiro, & Filho, 2015). The first part of the interview guide sought to provide a more descriptive account of contextual factors, while the questions of the second part aimed at stimulating reflection and evaluation of benefits, challenges and lessons learnt. The interview guide was further refined through a dimensional analysis of potentially relevant components in each topic (Kools, McCarthy, Durham, & Robrecht, 1996). The resulting topics included in the interview guide were not distinct, but rather overlapping. The interview guide was designed to ensure comparability of different interviews and guarantee that all relevant topics were addressed in each interview. The order of questions, however, was adapted to the interview situation and the informants’ responses in order to ensure a natural conversational setting and stimulate rich narratives. The interview guide was pre-tested before the expert interviews were conducted. The interviews, of 30–60 minutes each, were fully audio-taped and transcribed. Anonymity was preserved by the use of pseudonyms.
Table 2

*Interview Guide*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Aspect / Question</th>
<th>Sub-aspect / Sub-question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial situation</td>
<td>1. What inspired you to develop a sustainability report?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. What was the feedback at school concerning the idea of publishing a sustainability report?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Who was defined as the target audience of the sustainability report?</td>
<td>- internal stakeholders (school community)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- external stakeholders</td>
</tr>
<tr>
<td>Organisation of the process</td>
<td>4. How was the reporting process organised?</td>
<td>- Who was the organiser?</td>
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<tr>
<td>(internal/ external)</td>
<td></td>
<td>- Who was involved?</td>
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<tr>
<td></td>
<td>5. How did you select the content of the sustainability report?</td>
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<td></td>
<td>6. How did you collect the data for the report?</td>
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<td></td>
<td>7. How do you evaluate the effort of publishing the sustainability report?</td>
<td>- financial</td>
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<td></td>
<td></td>
<td>- personal</td>
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<tr>
<td></td>
<td></td>
<td>- temporal</td>
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<td></td>
<td>8. How do you evaluate the catalogue of measures, which is part of the sustainability report?</td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td>9. Which internal stakeholders were involved in the reporting process and how do you evaluate their involvement?</td>
<td>- type and intensity of involvement (e.g., consultation, data assessment)</td>
</tr>
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<td></td>
<td>10. Which external stakeholders were involved in the reporting process and how do you evaluate their involvement?</td>
<td>- type and intensity of involvement (e.g., consultation, data assessment)</td>
</tr>
<tr>
<td>Challenges</td>
<td>11. What were the largest obstacles in the reporting process?</td>
<td>- internal</td>
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<td></td>
<td>- external</td>
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<td>- structural</td>
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<td></td>
<td></td>
<td>- organisational</td>
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<tr>
<td>Benefits</td>
<td>12. Which kind of additional support would you have appreciated in the reporting process?</td>
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<td></td>
<td>13. Which kind of positive effects resulted from the reporting process?</td>
<td>- school management</td>
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<td></td>
<td></td>
<td>- networking</td>
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<td>- public relations</td>
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<td>- organisational identity</td>
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<td></td>
<td>- transparency</td>
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<tr>
<td>Outlook</td>
<td>14. Looking back on your experiences, what would you change if you were to go through the process again?</td>
<td></td>
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<td></td>
<td>15. How far were your expectations regarding the reporting process met?</td>
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<td></td>
<td>16. Based on your experiences, what does it take to implement sustainability at schools in the long run?</td>
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</table>
The interview transcripts were processed according to the data analysis procedure for expert interviews developed by (Meuser & Nagel, 2009). In its main steps, the procedure reflects other well-established approaches to qualitative data analysis, such as thematic analysis (Braun & Clarke, 2006) or qualitative content analysis (Mayring, 2004). The purpose of the analysis is to identify similar topics and compare the different expert statements with regard to their meaning and significance, whilst particularly taking into account their organisational and institutional context. In the first step of the analysis the transcript is paraphrased. Then the material is condensed by sorting the information into passages with headings that are relevant to the research question, i.e., the experiences of project managers concerning benefits and challenges in establishing a sustainability reporting process at a school. The next step (thematic comparison) expands the focus from single passages of individual transcripts to overarching patterns in the entire material. In this step, text passages from each interview addressing similar themes are pooled and subsequently compared to each other in order to identify similarities and differences. While the aforementioned steps take place within the boundaries of the empirical material, the next step (sociological conceptualisation) now explicitly seeks to review the themes and patterns found in light of theoretical knowledge and academic discourse. The main purpose in this step is to generalise the empirical material by rephrasing it in scholarly terminology. Finally, the analysis is completed by theoretical generalisation. Here, the new findings from the prior steps are contextualised within and connected to general theories in the field.

Findings and Discussion

According to the research question, our analysis focuses on identifying perceived benefits and challenges in the process of developing a sustainability report at schools. As a result, we have found two major topics referring to challenges and four major topics referring to benefits. The challenges have been grouped into implementation challenges and challenges caused by external restrictions. Benefits of sustainability reporting have been grouped into benefits for the participants, for the school management, for networking and public relations, and for sustainable living. In what follows, the findings are presented in detail.

Challenges

Implementation

All experts participating in the interview (subsequently referred to as informants) noted that the establishment of a sustainability reporting process at school was a very time-consuming endeavour and mentioned that it was not always easy to allocate the necessary time resources for the project. When the project managers were asked to generally comment on the perceived barriers, they mentioned that time was a “problem” (informant 2) and “it was not easy to devote the required time” (informant 3). One informant summarised that an engagement in sustainability reporting put significant personal demands on those involved: “it consumed energy” (informant 1).

Two of the respondents also voiced the opinion that further difficulties were imposed by the unresolved issue of continuing the process started by implementing a sustainability
reporting mechanism. A matter of concern for the informants here was the issue of how sustainability reporting could be integrated in the daily school curriculum and how it could be permanently implemented and maintained at schools, irrespective of students and teachers.

Additionally, every project had problems with data collection. One informant referred to the observation that “there were some data which you could not collect in a statistical way” (informant 1). Another issue was data availability: some data were difficult to obtain, while other data, for example, were not granted to the school by public utility companies. Informants noted that these difficulties made data collection a time-consuming process and also led to poor data quality, making the result less representative and not as accurate. Moreover, due to technical and security reasons the students were not allowed to participate in meter reading. Furthermore, data processing and presentation showed to bear some difficulties when the reporting process involved students, as “they first had to learn how to represent the collected data into aggregated charts” (informant 2).

Another obstacle was the lack of motivation and support. All of the interviewed informants tried to receive assistance from other teachers, parents and the school management. However, they found that “it was not easy to motivate other teachers to participate in the project because there were no incentives” (informant 1), and parents were not very supportive in the process (informant 2). This did not only refer to an active engagement in the process, but also to some essential contributions as experienced in one case in the form of low response rates of a questionnaire administered as part of the data collection (informant 2). Another challenge was the acquisition of additional financial funds to make the sustainability report available to every student (school 2) or to pay the teachers involved in the development of the report (school 1). These struggles for financial and human resources were responsible for an overall downturn in the project manager’s personal motivation to continue work on the sustainability report (informant 3).

Overall, the feedback on the sustainability report from the internal school partners and the external stakeholders was perceived as positive by the informants. However, in one case several teachers noted their displeasure that students asked the teachers and the caretaker about their salary and published the information in the report. Informants 2 and 3 found it unfortunate that not all of the students and parents were aware of the sustainability reporting process and argued for a better stakeholder communication.

External Restrictions

Challenges arising from external restrictions relate to conditions and circumstances that constitute the context of the sustainability reporting process. Time and workload feature as prominent challenges here, too. Unlike before, however, this was referred to as a structural constraint and not a specific experience related to the sustainability reporting process. It was mentioned that the high workload of teachers and students leave little room for extra activities. As one specific root cause, the informants noted that the administrative and bureaucratic obligations at school are generally high and have a paralysing effect on projects requiring additional work, such as the establishment of a sustainability reporting process at schools. This situation can be illustrated by a
Sustainability Reporting at Schools: Challenges and Benefits

statement made by informant 1 who noted: “the administration crap eats you up”. Another more structural condition perceived as a challenge was that despite prominent political affirmations and proclamations, ESD is rather marginalised in the school reality. In the experience of informant 3, ESD has not been established yet as an essential “part of the normal school curriculum and is seen as extra work rather than normal school work”. Rather low significance attributed to ESD by the school stakeholders provides a rather fragile ground for the project and fails to promote a stronger sense of legitimacy.

Benefits

Participants

The informants who participated in the reporting process experienced several benefits. It was noted by all informants that being part of the development of the sustainability report filled the participating students with a sense of pride. In all three cases, this was associated with increasing interest among students in how the school embraces and engages in sustainability issues, particularly in its operations. In one case, students were given the responsibility to develop the sustainability report. Consequently, students had to decide on which aspects they wanted to focus in the reporting process. This enabled the students to assess information about the school which was normally not overt or even accessible to them. The experiences of managing the reporting process autonomously translated into several learning outcomes for the students (informant 2). One particular effect that was observed was that “the teamwork encouraged solidarity among students” (informant 1). All three informants claimed that the development of the sustainability report enhanced personal well-being, as the invested efforts resulted in a tangible product that was widely accessible and reflected the achievements that their school had accomplished with regard to the promotion of sustainable development and ESD.

School Management

The sustainability report was also perceived to have positive effects on school management. In all three cases, the sustainability report provides guidance and orientation as it indicates fields that require further action and highlights achievements that have been accomplished and need to be maintained. It was mentioned as a distinct benefit of the reporting process that it helped link the different school projects with one another and show how they fuelled into a broader cause of promoting sustainable development. According to our informants, this helped different school stakeholders to identify more strongly with the school. The mapping of activities also allowed the school actors to “see where there was a lack of cooperation between similar projects” (informant 1). That way, the reporting process helped structure school development activities and define further goals. This prospective commitment to improve the reported status quo was illustrated by a statement of informant 1: “sustainability reporting means not only that’s we are, it is also a question of where we wanna go”.

Networking and Public Relations

A cross-cutting issue in the experiences expressed by our informants is the potential of sustainability reporting to encourage networking with different stakeholders. This involves both the direct participation of stakeholders in the process of developing the sustainability report and the indirect consideration of stakeholders by covering their activities or drawing on their data (e.g., surveys, technical data). In addition to this benefit, the sustainability report itself serves as a platform that encourages different internal and external stakeholders to position themselves and engage in setting new goals and deciding on the future course of the school. An additional benefit in this domain that all informants referred to was that releasing a sustainability report attracted public attention. Informant 2 reported, for example: “The Federal Ministry of Education and Research has invited us to present the project of our school at a congress about resources protection in September”. Some schools even received awards and recognition for their efforts to become a sustainable school, which in turn also helped the school to increase its reputation and distinguish itself from other schools through a distinct profile.

Sustainable Living

According to the informants, the school engagement in sustainability reporting has had a sensitising effect insofar as it “strengthens the awareness of sustainability” (informant 2). Our informants observed an increase in accountability both in terms of more sustainable school management (informant 1) and with respect to more sustainable consumption practices of teachers and students (informant 2), in particular concerning water and energy consumption as well as mobility. This awareness raising effect was not limited to the margins of a single school, but also created a momentum or interest among other schools. In this respect, our informants perceived the process of documenting and reporting sustainability activities at schools as an encouraging activity that could promote other schools to engage in sustainability issues and start their own projects.

Outlook and Conclusion

The starting point of the present paper has been an apparent paucity of examples for sustainability reporting initiatives in the school sector in Germany. This research gap has been addressed with an exploratory empirical study of three project managers’ experiences related to implementing sustainability reporting at schools. Our analysis has revealed some overall challenges and benefits. The major challenges and obstacles mentioned by the project managers are lack of time and high workload of teachers that seriously impede the implementation of a systematic sustainability reporting scheme at schools. Moreover, difficulties are also related to data collection. The main benefits of sustainability reporting are networking opportunities and increased public visibility, greater transparency with regard to achievements and needs for action, new and authentic learning settings for students and student participation, as well as greater organisational and personal commitment to sustainability in the school life.

What seems striking is that several benefits associated with sustainability reporting are not restricted to sustainable development or ESD, but rather with generic value related to school quality and school development (e.g., networking and participation).
This finding suggests that the value of sustainability reporting should not be reduced to its potential to make schools more sustainable. Thus, it can also be used to achieve general educational rather than sustainability-specific purposes. The analysis has also revealed some barriers that educators and policy-makers should overcome in order to create more enabling conditions for mainstreaming sustainability reporting practices in the school sector. More favourable conditions may include additional grants/funds, the utilisation of external resources and expertise and, more generally, a reduction of bureaucracy that will allow teachers to engage more intensively in projects targeting the whole institution and take part in extracurricular, cross-cutting activities such as sustainability reporting.

To sum up, the findings of our exploratory study suggest that the potential of sustainability reporting closely corresponds to broader direction that ESD is heading as outlined by the priority action areas of UNESCO Global Action Programme. Sustainability reporting can be designed as a highly participatory and engaging process; it conveys a whole-institution perspective and provides opportunities for networking and outreach into a broader educational landscape. It thus seems worthwhile to engage more intensively in sustainability reporting as an enabling mechanism in the implementation of the next phase of ESD. Promising approaches to substantiate this field further are transdisciplinary projects that combine practical experimentation on the basis of critical analysis and reflection.

References


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Evaluation of Sustainable Development in Rural Territories in Latgale Region (Latvia) by Using the Conception of Smart Specialization

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Abstract

One of the approaches to achieve sustainable development is based on smart specialization. Rural areas are of particular importance in ensuring sustainable development, the smart development of which largely determines the balanced sustainable development of a state as a whole. The present study reflects the quantitative and the qualitative assessment of sustainable development in the region of Latgale (Latvia) on the level of 19 districts; the assessment has been carried out on the basis of the concept of smart specialization. The assessment has been performed within the framework of the project 5.2 of the National Research Programme EKOSOC-LV. The quantitative assessment is based on scientific and practical experience taking into consideration the distinguishing features of the development of Latvian regions and districts, and it has resulted in the establishment of an integrated index (Smart Development Index), which comprises four dimensions – Resources, Population, Economy, and Management. The qualitative assessment is based on the views concerning the cornerstones of smart specialization and the factors influencing it expressed by experts from the state administration, business and scientific environment. Expert opinions have been collected by using Analytic Hierarchy Process (AHP) method. The results of the research might facilitate the understanding of the support measures of smart specialization and the opportunities for sustainable development in rural areas, taking into account the level of the regional socio-economic development and the rate of development, as well as regional differences on the level of districts. The example of Latgale has shown that a small number of people and a low rate of development in most of the region districts simultaneously create both the acute need for and a great challenge in the sphere of sustainable development. By contrast, as a result of both the
quantitative and the qualitative assessment the population has been recognised to be the main driving force of the development of rural areas in Latgale region.

**Keywords**: sustainable development, smart specialization, rural areas, Latgale region (Latvia).

**Introduction**

Within the European Union’s strategy for sustainable development, sustainable development is considered the development that meets the needs of present generations without jeopardising the ability of future generations to meet their own needs. It is the development that safeguards the earth’s capacity to support life in all its diversity. It is based on the principles of democracy, gender equality, solidarity, the rule of law and respect for fundamental rights, including freedom and equal opportunities for all. It aims at the continuous improvement of the quality of life and well-being of present and future generations (Eiropas Savienības Padome, 2006).

The European Commission (2012) indicates that smart specialization is essential for sustainable development. The studies on the promotion of sustainable development on the basis of the concept of specialization emphasise interdisciplinarity, for instance, in bio-economics regions, which search for new ways of strategic development, might strive for sustainable added value production by supplementing, improving and transforming their activities in traditional spheres (such as forestry, agriculture, fisheries). Both scientists and practitioners emphasise that the analysis in the sphere of a region’s potential in sustainable development should be started by evaluating environmental, economic, social and managerial aspects (European Commission, 2012; e.g., Kirk et al., 2010).

The shift to modern regional development paradigm has facilitated the awareness of the importance of each region’s potential and endogenous factors (e.g., Vanthillo, Verhetsel, 2012). However, at the same time the issue about the pronouncedly different possibilities of various territories to safeguard sustainable development is becoming acute. Solving local problems by using local uniqueness and comparative advantages, probably, is the right approach, and it is supported in both scientific and practical spheres. Such an approach requires the implementation of the concept of smart specialization (e.g., Naldi et al., 2015; Koumparou, 2013). In fact, it means to develop and put into practice the strategies of smart growth and development, which are based on the assessment of a region’s potential and capacity, and prioritisation. It is a particularly great challenge for rural areas, which are often characterised by a small number of inhabitants, low income, low level of education and a considerable distance from “knowledge” centres (e.g., Steiner, Mossbock, 2014) and necessity to solve issues on effective service delivery (e.g., Arcelus et al. 2015). Another challenge is related to the limited experience in assessing sustainable development in the economic context, and in rural areas, since the assessment is in most cases focused on environmental issues (e.g., Krueger, 2010) and cities (e.g., Sinkiene et al., 2014).

The paper offers the methodological solution to the assessment of sustainable development in the economic context in rural areas by using the concept of smart specialization that has been developed within the framework of the National Research Programme EKOSOC-LV. The authors have researched Latgale region and its 19 districts in Latvia by carrying out their quantitative and qualitative assessment. The rest of the paper is organised as follows: the second section proposes the theoretical and methodological
concept of sustainable development; the third section characterises the existing development trends in Latgale region; it presents new knowledge about the distinguishing features of the development of Latgale region, i.e. the quantitative assessment of sustainability by using the concept of smart specialization, as well as the qualitative assessment of sustainability by using the concept of smart specialization and providing the triple-helix representatives’ (experts’) viewpoints. The fourth section of the paper draws conclusions.

Theoretical and Methodological Concept of Sustainable Development

Sustainable development in the research perspective

The notion of sustainability has quite recently been linked to regional development owing to the understanding that sustainable development should balance environmental, social and economic needs. However, the emphasis in scientific and practical works is put on environmental issues, the others being somehow neglected (for instance, Krueger, 2010). Consequently, the concept that is intended to merge sustainability with economic development is relatively new and little explored. For example, the Scopus database contains only a limited number of publications that focus directly on sustainable economic development. The publications that investigate sustainable economic development mainly reflect smart specialization approaches by means of implementing the policies of smart growth and smart development, thus “building a bridge” to the development of knowledge economy. In this respect, it is important to understand that knowledge creation, diffusion and absorption require the existence of the so-called innovative ecosystem, in the framework of which knowledge would promote the flourishing of innovative entrepreneurship (e.g., Romano et al., 2013).

The term “smart”, notwithstanding its popularity in the concepts of theory development, has not been precisely defined and its interpretations may differ within different scientific disciplines (Sinkiene et al., 2014). In economic literature, smart development is related to the fundamentals of sustainable development (Naldi et al., 2015); and in the USA, smart development is understood as sustainable development (e.g., Krueger, 2010).

As indicated by Koumparou (2013), growth and development in the European Union are related to the solution of local problems by emphasising the uniqueness, comparative advantages, and available resources of each territory. Assurance of such an approach is possible by using the strategy of smart development (Koumparou, 2013). One of the possibilities to achieve sustainability in economic development envisages active use of natural resources and social capital, thus promoting effective use of resources through collective actions of the society that, to a certain extent, requires the coordination of activities (Koumparou, 2013), i.e., the implementation of certain policies aimed at achieving the balance between economy, social equality and environment (e.g., Krueger, 2010). To some extent, the necessity of the development policies is to be linked to sometimes weak market response to manifestations of sustainability (e.g., Krueger, 2010).

In their study, Naldi et al. (2015) confirm that the goal stated in the strategy “Europe 2020”, i.e., to promote smart, sustainable and inclusive economic development is achievable if diverse policies of smart growth and smart development are developed. However, there is also a more critical point of view with regard to the development of smart growth and development strategies, which emphasises that the development process itself does not oblige the strategy execution (e.g., Reimeris, 2016). Reimeris (2016) also
recognises that smart development strategies (e.g., RIS3) provide a mechanism for the promotion of changes and the development of important vectors of future policies. Additionally, well-elaborated regional development policies that clearly identify priorities, evaluate available resources and possible obstacles are important for realising regional potential during the implementation of set aims (e.g., Šipilova, 2014).

According to the OECD (2013), the concept of smart specialization envisages policy intelligence, for instance, when determining comparative advantages, priorities in specialization and combining the potentials of all the parties involved. The practice shows that the policy of introduction and implementation of smart specialization is dependent on the type and the potential of a region (see, for instance, the study about Northern Europe by Lindqvist et al. (2013)). However, Lindqvist et al. (2013) indicate that there are also common factors of “success”, for instance, the “critical mass” performance analysis and interdisciplinary, cross-sectoral cooperation and partnership between regions at different levels. Research on the success of economically less developed regions in the sphere of smart specialization and innovative activity is related to the abilities of regional management and the availability of financing from the European Union structural funds (e.g., Muscio et al., 2013). Muscio et al. (2013) also note that the relatively modest performance of economically less developed regions (e.g., East European countries) in the sphere of smart specialization is connected with a region’s particularly pronounced weak management capabilities. Furthermore, Muscio et al. (2013) emphasise that these weak management abilities manifest themselves not at the level of prioritisation, but rather at the level of programme implementation.

More and more experts acknowledge that sustainability should be viewed locally, i.e., at the level of municipalities, urban or metropolitan regional level (e.g., Shen et al., 2011; Sustainable Cities, Canadian International Development Agency, 2012). At the same time, the complexity of the implementation of the stated goals is emphasised particularly in pronouncedly different rural areas (Naldi et al., 2015). 2/3 of the European population lives in cities (European Union. General Directorate for Regional Policy, 2011); and it determines the experience restriction in relation to the introduction of smartness in rural areas. For example, studies on sustainable development mostly focus on cities (e.g., Sinkiene et al., 2014). On the other hand, the prevalence of ecological questions in the concept of sustainability (e.g., Krueger, 2010) promotes the interest into one sector of economic activity in rural areas, i.e., the agricultural sector (e.g., Reidsma et al., 2015; Sandu, 2014 etc.). However, it should be noted that the concept of sustainable development in rural areas is to be considered in a wider context, too.

There is no single method that would be appropriate in all the cases when it is necessary to develop a strategy for sustainable development. Each area has its own unique needs. However, there are a number of common aspects that should be taken into consideration when drawing up the strategy. It is essential to note that most approaches offer a holistic view that includes environment, society, economy and management and implies the use of diverse measurable indicators.

The methodological solution

The process of assurance of sustainable regional development in Latvia is linked to the potential of the regions (Pārresoru koordinācijas centres, 2012) and in this process the polycentric development is of special significance (Melbarde, Ore, 2016). At the
moment, the rural areas that notify themselves especially vividly are the ones where there are tendencies incompatible with the fundamentals of sustainability observed. These trends are the decrease in the number of population, aging population, decline in business activity, etc. (e.g., Latgales plānošanas regions, 2010a, 2010b). It should be noted that, according to the typology of rural areas adopted in research practice, rural areas are generally characterised by low income, low level of education, low economic activity and considerable distance from the so-called centres of knowledge (e.g., Steiner, Mossbock, 2014).

The goal of the National Research Programme EKOSOC-LV is to develop an instrument that would enable researchers to offer scientifically grounded propositions for the assurance of balanced and sustainable rural development (Latvijas Zinātņu Akadēmija, 2014). One of the greatest challenges is the methodological solution that would enable an objective assessment of the current situation and the development potential and priority directions, taking into account the concept of smart specialization in ensuring sustainable development.

Methodological challenges related to the implementation of smart specialization are topical also in Lithuania, the neighbouring country of Latvia (e.g., Poliakaite et al., 2015). As concluded by Poliakaite et al. (2015), the development and implementation of the concept of smart specialization at the local level require active process of clarification and discussion involving all interested parties. Moreover, these activities should be understood as an investment, rather than a burden. In addition to this conclusion, the Lithuanian colleagues agree that a holistic approach and the promotion of innovation in any field of activity form the path to successful implementation of smart specialization strategy (Poliakaite et al., 2015). Similar conclusions have been made by the authors of the article (Ostrovska et al., 2016), when analysing the characteristic features of the contemporary regional development paradigms as described in research literature. Ostrovska et al. (2016) have concluded that the cooperation among the parties involved in the process of regional development is an essential prerequisite for smart development, while the holistic approach, which combines environment, society, economy and management to meet the unique regional needs, is the basis for ensuring sustainable development.

Within the framework of the National Research Programme EKOSOC-LV being at the 3rd stage of its implementation, the researchers have at their disposal the quantitative and qualitative indicators that allow determining the level and the characteristics of smart development, as well as making assumptions on the development of the desired situation in Latvian rural areas. It is noteworthy that in research literature it is hardly possible to find a single common approach and specific data selection for assessing regional development at the global level. This is also noted in the research carried out by Huggins et al. (2014) about the world’s more developed (and productive) regions, including into the study 54 regions of North America, 41 from Europe, 22 from Asia and Oceania. Within their study, Huggins et al. (2014) performed the analysis of the evolution and competitiveness of regional economy taking into account the latest research developments in the spheres of regional competitiveness, regions of knowledge and knowledge-based development.

Within the present study, the authors have carried out three successive steps in order to evaluate sustainable development on the basis of the concept of smart specialization: 1) characterisation of the development of rural areas by offering a refreshed view on the types of rural areas; 2) the quantitative description of the development by using
the concept of smart specialization; 3) the qualitative characterisation of the development by involving state, business and scientific experts in the evaluation process. Such an approach allows for the understanding of the distinguishing features of the current development from the point of view of sustainability by answering two questions – What is the situation? and What should it be?; and comparing the answers.

![Evaluation of sustainable development by using the conception of smart specialization](image)

*Figure 1. The methodological solution for the assessment of sustainable development in rural areas*

*Source: EKOSOC-LV.*

The *quantitative assessment*. Before carrying out an assessment of sustainable development, it is essential to understand the typology of rural areas and its features. In the development of the typology of rural areas, the EDORA Cube principles were partially used according to Copus and Noguera (2010). Rural areas were divided according to their rate and level of development, as well as the number of population, which allowed revising the stereotypes concerning the rural areas. The development of the typology was based on the data on the dynamics of economically active statistical units of the market sector and sole proprietorships (the rate of development) (RDIM, 2015) and the index of territorial development (level of development) (SRDA, 2010, 2011, 2012). Such a division of territories provided the understanding of the current capacity of rural areas. The answer to the question “To what extent is this developmental capacity echoed in smart rural development?” was sought for by developing the Smart Development Index.

By its nature, the Smart Development Index as a quantitative indicator of smart development, which shows the level of smart development of an area, is an integrated index that includes four dimensions – Resources, Population, Economy and Management, thus respecting the characteristic features of the concept of smart specialization. The choice to develop the integrated indicator has been based on the conclusions found in research literature. In research literature it is emphasised that to carry out an effective assessment of the current situation it is necessary to consider not only the selection of definite indicators, but also the integrated index that allows assessing common achievements in a particular field (e.g., Marsal-Llacuna et al., 2015) or evaluating the uniqueness of the area (e.g., Gedminaite-Raudone, 2014).

The Smart Development Index includes the statistical data on: Resources – available resources, efficiency of their use, infrastructure; Population – the level of education, business activity, the desire to be creative and to learn; Economy – innovative companies,
level of population’s involvement in entrepreneurial activity; Management – the ability to attract funding, e-management, population’s activity.

It should be noted that during the development of the index, the importance of each dimension in the index was also considered – Resources 0.19, Population 0.26, Economy 0.44, and Management 0.11. The calculated values testify to the fact that Economy and Population have the largest weight in the process of smart development, while the weight of Resources and Management is considerably smaller. The Smart Development Index adopts both positive and negative values, which are respectively indicative of the level and the quality of smart development of an area.

The qualitative assessment. Finally, in the course of the study, the triple-helix model was actualised. This model is essential for the assurance of sustainable development and shows the preferred model of cooperation of the participants involved in the development. The project participants attracted to the research process the experts – representatives of the state, entrepreneurship and research – who were interviewed about the driving forces of smart development (Resources, Population, Economy, Management), as well as about the spheres that most affect the level of smart development (activities of population, municipalities, state, and the European Union activities). The method used to carry out the experts’ survey was the Analytic Hierarchy Process (AHP). The experts’ answers provided the knowledge that allowed comparing the current situation with the desired one, thus becoming aware of both strengths and weaknesses of smart development.

The paper presents the assessment of sustainable development carried out by using the concept of smart specialization in rural areas in Latgale region (19 districts) in Latvia in the period of 2009–2014. The assessment is based on the awareness that the paradigm of the contemporary regional development requires observing a multidimensional, interdisciplinary, involving and uniting activity aimed at the use of a region’s potential (Ostrovskas et al., 2016).

Research Results

The Description of the Existing Development Trends in Latgale Region

The biggest challenge in Latgale region is related to the loss of human capital and the sluggish development trends in entrepreneurship (e.g., Latgales plānošanas reģions, 2010a, 2010b). The programme and the strategy of the region’s development (e.g., Latgales plānošanas reģions, 2010a, 2010b) envisage a set of measures aimed at mitigating the negative trends; these measures are based on raising efficiency of the use of local resources, on activating the cooperation among the parties involved in development, strengthening of the business sector (e.g., Latgales plānošanas reģions, 2010a, 2010b). Special attention in Latgale region is devoted to education contribution to sustainable development that increases the value of human capital in the region. For example, successful practice at the regional university (Daugavpils University, Latgale region, Latvia) demonstrates the introduction of the concept of sustainability in the educational process (e.g., Salite et al., 2016; Salite et al., 2015; Salite, 2015). This, in turn, can be recognised as a significant factor stimulating sustainable development in the region, because as Iliško et al. (2015) indicate, students’ awareness of future changes contributes to sustainability in development.
From an economic perspective, a significant contribution to the development of Latgale region is ensured by the relatively successful operation of the medium-high technology sector of manufacturing, and the use of rich natural resources (e.g., Latgales plānošanas regions, 2010a, 2010b). However, it should be noted that the potential of the rich natural resources of Latgale region, due to a low economic activity, is mostly used with a low added value (e.g., Latgales plānošanas regions, 2010a, 2010b), but bright specialization in the medium-high technology sector of manufacturing does not provide the desired contribution to regional development because of low growth of labour productivity compared to other sectors (Šipilova, 2015). At the same time, the issue of low growth of labour productivity relates not only to Latgale region and is among the main reasons for worsened external competitiveness of economy in Latvia (e.g., Baldi, Šipilova, 2014).

The vision of the region’s development is directed towards the promotion of sustainable development and is grounded on the concept of smart specialization because it emphasises the necessity of the holistic approach, the enhancement of cooperation among triple-helix participants, as well as the introduction of green and innovative economy (e.g., see Ostrovskā et al., 2016 for the literature review). It is logical that all districts of the region should involve in order to achieve the goals set, thus implementing the requirements of polycentric development (e.g., Pārresoru koordinācijas centrs, 2012; Melbarde, Ore, 2016) and ensuring the implementation of smart specialization by involving the potential of each region in the promotion of sustainable development.

Thorough understanding of the on-going development at the level of districts is provided by a fresh view on the typology of rural areas, i.e., whether the dynamics of certain statistics available fully reflect the current situation. Combining the data on the development rate and the development level promotes this understanding and can offer deeper knowledge necessary for the implementation of strategic goals at the level of districts.

Table 1

<table>
<thead>
<tr>
<th>(I) LOW RATE</th>
<th>(II) RATE BELOW AVERAGE</th>
<th>(III) RATE ABOVE AVERAGE</th>
<th>(IV) HIGH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krāslava -1.035</td>
<td>Balvi -0.821</td>
<td>Daugavpils -0.877</td>
<td>Vārkava -1.017</td>
</tr>
<tr>
<td>Livāni -0.625</td>
<td>Rugāji -1.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preiļi -0.810</td>
<td>Ilūkste -0.964</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ludza -0.951</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltinava -1.308</td>
<td>Dagda -1.268</td>
<td>Cibla -1.352</td>
<td>–</td>
</tr>
<tr>
<td>Rēzekne -1.141</td>
<td>Kārsava -1.424</td>
<td>Zilupe -1.487</td>
<td></td>
</tr>
<tr>
<td>Riebiņi -1.121</td>
<td>Aglona -1.258</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vīļaka -1.188</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vīļāni -1.530</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculations on the development level and rate in 19 districts of Latgale region reveal an alarming trend – a low or below average development rate is being observed in 15 of 19 districts of Latgale, and 8 out of 15 districts are characterised by a low level of development. This means that the rural areas where, according to the calculations, the socio-economic indicators fall behind the indicators of the region and the state (districts of Baltinava, Rēzekne, Riebiņi, Viļaka, Viļāni, Dagda, Kārsava and Aglona), in practice show rather inexpressive movement towards the improvement of the situation. Only Cibla and Zilupe districts, which are characterised by a low level of development in the period considered, have shown the growth rates above average. On the other hand, the data on nine districts of Latgale, which have reached a relatively high level of development, also indicate certain stagnation. Thus, only Daugavpils and Vārka districts have managed to achieve the development rate that is above average or high. The other seven districts (Krāslava, Livani, Preiļi, Ludza, Balvi, Rugāji, and Ilūkste) feature the development rate that is low or below average.

The analysis performed allows identifying the following trends: 1) the districts with a relatively high level of development show stagnation; 2) some of the less developed districts are able to increase the pace of development. On the one hand, the identified trends may indicate certain “confusion” of the districts about the further realisation of their potential due to the lack of sufficiently strong impulses. On the other hand, it is positive that the relatively less developed regions accelerate their development.

All in all, the rural areas of Latgale region exhibit a striking dominance of slow development. According to the paradigm of contemporary regional development, one of the most essential driving forces of development is a human being; therefore, it is essential to understand the “stagnating” and “fast growing” rural population.

| Table 2 |
| Groups of the Development Rate and the Number of People in Latgale Region |
| (I) LOW RATE | (II) RATE BELOW AVERAGE | (III) RATE ABOVE AVERAGE | (IV) HIGH RATE |
| POPULATION (thousand) | 1112-7686 | 7686-14256 | 14256-20826 | 20826-27396 |
| Districts: | Districts: | Districts: | Districts: |
| Aglona | Baltinava | Cibla | Rugāji |
| Balvi | Dagda | Ludza | Livāni |
| Vārka | Preiļi |
| Zilupe |

Source: EKOSOC-LV data; RDIM, 2015.

The division of Latgale’s districts into groups depending on the pace of development and the number of population displays that relatively highly populated areas are capable of achieving the development rate that is high or above average. In contrast, little
populated areas show the tendency to stagnation. Have highly populated rural areas previously been able to achieve a high level of development? By combining the data presented in Tables 1 and 2, it may be concluded that those are highly populated areas that are capable of achieving high level of development; this has been observed in two of the three highly populated districts (districts of Krāslava and Daugavpils).

Given that in 16 of 19 districts of Latgale the number of people is rather small and their development rate is slow, the assurance of sustainable development becomes not only an acute necessity but also a challenge. Consequently, one of the main tasks is to understand the characteristic features of smart specialization and its potential driving forces in Latgale region and its districts.

The New Knowledge Concerning Distinguishing Features of the Development of Latgale Region

The Quantitative Assessment of Smart Development: Evaluation of Sustainability on the Basis of the Concept of Smart Specialization

The improvement of a region’s welfare in the framework of a new paradigm of regional development should be linked to strengthening the competitiveness of territories by making use of their potential (e.g., ESPON, University Rovira i Virgil, 2012), i.e., resources, social capital, technologies, efficient management, and institutional capacity. Placing emphasis on the appropriate aspects of regional development is a major challenge for every region. The development of an integrated indicator (Smart Development Index), which includes all the dimensions necessary for regional development (Resources, Population, Economy and Management) allows identifying the developmental trends in Latgale anew.

### Table 3

<table>
<thead>
<tr>
<th>Regions</th>
<th>Max</th>
<th>Min</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latgale</td>
<td>7.386</td>
<td>-5.113</td>
<td>1.074</td>
<td>0.43</td>
</tr>
<tr>
<td>Ilūkste district</td>
<td>Zilupe district</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurzeme</td>
<td>10.554</td>
<td>-10.008</td>
<td>1.802</td>
<td>3.07</td>
</tr>
<tr>
<td>Alsunga district</td>
<td>Skrunda district</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pērēga</td>
<td>12.774</td>
<td>-6.88</td>
<td>2.376</td>
<td>1.51</td>
</tr>
<tr>
<td>Cēsis district</td>
<td>Mālpils district</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vidzeme</td>
<td>16.642</td>
<td>-3.617</td>
<td>4.380</td>
<td>4.03</td>
</tr>
<tr>
<td>Cēsis district</td>
<td>Rājiena district</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zemgale</td>
<td>18.694</td>
<td>-7.89</td>
<td>1.907</td>
<td>1.06</td>
</tr>
<tr>
<td>Ozolnieki district</td>
<td>Nereta district</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* n – number of districts in region.

*Source:* EKOSOC-LV data.

The average values of the Smart Development Index indicate that the level of smart development in Latgale region is comparable to the performance of other regions. For instance, both Kurzeme and Zemgale regions demonstrate the average values of the Smart Development Index that are close to those of Latgale region.

In addition, the lowest index value (-10.008) has been encountered in Skrunda district of Kurzeme region, rather than in Latgale region, where the lowest index value
is -5.113 in Zilupe district, which is indicative of twice higher level of smart development in the district.

The maximum values of the Smart Development Index also show that such clearly unfavourable development in Latgale region is not observed. The maximum value of the index 7.386 attained in Ilūkste district of Latgale region is not far from the maximum value of the index reached in Kurzeme region, which is 10.554. In addition, it may be concluded that smart development in Latgale region proceeds smoother than in other regions because the difference between the maximum and minimum values of the index is smaller than in other regions.

However, in general, the values of the Smart Development Index in districts of Latgale region are relatively low. The calculations of the median values manifest that in half of the districts of Latgale region the Smart Development Index is less than 0.43, and this value is about 2.5 times lower than the index mean value of 1.074. The median value in Latgale region testifies to the fact that in most of the region’s rural areas, smart development is markedly delayed in comparison with other regions of Latvia. For example, the highest median value of 4.03 is observed in Vidzeme region and this indicator is nine times higher than in the region of Latgale. Furthermore, in Vidzeme region the difference between the median and the average values of the index is very small.

In general, the statistical data of the values of the Smart Development Index show that although Latgale region is lagging behind the other regions as to the level of smart development, smart development in the region proceeds more evenly.

The Smart Development Index in Latgale region reflects the division of districts into two similar groups where the first group consists of 10 districts with positive index values and the second group comprises nine districts with negative index values.

![Figure 2. Smart Development Index in Latgale districts](Source: EKOSOC-LV data)
Taking into account the data of RDIM (2015), it is possible to calculate that in the group of districts with positive index values, in 2014 there lived 62.31% of Latgale region’s residents, which is a trend favouring smart development. However, as to the group of districts with the positive values of the Smart Development Index, the rate of development observed is low or below the average in all 10 districts. The districts, in which the development rate is above average or high (Daugavpils, Vārkava, Cibla and Zilupe), are located in the group of districts showing negative values of the Smart Development Index.

As a result of the calculations made, the analysis of the obtained data allows pointing out that smart development observed in Latgale region proceeds rather evenly in different districts; however, the districts with a higher level of smart development develop slower than the districts with a lower level of smart development. The variety of the identified trends in smart development in the context of Latgale region triggers the wish to understand the causes, which is possible by analysing the data on the dimensions of the index, that are, Resources, Population, Economy and Management.

Table 4

<table>
<thead>
<tr>
<th>Regions</th>
<th>Resources</th>
<th>Population</th>
<th>Economy</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latgale</td>
<td>0.548</td>
<td>0.615</td>
<td>0.218</td>
<td>0.419</td>
</tr>
<tr>
<td>(n=19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurzeme</td>
<td>0.363</td>
<td>0.584</td>
<td>0.610</td>
<td>0.409</td>
</tr>
<tr>
<td>(n=18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pieriga</td>
<td>0.018</td>
<td>0.804</td>
<td>0.732</td>
<td>0.471</td>
</tr>
<tr>
<td>(n=28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vidzeme</td>
<td>0.411</td>
<td>0.589</td>
<td>0.391</td>
<td>0.729</td>
</tr>
<tr>
<td>(n=25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zemgale</td>
<td>0.369</td>
<td>0.717</td>
<td>0.797</td>
<td>0.303</td>
</tr>
<tr>
<td>(n=20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: n – number of districts in region.
Source: developed by the authors, EKOSOC-LV data.

The values of the correlation coefficient between the Smart Development Index and its dimensions manifest that smart development in Latvian regions has different focuses. Relatively close and strong correlations are observed between the Smart Development Index and such its dimensions as Population, Economy and Management, while the correlation between the dimension Resources and smart development is generally weak.

Thus, in the regions of Kurzeme and Zemgale, the highest value of the correlation coefficient has been observed between the Smart Development Index and the dimension Economy, \( r = 0.610 \) and \( r = 0.797 \), respectively. Vidzeme region shows a stronger link between the Smart Development Index and Management (\( r = 0.729 \)), while in the region of Pieriga, smart development is stronger correlated with Population (\( r = 0.804 \)).

Similarly, in Latgale region, a closer relationship has been observed between the Smart Development Index and the dimension Population (\( r = 0.615 \)), but the relationship with other dimensions of smart development in Latgale region differs from other regions. It is worth paying attention to the fact that in Latgale region the value of the correlation
coefficient is extremely low between the Smart Development Index and the dimension Economy ($r = 0.218$), which features the correlation that is several times weaker than in other regions. By contrast, the correlation between the Smart Development Index and the dimension Resources in Latgale region is medium close and higher than in other regions. The data on the correlation between the Smart Development Index and the dimensions Population and Management in Latgale region are similar to those in other regions.

To some extent, the values of the correlation coefficient between the Smart Development Index and its dimensions account for the level of the overall development of Latgale region. As indicated by the experts (e.g., Latgales plānošanas regionis, 2010a, 2010b), in Latgale region one can observe the decline in social capital and the use of natural resources, resulting in low added value, which is not particularly favourable taking into consideration that the dimensions Population and Resources prevail in the region’s smart development. At the same time, it indicates the spheres for active work towards the improvement of the situation.

Table 5

| Prevailing Dimensions of the Smart Development Index in the Districts of Latgale Region (in accordance with the values of the dimensions) |
|---|---|---|
| Districts of Latgale region | Position according to the values of Smart Development Index | Prevailing dimension |
| Ilūkste district | 1 | Management |
| Balvi district | 2 | Economy |
| Preiļi district | 3 | Population |
| Kārsava district | 4 | Management |
| Krāslava district | 5 | Management |
| Aglona district | 6 | Resources |
| Baltinava district | 7 | Management |
| Livāni district | 8 | Economy |
| Rēzekne district | 9 | Resources |
| Dagda district | 10 | Economy |
| Daugavpils district | 11 | Population |
| Riebiņi district | 12 | Management |
| Ludza district | 13 | Population |
| Rugāju district | 14 | Management |
| Vīlaka district | 15 | Management |
| Vīlāni district | 16 | Management |
| Vārakava district | 17 | Management |
| Cibla district | 18 | Resources |
| Zilupe district | 19 | Economy |

Source: developed by the authors, EKOSOC-LV data.

According to the values of four dimensions of the Smart Development Index in the districts of Latgale region, it is possible to identify the dominant dimension in the index structure of each district. The common trend demonstrates a strong dominance of the dimension Management in both the group of the districts with positive values of Smart Development Index and the group of districts with negative ones. Thus, the indicator of
Management shows higher values in nine districts, but mostly in the group (five districts) with negative index values. However, Management is the dominant dimension in the Smart Development Index in Ilūkste district, which ranks first in the region of Latgale as to smart development (see Figure 2).

Given that the correlation between the Smart Development Index and Management in the region of Latgale is weak ($r = 0.419$) and lags behind the correlations featured by the dimensions of Population and Resources, it is possible to conclude that the performance of nine districts in the dimension Management is not sufficiently reflected in smart development of Latgale region and it is necessary to take measures in order to improve the situation.

The dimension Economy dominates in the Smart Development Index in four districts and three of them belong to the group with positive index values. In addition, the dimension Economy dominates in Balvi district, which occupies the second place as to smart development in Latgale region. All in all, in the region of Latgale, the link between smart development and the dimension Economy is weak ($r = 0.218$), which is partially explained by the fact that business activity there is relatively low (e.g., Latgales plānošanas regions, 2010a, 2010b).

The dimension Population in the Smart Development Index is the dominating one in three districts, mostly in the group of districts with negative index values. However, Preiļi district, which ranks third in Latgale region, demonstrates the dominance of the smart development dimension Population. Given that in the region of Latgale, smart development demonstrates a closer correlation with the dimension Population, but it is rarely the dominant one in districts and in most of the ascertained cases dominates in the regions with negative values of Smart Development Index one cannot but agree with the conclusion that in Latgale region a negative trend is being observed, i.e., the decrease of social capital because of the decline in the number of people (e.g., Latgales plānošanas regions, 2010a, 2010b). This causes a situation that such an important constituent of smart development as Population in districts often is sufficient neither in quantity nor in quality (see the features of the description of rural areas, for instance, Steiner, Mossbock, 2014).

The dimension Resources as a dominant dimension in the structure of Smart Development Index is also found in three districts and mainly in the ones with positive index values, e.g., Aglona district and Rēzekne district, which respectively occupy the sixth and the ninth places as to smart development. Taking into consideration that in Latgale region the correlation between the Smart Development Index and the dimension Resources has been identified as medium close with a higher correlation coefficient than in other regions, but the efficiency of the use of resources might be better (e.g., Latgales plānošanas regions, 2010a, 2010b), it is possible to assume that this area in Latgale region has a huge potential for the promotion of smart development in rural areas.

In general, the quantitative assessment of smart development has shown that smart development in Latgale region proceeds differently in different districts. The complex analysis of the data collected allows emphasising that during the period of 2009–2014 smart development of Latgale region was mainly promoted by the rural areas that showed good performance in the dimensions Population and Resources.
The Qualitative Assessment of Smart Development: Triple-Helix Representatives’ Opinions

One of the key aspects in the application of the concept of smart specialisation is the involvement of all parties (e.g., Krueger, 2010) and lively discussions, as well as explaining the nature of the concept (e.g., Poliakaite et al., 2015). In April 2016, within the framework of the National Research Programme EKOSOC-LV, a scientific and practical seminar “Possibilities of Smart Development in Latvian Rural Areas and Regions” was organized, in which a particular attention was paid to the region of Latgale. During the seminar, a survey of experts representing the public sector, entrepreneurship and research was organized; the survey was carried out by means of the AHP method. The main results of the survey are presented in this section of the paper and help understand the analysis of the quantitative results. The experts were asked about four dimensions of smart development and their importance in the development of Latgale region, as well as about the influence of the population, the municipalities, the state and the EU, thus determining the prevailing impact factors, i.e., the population’s initiative and activity or the institutional environment.

According to the experts, the major role in ensuring smart development belongs to the dimensions Population (0.37) and Economy (0.29). The dimensions Management (0.17) and Resources (0.16), according to the experts, are less important in the process of smart development. The combination of the quantitatively determined trends of smart development in Latgale region and the experts’ evaluation (the qualitative assessment) of the significance of the dimensions of the Smart Development Index in smart development of Latgale region allows for the description of the determined trends of smart development.

The most obvious trend of smart development in Latgale region is attributable to the fact that the dimensions Resources and Economy are found among the prevailing dimensions neither in the quantitative nor the qualitative assessment. This might be explained by the widely known negative trends in Latgale region related to Resources and Economy, which are also reflected in the experts’ viewpoints. These negative trends are the low business activity (applicable to the dimension Economy) and the use of...
natural resources to develop low value added (applicable to the dimension Resources) (e.g., Latgales plānošanas regions, 2010a, 2010b).

Table 6
The Prevailing Dimensions in Latgale Region’s Smart Development according to the Results of the Quantitative and Qualitative Assessments

<table>
<thead>
<tr>
<th>Dimensions of Smart Development Index</th>
<th>Resources</th>
<th>Population</th>
<th>Economy</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dimension has the closest correlation with the Smart Development Index in Latgale region</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dimension has a dominant position in the group of districts with positive values of the Smart Development Index</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dimension has a dominant position in the group of districts with negative values of the Smart Development Index</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The dimension is of greater significance, according to the state, entrepreneurship and research experts’ viewpoints</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Source: developed by the authors, EKOSOC-LV data.

Being aware of the regions’ commitments to move towards the proportion of knowledge-based development, it is clear that the dimension Population takes a leading role, however, taking into account that the level of economic development in Latgale region is lagging behind the average national indicators, more attention should be devoted to the dimensions Economy and Resources, as well as the performance of Management in different districts should be counterbalanced.

Taking into account the numerical values of the features analysed (see Tables 1, 2, 3, 4, 5), it is possible to provide a detailed description of the features of smart development in Latgale region. Thus, the results of the analysis reveal that the dimension Resources has closer correlation with smart development of Latgale region than the dimension Economy, while Economy has a greater role than Resources according to the experts’ opinions. The dimension Management demonstrates dominance in the districts’ smart development more frequently than the other dimensions irrespectively of the districts’ “success” in the sphere of smart development. It appears that the “point of compromise” is the dimension “Population”, which, according to the calculation of the correlation coefficient made, has medium strong correlation (and a higher correlation coefficient than the other dimensions $r = 0.615$) with the Smart Development Index and expressed greater importance for smart development according to the experts’ views (0.37). The results might indicate a vivid reaction to the decrease in the number of people of Latgale region at the time when the new paradigm of regional development emphasises exactly the importance of human capital.

Following the results of the survey, we have also summarised the views on practical implementation of the concept of smart specialization, determining what – populations’ initiative and activity or institutional environment – affects a region’s progress towards sustainability in the development most of all.
Table 7

<table>
<thead>
<tr>
<th>The Factors Affecting Smart Specialization of Latgale Region according to the Experts’ Opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population’s influence</td>
</tr>
<tr>
<td>0.12 – Development and implementation of innovative ideas</td>
</tr>
<tr>
<td>0.15 – Involvement in formal and non-formal education</td>
</tr>
<tr>
<td>0.38 – Readiness and capacity to become an entrepreneur</td>
</tr>
<tr>
<td>0.35 – The use of available resources for increasing prosperity</td>
</tr>
</tbody>
</table>

Note: Details of questionnaire can be obtained from the authors upon request.

Source: developed by the authors, EKOSOC-LV data.

The data show that in the experts’ opinion, the greatest role in smart development of Latgale region belongs to the impact of the state (0.34), the influence of the EU (0.31), followed by the influence of municipalities (0.19) and the population (0.15). Such a distribution of influence indicates the population’s importance in the process of smart development; the population’s influence is reflected in a certain level of development depending on the circumstances, which have been ensured by the activities of the state and the EU institutions, financial instruments, and municipalities. The experts consider that there are also a number of key activities that significantly contribute to the implementation of smart specialization in the region.

Thus, according to the experts’ opinions, greater involvement of the population in business activities (0.38) and a more active use of available resources (0.35) would increase the population’s influence on and contribution to the assurance of smart specialization. The experts also point out that the involvement in formal and non-formal education (0.15) and the inclination to create and implement innovative ideas (0.15) also contribute to the development of smart specialisation in the region. However, the possibilities for people to exercise their influence in the areas indicated are to a certain extent dependent on the conditions created by the state, the EU and local governments.

Considering the key factors in the municipalities’ influence on the region’s smart specialization, the experts have acknowledged the following ones as equally essential: ability to cooperate with both inhabitants and entrepreneurs (0.37) and the ability to participate in the efficient use of resources (0.36). Municipal employees’ competence has been evaluated as having less impact (0.17), and even lesser influence has been reported for the municipalities’ abilities to attract the financial means of the EU structural funds.

On the one hand, the factors affecting the municipalities’ influence include: 

- **Involvement in formal and non-formal education (0.15)**: This factor highlights the importance of education in fostering innovation and the development of creative thinking, which is essential for smart specialization.
- **Innovation and implementation of EU Cohesion Policy (0.38)**: This factor reflects the role of European Union policies in supporting innovation and development, indicating the importance of these policies in the region.
(0.10). The state’s influence on ensuring smart development, according to the experts’ opinions, is mainly associated with the use of mechanisms of equalising financial means and successful implementation of tax policy (0.39), as well as ensuring the availability of the EU funds for the promotion of smart specialisation in the regions (0.35). The influence of supporting innovative businesses (0.16) and sustainable economic environment (0.19), according to the experts, is of little significance.

Finally, according to the experts’ assessment, the influence of the EU on smart development in the region is related to the EU policies and guidelines for the formation of regional specialization and competitiveness (0.32), as well as to the EU strategy for the provision of innovative and competitive entrepreneurship (0.29) and the EU cohesion policy (0.22). The cooperation among the EU member states in stimulating innovative processes (0.17), according to the experts, has the smallest impact on smart development.

The arrangement of the experts’ assessments according to the assessment of the importance allotted to each factor makes it possible to point out that the most significant factors influencing smart development in Latgale region are:

1. the equalisation of financial resources and successful implementation of tax policy (0.39), which are manifested as the state’s influence;
2. the population’s readiness and capacity to become entrepreneurs (0.8) – the population’s influence;
3. the municipalities’ ability to cooperate with the population and entrepreneurs (0.37) – influence of municipalities;
4. the involvement of municipalities in ensuring the effective use of resources (0.36) – the influence of municipalities;
5. ensuring the EU financing for the promotion of smart specialisation in the regions (0.35) – the state’s influence;
6. the use of available resources for prosperity (0.35) – the population’s influence;
7. the EU policies in promoting regional specialisation and competitiveness (0.32) – the EU influence;
8. the EU strategy for the promotion of innovative activity (0.29) – the EU influence.

The impact values taken into account, the other factors of influence essentially lag behind the eight factors with greater impact values listed above. The factors listed indicate equal representation of population, municipalities, the state and the EU in ensuring smart development. The experts have attributed high importance to two factors in each of the spheres of influence. Taking into consideration the division of the most essential impact factors according to the position of the impact indicators, it is possible to emphasise that the greatest impact is produced by the activities of the state and municipalities, followed by the population and the EU.

The qualitative assessment allows for the conclusion that Population and Economy are the cornerstones of smart specialization in Latgale region. However, the experts’ opinions are, to a certain extent, affected by the negative trends existing in the region, the reduction of which is one of the most important tasks in ensuring sustainable development. All in all, the experts have acknowledged that the population’s initiatives and activities play an important role in ensuring smart regional specialization, but the local institutional environment is considerably more significant.
Conclusions

In research literature, scholars have only recently started to consider sustainability and regional development as related notions. Sustainable regional development envisages balancing environmental, social and economic needs, and in most cases environmental issues are in the focus of attention (e.g., Krueger, 2010).

The scientific works, which focus on sustainability in regional economic development, are largely based on the concept of smart specialization and the development of knowledge-based economy (e.g., Naldi et al., 2015), while in the USA smart development and sustainable development are considered as being similar (e.g., Krueger, 2010).

The European Union has set the objective to promote sustainable development, mostly by linking it to the solution of local problems and emphasising the uniqueness of each territory, comparative advantages of the territories, availability of resources, which is possible by using the strategy of smart specialization (e.g., Koumparou, 2013). It is increasingly often emphasised that sustainability is to be assessed and accessed locally, i.e., at the levels of municipalities, towns and regions (e.g., Shen et al., 2011; Sustainable Cities, Canadian International Development Agency, 2012).

At the same time, scholars also note the complexity of achieving sustainable development in pronouncedly different rural areas (e.g., Naldi et al., 2015), which is determined by the limits of experience and the lack of a unified methodological approach. However, there is a common understanding that the holistic approach is of great significance in promoting sustainable development as it includes environment, society, economy and management by using a diverse range of measurable indicators.

In Latvia, the assurance of sustainable development by using the concept of smart specialisation is being addressed in the framework of the National Research Programme EKOSOC-LV with the aim to develop an instrument by means of which it would be possible to propose scientifically grounded propositions for the assurance of balanced and sustainable rural development (Latvijas Zinātņu Akadēmija, 2014).

During the 3rd stage of the research programme, the researchers have obtained quantitative and qualitative indicators that allow for the assessment of the process of sustainable development in the economically less developed region of Latvia, i.e., Latgale. The quantitative assessment is based on the integrated index – Smart Development Index, which combines four dimensions (Resources, Population, Economy and Management), while the qualitative assessment is based on the opinions of experts – representatives of the government, entrepreneurship and research spheres.

Taking into consideration that in 84% of the districts in Latgale region, the number of people is small, and the rate of development is low, ensuring sustainable development is both a necessity and a challenge. The quantitative assessment of sustainable development by using the concept of smart specialization has shown that there are considerable differences in the way smart development proceeds in different districts of Latgale region. 19 districts of Latgale region have been divided into two similar groups, where one group comprises 10 districts with positive values of the Smart Development Index and the other group consists of 9 districts with negative values of the Smart Development Index. The data of descriptive statistics allow showing that Latgale region, though lagging behind the other regions of Latvia, still manifests smoother advance of smart development.

The complex analysis of the quantitative indicators obtained emphasises the great significance of the dimensions Population and Resources. Contrary to the expectations,
the contribution of the dimension Economy to smart development of Latgale region has proven to be very modest. However, it has been allotted great significance in the experts’ assessment.

All in all, the qualitative assessment allows determining the dimensions Population and Economy as the cornerstones of smart specialisation of Latgale region. It should be noted that the dimension Population considerably prevails in both the quantitative and qualitative assessments. To some extent, dominance of the dimension Population over the other dimensions in Latgale region could be related to such a negative trend observed in the region as the decrease in the number of people. Assessing the impact of the dimension Population on the region’s smart development, the experts have acknowledged that the population’s initiatives and activities play an important role in ensuring smart specialization of the region, but the most important role belongs to the local institutional environment.

Within the framework of the National Research Programme EKOSOC-LV being at the 3rd stage of its implementation, the researchers had the opportunity to carry out the quantitative and qualitative assessment of smart development in rural areas of Latgale region. The results obtained have both scientific and practical significance in promoting sustainable development in rural areas. First, the results of the study propose a possible methodological solution to the assessment of sustainable development by using the concept of smart specialization. Second, the acquired research experience can be used for solving practical tasks at the level of districts of the region of Latgale.

Acknowledgements

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References


Asset Dynamics: Smart Growth: Organizations, Cities and Communities, 12–14 June 2013 (pp. 1608–1620). Zagreb, Croatia.


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Analysis of the Demand for Distance Education at Eastern and Central European Higher Education Institutions

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Abstract
Distance education as one of the new and perspective forms of completing higher education increases in popularity around the world. At the same time, the development of this model of education generates new problems: organization of the study process and information security. Distance learning allows solving a problem of accessibility of higher education in case of social issues, working hours, etc. Therefore, distance education is of major importance in increasing the learning efficiency.

The Latvian model of distance education is passing the stage of formation and approbation in the market of educational services. However, the creation of system of distance education should not be the final step for higher education institutions as such; furthermore, this process would not be developed without students. Therefore, the objective of the present research is to find out the opinion of the students on the expediency of distance education. More than 850 students from Poland, Lithuania, Latvia, Serbia and Belarus have participated in the research.

Results of the research have revealed that the traditional form of education based on communication between the lecturer and the student is more demanded among the students. At present, distance learning, unfortunately, cannot be characterised by stable demand. In order to increase the demand for such model of education, public presentations and discussions should be made, and media support is also necessary.

Keywords: advantages, disadvantages, distance learning, accessibility, higher education.
Introduction

Onrush of technology in various fields of human activity requires the fast supply of knowledge as well as creates the demand for knowledge. Timely retargeting and expertise at work also promote the specialists to more actively acquire new skills. In many countries, the education institutions model the teaching and learning process, taking into account the market requirements and employers’ demand. Graduate of a higher education institution is not only required to be an expert in the professional field, but also to have strong technological skills. Distance education provides such knowledge and skills at the moment of enrolment or offers acquiring them within a short period of time. Therefore, distance education enables one to develop skills necessary for the information search process, thereby improving general intelligence and critical thinking skills.

The two main factors have led to an explosion of interest in distance learning: the growing need for continual skills upgrading and retraining; and the technological advances that have made it possible to teach more and more subjects at a distance (UNESCO, 2002).

In many countries, education institutions introduce amendments and innovations to the study process with the help of new technologies. The features to be mentioned are pedagogical, administrative, informational, organisational, technical and other. Undoubtedly, working experience in the distance education system in various countries influences the development of worldwide web of distance education (Perraton, 2007; Khan & Ally, 2015).

Nowadays, most European universities offer distance education. On this market, universities offer educational services with unique educational models, courses and programmes for distance education. Departments of the universities develop new technologies and approaches to the implementation of distance education.

The Latvian model of distance education undergoes the process of formation and evolvement in the market of educational services. Subsequently, numerous questions arise: Are students prepared for learning under conditions of distance education model? Is the distance education model able to accommodate the requests of students for education? How demanded is this education model at higher education institutions of other countries?

Methodology

For the purpose of the present research, it is necessary to clarify the level of student satisfaction of distance education management and organization, to identify the strengths and weaknesses of this education model in Latvia, as well as to compare it with similar models at higher education institutions in Lithuania, Serbia, Poland and Belarus.

In accordance with the aim of the research, the following tasks are set: to create new students’ survey, to carry out the survey of target audience, to identify the factors that determine demand for the distance education model.

The research was conducted from September 2014 to August 2015 at higher education institutions in Latvia, Lithuania, Serbia, Poland and Belarus. The choice of the institutions was based on their experience in organising distance education with the help of current information and communication technologies. The survey was carried out among intramural and extramural (distance) students. The two groups were distinguished: 1) students with experience of the distance education model (59 % of respondents),
2) students with experience of the traditional study model (41 % of respondents). The representative quota sampling (the total number of respondents) was 877 (491 females and 386 males).

The students’ survey aims at identifying the demand for the distance learning study model, recognising its problems and development trends. The questionnaire included 24 items: 18 questions about distance learning, attitude towards distance learning, and about computer skills; 2 questions about demographics, and 4 questions about the education institution. Data have been processed using the statistical software SPSS for Windows 16 and Excel.

Results

In the scholarly literature it is stated that the distance education model can be differentiated from the traditional one based on the following criteria: flexibility, economic efficiency, performance and non-reliance of students (Garrison, 2000; Holmberg, 2008). Taking into account these criteria as differentials, the aim of the research is to examine the demand for distance education among students. The choice of the preferred model of education is very individual. In order to make the right choice, each person needs to know the characteristics (i.e., specific features, benefits and drawbacks) of the market of educational services that provides different knowledge acquisition forms. The lack of information or its misinterpretation frequently leads to a lapse in judgment. Survey data have revealed that 92 % of respondents are familiar with the distance education model, but only 54 % are certain about all its characteristics. In turn, 8% of full-time students have no idea about this model.

Dividing the acquired percentage into groups according to the satisfaction with the choice of educational model, it has been revealed that the percentage of those who have chosen the traditional model and are satisfied with it is 67.4 %. On the contrary, 32.6 % would prefer studying at the distance education study program or at least studying part of subjects at a distance. It indicates the necessity to improve the traditional education model by applying contemporary teaching and learning methods, as well as using information technology. Out of the students enrolled in distance education study programs, only 42 % are completely satisfied and 32 % would prefer the traditional form of education, while 26 % respondents have pointed out that this education model is not suitable for them. When using the distance education model, the adequate level of content and quality is not achieved. As a result, the consumers choose it with expectations that are probably not supposed to be fulfilled in the distance model. However, the model still has its requirements and controls for its execution. Seemingly, the advantages of distance education model described in the literature are often not demanded and lead to dissatisfaction of consumers.

The distance education model is based on the frequent use of current information and communication technologies. Initially, it indicates the ability to effectively use computer, to use all contemporary information and telecommunication means that are the basis for a two-way communication between the student and the lecturer. Therefore, the student not only needs to have basic computer skills and web browsing skills, but also needs to have experience working with the authentic information and finding it in various Internet sources. To be able to undertake distance learning, students should know good learning techniques (scanning, skimming, working with online handbooks
and dictionaries), so distance learning requires not only knowledge, but also relevant skills.

During the survey, it has been determined that 96% of respondents have a personal computer. As one can see, this indicator is already high enough. As to the Internet usage rate, the situation slightly differs. Out of the total number of respondents, only 12% prefer Internet resources in the learning process at higher education institutions and 11% of respondents prefer individual learning, using video lectures or educational movies (Fig. 3).

Evaluating their computer skills, 4% of students have stated that they have only basic computer skills. Nevertheless, more objectivity has been found from screening the answers to the question about the command of information technologies.

Afterwards, four levels of skills have been distinguished. The first level includes basic knowledge of the operating system (Windows, Linux), use of several basic programs, such as word processors, calculator, and games. The second level includes knowledge of basic and office programs, ability to work with word processors, create graphs, charts, diagrams, table reports, and presentations. The third level includes knowledge of not only operating systems, but also of basic and office programs, as well as professional programs (for bookkeepers – 1C, for secretaries – data bases, for web-designers – CMS, for advertising specialists – specific graphic editors such as CorelDraw). The fourth level requires specific knowledge – ability to work with operating systems at the level of systems administrator (ECDL, 2014). As a result, it has been established that the number of respondents with low command of various programs is notably larger than according to self-assessment. Around 10% of the respondents have good command of only one program. Majority of the respondents (53%) are ordinary users, i.e., use only basic and office programs (Table 1). Students from Serbia evaluated their computer skills more critically; none of them rated themselves as being “Proficient”.

<table>
<thead>
<tr>
<th>Country</th>
<th>Proficient</th>
<th>Advanced</th>
<th>Intermediate</th>
<th>Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>14</td>
<td>30</td>
<td>48</td>
<td>8</td>
</tr>
<tr>
<td>Lithuania</td>
<td>8</td>
<td>31</td>
<td>47</td>
<td>14</td>
</tr>
<tr>
<td>Poland</td>
<td>4</td>
<td>34</td>
<td>64</td>
<td>9</td>
</tr>
<tr>
<td>Serbia</td>
<td>0</td>
<td>25</td>
<td>62</td>
<td>13</td>
</tr>
<tr>
<td>Belarus</td>
<td>10</td>
<td>40</td>
<td>44</td>
<td>6</td>
</tr>
</tbody>
</table>

As it is known, apart from a vast number of computer programs, the distance education model provides extensive use of such forms of communication as video conferences, seminars, progress tutorials in the elaboration process of papers, essays or degree theses, as well as various video materials and slide lectures.

However, despite the attractiveness of distance education, there are still far more supporters of the traditional system of higher education. Even the majority of distance students (43%) would prefer real-life communication, traditional attendance of lectures, seminars, and office hours. Possibility to receive tasks and instructions, as well as progress tutorials via e-mail satisfies only 11% of the supporters of the distance education model. Preparation for lectures with the help of the Internet satisfies around 10% of the respondents in the group of distance education and 34% of full-time students. The most
undesired form of learning by supporters of distance education model is video materials and slide lectures. Only 8% of the respondents would be willing to prepare for lectures with the help of the above-mentioned materials (Table 2).

Table 2
Methods of Preparation for Lectures by Students of the Distance Education Model (% of the respondent number in the group)

<table>
<thead>
<tr>
<th>Method of Preparation</th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>To attend a lecture, to read a textbook</td>
<td>30</td>
<td>28</td>
<td>24</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>To meet lecturers at their office hours</td>
<td>43</td>
<td>49</td>
<td>39</td>
<td>45</td>
<td>41</td>
</tr>
<tr>
<td>To prepare for lectures using the Internet</td>
<td>11</td>
<td>13</td>
<td>11</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>To watch video materials, recordings of lectures or slide lectures</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>To receive information electronically (via e-mail, computer program)</td>
<td>11</td>
<td>4</td>
<td>15</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

14% of full-time students—respondents are ready to use video materials or slide lectures for preparation (Table 3).

Table 3
Methods of Preparation for Lectures by Full-time Students (% of the respondent number in the group)

<table>
<thead>
<tr>
<th>Method of Preparation</th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>To read a textbook in a library or at home</td>
<td>55</td>
<td>55</td>
<td>51</td>
<td>51</td>
<td>47</td>
</tr>
<tr>
<td>To prepare for lectures using the Internet</td>
<td>34</td>
<td>35</td>
<td>31</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>To watch video materials, recordings of lectures or slide lectures</td>
<td>11</td>
<td>10</td>
<td>18</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

The following conclusions can be drawn from the data listed above. Firstly, students who prefer the distance education form choose it not because of the form of the received materials but due to another reason. Secondly, students do not use information technology tools for acquisition of study information; they still prefer traditional forms of real-life communication with the lecturer. It is fair to assume that the preference of this form is a result of the education at school, based only on communication between the teacher and the student.

Moreover, there is evidence that full-time students are willing to have their education supplemented with up-to-date teaching and learning methods, using information technologies.

One of the advantages of the distance education model is the individualisation of the learning process. It means that each student may have his own lecture plan, based on variation between content and learning pace (Kop, 2011). With reference to it, there is a necessity to mention that an individual lecture plan initially includes core curriculum with respect to the established state education standard. Student has the right to include more courses in the individual plan of mandatory studies. The choice of extra lectures is offered from the list of elective (specialised) and optional (additional) study courses included in a particular education program (Regulations of the Cabinet of Ministers No. 240 “The Law on Higher Education Establishments”).
Acquisition time of core courses may also vary. It means that if there is vocational secondary education available in the appropriate field or higher vocational education at different levels, the student has the right to a shortened higher education program. The reduction of the length of educational program is possible due to the knowledge, skills and experience gained by the student in prior learning process.

If the student of distance education cannot handle the study program within the set time-limit, there is a possibility to switch to a relatively slower learning pace.

From the point of view of study program developers, it is convenient for those students who want to acquire higher education on the basis of an individual plan. During the research, it has been determined that students from Serbia want to have an individual learning schedule; on the contrary, students from Belarus are not highly tempted by such an opportunity (Table 4).

Table 4
Preference for Distance Education Model over Traditional Education Model in Different European Countries (% of the respondent number in the group)

<table>
<thead>
<tr>
<th></th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility to study according to an individual plan</td>
<td>11</td>
<td>24</td>
<td>7</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Possibility to study independently, using electronic resources</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Possibility to combine work and studies</td>
<td>39</td>
<td>20</td>
<td>31</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>No obligation for daily lecture attendance</td>
<td>25</td>
<td>19</td>
<td>24</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Opportunity to start studies anytime</td>
<td>9</td>
<td>25</td>
<td>14</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Lower education fee</td>
<td>9</td>
<td>6</td>
<td>15</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

A key feature of distance education in comparison with the traditional model is the development of student’s personal competencies and continuous self-study that are the tendencies of modern education. “The main aim of distance education is the arrangement of conditions for formation of independent cognitive activity during the study in developed academic environment, based on computer and telecommunication technologies” (Clark, 2002; Rovai, 2008). Nevertheless, the results of the survey have revealed a different situation in reality. Not all the students of distance education are determined to count on themselves, for example, in electronic exams and tests. It has been proven that only around half of students, on average 53 %, rely on self-decisions when implementing tasks. 27 % of respondents rely on the assistance of cheat notes and 20 % count on “sheer luck”, using a little effort at exams and tests (Table 5). The most responsible students, according to the survey, are in Serbia and Lithuania.

Table 5
Students’ Reliance on Success when Preparing for Electronic Exams and Tests (% of the respondent number in the group)

<table>
<thead>
<tr>
<th></th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope that you will be lucky and do not study for the exam</td>
<td>19</td>
<td>22</td>
<td>27</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Use of “crib notes” or other illicit aid during the examination process</td>
<td>39</td>
<td>20</td>
<td>22</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>Use of personal knowledge and skills, being prepared for the exam</td>
<td>42</td>
<td>58</td>
<td>51</td>
<td>59</td>
<td>55</td>
</tr>
</tbody>
</table>
Thus, it is necessary to emphasise that in the organization of distance learning process an important role is played by self-control: the students must rely on themselves in the majority of study courses. The results of the research have shown that 51% of the respondents try to use self-control. Unfortunately, they do not always succeed. Psychological problems that cannot be overcome by the student often arise, i.e., one needs an extra incentive from the “outside” expressed in the form of instruction or “punishment”. There are also students (15%) who do not even try to control themselves and follow a lesson plan, learn lecture material or do learning activities until the examination period. 14% of students wait until nearer the deadline (for example, two weeks remain) and only then start to prepare for the expected control. Only 20% of the respondents actually use self-control in the learning process systematically, by implementing different study tasks. It is hard to escape the conclusion that the education model based on mandatory consistency, independence and self-control, which are the main features of distance education, at this point is not sufficiently demanded by students.

The core disadvantages of the distance education model mentioned by the students are insufficiency of face-to-face communication with the lecturer and lack of practical studies (Table 6).

Table 6
Core Disadvantages of the Distance Education Model (% of the respondent number in the group)

<table>
<thead>
<tr>
<th></th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of face-to-face communication with lecturers</td>
<td>20</td>
<td>34</td>
<td>22</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>The necessity of motivation and self-control during the study process</td>
<td>41</td>
<td>29</td>
<td>49</td>
<td>37</td>
<td>49</td>
</tr>
<tr>
<td>Lack of practical exercises in order to use theoretical knowledge</td>
<td>39</td>
<td>37</td>
<td>29</td>
<td>22</td>
<td>19</td>
</tr>
</tbody>
</table>

The system of test (multiple choice quiz) used for the assessment of student knowledge has received a lot of support in both traditional and distance education models. Requirements used in the assessment reveal several quality indicators: efficiency, reliability, usefulness, and economy. Within the distance technology, the quality monitoring system of knowledge acquisition in electronic testing is more popular. This distance education technology includes efficient lecture testing, individual computer training course, and module controlled assessment according to the results of specific subjects. Despite all advantages and disadvantages described in scientific literature (Gardiner, Corbitt, & Adams, 2010; Ward, Peters, & Shelley, 2010), this form of knowledge assessment is popular among the students, i.e., 52% of the respondents studying at traditional or distance education program favour this type of knowledge evaluation (Table 7). In other words, the system of assessment takes stable and positive position among the students.

In spite of the fact that distance education provides minimum face-to-face communication with the lecturer, there are no doubts that the professional level of the lecturers remains one of the key features influencing the satisfaction of students with the studies and the overall quality of specialist training. In relation to the research objective, Table 8 demonstrates results of students’ attitude towards the cooperation with the lecturers in the study process and the quality of learning materials developed for the needs of distance education students.
Table 7
Students’ Preference of the Choice of Evaluation (% of the respondent number in the group)

<table>
<thead>
<tr>
<th>Evaluation Method</th>
<th>Latvia</th>
<th>Serbia</th>
<th>Belarus</th>
<th>Lithuania</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing a test or an exam in oral form</td>
<td>14</td>
<td>34</td>
<td>9</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>Passing a written test or an exam by selecting an examination paper</td>
<td>38</td>
<td>34</td>
<td>34</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Passing a written test or an exam in the form of multiple choice quiz</td>
<td>48</td>
<td>32</td>
<td>57</td>
<td>62</td>
<td>54</td>
</tr>
</tbody>
</table>

Table 8
The Quality of the Learning Material and Cooperation with the Lecturers (% of the respondent number in the group)

<table>
<thead>
<tr>
<th>Quality of the Learning Material</th>
<th>Belarus</th>
<th>Latvia</th>
<th>Serbia</th>
<th>Poland</th>
<th>Lithuania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>28</td>
<td>11</td>
<td>9</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>Good</td>
<td>57</td>
<td>62</td>
<td>62</td>
<td>69</td>
<td>64</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>13</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>2</td>
<td>11</td>
<td>23</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooperation with the Lecturers</th>
<th>Belarus</th>
<th>Latvia</th>
<th>Serbia</th>
<th>Poland</th>
<th>Lithuania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>92</td>
<td>92</td>
<td>85</td>
<td>76</td>
<td>81</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>2</td>
<td>29</td>
<td>15</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

The results of the research have revealed that 80 % of the students evaluate the learning material as “good” and “excellent”. Cooperation with the lecturers in the study process is evaluated as unsatisfactory only by 15 % of the respondents. The highest quality of learning material is indicated by the respondents from Poland, but the highest level of cooperation between the lecturers and the students is stated to be in Belarus.

Discussion

The growth of the Internet and other technologies has resulted in the increase of online teaching and learning resources used in the routine practices of universities. At the same time, it has given distance education a new appeal. Distance learning is an increasingly popular education method being used by institutions in various countries to provide opportunities and meet the needs of a growing and increasingly diverse student population (Rumble & Latchem, 2004).

Distance learning has a number of potential benefits, not least of which is the ability to overcome the temporal and spatial restrictions of traditional educational settings (Bates, 2005). Most students agree that e-learning could serve as a supplement for lectures and seminars. However, many students disagree with the statement that e-learning could replace traditional ways of teaching. The intensity of computer use and previous experience has the greatest effect on students’ attitudes towards e-learning. The explanation for this could be general discomfort with the technology that makes students who lack experience with ICT express themselves cautiously about its use in education (Midden-dorff, 2002).

The present research has outlined the four main issues that are crucial for distance education students.
1) Adaptability

Switching from a traditional classroom to a computer-based training in a virtual classroom makes the learning experience entirely different for students. Their resistance to a change does not allow them to adapt to the online learning environment and the methods of computer-based education. Students with a “traditional” mind-set find it difficult to adapt. Understanding the benefits of e-learning and even discussing them with their fellow students may change this mind-set and better prepare students for online classes.

2) Technical capabilities

Many students are not provided with the strong internet connection that online courses require and their distance learning experience becomes problematic. The only solution to this problem is being aware of technological support they will need for a certain course before enrolling in it, as well as properly equipping themselves for the successful completion of a particular course.

3) Computer literacy

Technological proficiency is a must for online courses, as it enables students to manage their assignments and courseware. While a majority of students possess sufficient computer skills and acknowledge the advantages of multimedia learning material, a small number of students still lack basic computer skills. Basic courses in computer literacy enhance students’ knowledge in the field; having a fundamental knowledge of computer hardware would help them participate in online classes without interruptions and hindrances.

4) Self-control and motivation

Self-control and motivation are essential requirements of distance learning; however, many students lack them. Students need to find the motivation to follow the new educational trends and also properly equip themselves for future challenges in their education and career. A variety of factors have been identified as crucial to the success of online courses (McIsaac & Gunawardena, 1996). Motivation is one such factor (Bekele, 2010). Just as motivation is a key factor in learning and achievement in face-to-face educational contexts (Brophy, 2010), so it is in online learning environments (Jones & Issroff, 2007). Poor motivation has been identified as a decisive factor in contributing to the high dropout rates from online courses (Muilenburg & Berge, 2005).

Only positive attitudes towards distance learning will help students overcome the challenges; students need to understand that it is necessary in order to reap the distance learning benefits in the future.

Conclusion

To conclude, the present research has revealed that traditional organisation of education based on real-life communication between the lecturer and the student currently dominates over the students’ educational needs. The distance education model at the current stage of development remains not fully demanded. According to the research results, reasons for this tendency are the following: firstly, the level of required use of information and communication technologies in education is notably higher than existing knowledge, skills and experience of the students; secondly, such education stages as preschool and school do not offer alternatives for classes with teacher; therefore, the students prefer the classical methods of education. Some complexity of adaptation to
modern educational methods has also been observed, as the latter ones are initially included in the independent acquisition of learning material. Therefore, the distance education model at Latvian higher education institutions does not still include all the possibilities that undeniably could substantially increase the efficiency of learning at higher education institutions.

Despite the need for improvement, the future of distance learning seems bright. Increasing numbers of students enrolling in distance learning classes underscore the need for comprehensive and thoughtful evolution of distance education if it is to become the educational model of the future (Harnar, et al., 2000).

Acknowledgements

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References

Kop, R. (2011). The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course / R. Kop // International Review of Research in Open and Distance Learning, 12(3).


Middendorff, E. (2002). Computer use and new media in higher education. Results from the 16th social survey of the German Students Association conducted by the HIS Higher Education-Information-System Bonn. (Germany): Bundesministerium für Bildung und Forschung.


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The Formation of Learners’ Motivation to Study Physics in Terms of Sustainable Development of Education in Ukraine

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Ternopil Volodymyr Hnatyuk National Pedagogical University, Ukraine

Abstract

This study is aimed at creating a general technique for the formation of learners’ interest in physics in the context of sustainable development of education. The active means of training and active learning methods are the components of this technique. The sequence of interest formation for physics in the context of sustainable development of education was analyzed. This scheme shows the transition from a situational interest to an individual interest. Short-term objective is the formation of learners’ interest in physics as a school subject. Long-term objective is the formation of learners’ interest in physics as a science. Results proved that proposed technique increases the level of motivational component of the learners’ cognitive activity in physics teaching. This general technique can also be used in teaching other natural sciences (e.g., Chemistry, Biology, Geography, Ecology).

Keywords: learners, sustainable development of education, motivation, physics, interest, active means, methods of training.

Introduction

Sustainable development of education is impossible without the professional competence of teachers. This provision is expressed in “Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability”. “Special attention should also be paid to the training of teachers, youth leaders and other educators” (UNESCO, 2005, p. 15). In this way, the problem of improving the teachers’ professional competence is relevant in terms of sustainable development of education. First of all, this issue has been addressed in several papers in the Journal of Teacher Education and Training (e.g., Žogla, 2002; Bulajeva, 2003; Linkaityte, Zuzeviciute & Zilinskaite, 2003; Poom-Valickis, Saarits, Sikka, Talts, & Veisson, 2003; Katāne, Aizsila, & Beitere, 2006). This problem has also been addressed in the Journal of Teacher Education for Sustainability (e.g., Kukk & Talts, 2007; Makarevičs, 2008; Bērziņa, 2011; Iliško, Ignatjeva, & Mičule, 2011; Salomäki, Ruokonen, & Ruismäki, 2012).
Physics is a natural science, which is a basis of technology, and scientific and technical progress. However, a small number of learners like to study physics at schools in Ukraine. This affects the choice of professions by learners and on the prestige of professions of technical directions. Learners do not like to study physics because of the complexity of the materials. It is teachers’ responsibilities to make learning physics more accessible, understandable, and interesting. In this way, the problem of motivation of the learners is relevant in education.

An analysis of educational journals makes it possible to highlight different approaches for solving the problem of the formation of learners’ motivation to study physics. Fischer and Horstendahl (1997) have suggested installing a discourse oriented learning environment. Jonâne (2008) has emphasized a context of interaction between human beings, society, and environment. These aspects were introduced in the new school curriculum of Latvia. Poom-Valickis and Elvisto (2009) have investigated the problem of motivation in studying natural sciences. The authors have argued that carefully planned curriculum selection and positive learning experiences increase students’ willingness to choose teacher education in natural science. Peciuliauskiene (2015) has considered physics experiments as a means of strengthening the learners’ motivation for physics teaching. However, a general technique for the formation of learners’ interest in physics was not realized. The aim of our work is to create a general technique for the formation of the learners’ interest in physics in the context of sustainable development of education.

**Method**

**Formation of learners’ interest in physics in the context of sustainable development of education**

Angelo (1993) has identified the fourteen general, research-based principles for improving higher learning. The thirteenth principle, “Motivation to learn is alterable; it can be positively or negatively affected by the task, the environment, the teacher, and the learner”, speaks about the importance of learners’ motivation in teaching. There are different approaches to the definition of motivation (e.g., Pintrich & Schunk, 1996; Elliot & Covington, 2001; Broussard & Garrison, 2004). According to Gredler (2009), “the major approaches to the analysis of motivation share three major assumptions” (p. 392). First, a motivation is the result of interactions between environmental factors and the particular characteristics of learners. Second, the learner is an active processor of information. At the highest level, self-assessment of one’s capabilities and the interpretation of information from the environment are involved in achievement-related motivation. Third, and related to the prior assumption, is that a student’s motives, needs, or goals are explicit knowledge. This means that the student can reflect on these beliefs and communicate them to others (Gredler, 2009).

Pintrich and Schunk (1996) have proved that motivation is a pervasive and important determinant of behavior for students, teachers, and administrators at all educational levels. In this way, one of the most important aspects of teachers’s work is the motivation of learners. “Students are likely to be more motivated to learn in your class if they see the value of what you are teaching; they believe that learning will help them achieve other important goals, that they are capable of learning it, and expect that they will succeed” (Angelo, 1993, p. 7).
The interest of learners is the basis for the formation of their motivation to learn. Krapp, Renninger and Hoffmann (1998) have studied the interest as a habitual preference (or attitude), as a motivational belief, and as a component of the developing self. According to Krapp (2002, p. 388), an interest can be caused either by an already existing dispositional interest (individual interest) or by the special conditions of a teaching context (situational interest). This researcher has described the transition from a situational interest to an individual interest (Krapp, 2002, pp. 397–400). “Intrinsic motivation energizes and sustains activities through the spontaneous satisfactions inherent in effective volitional action” (Deci, Koestner, & Ryan, 1999, p. 658). In accordance with these approaches, we analyze the dynamics of formation of learners’ interest in physics in the context of sustainable development of education.

Lanina (1985, pp. 5–6) offers the following scheme: curiosity – active curiosity – attempts to understand – strong knowledge – scientific research (Figure 1). The situational interest begins to form on the first step, “curiosity”. After this step, learners show the increasing importance of the object for their interest. Thus, curiosity turns into an active curiosity. The next step, “attempts to understand”, is characterized by the desire of the learners to learn more about the object or the phenomenon. The step “strong knowledge” (individual interest begins to form) is associated with volitional efforts of learners and application of knowledge in practice. The final step, “scientific research”, is the highest stage of interest, during which learners formulate their own tasks and solve them.

![Figure 1. The scheme for the formation of learners’ interest in physics](image)

Every teacher uses its own methods for the development of learners’ interest in the learning process. The level of learners’ knowledge is different. The experience of one teacher cannot be mechanically transferred to another teacher. In this way, the question arises about a general technique of the formation of learners’ interest in physics.

Holubova (2015) has found out that learners can be motivated by various instructional methods based on their own activity. The author proposed to use in teaching of
physics the problem based learning, project based learning, team work, inquiry based
learning, interdisciplinary approach, experiments – from very simple and low cost
experiments to computer based experiments and remote laboratories. Therefore, we
affirm that the learners’ interest in physics is formed by appropriate active means and
methods of training.

Means of Training

Lanina (1985, pp. 9–18) mentions the following criteria to foster curiosity
through educational materials in physics lessons: vital importance of knowledge;
study of known material from a new angle; use of the history of physics; novelty of educa-
tional material, suddenness of many conclusions and judgments; attract of learners to
modern scientific research. Given these, we offer the following active means of physics
training (Figure 2).

![Figure 2. Active means of training for the formation of learners’ interest in physics](image)

*Physics in nature:* the explanation of various natural phenomena from the point of
physics view. The attention of learners always attracts the application of theoretical
knowledge for the explanation of phenomena in the surrounding world (Korsun, 2013).

*Physics in everyday life:* the explanation of various everyday phenomena from the
point of physics. Shulika (2010) proposed using tasks with everyday content for the
formation of learners’ motivation in physics teaching.

*Physics in technics:* the explanation of various technical phenomena from the view
point of physics. Interest will have only then a solid foundation for development, when
the connection between the content of educational material and its meaning in life would
find a permanent place in physics lessons (Korsun, 2009a).

*Physics in science:* examples of various scientific achievements, where knowledge
of physics have been used. These examples show the importance of physics knowledge.
It allows learners to make sure that physics made the development of technological
progress possible and will facilitate the future career of learners (Kazachkova, Kasperskiy & Polikhun, 2010).
History of physics: has a great potential for the formation of learners’ motivation to study physics (Rowcliffe, 2004; Eshach, 2009; Hong & Lin-Siegler, 2012). The elucidation of the contribution of physicists to science would cultivate the respect to the profession of scientists (Korsun, 2017a). For many people, the ideal is a “business person”, a “professional”. On the other hand, “business man” must be above all a human, and then a professional. Otherwise, there can be no question about building a civilized society (Korsun, 2017b, p. 229).

Learning Methods

Education for sustainable development encourages students to develop critical thinking and take a wide-ranging, systemic and self-reflective approach, adapting to novel situations that can arise from complexity. An ability to anticipate and prepare for predictable outcomes and be ready to adapt to unexpected ones is an important goal (“Education for sustainable development: Guidance for UK higher education providers”, 2014, p. 7).

Ivanova (1982, pp. 8–9) has identified three levels of learners’ thinking:

(1) level of understanding;
(2) level of logical thinking;
(3) level of creative thinking.

Understanding is aimed at the assimilation of information. Learners should be able to independently analyze, summarize, argue, and explain on the level of logical thinking. Creative thinking is characterized as the ability to offer new tasks and solve them.

According to the influence on the development of learners’ thinking, we selected the following active methods to teach physics (Figure 3).

![Figure 3. Active learning methods for the formation of learners’ interest in physics](image)

Heuristic conversation: Not any conversation contributes to the development of the learners’ interest. The nature of a conversation is characterized by the type of questions that are posed. Sometimes the teacher poses questions for the reproduction of the learners’ knowledge. Therefore, these questions do not greatly contribute to the development of
learners’ interest. Learners should be able to conduct their own analysis, synthesis, generalization, comparison, build inductive and deductive reasoning for the development of logical thinking.

**Creation of problematic situations:** This introduces the learners to activity, during which they are faced with facts that contradict their experience. The problem exists objectively and independently from the learner. This problem must be understood by the learner and also get personal assessment by the learner (the problem must become important for the learner). Therefore, the teacher should not only formulate the problems of a lesson, but also catch the learners’ interest for the problems (e.g., the story about the everyday importance of an issue, the history of discovery).

**Home experiments:** Learners have a natural curiosity in reproducing experiments (Koç & Böyük, 2012; Kazachkova, 2013). When learners will reproduce fundamental physics experiments, they will feel themselves “discoverers”. They will strengthen their own the creativity, independence, and self-confidence. Criteria for selecting educational materials include safety rules, simple equipment, curiosity, accessibility, and integration in the curriculum.

**Excursions:** allow learners to get a complete and real picture of objects and phenomena (Korsun, 2009b, p. 76).

**Solving crosswords:** allows to summarize and systematize knowledge of learners in the format of a game (Korsun, 2009b, p. 69).

**Conducting physics dictations:** allows the teacher quickly to get objective information about the progress of learning (Korsun, 2009b, p. 69). Therefore, the teacher can adjust activities.

### Research Design

The directional hypothesis of the research project is: the implementation of proposed technique will raise the level of motivational component of the learners’ cognitive activity in teaching physics.

Marianenko (1992) has developed the methodology of measuring the levels of cognitive activity. This methodology is aimed to diagnose structural components of cognitive activity: motivation, content (ability and skills), and emotion. The motivational component of cognitive activity is a positive attitude of the learners to learning, cognitive interest in school subjects, and learners’ desire to know and gain knowledge. The formation of thinking and cognitive processes (of perception, attention, imagination and memory) is a content of cognitive activity. The positive emotions, diligence, ability to organize their own learning, self-control, and self-improvement are the elements of the emotional component of a cognitive activity.

### Participants

The pedagogical experiment was conducted in 9, 10 and 11 classes (age 15–17) during 2015–2016 academic year. Five classes formed the control group (122 learners) and five classes are the experimental group (121 learners), and these two groups took part in a pedagogical experiment. Teachers used the questionnaire method. Each learner filled in the questionnaire. The items of the questionnaire is presented in Table 1.
The Formation of Learners’ Motivation to Study Physics in Terms of Sustainable...

Table 1

<table>
<thead>
<tr>
<th>Items of the Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
</tr>
<tr>
<td>1. You can identify the physics concept (please write down an example)</td>
</tr>
<tr>
<td>2. You know an example of physics in nature (please write down an example)</td>
</tr>
<tr>
<td>3. You know an example of physics in everyday life (please write down an example)</td>
</tr>
<tr>
<td>4. You know an example of physics in technique (please write down an example)</td>
</tr>
<tr>
<td>5. You know an example of modern research on physics (please write down an example)</td>
</tr>
<tr>
<td>6. The life of any physicist is an example for you (please write down the name of physicist and explanation)</td>
</tr>
<tr>
<td>7. You know a saying of some physicist (please write down the saying)</td>
</tr>
<tr>
<td>8. You know the name of a physicist, who is a winner of the Nobel Prize in physics</td>
</tr>
<tr>
<td>(please write down the name of physicist)</td>
</tr>
<tr>
<td>9. You read additional literature on physics (please write down the title of the book)</td>
</tr>
<tr>
<td>10. You know a scientific site (please write down the title of site)</td>
</tr>
</tbody>
</table>

Evaluation:

0–3 “yes” – low level of motivational component of the learners’ cognitive activity,
4–7 “yes” – average level of motivational component of the learners’ cognitive activity,
8–10 “yes” – high level of motivational component of the learners’ cognitive activity.

Procedure

During the pre-test, the assessment of motivational component of the learners’ cognitive activity in both groups was carried out. The training in the experimental group was carried out with the use of the developed technique, and in the control group, the training was implemented without the use of the developed technique. During post-test, the assessment of motivational component of the learners’ cognitive activity in both groups was carried out.

Results

Data Analysis

There were three levels of motivational component of the learners’ cognitive activity (low, average, high). The number of learners for each level has been determined. The results of experiment are presented in table 2.

Table 2

<table>
<thead>
<tr>
<th>Results of Measurements in Control Group (CG) and Experimental Group (EG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of motivational components</td>
</tr>
<tr>
<td>Pre-test (%)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>low</td>
</tr>
<tr>
<td>average</td>
</tr>
<tr>
<td>high</td>
</tr>
</tbody>
</table>

The results of the pedagogical experiment are represented in Figures 4 and 5.
Figure 4. Results of pre-test

Figure 5. Results of post-test

Statistical analyses

Two statistical hypotheses were formulated to analyze the results of the experiment:

1. Hypothesis about the absence of the difference (the null hypothesis);
2. Hypothesis about the significance of the difference (the alternative hypothesis).

We used Pearson’s criterion $\chi^2$ for the decision about which of the hypotheses (the null or alternative) should be recognized. We conducted measurements in a three-level scale of gradation (high, average and low levels of motivational component of the learners’ cognitive activity). Significance level was set 0.05. Critical theoretical value $\chi^2_{0.05}$ for the level of significance 0.05 in the three-level scale of gradation is: $\chi^2_{0.05} = 5.99$. Empirical value $\chi^2_{\text{empirical}}$ of measure levels of cognitive activity of CG and EG for the post-test is: $\chi^2_{\text{empirical}} = 6.10$. Because $\chi^2_{\text{empirical}} > \chi^2_{0.05}$, then the accuracy of statistical significance of characteristics of EG and CG after the post-test is 95%. Thus, the analysis of the data confirmed the alternative hypothesis: the difference between theoretical and empirical values of Pearson’s criterion is due to the implementation of the developed technique.

Discussion

Education is a key element of sustainable development. As such, education is essential to individuals’ development (UNESCO, 2012, p. 3). Our results showed that the high and average levels of motivational component of cognitive activity correspond with the comprehensive development of learners’ personality. A low level of motivational component of cognitive activity negatively affects the level and quality of the learners’ knowledge. Learners who are not motivated will not learn effectively. In this way, it is necessary to form the learners’ motivation to study school subject.

There are many ways to categorize and understand the learners’ cognitive processes. One of the most commonly and globally used comes from the original work of Bloom (1956), revised by Anderson and Krathwohl (2001), in which the authors identified the following cognitive processes: remembering, understanding, applying, analyzing, evaluating, and creating. The results showed that the active means of training and the active learning methods in our study could contribute to the development of the learners’ cognitive processes (e.g., remembering, understanding and applying).
Conclusion

The problem of teachers’ professional competence is relevant in terms of sustainable development of education. The learner will not be able to understand the educational material, if the learner does not feel the need to study it. Therefore, it is necessary to develop the formation of the learners’ interest. The sequence of interest formation for physics in the context of sustainable development of education was analyzed using the following steps: curiosity, the active curiosity, attempts to understand, strong knowledge, and scientific research. This scheme shows the transition from a situational interest to an individual interest.

The technique of strengthening the formation of learners’ interest in physics in the context of sustainable development of education was developed in the present study. The active means of training and active learning methods were the components of this technique. Examples of natural phenomena, everyday life and practical use, historical materials, and examples of scientific achievements are the active means of training. Heuristic conversation, creation of problematic situations, home experiments, excursions, the solving of crosswords and conducting physics dictations are active learning methods. The results proved that proposed technique increases the level of motivational component of the learners’ cognitive activity in physics teaching.

The formation of learners’ motivation to study physics in the context of sustainable development of education was considered in this study. Its short-term objective was the formation of learners’ interest in physics as a school subject. Its long-term objective was the formation of learners’ interest in physics as a science. This should contribute to professional self-determination of learners.

Recommendations

The proposed general technique for the formation of learners’ interest can be used in teaching other natural sciences (e.g., Chemistry, Biology, Geography, Ecology) for providing the sustainable development of education. Schools need to teach learners to acquire knowledge independently. Only then can we talk about sustainable development of the learners in the learning process.

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References


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Value Education in Estonian Preschool Child Care Institutions

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Abstract

For systematic implementation of value education in educational institutions, the national programme “Values Development in Estonian Society 2009–2013” (Ministry of Education and Research, 2009) was prepared in Estonia. However, it was launched only in 2010, and the authors intended to ascertain the values of the heads of preschool child care institutions, teachers and parents as well as their conception of value education. The national programme was updated as “Values Development in Estonian Society 2015–2020” (Ministry of Education and Research 2015). In 2015, the researchers aimed to investigate if and how values of teachers of child care institutions and their conception of value education had changed. The sample in 2010 included nine respondents related to preschool child care institutions: three heads, three teachers, and three parents. The 2015 sample included 10 teachers. The research was conducted by using a qualitative method, which included semi-structured interviews and video observations of activities that teachers carried out with children. In 2010 and 2015, the values were said to be incorporated in general curricular goals and topics of the year. In 2010, the teachers said that values were not separately designated in the kindergarten curriculum; however, they were incorporated into the curriculum. They did not teach values as a separate discipline; values were highlighted in various activities and situation games. In 2015, it was mentioned that value education was consciously included in activities proceeding from the relevant schooling and education domain and the topic of the week. It may be said that in 2010 value education related topics had not been sufficiently introduced in kindergartens yet. Based on interviews and video observations conducted in 2015, it could be claimed that educators would benefit from a more deliberate approach to value education.

Keywords: values, value education, preschool child care institution, learning and upbringing methods.

Introduction

UNESCO Roadmap for implementing the Global Action Programme on Education for Sustainable Development (2014, p. 8) states, “To create a world that is more just, peaceful and sustainable, all individuals and societies must be equipped and empowered
by knowledge, skills and values as well as be instilled with a heightened awareness to
drive such change, and this is where education has a critical role to play”. Tilbury and Mulà (2009, p. 4) maintain that education for sustainable development (ESD) is a process
that people can learn to live in sustainable way. People’s values, worldviews, knowledge
and creativity are central to sustainable development that is linked to culture (Tilbury &
Mulà, 2009, p. 2). Human dignity, fundamental freedom, human rights, equity, and
care for the environment have been important values through the history of the UN.
Sustainable development considers it important to pass these values to the future gener-

Tilbury (2011, p. 8) notes that learning is often understood as gaining values and
knowledge related to sustainable development; however, ESD learning also refers to
learning that clarifies one’s own values. Therefore, it is especially important to devote
attention to value education in educational institutions. For a systematic implementation
of value education in educational institutions, the national programme “Values Develop-
ment in Estonian Society 2009–2013” (Ministry of Education and Research, 2009) was
prepared in Estonia. The national programme was updated as “Values Development in
Estonian Society 2015–2020” (Ministry of Education and Research, 2015). Value educa-
tion is the basis of education for sustainable development. It is necessary to devote
attention to values as the main goal of education (Świtała, 2015).

The authors of the present study intended to ascertain the values of the heads of
preschool child care institutions, teachers and parents as well as their conception of
value education. In Estonian preschool child care institutions, the age of children varies
from 1.5 to 7 years. In official documents, the term “preschool childcare institution”
(koolieelne lasteaed) is used, but in practice the term “kindergarten” (lasteaed) is
more common in Estonia.

**Values and Value Education**

Values make up the heart of culture that carries certain preferences. Dipping into
the value system, members of culture know how to orientate in the surrounding reality
and evaluate what is good or bad, beautiful or ugly, smart or unwise, etc. Acquisition of
the value system characteristic of the respective culture begins in early childhood when
behavioural standards are learnt through doing and experiencing (Roots, 2005). Values
may be formulated in a number of ways; for example, Rokeach (1973, p. 5) defines
values as beliefs according to which acting or existing in a certain way is socially or
personally better than doing so in an opposite manner. According to Schwartz (1992,
p. 6), values represent criteria used by people to choose and justify their behaviours and
valuate other people, themselves, and events. A child is born without behavioural stereo-
types. Behaviour patterns start to emerge as affected by the surrounding environment
and based on personal experience, and rest on the outcomes of different activities,
regardless of whether such outcomes are positive or negative (Bandura, 2000, p. 31).

Value education takes place both explicitly and implicitly (Thornberg, 2016). Values
are embedded in educational practices, they do not exist isolated, but rather form an
entangled element in educational work (Puroila et al. 2016). Explicit value education is
written in curricula, i.e., how to teach values, inclusive intentions of teachers and practices.
Implicit value education is expressed in a hidden curriculum and in everyday practices
(Thornberg, 2016). Value education in a more narrow sense is a planned activity enabling
the teaching of how to think analytically about values and allowing for moral development. In a broader sense, value education can be seen as any activity which supports personal development. Moral development is closely linked to mental, social, and emotional maturity (Schihalejev, 2011). Contemporary preschool education values contribute to multifold development of a child. It can be said that value education is part of integral development of a human being and teachers as transmitters of knowledge have an important and responsible role in this process. As professionals, teachers are expected to foster high moral beliefs and self-reflection skills. A teacher sets an example with their entire person as an integral whole, i.e., it is important for the teacher to keep an eye on their communication behaviour, activities, and values. The Estonian national curriculum for preschool child care institutions (Government of the Republic, 2008) prescribes as its general goal versatile and consistent development of the child in cooperation with the home and the child care institution. The educational institution should be agreed on common universal values accepted by parents, teachers and children. Agreed values are then transferred to the pedagogical process. In many cases, people have very different attitudes and values; however, certain arrangements should be made in each educational institution. This is especially important during the pre-school age (Świtala, 2015). Incorporating the above-mentioned goals in studies, child related values, such as consideration of the individual characteristics of each child, creation of a supportive environment, provision of options, and involvement of the child in activity planning, are introduced. The highlighted implementation principles of schooling and education include promotion of a child’s individuality, creativity, sense of security, and success related experience, learning through play, valuation of humane and democratic relations, health maintenance and promotion, cooperation between homes and the child care institution, and consideration of specific features of both Estonian and foreign cultures. It may be stated that in shaping value judgments, a child is influenced in a broader sense by the entire cultural environment surrounding them; in a narrower sense, the surrounding material and everyday atmosphere with the people in it as well as relationships between them have an influence on the child. While before the teacher was assumed to play the main active role in shaping values in preschool education, today it is emphasised that a child’s experience expands in the surrounding environment, social contact, and active engagement (Hujala, 2001; Lickona, Schaps, & Lewis, 2007).

Methods of Value Education

In a preschool institution, various schooling and educational methods can be used to acquire values, most of which are closely related to listening and use of speech. Group meetings and involvement of children in philosophising sessions are suitable methods to develop thinking and deliberation skills. Group meetings provide an opportunity to discuss conflicts while encouraging social communication. The whole group can engage in the discussion and joint problem solving. Children may be allowed to vote so as to ascertain their preferences. Group meetings allow for an expression of emotions and teach one to listen to the speaker (Branscombe et al., 2014, p. 141). Children are active participants in philosophical discussions and they have the opportunity to guide the current topic or issue in a direction they are interested in. Philosophising teaches children how to think critically and creatively, how to respect their companions’ ideas and be more tolerant towards differing opinions. The teacher’s task is to keep the discussion
within certain boundaries and show respect for the children’s opinions (Gaut & Gaut, 2015, pp. 8–9). An excellent tool in discussing and construing values is the concept map in which a concept or value is written in a central position and participants attempt to elucidate the concept or value from different angles. The concept map helps children to understand abstract concepts (Nugin, 2013).

Proverbs and old sayings are a favourable tool in teaching values as they are short, didactical, and easily remembered. Folk tales are valuable due to their innate dramatism and the tension which emerges in the comparison of smaller/bigger, stronger/weaker, allowing children to identify with a character. Children’s literature, especially if read over a longer period of time in the form of a serial, is an excellent means in shaping value judgments through expanding one’s world view (Müürsepp, 2010). Teaching one to understand a person’s inner struggle, fairy tales allow for more fruitful learning for children as compared to other types of literary works. Through the story of a fairy tale, advantages of moral behaviour are highlighted as relevant and meaningful for a child. Fairy tales give recommendations in a symbolic format and influence a child’s moral beliefs. In fairy tales, right and wrong are clearly contrasted and as this polarisation also occurs in child’s mind it provides for a better understanding of the difference between the two (Bettelheim, 2007, pp. 11–12). Favourable tools for communication advancement include role play and various discussions on hypothetical issues, short dramatisations, observation of the behaviour of others and provision of behavioural models in everyday life. Dramatisations should be complemented by discussion and evaluation with additional explanatory comments by an adult on relevant behaviours (Hallap & Padrik, 2008, p. 24).

Social play as a positive constructive joint activity enables the children to observe their peers, imitate them, negotiate, and compare a companion’s behaviour to their own. Through cooperation, children develop a shared understanding of the purpose and course of a game, thus developing their problem-solving skills (Ramani & Brownell, 2014).

An auspicious method of communicating values is outdoor learning. Tuuling (2013) notes that outdoor learning serves well the attainment of the objectives of any subject field. Outdoor learning also provides for the shaping of social skills as outdoor relations are played out more visibly, enabling children to be more open and reveal their true nature by showing certain characteristics such as helpfulness. Outdoor learning also enables children to get to know each other better, achieve a joyous and close relationship with their peers, and engage in collaboration. Outdoor learning provides for environment-friendly behavioural habits and supports interest in nature. May (2011, p. 50) claims that studying outdoors, children are less restricted and more independent. Employing outdoor learning activities enables children to develop greater trust for one another. Creative art activities give children a great opportunity to express their feelings and develop a prosocial atmosphere where linguistic skills do not need always be employed. Children that like doing an activity together will join forces again in a different situation. A joint activity such as the above develops a sense of unity in a group (Kostelnik, Soderman & Whiren, 2011, p. 253).

Different values are present in everyday interaction in kindergartens, even when teachers are not aware of the transmitted values (Puroila et al., 2016). Halstead (1996, p. 12) notes that a large part of values are transmitted via the so-called hidden curriculum. A systematic debate over values is required since children can learn the values randomly. In this case, children learn different values from what teachers were planning to teach.
Objective

For systematic implementation of value education in educational institutions, the national program “Values Development in Estonian Society 2009–2013 (Ministry of Education and Research, 2009) was prepared in Estonia. However, it was launched only in 2010, and the authors intended to ascertain the values of the heads of preschool child care institutions, teachers and parents as well as their conception of value education. It was planned to learn how value education was undertaken in kindergartens, how cooperation with parents was organised in terms of value education, and what kind of support was required to administer value education (training, books, information materials etc.). In 2015, the researchers aimed to examine if and how values of teachers of child care institutions and their conception of value education had changed. Furthermore, the researchers intended to ascertain if the teachers’ opinions could be applied in practice. The 2015 study looked at teachers specifically as kindergarten teachers who were directly responsible for schooling and education in a kindergarten group.

Research methodology

The research methodology in 2010 and 2015 was a semi-structured interview (Laherand, 2008; Turner, 2010) and in 2015 – also video observation of schooling and education implemented by teachers. The transcript of all interviews was prepared, the content analysis method was used to analyse the interviews and videos, by grouping the text into categories based on its content, as well as coding was applied to combine the data according to themes (Laherand, 2008; Taylor & Gibbs, 2010). To ensure respondents’ anonymity, names were not used and replaced by designations such as Head 1 – first head, Teacher 2 – second teacher, Parent 3 – third parent. All of the interviewees were given the same questions. In 2015, six questions were added to the original questionnaire (Tammik, 2016). In 2010, 319 minutes and 35 seconds of interviews were recorded. Interviews conducted in 2015 amounted to 155 minutes. Video observations were recorded as lasting for a total of 240 minutes. Before the study was conducted, authorisation was gained from heads of the kindergartens and teachers that participated in the study. Consent for video recording was gained from the parents of all of the participating children after the objective of the study as well as the applied confidentiality requirements were explained to them. Both the teachers and the parents confirmed their consent by providing a signature.

Sample

The sample in 2010 included nine respondents related to preschool child care institutions; three heads, three teachers, and three parents. All of the interviewed kindergarten heads were graduates and had headed a child care institution for 5–8 years. All of the heads had previously worked as teachers with 20–35 years of experience in the area of education. Two teachers had worked in the area of education for 31 years, and one – for 10 years. Two teachers had completed secondary specialized education; one teacher had completed higher education. The parents were 26–32 years old; one parent completed basic education, one did not finish basic education, and one was a graduate. All of the respondents in the 2010 study were from kindergartens in Tallinn, both Estonian speaking and Russian speaking institutions. The 2015 sample included 10 teachers from
two Estonian speaking kindergartens. One of the kindergartens was located in a small town, and the other — in a rural area. The teachers were 27–58 years old and had worked at a kindergarten for 4–35 years. Five teachers were graduates, one was in the process of completing higher education, and four teachers completed secondary specialised education. All of the study participants were women in 2010 and 2015. Respondents were selected based on availability and willingness to participate in the interview.

Results

1. Results of Interviews Conducted in 2010

Interviews with Heads of Child Care Institutions

Personal Values

First, based on the interviews, personal values of the heads were ascertained which included honesty, respect, trust, caring, gratitude, humanity, love, openness, noticing and helping, as well as recognition. The heads also valued family, children, health, and work-related values. One head noted Christian values among her personal values. In their work, the heads proceeded from their own personal values and they saw it important that their personal values coincided with the institution’s values.

Head 3 said: “In a bilingual kindergarten, tolerance is especially important; the institution houses both Estonian traditions and Russian culture with their own traditions. I don’t care if you’re Estonian or Russian speaking. What matters is that you’d be a person in your rightful place.”

Common Values and Cooperation

In a kindergarten, joint values hold a momentously important place. It was discovered that the employees were not always aware of their values.

Head 2 noted: “How do the employees consider basic values? People have never actually thought about what kind of the value they have before we start talking to them.”

It is necessary to go over the relevant values within the organisation and review the values from time to time.

Head 3: “We discussed the values we now consider important one more time. What is honesty for us, what is trust for us.”

Head 2: “It is important for people that work in a kindergarten to have similar values.”

The respondents think that in value education, cooperation with parents is essential. Listed cooperation formats included introduction of the kindergarten house rules, discussions with parents, and joint events. An important role is played by developmental discussions with parents where a teacher ascertains the given family’s values. It is most important that the homes share similar values with the kindergarten.

Head 2: “I understand that for the purpose of teaching and educating a child it’s necessary for the kindergarten and the parents share the same values. But people are different.”

Head 1: “Discussions with parents are a necessity. Discussions are held between two equal parties and do not involve shaking a finger at the parents and telling them that it is because homes are different, have different social and cultural backgrounds, and, also, parents have different educational levels.”
Conception of Value Education

In value education, the heads see the example of the entire staff as very important; among other things, the heads place importance on their own example; what is important is the organisational culture in place. The heads described value education as follows.

Head 2: “If you love a child, for that child this love represents a value. If a child feels loved, they are happy and will grow into a good person. Children sense it very well if a person working at the kindergarten does not love them.”

Head 3: “Value education is an expansive concept, moral education. For children, it is the simplest things – friendliness, kindness, compassion. Helping out a friend who’s stuck. Not hurting others. Value education happens in everyday life; the morning meetings that we use, for example, are very nice, they go over all kinds of situations and behaviours, and we jointly discuss the events of the day. The children can also make decisions and choices.”

Value Education in Curriculum

Values form the basis for planning schooling and education in a kindergarten. Values are included in general curricular goals and topics of the year. Value education is not designated as a separate chapter in the kindergarten curriculum. In 2010, the heads were of the opinion that there was not enough material concerning value education. There was a lot of material online; however, it was required for the material to be readily available in the actual kindergarten. It was also thought that parents would be in need of relevant training.

Interviews with Teachers

Personal Values

Next, the personal values of teachers were ascertained; such values were honesty, respect, caring, politeness, and health. They also listed home and family, friends, education, and an expensive worldview. The teachers consider the above-mentioned values in their daily work.

Teacher 2: “Your own values at work; your work is shaped, subconsciously considering your own values; all this is automatically embedded in your work.”

Teacher 1: “The family, for example – planning my work, parties for example, when I think of the children, I think of their families. Thinking about health – we sing about health; we talk about friendship all the time. What I value in my daily life also traverses to my work.”

Common Values and Cooperation

During the interviews, the teachers also mentioned value conflicts arising when people fostered different beliefs and different value judgments. Teachers are placed in a difficult situation if the teachers say no, yet the parents say yes. The teachers admit that sometimes parents are more difficult than children. Consequently, the teachers stress the importance of cooperation with parents. It is important for the beliefs of all of the parties to be homogeneous. All of the respondents emphasised the role of the developmental discussions in kindergartens where different expectations were talked over. Cooperation is also very important with other employees of the child care institution, i.e., kitchen and cleaning staff, teachers, and management.

Teacher 1 noted: “You won’t get anything done alone.”
Conception of Value Education

What is value education for teachers? Teachers also emphasised the power of setting a good example. Teachers highlighted that values were taught with each activity.

Teacher 1: “It has to be something nice; you have to be good and pay positive things forward to others; all this politeness and that you care about other people, say something nice to them. I give a lot but get much more back. Setting an example is the most important thing in all of the activities of every single day. Value education for a child begins by observing and imitating the teacher. It is ongoing and continuous.”

Teacher 2: “I personally have to adhere to the values, which is how I will pass them on. Whoever works at a kindergarten has to set a good example — if the management is proper and diligent it will carry forward to the employees.”

Teacher 3: “Values are taught with each activity; it is important to teach the children values such as honesty, respect, love, getting along. The example set by a teacher is most important as children pay a lot of attention to the teacher.”

Value Education in Curriculum

The teachers said that values were not separately designated in the kindergarten curriculum; however, values were incorporated into the curriculum. They did not teach values as a separate discipline; values were highlighted in various activities and situation games. The teachers considered it important to teach the children to have their own opinion and have the courage to voice it. Friendliness, politeness, respect, and sharing skills were also important.

For example, Teacher 2 noted: “Values emerge in weekly plans. So far I haven’t really thought of them separately as values. They are just all merged in pleasant communication.”

Concerning value education related material, the teachers said that it could be placed somewhere visible where it would be accessible for everyone; there should also be training. In 2010, value education related topics had not been sufficiently introduced in kindergartens yet.

Teacher 2: “At the library I have come across a book on value education but I haven’t had the time to read it yet. Hearing about it from you is the first time I have ever heard such a thing exists at all. Right now there’s no related material; training is most certainly required.”

Interviews with Parents

Personal Values

The parents consider honesty, trust, justice, and traditions to be the most important values. The values mentioned also included family values, children, extended family, grandparents, friends, and work related values.

Parent 1: “A person’s life is shaped based on the kind of values they have.”

Parent 2: “It is important to have time for the children!”

One parent also mentioned material values. Parent 1: “In today’s world you cannot forget about material values. At the same time one must understand and recognise that such values are not paramount. It is important to comprehend how a family can cope in the modern world and what the material means are.”
Common Values and Cooperation

Similar beliefs at home and kindergarten are most important. Parents also find cooperation to be of essential importance. The parents trust their child’s teacher. Collaboration with all of the kindergarten’s staff is seen as important. All of the parents highlight developmental discussions where values are discussed. Daily communication also plays a significant role.

Parent 3: “The situation is not functional if in one place something is OK and in another it is not, no matter what we’re talking about.”

Conception of Value Education

Parents consider value education foremost as a tool of passing on to their child everything they consider important in life. Parents are of the opinion that values are taught through everyday communication and activities. Furthermore, parents consider that value education is not something you think about every day and they think that value education as such is not administered separately – it is entwined in all other everyday activities. Celebrating holidays and other important dates, teaching traditions, and caring for others are considered important. The example set by the parents also plays an essential role. The parents note that you cannot expect a child to do what the parent is incapable of.

Parent 3: “Small children will imitate their parents; they will do what their parents do.”

Parents think that rules have an important place in value education.

Parent 1: “A child must learn that in a group there are certain rules which must be followed; a child must recognise early on that they are but a part – an important part, granted – but yet a part in a large society which is functional only if certain rules are followed by people. To be functional, happy, calm, and successful in the society, a child must learn early on that certain rules must be adhered to in certain groups.”

Value Education in Curriculum

Concerning value education related materials, the parents thought that it would be really good to have smaller discussion groups and that training could also be held at the kindergarten.

2. Results of Teacher Interviews Conducted in 2015

Personal Values

As a result of interview analysis, it became clear that values most frequently listed by teachers included honesty, respect, trust, caring, and tolerance. Some teachers adopted a more expansive view of values, noting that values surrounded and accompanied us throughout our lives.

Teacher 2: “Everything that surrounds us, which is important for a person in daily life, which should be considered when communicating with others or being by yourself.”

Family, health, wellbeing, contentment, a sense of duty, friendliness, and valuation of other people are also valued. Listed values also included culture, courage, child-like youthful mentality, justice, benevolence, politeness, cooperation, and health. The teachers noted that they considered values that were important for them in their everyday work, finding this to be normal as consideration for values happening naturally.
Teacher 4: “I can’t really say how I take them into consideration; they are just with me. They are probably part of my character, they just are. It happens naturally.”

Consideration of values in everyday work for the teachers consisted in passing the values on to the children while keeping in mind the interests of other people and the surrounding environment. They said values were passed on through the example set by the teacher which was visible through communication.

Teacher 3: “Everything is related to my own communication and attitude. That’s how the children get wind of my values; everything I do and think proceeds from my values. Everything I teach the children.”

Common Values and Cooperation

In relation to value education related cooperation with parents, the teachers mentioned communication with parents, meaning provision of explanations and exchange of information. In the case of problematic issues, the teachers thought it necessary to talk to the parents. In a number of cases, the teachers mentioned cooperation with parents through the children. This was connected to giving homework assignments to families in which parents had to do something jointly with their children.

Conception of Value Education

Value education for the teachers meant teaching children about the right values and good, friendly, and polite relationships. Setting a good example was also highlighted as an important factor in value education. The teachers considered provision of directions and explanations to be necessary in value education so as to deliver the desired message to the children. A safe environment was also mentioned. In some cases, the use of the Free of Bullying methodology and folk traditions was also mentioned. The teachers considered it important that children helped each other in daily activities, especially where older children could assist younger ones. The other mentioned items included the use of didactic children’s literature and adherence to group rules, also reminders to children to stick to the rules which, among other things, taught listening skills and taking good care of things. During the interviews, the teachers said that they used the mentioned value education methods consistently on a daily basis. They also mentioned that such methods or a number of the methods were applied as a certain routine.

Teacher 5: “Well, you have this certain routine. Some things have become a sort of a tradition. Things are not all chaotic; every morning we say hello so each morning without exception you come and shake my hand. Children get used to this; not like something is done this way today and in a completely different way tomorrow.”

Value Education in Curriculum

The teachers said they considered value education related goals when planning schooling and education. They mentioned that value education was consciously included in activities proceeding from the relevant schooling and education domain and the topic of the week. Planned inclusion of value education in schooling and education was connected to setting general goals for a week.

Teacher 4: “I haven’t really separately inserted value education. It comes along with the general goals and with the objectives of the topic of a class. It is certainly included.”
The teachers’ answers to questions concerning value education in relation to the curriculum were rather generally worded, and specific examples were not given, which allowed for the conclusion that value education planning was not thoroughly thought and was incidental in nature.

**Results of Observations Conducted in 2015**

**Methods of Value Education**

Results of observation analysis indicated that the provision of education mostly focused on providing knowledge in different fields of the schooling and education domain. In the content of schooling and education, value education was included in less than half of the activities. The content of only one activity observed was fully related to value education as proceeding from the Free of Bullying methodology. One activity could be looked at as an activity which valued cultural traditions, and one activity promoting environment-friendly thinking and a caring attitude towards animals were observed as part of the relevant schooling and education activity. In one activity, friendliness as an important value was covered. As the activity was undertaken with very young children, the teacher repeatedly emphasised friendliness and friendly relationships and a related longer discussion was not conducted; rather, the relevant value was highlighted through graphic activity.

Teacher 7: “The glove was broken. And the animals were very sad. What do you think – did the Cuddly Bear mean to break the glove? No he didn’t. It was all an accident. They just wanted to live together in the glove as friends. But the animals were smart. They went to see Nana and asked Nana to knit a larger glove for them. And Nana was very friendly and knit them a new glove.”

One teacher’s activity was conducted in the format of outdoor learning. Children’s independent activity was present in half of the activities but for short periods of time on each occasion. Within the framework of independent activity, the teacher gave the children a certain task. On a few occasions, the task was to observe the weather. A few times, the observation involved manual activity where the children had the opportunity to take an independent action. Learning through play was present in less than half of the observed occasions and in all such occasions the children had to engage in an educational game organised by the teacher, which normally took place as a perpetuating activity at the end of the schooling and education activity. Dramatisation was used on a couple of occasions, in both cases as performed by the teacher. In both cases, dramatization was not followed by a discussion but by a manual activity. The discussion format was used in a few of the activities observed, with a couple of such occasions involving discussions related to value education. Discussions implemented with children in older groups were long and thorough, and all of the children had the opportunity to express their opinion. Children’s literature and folk tales were used on a few occasions. Counting rhymes, riddles, folk customs, and fairy tales were also used.

The individual characteristics of each child were considered by a few teachers when the group contained children with another language spoken at home, children with special needs, or children with a need for a greater sense of safety. The assignment was repeated for children with another first language and such children were given ample time to express themselves calmly. The child with a special need sought out contact with the teacher by staying close to the teacher. The teacher stroked the child’s back during the activity, thus calming the child. The child who required a stronger sense of safety
was given the opportunity to stay close to the teacher during the observed activity. Other factors considered when arranging schooling and education included the age of the children as most groups consisted of children of different ages. The shaping of a sense of unity was evident in a number of observed activities. In some of the cases, the activity started by the children holding hands in a circle and reciting a previously learned counting rhyme or singing along with the teacher. Singing the names of all the group’s children and staff in “Kes on tāna meiega” (Who’s with us today) helped establish a sense of unity and give value to each individual person. A sense of unity was also enforced by the children and the teacher all wearing uniform costumes during an activity. Using the same materials – the purple bear within the Free of Bullying methodology – and giving each other massages ensured a unified group feeling. Listening skills were paid attention to in more than half of the activities. The children had to listen carefully to a story read out or a dramatisation enacted by the teacher. The teachers repeatedly directed the children’s attention to the skills of listening to one another in discussions; for example:

Teacher 8: “And you will make your ears listen very carefully to find out what was said and what you should remember. Was there anything related to good manners and values?”

Forming cooperation skills was evident in less than half of the activities and the teacher gave the children options to choose from in a few activities only. There were next to no activities providing for an experience of success. This was probably due to the fact that children’s long-term independent activity which would result in a success experience was also scarce in the observed activity. Success experiences and joy could be observed in group activities and manual activities. Activities presenting folk traditions also delivered joy, fun, and excitement. Manual activities provided children with the opportunity to experience the joy of creative expression.

Discussion

In conclusion, it can be said that participants in the 2010 and 2015 studies had similar personal values. The values mentioned most times were honesty, respect, caring, trust, health, family, and traditions. Similar results were gained in the study by Ulavere and Veisson (2015a) where Schwartz’s research methodology was used to ascertain the personal values of heads of preschool child care institutions, teachers, and parents. All of the groups gave the highest scores to the values of caring and trustworthiness, while in Ulavere and Veisson’s study (2015a) the value of tradition also received a rather high score.

Work related values were also highlighted; both the teachers and the heads claimed to consider their personal values in their everyday work with such consideration consisting in passing said values on to the children, while keeping in mind the interests of other people and the surrounding environment. The teachers said during the interview that consideration of values important for them in planning schooling and education was oftentimes natural and spontaneous. This was also confirmed by most of the observed education activities as well as the set goals, which did not involve pre-planned value education. Other authors also stressed the same findings, declaring that a large part of value education was undertaken through the so-called hidden curriculum and, consequently, awareness of values children were actually learning was low(Halstead, 1996; Puroila et al. 2016; Thornberg, 2008).
During an activity, some teachers could be observed doing things mentioned in the interview. A teacher who listed folk traditions as a value important for her also conducted teaching activities employing folk traditions. A teacher who emphasised friendly relationships in value education involved the same value in applied teaching/learning activities. Value education was mostly defined as passing on the right values such as honesty, respect, love, good and friendly relationships, and politeness; it is important to pass on values that are personally considered as important. Úlavere and Veisson’s study (2015b) yielded similar results where heads of preschool child care institutions, teachers, and parents considered the most important values to be passed on to children to be honesty, health, helpfulness, cooperativeness, tolerance, the sense of duty, and trust.

The teachers consider it important to teach the children to have their own opinion and have the courage to voice it. It was highlighted that values were taught in the course of every activity, value education began for a child by observing and imitating the teacher and constituted a continuous process. Bandura’s (1977) social learning theory states that most of people’s behaviours, attitudes, and values are learned by observing a role model. In value education, the example set by the entire staff is important in preschool child care institutions, including the example of the heads of child care institutions, the culture of the entire organisation. The parent’s example also plays a vital role. The parents note that you cannot expect a child to do what the parents are incapable of.

Values are taught through everyday communication and activities. It was mentioned that value education as such was not administered separately but, rather, included in all other daily activities. Celebrating holidays and other important dates, teaching traditions, and caring for others were considered important. In value education, parents considered rules to also have an important place as well as mentioned adherence to the group’s rules as an important aspect in passing on values. The same results were gained in Úlavere and Veisson’s study (2015b) which ascertained the methods used to administer value education in preschool child care institutions in Estonia. The heads, teachers, and parents alike think that values are passed on to children foremost through group rules and good manners, during daily communication and activity with personal example occupying a vital role.

The respondents thought cooperation with parents was essential to value education. Suur (2014) also stresses the importance of cooperation with parents. Suur notes that the child care institution and parents need to cooperate, and parents need to communicate among themselves. Parents are increasingly more involved in the daily life of the child care institution and parents have the right and obligation to make decisions in issues involving their children (Suur, 2014). Listed cooperation formats foremost included discussions with parents and joint events. An important place is held by developmental discussions with parents where the teacher ascertains the family’s values as well as relevant similar and differing aspects. It is very important that the kindergarten and the home share similar values (Świtala, 2015). During the interviews, the teachers also mentioned value conflicts arising when people fostered different beliefs and different value judgments.

The value education methods included explaining, philosophising with children, use of children’s literature, folk traditions, cultural traditions, outdoor learning, dramatisations, manual activities, and drawing of attention to helping one another. Results of a study conducted in Swedish kindergartens in 2001 (Johansson, 2002) indicated that
local teachers devoted a lot of attention to moral issues, listing as important consideration for each other, caring and compassion, consideration for another child’s things, and waiting for one’s turn. Most efforts by Swedish teachers were placed in influencing the children. In the current study, the teachers also endeavoured to influence the children through personal example, employing explanations and guidance. Chats, discussions, and situation games were also mentioned as tools presumably enabling the shaping of critical thinking. The teachers exhibited uncertainty in answering questions related to the curriculum. Results of the present research confirmed the results of the study conducted in 2002–2003 in preschool child care institutions in Helsinki and Tallinn (Ojala & Talts, 2009) where it was discovered that in Estonian kindergartens less attention was paid to ethical education than in Finland and special attention was devoted to knowledge related to specific domains of relevant schooling and education.

Planning of value education related activities was at times spontaneous, even though allegedly such education is considered beforehand. Methods highlighted as used in value education included chats, discussions, and use of proverbs. During the observed activities, however, a discussion was employed only a few times. Proverbs were not used; however, riddles were presented to the children. In passing on values in 2015, kindergartens employed the Free of Bullying methodology, which was harnessed in schooling and education by teachers. While interviews indicated that teachers implemented value education more through content, observations revealed that such education was more involved in the organisational side of schooling and education. It is possible that planning education activities, value education was not directly considered and, rather, selected methods were used to render activities more versatile and exciting. The teachers highlighted a personal example in passing on values. Based on observations, it may be said that during relevant activities all of the teachers were respectful, polite, and friendly in their communication with children. Some teachers said in the interview that value education related topics were applied through the topic considered. The observed activities indicated that value education related topics of the week or education activity connected topics simplified the administration of such education. Values form the grounds for planning schooling and education in a kindergarten. In 2010 and 2015, it was stated that values were incorporated in general curricular goals and in the topics of the year. In 2010, the teachers said that value education was not separately designated in the kindergarten curriculum; however, values were incorporated into the curriculum. They did not teach values as a separate discipline; values were highlighted in various activities and situation games. In 2015, it was mentioned that value education was consciously included in activities proceeding from the relevant schooling and education domain and the topic of the week. Planned inclusion of value education in schooling and education in connection to setting general goals for a week was also highlighted. Observation results allowed stating that in the provision of education, most emphasis was placed on providing knowledge related to specific domains of relevant schooling and education; however, in implementing schooling and education, teachers also placed importance on considering the individual characteristics of each child, considering children with special needs, developing listening and cooperation skills, and making sure that the activities resulted in success experiences, joy, fun, and excitement.

Regarding value education related material, the teachers said in 2010 that it could be placed somewhere visible where it would be accessible for everyone; there should
also be training. It might be stated that in 2010 value education related topics had not been sufficiently introduced in kindergartens yet. Based on interviews and video observations conducted in 2015, it could be claimed that educators would benefit from a more deliberate approach to value education.

Conclusion

In value education, a role model of the entire kindergarten’s staff is very important. The culture of organisation is influenced by individual examples of heads. Teachers and parents also emphasise the power of setting up a good example. Teachers highlight that values are taught with each activity and the parents note that you cannot expect a child to do what the parents are incapable of. Value education begins for a child by observing and imitating the adult constituting a continuous process. Values are taught through everyday communication and activities. Value education as such is not administered separately but rather included in all other daily activities. Teachers do not teach values as a separate discipline, but they are highlighted via various activities. It is necessary to recognise that value education takes place both explicitly and implicitly and values are embedded in educational practices. It is also important that children actually gain experiences. If we want that our children grow up caring, they have to experience that someone cares about them. Child’s experience expands in the surrounding environment, in social contact and through active engagement. Kindergarten and home must share similar values and cooperation with parents is essential in value education. Based on the results of the present study, it can be claimed that educators would benefit from a more deliberate approach to value education.

References


http://unesdoc.unesco.org/images/0023/002305/230514e.pdf


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Bullying and Victimisation Dynamics in High School: An Exploratory Case Study

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Abstract
Bullying is a worldwide concern and erroneous perceptions of the phenomenon could underscore unsustainable interventions. The purpose of this qualitative exploratory case study was to examine, in-depth, how some high school teachers from two schools in New Jersey perceived student bullying. The primary research question was: What perceptions do teachers have about student bullying? The main data were from face-to-face interviews with 14 teachers who answered semi-structured, open-ended questions. Secondary data originated from physical artefacts. The data analysis consisted of four phases. Inductive analysis allowed for the composition of individual cases. Cross-case analysis allowed data classification into three main areas of inquiry aligned with the three secondary research questions (a) bullying and victimisation dynamics as perceived by teachers, (b) adequacy of current interventions, and (c) adequacy of teachers’ professional development for bullying mitigation. The data unveiled inconsistencies between causes of bullying and interventions. It culminated in recommendations for leadership and suggestions for future research.

Keywords: bullying, victimisation, dynamics, consequences, intervention, consistency, adequacy, professional development, sustainability.

Introduction
Bullying, as defined by Bennett (2014), Jones and Augustine (2015), Malecki, Demaray, Coyle, Geosling, Rueger, and Becker (2015) and Wilder (2014) is a repeated maltreatment of a victim by one or more percievably stronger others; bullying threatens the peace, tranquility, health, and general welfare of members of societies. Jones and Augustine reiterated the need to eradicate bullying because continual victimisation can cause long-term physical illness, mental health problems, interpersonal, emotional, and self-esteem issues for targets, the surrounding peer group, and perpetrators. Chronic untreated symptoms of bullying and victimisation can undercut the scholastic competence, development, and general welfare of a child (Margeviciute, 2016). Scholastic difficulties affect self-esteem, ignite antisocial behaviour, promote peer rejection, and lead to self-with-
drawal (Leeuwis, Koot, Creemers, & van Lier, 2015). Victimisation can carry several connotations. For instance, people can experience victimisation from random street mobbing, robbery, bad relationships, and corrupt governments. In the context of the present research, victimisation refers to oppression from bullying only.

The problem is that erroneous perceptions of bullying and victimisation could undermine intervention initiatives, as most currently used anti-bullying strategies are reactive disciplinary sanction on the bully (Rigby, 2014). Rigby believed that more restorative practices like peer mediation, which equips students to take proactive steps to diffuse a bullying encounter before it escalates, is more realistic. Rigby described the ability of students to engage in a naturally creative manner to dissolve a bullying altercation without the need for adult involvement (oftentimes, with harsher solutions) as sustainable; not involving any adverse outcomes to the perpetrator or the victim who are both minors mandating a restorative environment. Considering that bullying is an inherent part of child development used to impose social hierarchies (Lantos & Halpern, 2015), sensible or sustainable solutions would be those directed at the antecedents instead of the symptoms of bullying. Inadequately addressed symptoms of bullying/victimisation, including depression and culminate in emotional instability (Jones & Augustine, 2015). Emotional instability is a condition incompatible with learning that decreases school satisfaction, creates anger, invokes truancy, lawlessness and scholastic regression in youths (Golmaryami et al., 2016).

Data from this qualitative exploratory case study unveiled how some high school teachers in New Jersey felt about bullying and victimisation as it related to the adequacy of current intervention etiquettes, contributing additional insight to existing knowledge. As mediators who interact daily with students, teachers contributed valuable information for managing bullying and victimisation issues. Students with firsthand experience as bullies or victims initially attracted attention as possible information-rich participants in this study; however; the ethical concerns and bureaucratic loopholes associated with obtaining authorisation to interview minors about emotionally sensitive issues prompted a change in decision.

The next information-rich source closest to students were teachers spending significant amounts of time observing behaviours and interacting with students daily. That explains the choice of teachers as research participants in this study. Most explored prior studies about school bullying took place in public elementary and middle schools and some authors recommended a replication in public high schools. Such recommendations inspired the choice in this study to interview public high school teachers addressing sampling limitations and gaps in teacher input (Charmaraman, Jones, Stein, & Espelage, 2013). This study addressed the data limitations from teachers by employing a qualitative exploratory case study design, which entailed data gathering from high school teachers as experienced from the second-person viewpoints and triangulated data collection procedures that guaranteed adequate population representation (Leeuwis et al., 2015; Charmaraman et al., 2013).

The primary research question was: What perceptions do teachers have about student bullying? In addition to the primary research question, the following secondary research questions enhanced the process of understanding how some high school teachers in Essex County, New Jersey perceive student bullying: (1) What are the bullying dynamics as perceived by teachers? (2) How has professional development (if any) helped teachers in bullying mitigation? (3) What forms of interventions do the schools use and what are
teachers’ perceptions of the adequacy of current interventions? The nature of the teaching job entailing day-to-day interaction of teachers with students predisposes teachers to direct witnessing of bullying and victimisation incidents and student reporting. Teachers therefore represented an information-rich source from which the investigator could extract substantive insight into the bullying phenomenon. The insight unveiled suggestions for interventions with more practical potential, enhanced professional development for school personnel, and the refinement of school policies.

Leaders in education should care about solving the problem because of the veracity and criticality of bullying in undermining the safety and welfare of youths (Austin, Reynolds, & Barnes, 2016). Diers (2013), Douglas (2014), and Saldana (2015) expressed concerns about the limited attention child safety issues received from the scientific community despite a potentially adverse repercussion on child development. An increased initiative to reach the most marginalised children is needed to close an equity gap (Diers, 2013). Hertz et al. (2015) projected that childhood exposure to bullying was an adverse experience associated with adult asthma, smoking, sexually transmitted disease, obesity, substance use, depression, and sleep disturbances. Additional literature supports that bullying is a health-complicating issue needing further research to guide reforms in school administrative decisions and societal policy (Hertz et al., 2015; Herve, La Greca, & Chan, 2016). This study contributed to addressing such gaps in knowledge necessary for leaders to design more feasible intervention programmes for bullying and victimisation. The purpose of this qualitative exploratory case study was to examine how some high school teachers in New Jersey perceived bullying. This study contributed further insight into perspectives of teachers about personal experiences with bullying and sufficiency of existing peer support structures to improve school, community, and home environment.

Literature review unveiled a wide coverage of the problem of bullying and victimisation. On a national scale, approximately 160,000 students were absent from school daily in the United States to avoid victimisation by bullies (Nash, 2012; Kearney & Graczyk, 2014; Kramer, 2015). Chui and Chan (2015) speculated that bullies had low self-control with higher risks of involvement in criminal activities. Victims of bullying suffer negative consequences, such as depression, anxiety, academic demotivation, and the possibility of dropping out of school (Liang et al., 2014). According to Nash, aggravated depression in some victims results in suicide. Wilder (2014) and Bennett (2014) noted that victims of bullying oftentimes resorted to viciousness in vengeance against oppressors. Such viciousness manifested itself in recent school assassinations in the United States (“Bullying and Statistics”, 2012). In addition to the unprecedented degrees of unaddressed psychological health issues in schools, there is also less likelihood of children suffering from different forms of disabilities learning productively because of bullying (Bear et al., 2015).

Literature sources project significant connections among positive role modelling, levels of empathy, and social support exhibited toward youths by their entourage and resultant emotional responsiveness (Wilder, 2014). For example, Hertz et al. (2015) demonstrated that childhood exposure to adverse experiences contributed to youth misbehaviour. Teicher and Parigger (2015) stipulated a connection between home condition and aggressive behaviour in teenagers. Parents contribute enormously in shaping child behaviour. According to the Bandura’s theory on shared learning and attachment, the environment, including school, family, and peers significantly influence child behaviour (Judkins, 2014; Deaton, 2015). Children tend to admire and trust adults who live by
their words. Garthe, Sullivan, and Kliewer (2015), also Ciudin and Turluc (2016) speculated that because children had the tendency of internalising everything (both negative and positive), parental conflict could compromise child self-concept.

Based on Bandura’s theory on shared learning and attachment, children spontaneously copy behaviours from primary entourage or immediate circle, which include parents, siblings, extended family, peers, teachers, school officials, and more (Deaton, 2015; Swearer, Wang, Berry, & Myers, 2014). Deaton believed that positive parental attachment, during which parents establish healthy relationships with their infants, could influence children’s future interaction and reaction toward others. Implicitly, the quality of parental care and guidance could influence children’s tendency towards delinquency. That makes one wonder to what extent societal structures and systems can shift behaviours that have been developed early in a child’s life.

Many reports have identified connections between parental neglect and youth delinquency (Saldana, 2015; Paat, 2013). Some reports attributed the inadequacy of most community programmes, including Corrections Education (CE) initiatives designed to reform troubled youths to their standardisation in harmony with state conventions (Jones & Augustine, 2015; Kueny & Zirkel, 2012). Standardised interventions, which typically are based outside family settings with limited parental role-playing, often concentrate on developing delinquent youths mentally instead of eliminating original triggers of their delinquency, which include negative adult examples, poor moral orientation, dysfunctional families, adverse school climate, and community environments. Because parents, teachers, and community play significant roles in determining the personalities of their children, attempts to resolve school bullying without adequate teacher involvement could reflect lack of common sense.

Recognising connection between adverse environment and juvenile misbehaviour (Deaton, 2015; Paat, 2013; Swearer, Wang, Berry, & Myers, 2014) and due to inconsistencies between CE initiatives and contributors to bullying (Jones & Augustine, 2015), there appears to be unknown or poorly understood elements vital to address the problem of bullying. This qualitative exploratory case study responded to the additional data need by enriching societal comprehension of bullying-victimisation from the lens of the teacher. New information from the study could prepare teachers, school administrators, and school policy makers to address better bullying-victimisation issues at every school level.

The authors used Bronfenbrenner’s ecological system theory as the conceptual framework for the study perceiving the mainstream school as an ecological system, in which components interact constantly influencing individual identity. The authors draw on the insights of Bronfenbrenner’s ecological system theory that bullying behaviour results not only from individual characteristics of a juvenile bully but also from indirect influence of his or her entourage and general environment. Some indirect factors influencing bullying interactions include cultural factors, parents, extended family, teachers, school officials, peers, community factors, physical characteristics of school environment, school anti-bullying policies, and school atmosphere, for instance, student perceptions of self-safety (Bronfenbrenner, 1974/1977/1986/1979/1988/1993; Paat, 2013). Support for the practicality of Bronfenbrenner’s ecological systems theory in moderating juvenile personality abound (e.g., Hong & Garbarino, 2012; Huang, Foster, & Brooks-Gunn, 2013; Hong & Espelage, 2013; Patton, Hong, Williams, & Allen-Meares, 2013; and Espelage, 2014). As the ecological systems play significant modelling roles in driving
bullying-victimisation interactions, anti-bullying interventions not assuming equally holistic integrated approaches by partnering with social ecological stakeholders playing critical functions in shaping how children will act over their teenage life courses, appear unrealistic.

Method and Design

The research population consisted of the perceptions of high school teachers in Essex County, New Jersey. The data were from a sample of 14 high school teachers in two cosmopolitan public high schools in Essex County, New Jersey. The scope was limited to two schools whose identities remain concealed for privacy and confidentiality purpose. The initial plan included five public high schools. All 32 public high schools in Essex County, New Jersey received mailed envelopes containing a letter of introduction and permission forms for school superintendents or principals to sign indicating an endorsement of the project. Only the principals and superintendents from the two high schools that participated in this study signed and returned the permission forms leaving us no other choice than to work with the two cooperating schools. The choice of teachers as self-reporting research participants stemmed from three motivating factors. (1) The literature gap related to teachers’ input in deciphering the bullying dilemma (Charmaraman, Jones, Stein, & Espelage, 2013). (2) Teachers are predisposed to first-hand and secondhand witnessing of bullying as they interact directly with students on almost daily basis. (3) Ethical concerns that juveniles will re-experience their undesirable pasts by discussing self-experiences as bullies or victims led to the choice of teachers instead of students as research participants although students could be information-richer than teachers.

The method for this study was qualitative and the design was an exploratory case study with face-to-face interviews conducted in teachers’ lunchrooms using open-ended semi-structured questionnaires (Appendix 1) implemented following rigorous guidelines with feedback sessions. The method appeared appropriate in the context of broader scholarly literature. Qualitative method and case study design have wide application in researching bullying behaviour (e.g., Johnston et al., 2014; Pister, 2014; Singh, 2013; Ramirez, 2013) though not without inherent limitations often from small data size (Rostkowski & Singh, 2015). The open-ended questions permitted interviewees to apply their subjective visions, judgments, logic, and reasoning to determine their own options of unrestricted responses with advantage of generating an in-depth insight into personal life experiences. The open procedure espoused autonomy, a highly valued inter-human quality unattainable with quantitative methods. The semi-structured open-ended questions (with direct evidential connection to the original research questions) engendered a broad discussion approach that enhanced the researchers learning from participants through exploration to fill in literature gaps about bullying; a poorly understood phenomenon (Enlgander, 2012).

The authors chose a qualitative method because quantitative methods require statistical data derived from surveying pools of research participants representing numeric data from structured questionnaires with predetermined closed-ended questions limiting interviewees’ answers (Koskey, 2016), which cannot permit unbiased capturing of bullying dynamics. Pister (2014) believed that an objective way to capture salient relationships in cryptic behaviours was to integrate data reflecting the opinions and insights of research
participants as attainable through qualitative methods employing a case study design and semi-structured open-ended interviews.

The case study design was appropriate because case studies involve a diligent examination of specific individuals, entities, or units to appraise unique patterns of thinking or behaviour as subjects narrate and describe their subjective experiences from varying perspectives (Singh, 2013). Case studies or case reports are processes of data gathering in which researchers consider the development of a specific phenomenon or issue within a particular real-life context over time, using particular instances of individual units to illustrate and analyse concepts intensively in an explanatory, descriptive, or exploratory manner.

Following Palinkas et al. (2015) the authors of the present research used a purposeful sampling to explore the perceptions of handpicked experienced information-rich teachers (nominated by school officials) about their involvement with student bullying. The authors adopted a technique of data triangulation that accomplished breadth, depth, minimized bias, and fostered validity (Leeuwis et al., 2015; Charmaraman et al., 2013). Data arose from different sources employing different data gathering tactics to accomplish data saturation. Data saturation, according to Rostkowski and Singh (2015), is a technique of data triangulation through which analysts use independent bits of information obtained through face-to-face conferences with different decisively selected respondents from different sources to gain a better grasp of a poorly understood or unknown occurrence. The different sources of data in this exploratory case study were the subjective utterances of high school teachers from two public high schools (primary data source) and unrestricted physical artefacts with open public access (secondary data source). For ethical reasons, secondary data sources excluded individual teacher diary and official school records requiring access permit.

According to Dehkordi, Babashahi, and Irajpour (2016), in qualitative studies in which probabilistic sampling is impossible, investigators could justify sample size by employing different data gathering tactics to attain data saturation when further interviews cannot yield any new information. Data saturation attainable through interviews employing diverse data gathering tactics counteracts possible sampling biases that undermine validity, trustworthiness, and dependability (Mason & Ide, 2014). Some data gathering tactics employed by the authors included confidentiality statements, signed informed consents, and alphanumeric data coding, which excluded participants’ real names (e.g., F1, F2, M1, M2, etc.). The authors also used semi-structured open-ended questions, asked the same interview questions repetitively in different forms/structures to enhance consistent and comprehensive responses, took clarifying questions, offered feedback sessions, and recruited six independent neutral peer data reviewers.

In the analytical procedure, the authors used Patton (2002) and Snelgrove (2014) as guides by embracing an ideographic position mandating us to reread, audit track by cross-examining notebooks, voice recordings, and artefacts, and analysing each transcript comprehensively before proceeding to the next, treating each script independently in an inductive manner. Data analysis proceeded simultaneously with data collection employing the method of Patton, entailing data reduction, unitisation, classification, displays, extrapolation, and verification. The authors represented related topics in a table of superordinate themes for each interviewee before proceeding to the next. The authors also compared the themes for each interviewee across the dataset to identify emerging concepts as new themes, repetitions of existing theme, and super-ordinate themes cutting across the entire
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The authors replicated the procedure for each of the 14 interviews going back and forth comparing new super-ordinate themes from each interview with those extracted from previous interviews. According to Snelgrove (2014), this bottom-up approach allowed us to explore all 14 sets of interviews without compelling conventional theories on the data.

As recommended by Zamawe (2015), the authors used NVivo10 analytical software to subject the amorphous qualitative data into a rigorous process of analysis, including exploration, coding, indexing, management, and interpretation making sense of narrative information in a computerised database. With the transcripts titled as sources in the coding reports, NVivo10 sorted the transcripts alphabetically by the unique participants’ alphanumeric identifiers. The coding process connected passages in the data to develop categories, themes, ideas, organised nodes to contain the ideas emerging from the sources as mirrored in the themes, and identified references to emerging concepts (Bhatnagar, & Das, 2014; O’Neill, Calder, & Allen, 2014). NVivo10 coding entailed the nomination of a portion of a source representing transcripts categorised by research participants relating to a node. The data manager imported the transcripts for participants identified as F1, F2, M1, M2, and more into an NVivo10 project.

An alignment of teachers’ responses to the three secondary research questions projected the extent to which the teachers answered the original research questions. Categorisation into three sections (aligned with the three secondary research questions) and 19 facets provided clear pictures of the data. The various facets reduced further into sub-facets enhanced further data clarity. The authors presented the three sections and 19 facets in graphic formats to demonstrate what each participant said with respect to each or a combination of components. Elimination of less frequent ones enhanced further data clarity. The data could be trusted because the study was strictly exploratory with no intent to verify or prove an existing hypothesis, theory, or the researchers’ personal judgments, opinions, and assumptions. The data were an undistorted representation of real life experiences of the teachers shared face-to-face and presented in the partakers’ own words. Exclusion of personal biases and fostering of rigor occurred through the bracketing and inductive approaches described by Patton (2002) and Snelgrove (2014) entailing the following steps. (1) Treating each transcript in an inductive, open-ended, and exploratory manner without imposing any established theories on the data. (2) Identifying key expressions in respondents’ statements that related to bullying. (3) Meticulously interpreting the meanings of the expressions related to bullying. (4) Interpreting expressions and meanings from participants’ standpoint. (5) Diagnosing what the expressions unveiled about an observer of violence. (6) Determining what a practical intervention for bullying would entail in context of the repetitive meanings.

Six steps that fostered quality and validity included the following. (1) Adequate documentation of information in the course of data collection. (2) Organisation or categorisation of the data into emerging concepts. (3) Connection of the data to demonstrate relationships between emerging concepts. (4) Legitimisation and corroboration that entailed consideration of alternative explanation of concepts, disaffirmation of evidence, and consideration of adverse cases. (5) Representation of the findings in a reporting format that aligned with research questions. (6) Teachers’ responses transcribed verbatim from voice recordings prevented possible alteration of interview responses.

To reinforce dependability, the authors used the Audit Track method (Palinkas et al., 2015) entailing purposive selection of information-rich interviewees knowledgeable
about bullying, pilot pre-testing of interview questions, and analysis of research procedure to verify consistency with outcome (Morgan, Leatzow, Clark, & Siller, 2014). The audit track method also entailed recording of interviews, transcription, verification of transcription by informants, employing a software such as NVivo10 to manage data, comparing transcriptions with optional independent reports/narratives such as published articles, posters, and websites for consistency (Geller et al., 2015). As Jiang, Chen, Ouyang, and Li (2015) noted, such tenacity in data comparison enhances data quality optimisation.

The authors used self-reports reflecting teachers’ encounters with bullying (from a second-third person standpoint), which had some merits over self-reports by bullies and victims (from a first-second person standpoint) who could intentionally falsify statements to implicate rival peers or to avoid punishment. However, first-person narratives have impassable validity merits, if undistorted but the authors evaded students for prior-explained ethical reasons. Validity problems associated with self-reports include the possibility of over and under reporting (Baly, Cornell, & Lovegrove, 2014). Participants could exaggerate their experiences to project crisis for attention purpose or they could under-represent the severity of their experiences. The authors used the audit track method discussed earlier to verify responses for consistencies. Self-reports are advantageous in permitting participants to describe their own lived experiences instead of analysts making inferences from utterances or body language. An overarching limitation of this study was the inclusion of two schools only because of unwillingness of school superintendents to allow access. As such, it is possible that some of the schools with higher student bullying or victimisation rates may be under-represented in this study.

Results

A cross-case analysis of the teachers’ perceptions of bullying resulted in seven identified major themes prompting the authors to organise or categorise the data into the following seven emerging concepts. (1) Teachers differed in their understanding of the definitions of bullying. (2) Teachers expressed concern about the academic and personal consequences of bullying. (3) Teachers did not differ in their approaches to bullying. (4) Teachers felt inadequately prepared to consistently address bullying issues. (5) Teachers recommended that additional school staff focus on bullying prevention. (6) Teachers expressed the need for additional school programmes for students that focused on bullying prevention. (7) Teachers voiced the opinion that teachers should be invited to contribute to bullying prevention policy.

For definition, teachers’ general idea was that bullying is a very serious problem and without exception, every aggressive action constitutes bullying. For example, in response to question eight (Appendix 1), Mr.F6 stated, “Anything that is leaving another person feeling powerless, to me is bullying.” When the authors reworded and repeated the question the second time, Mr.F6 also reworded his response saying, “Any kind of aggressive behaviour must be addressed immediately.” When the authors reworded question eight the third time petitioning a new response, Mr.F6 again modified his response this time saying, “I inquire about any aggressive behaviour as it is happening because you can never be sure.” Note that all three responses by Mr.F6 to the three versions of question eight asked repetitively in different formats (to check for consistency, validity, trustworthiness, and dependability) insinuated that every aggressive behaviour should be construed as bullying without exception.
The most reported forms of bullying by the teachers were physical and verbal forms. The other forms with lesser frequencies included cyber bullying, peer pressure, snatching and confiscating of items from victims, prejudice, discrimination, being overly judgmental, and constant negative critiques. Teachers attributed verbal bullying mostly to girls and physical bullying mostly to boys. However, both genders indulge in different forms of bullying behaviours. In the context of evolution, most teachers believed that bullying behaviours did not change, that bullying was always part of school tradition and would continue to be. The teachers asserted that bullying behaviours remained unchanged, but the types of bullying behaviours with electronic forms were increasing as technology advanced.

The consequences of bullying were numerous with top on the list being suicide. Most participants believed bullying is very serious because of the injury factor associated with it, which in severe cases could instigate suicide. The leading motivations for bullying were the Internet, playing improperly, and joking improperly. The teachers thought that most bullies had bullying parents as negative role models. Other motivations for bullying included a compromising culture, lack of accountability, and the tendency of some students attempting to protect their self-esteem and dignity by concealing initial victimisation thereby encouraging their bullies to reinforce their negative actions without consequences. Negligently attempting to resolve the bullying issue from the surface without digging deep into the roots is a factor of failing intervention, according to some teachers. The root of the problem appears to stem as far back as the slavery era with one teacher arguing that the country was founded on bullying. The data revealed diversities of traits displayed by bullies (e.g., secure, financial extortion and gang involvement) and victims (e.g., suicide, insecure, and fear). Examples of aggressive behaviours not perceived as bullying showed that teachers mostly considered and treated every aggressive action as bullying.

Teachers did not differ in their approaches to bullying. Their self-reports indicated that teachers employed numerous forms of interventions top of which was intercession to stop bullying incidents as they were happening. For instance, in response to question nine (Appendix 1), Mr.F5 stated, “The teachers have to stop the bullying encounter on the scene, then, notify or report the incident to the student counselors. Teachers have to fill out the Harassment Intimidation and Bullying (HIB) forms and refer the students involved to the counsellor and the counsellor takes it from there and provides the right intervention to mitigate the problem.” Teachers believed that current interventions were inadequate because they were mostly standardised despite the fact that every bullying encounter and every individual involved in a bullying incident were unique requiring unique intervention approaches. School climate reportedly is negative, boosting effects of bullying and victimisation. The suggestions for improvement of current interventions pertained to both educational authorities and future research.

Teachers felt inadequately prepared to consistently address bullying issues. The most celebrated form of teacher training was the HIB law. Some teachers said although they passively applied their professional developmental skills in bullying mitigation, they mostly relied on their common sense of judgment and on-the-job experiences in bullying mitigation because professional development skills were defective and incapable of serving as panacea in every situation. The main challenges teachers face is the bullying or victimisation occurring outside their range for which they have limited control.
Teachers recommended that additional school staff should focus on bullying prevention. If a consistent routine of anti-bullying culture is reinforced in classrooms, hallways, cafeterias, and playgrounds, it could deter bullies. If not only teachers and administrators but also every adult parading the school premises should act as watch dogs, bullies could dissuade further.

Teachers expressed the need for additional school programmes for students that focused on bullying prevention. Data showed that students did not feel free reporting victimisation. This tendency could reverse if additional school-wide programmes such as the advisory ones providing opportunities for one-on-one dialogue between students and a trusted adult became available.

Teachers voiced the opinion that teachers should be invited to contribute to a bullying prevention policy. Data indicated that teachers were not involved in policy development. Among the long list of suggestions for improvement of teachers’ roles in bullying mitigation were awareness raising, culture change, and parental involvement.

**Discussion**

The primary research question pertained to the perceptions of teachers about student bullying. Corresponding answers to the three secondary research questions enhanced understanding of the high school teachers’ perception of bullying. The extensive data analysis unveiled answers to the questions presented in the form of afore-listed seven major themes.

The teachers’ perceptions of bullying as a very serious problem were consistent with background knowledge (Bullying and Statistics, 2012; Hoglund, Hosan, & Leadbeater, 2012; Huang, Hong, & Espelage, 2013; Jansen et al., 2012; Kramer, 2015; Margeviciute, 2016; Leeuwis et al., 2015). Their viewpoint that every aggressive action (irrespective of its repetitive status) is bullying without exception was inconsistent with prior views (Bennett, 2014; Jones & Augustine, 2015; Malecki et al., 2015; Van Fleet & Van Fleet, 2012; Wilder, 2014). Observations that students exhibited different types of bullying behaviours with the most commonly reported being physical and verbal aggression were consistent with published reports (e.g., Schneider, Odonnell, & Stueve, 2012). Although teachers reported physical and verbal aggression in both genders, boys displayed more physical and girls more verbal aggression, a gender disparity with background support (e.g., Topcu & Erdur-Baker, 2012).

Teachers projected that electronic bullying continued to increase under the enhancement of advancing technology and societal concession. Although most participants believed that bullying behaviours did not evolve (consistent with Nash, 2012), they observed a change in practice from physical to electronic forms of bullying with advancing technology, which was supported by prior literature sources (De Souza & McLean, 2012; Wilder, 2014). The data showed that bullying and victimisation, which reportedly occurred daily in the schools, represented serious concerns to students, teachers, and school administrators. Consequences varied with most severe being suicide consistent with prior reports (e.g., Kramer, 2015). Motivation for bullying also varied and consistent with empirical report (e.g., Ringwalt & Shamblen, 2012; State of New Jersey, 2013), adverse school climate was foremost.

Some of the characteristics of bullies and victims mentioned by the participants such as physically stronger and physically weaker respectively were findings common
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in prior literature e.g., observations by Huang et al. (2013) that individual characteristics and personality traits influence bullying and victimisation behaviours. Intervention protocols mentioned by the teachers included the HIB law, social worker mediation, the debate club, and the advisory. The heightened sense of responsibility and willingness by teachers to intervene in bullying and victimisation situations (despite some lack of confidence) and the perceived inadequacy of current interventions were documented in past literature (e.g., Caldwell, 2012). Yoo (2016) projected that adequate professional development enhanced teacher efficacy. The teachers believed the HIB (a celebrated intervention and teachers’ professional buttresses) was inadequate partly because of its (a) annual nature, (b) standardisation, (c) cumbersome reporting process, (d) slow response, and (f) reactive instead of proactive nature. Additional ideas such as school social programmes (e.g., debate and advisory) appeared practical but not always fully functioning.

The school climate by virtue of its open-door policies can potentially enhance students’ levels of comfort with reporting victimisation. The teachers’ observations that negative school climate can exacerbate bullying led to recommendations to enhance anti-bullying school climate and involvement of teachers more in policies. The report showed that although teachers played a frontline role in bullying mitigation, their voices might remain unheard from the school level to the state level. Policy makers would hardly grasp the full dynamics of these complex issues without an opportunity to appreciate such real-life experiences. The wise direction to enhance leadership choices is apparently a partnership that integrates students, teachers, school personnel, parents, and community voices (Deaton, 2015; Bronfenbrenner, 1993; Jansen et al., 2012; Swearer et al., 2014; Williams & Kennedy, 2012; Zwierzynska, Wolke, & Lereya, 2013).

Conclusion and Recommendations

Bullying dynamics as perceived by teachers has raised concern about current reactive anti-bullying punitive initiatives, which do not equip children to creatively diffuse unwelcomed peer advances offsetting possible adverse outcome to both the bully and victim; a sustainable solution that excludes adult intervention needs. The inconsistencies between causes of bullying and interventions unveiled by the data resulted from misconceptions of bullying and victimisation. If prior authorities couldn’t extenuate bullying, the likelihood of contemporary authorities succeeding is questionable considering that bullying is an inherent component of child development. The implication is that school leaders could re-direct efforts from attempts to eradicate to more sustainable attempts to foster positive coping skills in victims.

Educational authorities should note that a modern youth society is very dynamic exposing children to different types of orientations, behaviours, thinking styles, and differential mastery levels necessitating an adaptive individual-specific strategy in behavioural management contrary to the standardised protocols reported in this study. The conceptual framework supporting this research mandates a holistic intervention approach that should include students, parents, school staff, policy makers, communities, and other stakeholders involved in the life of a child to establish consistency within and without school environments respecting expectations for appropriate behaviours and consequences for inappropriate behaviours.

Professional development needs reinforcement to adequately prepare teachers for bullying mitigation. It is mandatory for educational authorities to adopt an integrated
approach incorporating teachers’ input in planning HIB anti-bullying law, annual workshops, and other conferences on conflict management, appeasement, peer mediation, and bullying management. HIB training should help teachers not only to identify bullying scenarios effectively but also to conduct proper management of bullying and victimisation through proactive removal of the motivational forces of juvenile aggression.

One limitation of this study was the inclusion of two high schools only in New Jersey with possibilities that some schools with higher student bullying rates might be under-represented. Future studies could address this limitation by examining more than two schools. Considerations of schools outside New Jersey could be of additional value.

References


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Appendix 1

**Semi-Structured Questionnaire**

1. What types of bullying actions have you detected during this academic year?
2. What are examples of events you witnessed and intervened during this academic year?
3. What different forms of bullying have you witnessed throughout your career as a teacher?
4. What types of bullying/victimisation behaviours are common among girls? What types are common among boys?
5. How have the bullying behaviours exhibited by different genders evolved over time?
6. How often are the bullying and victimisation behaviours exhibited?
7. How serious do you perceive the problem? Can you explain with examples?
8. What types of aggressive behaviours do you or do you not perceive as bullying?
9. What are the different forms of interventions that you use in this school?
10. How adequate or inadequate were the different intervention strategies?
11. How has professional training in bullying intervention (if any) helped you in bullying mitigation?
12. How involved are teachers in this school in the improvement of bullying-prevention policies and practices?
13. How secure do students feel to report abuse without any pressure from teachers?
14. What are your immediate reactions when you witness a bullying encounter?
15. What is your biggest challenge with respect to managing students’ bullying and victimisation behaviour?
16. What are your suggestions to address better bullying issues among students?
17. What artefacts or unrestricted document do you have to share?