

**UNIVERSITY OF LATVIA
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**LINKING TEACHER FORMATIVE ASSESSMENT WITH
PROFESSIONAL DEVELOPMENT: COMPARATIVE STUDY OF
LATVIA, FINLAND AND CALIFORNIA**

Submitted for the degree of *Ph.D.* in Sociology and Social Work

Riga 2022

The doctoral thesis was carried out at the department of Sociology, Faculty of Social Sciences, University of Latvia, from 2016 to 2022.

The thesis contains the introduction, six chapters, conclusions, recommendations, reference list, eight appendices.

Form of the thesis: dissertation for the *Ph.D.* degree of Sociology and Social Work, subfield of organizational sociology and public management.

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The thesis will be defended at the public session of the Promotion Council of Sociology and Social Work, Political Science and Media and Communication Science of the University of Latvia, at 14:00 on July 15, 2022 at the Faculty of Social Sciences (Room 210), University of Latvia, Lauvas 4, Riga.

The thesis is available at the Library of the University of Latvia, Kalpaka boulevard 4, Riga.

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ABSTRACT

This dissertation offers a phenomenological analysis of practices and experiences regarding basic education schoolteacher formative assessment and other methods of assessment and their possible links with their needed professional development at the school level in three education systems: Latvia, Finland and California, US. Phenomenological analysis of these experiences and practices is informed by interdisciplinary insights taken from organizational development literature and educational science literature in order to find out in what ways insights into experiences could inform a better linking between formative assessment and professional development. The dissertation takes into account the change forces that schools have to adapt to, namely national-level curriculum changes bringing in teaching and learning of 21st-century skills, which, in turn, directly influence new development goals that schools have to fulfil and to which teacher instruction in the classroom has to be adapted. Theoretical models are proposed for analysing existing practices of organizational development, and teacher formative assessment linking with professional development. A qualitative research design is used in the empirical research. Three groups of informants were interviewed, namely teachers, school-based leaders, and education experts (N = 70), in all three education systems in order to map the existing practices of linking teacher formative assessment with professional development from the perspective of three levels – the micro, the organizational and the system school level. Recommendations are given for how to better implement formative assessment in schools.

Keywords: teacher formative assessment, professional development, organizational development, phenomenology, international comparative research, 21st-century skills.

ANOTĀCIJA

Promocijas darbā veikta fenomenoloģiska analīze par praksēm un to pieredzēm saistībā ar skolotāju formatīvo vērtēšanu, kā arī tās iespējamo saikni ar nepieciešamo profesionālo pilnveidi skolas līmenī trīs izglītības sistēmās: Latvijā, Somijā un Kalifornijā, ASV. Šīs pieredzes un prakses fenomenoloģiskā analīze ir balstīta uz starpnozaru atziņām, kas gūtas no organizāciju attīstības literatūras un izglītības zinātniskās literatūras, lai noskaidrotu, kādā veidā pieredzes atziņas varētu nodrošināt labāku saikni starp skolotāju formatīvo vērtēšanu un nepieciešamo profesionālo pilnveidi. Promocijas darbā tiek ņemti vērā ar skolu darbību saistītie pārmaiņu spēki, proti, valsts līmeņa mācību satura izmaiņas, kas ievieš 21. gadsimta prasmju mācīšanu tieši ietekmējot jaunus skolu attīstības mērķus un kuru ietvaros skolotājiem jāpielāgo mācību darbs klasē. Tiek piedāvāti teorētiski modeļi, lai analizētu pastāvošo organizāciju attīstības praksi, ņemot vērā nepieciešamību sasaistīt skolotāju vērtēšanu ar profesionālo pilnveidi. Empīriskajā pētījumā tiek pielietots kvalitatīvs pētījuma dizains. Tika intervētas trīs informantu grupas - skolotāji, skolas vadība un izglītības eksperti (N=70) trīs izglītības sistēmās, lai no šo līmeņu perspektīvas kartētu esošo praksi skolotāju formatīvās vērtēšanas sasaistei ar profesionālo pilnveidi – skolas mikro, vidējā un sistēmas līmenī. Tiek sniegtas rekomendācijas tam, kā labāk sasaistīt ar profesionālo pilnveidi ieviest skolotāju formatīvo vērtēšanu skolās Latvijā.

Atslēgvārdi: Skolotāju formatīvā vērtēšana, profesionālā pilnveide, organizāciju attīstība, fenomenoloģija, starptautiskais salīdzinošais pētījums, 21. gs. prasmes

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ABBREVIATIONS

CPDL – Continuous professional development and learning

CSET – California Subject Examinations for Teachers

CSTP – California Standard for the Teaching Profession

ECTS – European Credit Transfer and Accumulation System credits

FINEEC – Finnish Education Evaluation Centre

FNBE – Finnish National Board of Education

NCE – National center for Education

OECD – Organization for Economic Cooperation and Developments

PAR – The Peer Assistance and Review Program

PCK – Pedagogical content knowledge

PISA – Programme for International Student Assessment

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INTRODUCTION

Research Topic and its Significance

It is almost 100 years since Dewey (1929, 2011) formulated his vision of schools as places of inquiry, where practices are collaboratively investigated through observation, reflection, analysis and dialogue. Since the Coleman Report (Coleman et al., 1966), researchers, policy developers and educational practitioners have asked the question “*do schools make a difference?*” regarding student learning outcomes. School and teacher effectiveness, as a widely researched and discussed topic, has raised varied and sometimes contradictory explanations for what has positive effects on student achievement. The elementary design of school effectiveness research is the association of hypothetical effectiveness enhancing conditions of schooling and output measures such as student achievement. Various conditions for understanding how to improve student achievement have been studied through resource input variables (student-teacher ratio, teacher training, experience, salaries, etc.), school organizational factors (educational leadership, evaluation, parental involvement, orderly climate), instructional conditions (opportunity to learn, time on task, etc.) and other variables (for a review see Scheerens et al., 2007).

In educational sociology, there are two broader approaches that seek to explain school effectiveness (Angus, 1993). The traditional point of view states that schools as education-providing organizations are greatly limited because the main determinant of student learning is the social and economic background along with other out-of-school factors (Angus, 1993). The opposing standpoint is that schools and educational professionals do positively influence the outcomes of student learning. This latter mindset opened the way for analysing and theorizing about the nature of schools as organizations (Angus, 1993).

It is well known that top-performing education systems are generally characterized by high-quality teachers and school leaders (Barber & Mourshed, 2007). Furthermore, one should bear in mind that many of the factors influencing school effectiveness cannot be directly controlled from above, such as from the regional and national education planners’ level. Nowadays many countries adopt policies of functional decentralization of schools, making them semi-autonomous organizations that have a certain amount of control over their own effectiveness (Mourshed et al., 2010; Scheerens, 2000, pp. 120–121). So how can the internal organizational conditions of a school become more favourable for teachers and school leaders to improve teacher professional capability and instruction at the classroom level. And

furthermore, how can teachers and school leaders themselves create and continuously cultivate favourable organizational conditions in their schools?

In more recent studies it has been proven that teachers as key actors in education have the strongest direct effect on student achievement (e.g. Barber & Mourshed, 2007; Gordon et al., 2006; Hargreaves & Fullan, 2012; Hattie, 2012; Rivkin et al., 2005). However, the majority of teachers underestimate their influence on the student learning process and the dynamics of their learning outcomes (Helmke, 2009). Empirical research on school effectiveness and instructional quality has been conducted since the late 70s (Scheerens, 2016, p. 52). Teacher instructional quality is a multidimensional construct (Baumert et al., 2010) reflecting features of teacher instructional practices that are positively related to student (cognitive and affective) learning outcomes (Decristan et al., 2015; Fauth et al., 2014; Good et al., 2009; Klusmann et al., 2008). The dimension “instruction” is divided into two levels: surface and deep (Fischer et al., 2014). The surface level contains directly observable characteristics like the form of classroom interaction (Fischer et al., 2014). The deep level focuses on cognitive activation, the structure of the content, classroom management, teacher-student interactions and the teacher’s behaviour, among other factors (Fischer et al., 2014).

Over the decades researchers have looked at different school and teacher variables to evaluate educational effectiveness. Empirical school effectiveness research (Cotton, 1995; Levine & Lezotte, 1990; Purkey & Smith, 1983; Sammons et al., 1995, cited in Scheerens, 2016; Scheerens, 1992) shows that the following organizational conditions are the main effectiveness-enhancing variables: school climate (achievement-oriented policy, a cooperative atmosphere and an orderly climate), clear goals concerning basic skills, frequent assessments, staff professional development, strong leadership and time on task. This set of factors was reconfirmed in more recent research (Scheerens et al., 2003, cited in Scheerens, 2016, p. 78). Increased learning time and teacher personality traits as variables had no links with student achievement (Scheerens, 2016).

It could be said that both organizational factors and the potential to change them, and, on the other hand, teachers and how their professional development for improving instructional quality occur at the school level should be taken into account when considering how to improve school effectiveness for better student learning outcomes. Resources in public education are always limited, therefore investments have to be planned carefully. School leadership and teacher quality account for nearly 60% of a school’s total impact on student learning outcomes, and leaders alone for a full 25% (Marzano et al., 2005). Resources directed to teachers would then be extremely cost-effective. On the other hand, school leaders – principals, vice-principals

and other school leaders – have the most immediate influence on how teacher work is organized and what kinds of support teachers are given in their schools.

The ongoing change forces that schools are facing should also be considered. These include an increasing diversity of student learning abilities and needs, student achievement gaps, changes in available resources, changing labour market needs, information technologies and changing methods of communication, progressive forms of curriculum, an aging workforce of teachers ... the list goes on. It should be taken into account that the Latvian general compulsory education system has taken its first steps towards curriculum development and implementation that is in line with 21st-century teaching and learning (Namsone, 2018; Skola2030, 2017) and a competency-based curriculum and education (OECD, 2016). Not only does new curriculum implementation require professional development support for teachers, but there are also other changes emerging in the Latvian teacher workforce. According to the OECD TALIS 2018 report, the average age of both teachers and principals is higher than the OECD average age, and only 16% of novice teachers (with up to five years of experience) have an assigned mentor. This indicates a need for a higher-level capacity of different teacher and principal professional development support systems as the renewal of the school workforce capacity will increase in the near future (OECD, 2019).

On top of that, schools must be accountable to various stakeholders and have a varied set of expectations to fulfil, therefore the school's effectiveness as an organization is becoming a pressing issue. Taking into account the fact that schools are faced with unavoidable changes, this dissertation takes the idea of planned organizational development (Bradford & Burke, 2005) as a type of intervention for schools to be, and remain, effective for implementing a new curriculum.

In response to globalization, one of the common trends of change forces in schools across OECD countries is the introduction of 21st-century teaching and learning (also called 21st-century skills) that many countries integrate in their curriculum (Adamson & Darling-Hammond, 2015). This trend in curriculum change is a response to the global changes to prepare students for the future by teaching them necessary skills such as ICT (information and communication technology) literacy, cultural awareness and learning-to-learn skills (see, for example, Binkley et al., 2012). The course towards the development of basic 21st-century skills in Latvia was set in 1998 (Ministry of Education and Science of the Republic of Latvia & Centre for Education Content and Examination, 1998), and in 2006 it was included in the learning content of educational regulations (The Republic of Latvia Cabinet Regulation No. 1027, 2006; The Republic of Latvia Cabinet Regulation No. 468, 2014) highlighting analytical and critical

thinking, creativity, self-expression, communication, collaboration and learning skills for students. The new national curriculum is introducing several more changes that the teachers need to adjust to. This international trend of curriculum change directly influences what new sets of professional skills, knowledge and attitudes (also called “competence”) teachers need for teaching 21st-century skills.

It has been indicated in previous research based on lesson observations that the teaching of 21st-century skills is emerging in schools slowly and incompletely as teachers don't have a sufficiently high level of the required competencies (France et al., 2015; Namsone & Čakāne, 2015). For students to successfully acquire 21st-century skills, teachers are required to have certain competencies and to apply appropriate instruction in the classroom, so that their practice aligns with the new curriculum and 21st-century skills acquisition. This, in turn, implies changes in how teacher professional development should happen (Saavedra & Opfer, 2012). Previous research shows that there are differences in teachers' ability to teach the new content among teachers within the same school and among different schools (Namsone et al., 2020). This raises very important implications of bringing in appropriate professional development solutions that may be created within the school as a learning community (Stoll et al., 2006) and a learning organization (Fullan, 1995). The teacher competence needed for teaching 21st-century skills can be defined as a multidimensional interplay of knowledge, skills, attitudes and professional self-regulation that are learnable, explain differences in teachers' performance (Kunter et al., 2013) and include the situatedness of instruction (Kaiser et al., 2017).

The operating core of any school is instruction at classroom level and the school level should facilitate, create and stimulate conditions for instruction (Scheerens, 2016, p. 77). The competence required of teachers should be the ability to help their students to achieve well-defined learning objectives. Teachers' work and the knowledge and skills that they need to be effective must reflect the student learning objectives that schools are aiming to achieve (OECD, 2013, p. 23), therefore teachers themselves have to master the required competencies and integrate them into their teaching (Saavedra & Opfer, 2012).

In the educational literature, it has been strongly established that the student learning process and outcomes are influenced most by the skills teachers have and their activities employed in the classroom work with their students (Hattie, 2012). According to John Hattie, a leading researcher on performance indicators for student learning, other influencing factors such as student abilities, attitude, behaviour and social background have a much smaller effect on student learning outcomes (Hattie, 2012). Other educational scholars and researchers have expressed the same viewpoint about the immense impact of teachers' competence (personality,

skills, teaching activities, etc.) on student learning outcomes (Barber & Mourshed, 2007; Hargreaves & Fullan, 2012). This dissertation focuses on those organizational development practices that place an emphasis on improving teachers' instruction in the classroom, and the patterns of interaction among teachers and school leaders in schools (Lieberman & Miller, 1986) and what sorts of professional development opportunities teachers have for improving their instruction (Garet et al., 2001; Richardson & Placier, 2001).

Previous research conducted in Latvia within the scope of the project “*New pedagogy for deep learning*” under the National Research Programme INOSOCTEREHI¹ looked into the activities of teachers and student learning through observed lessons as a teacher classroom-based professional learning tool (McNamara et al., 2013) at ten schools (school years 2013–2015) overall, acquiring and analysing data from 368 observed lessons in various subjects from grades one to 12. The acquired data were analysed in line with certain criteria according to levels that comply with the current empirical knowledge on effective and non-effective instruction documented in the scientific literature (Fullan & Langworthy, 2014). These criteria included the clarity of the learning goals among students, provision of feedback, collaboration, etc. (Dudareva et al., 2015; France et al., 2015; Volkinšteine & Namsone, 2014). The results identified a gap between Latvian education policy regulations and the actual teacher instructional practices in schools. It is obvious that education requirements enter school practices in Latvia far too slowly and incompletely (France et al., 2015; Volkinšteine & Namsone, 2016). Remarkable differences are apparent in how well teachers perform in the classroom. The tendencies noticed in lesson observations show that the learning process is not efficient enough for students to develop 21st-century skills, reaffirming the necessity of the national curriculum reform started in Latvia and the need for new formative assessment approaches that would help identify the professional development needs of teachers (Butkēviča et al., 2019a, 2019b; Namsone & Čakāne, 2015).

Teacher assessment can be based on different criteria that can be categorized in two groups: inputs – bachelor's degree, certification, etc.; and outputs – the end results teachers achieve in their work (student learning outcomes/achievements) (Danielson & McGreal, 2000, p. 32). There is a need to seek additional solutions that would help teachers implement the teaching of 21st-century skills and associated learning approaches in the classroom. Teaching and learning must undergo significant changes, therefore teacher professional development must focus on the real classroom environment, which would help teachers acquire experience

¹ INOSOCTEREHI. (n.d.). Project no. 3 New Pedagogy for Deep learning. Retrieved from: <http://www.telerehabilitation.lv/lv/projekts-3>

and practice, while improving their professionalism through immersion and detailed analyses of their performance during a classroom lesson (Namsone et al., 2016).

This dissertation research is about the outputs of teacher work and their performance when carrying out classroom instruction, which stems from their competences, but is also rooted in many other factors related to the context in which they work. In terms of research boundaries, empirical work and a literature review are conducted, and theoretical insights gained, based on teacher outputs, instruction and how it might be affected by formative assessment and professional development. Other possible inquiries on school and teacher effectiveness could be made such as through feedback from parents and students, pre-service teacher preparation, school leader preparation and professional requirements, school budget and so on.

Teacher assessment and professional development, as mentioned before, are becoming more and more topical in the context of changes – teaching and learning 21st-century skills (OECD, 2015). Despite 21st-century skills being set as a particularly important aspect of innovation-intensive labour markets, consensus does not yet exist on how education systems should develop and assess the teaching of these skills systematically (OECD, 2015). New forms of continuing professional development and educational leadership focused on improving instruction at the classroom level should be re-evaluated and adapted in accordance with the changes happening. How objective teacher formative assessment with clear feedback resulting in the required professional development can narrow the gap between the two sides of education change? On the one hand, there are the teachers – the hands-on practitioners who have to realize the goals of reforms, on the other hand, the reform implementors (national education agencies, ministries).

In the Latvian context, up-to-date research-based evidence showing that teachers are equipped with the necessary competence and appropriate support in the context of these curriculum changes is limited. Educational researchers in Latvia have been focusing on topics such as in-service and pre-service teacher professional identity (Ivanova & Skara-Mincāne, 2016; Jermolajeva et al., 2018), pre-service teachers (Daniela et al., 2018), the formation of teacher professional learning communities (Geske & Rečs, 2019) and school principals (for a review see Bluma & Daiktere, 2016). In the context of new education changes such as teaching and learning 21st-century skills, there has been no empirical research in Latvia on new approaches to inform how to improve teacher formative assessment, professional development and, lastly, instruction that would be based on realities that teachers and school leaders are facing in their schools.

Teacher professional qualifications have been greatly mitigated, allowing less prepared people to become teachers. Firstly, the coefficient of expenses for pre-service teacher education is 1.1, which is one of the lowest. For comparison, this coefficient in social care is 3.0, and in mathematics 1.5 (Cabinet of Ministers Regulation no. 994, 2006). Further, for a subject teacher to take on another subject, there is a requirement to do 160 hours of professional development, which is equivalent to six European Credit Transfer and Accumulation System credits (ECTS) (MES, 2018). In Finland, if a class teacher wants to become a subject teacher, an additional 60 ECTS worth of studies have to be done (Paronen & Lappi, 2018, p. 16). In Latvia, one can become a subject teacher if one has a higher education diploma in the relevant subject (biology or English, for example) and has accomplished part of a study programme in education or pedagogy worth three ECTS (72 hours) (Cabinet Regulation No. 569, 2018). This situation also calls for a need to seek improvements in how in-service teacher formative assessment and professional development can be improved at the school level.

This dissertation seeks to explain that there are some school organizational factors and dimensions that, if given more consideration and structurally linked together at the organizational level of the school, can positively improve school effectiveness. These are teacher formative assessment that is linked with the required teacher professional development to ensure school organizational development and the ability to set and reach school goals – in this case the successful implementation of a new curriculum. Monitoring and analysis of the functioning of different education systems show that without a clear link to teacher professional development opportunities, the impact of teacher assessment and performance review are relatively limited (Kimball & Milanowski, 2009). As a result, the assessment process may not be taken seriously or be met with mistrust or apathy by the teachers being assessed (Kimball & Milanowski, 2009), thereby limiting the chances of schools to develop as organizations and ensure high-quality education over time despite various interventions.

A conceptual framework of school organizational development that emphasizes the strong and clear linking between teacher assessment, professional development and school goals is developed and applied in the analysis of the school-level practices. An interpretative phenomenological approach is used to analyse existing practices of teacher assessment and professional development. Phenomenology provides the opportunity to gain an understanding of teachers' and principals' typical experiences and their meanings (Leedy & Ormrod, 2016) in terms of doing and undergoing teacher assessment and professional development. A phenomenological assumption is made that the ways in which assessment and development are experienced can greatly differ, therefore it would be useful to find out which practices are

experienced as valuable and aimed towards linking assessment with development. Qualitative research design is chosen to gather and analyse empirical data on teacher assessment practices which sets also research limitations. The results can not be generalized, they provide an in-depth look on existing teacher assessment practices, this shortcoming is compensated by a relatively large number of semi-structured in-depth interviews (N=70) representing three different groups of stakeholders (teachers, school leaders, educational experts). Another group of stakeholders to be involved are students and parents, but for setting research boundaries these informants were not included in the research sample.

International Comparative Research

The dissertation takes a comparative approach, including Latvia, Finland and the state of California, US, to investigate how teachers and school leaders experience existing practices of teacher assessment and professional development.

According to Cook et al., the best way to understand the traditions of one's own educational system is through studying those of others and assessing educational issues from a global perspective (Cook et al., 2004, p. 130). Comparative research is a method of analysis used to identify main similarities and differences (Goedegebuure & van Vught, 1996). Rather than focusing on what is *not* working and what requires improvements, the comparative focus in this research is on the positive aspects of what is working and what could be useful to learn from other education systems' experiences (Rothwell et al., 2016). The dissertation takes an international comparative approach where three cases of educational systems are analysed: Latvia, Finland and California (US).

The world's best-performing education systems are closely studied to determine the factors of their success. At the same time, they are becoming the trendsetters for other systems of what an education system is capable of achieving, not simply improvement by national standards, thereby making international comparative studies in education ever more important (Barber & Mourshed, 2007). Local policymakers can examine their own education systems in the light of the best-performing systems (Barber & Mourshed, 2007). The main aim of a comparative interpretative (Boswell et al., 2019) dimension of this dissertation is to inform teacher formative assessment and professional development practices by examining them together with the practices of California and Finland to further inform possible education policymaking in Latvia. The empirical fieldwork was done by conducting semi-structured in-depth interviews (N = 70) with three groups of stakeholders involving educational experts, school leaders (principals, vice-principals) and teachers.

Latvia is a post-Soviet country with modern education reforms that have been ongoing since the 1990s and is a slightly below-average-performing country according to the Organization for Economic Cooperation and Development's (OECD) Programme for International Student Assessment (PISA) test results (OECD, 2017). Latvia, with its relatively short experience with educational reforms, and leaders and experts in the field often welcome input from other countries because changes happening in Latvia reflect global educational trends (at least those in the Western world: 21st-century skills, competence-based education, deep learning, instructional leadership, broader concepts of teacher learning and professional development, teacher assessment, changing forms of school leadership, etc.).

Latvia is currently implementing a large-scale national education reform called "*Competency-based Education Curriculum Development and Implementation*". It is aimed at creating, piloting and implementing compulsory general education curricula and teaching-learning approaches that would enable students to develop the necessary 21st-century skills, knowledge and attitudes (also called "transference competencies") (Skola, 2030, 2017). It reflects a trend in curricula changes that is similar to changes in other countries (Bernholt et al., 2012). Classroom teaching and learning approaches in this reform are aimed at being in line with those of deep learning approaches (Fullan & Langworthy, 2014; Marton & Säljö, 1984).

Finland is taken as a globally and consistently high-performing non-Asian education system based on OECD PISA test results (Hargreaves & Fullan, 2012). Finland also stands out with its diverse experience of education reform initiatives in the 1970s (Rinne et al., 2002). This was followed by a number of fundamental changes in national education policy and governance in the 1990s as a response to the pressures of globalization, and these were in line with the values of equality (Rinne et al., 2002). In 2014, Finland renewed its "National Core Curriculum" (FNBE, 2014) and introduced the teaching and learning of 21st-century skills (Wang et al., 2018), or "transversal competences" as they are called nationally, that are integrated into all levels of comprehensive education. In the context of reforms, an alignment and coherence need to be established between the bottom level (teachers as change agents (Fullan, 1993)) and the top level – the goal of the reform implementers. Such an approach has already proven to be effective in Finland (Ahtiainen, 2017; Pietarinen et al., 2017). What are similar in both Latvia and Finland, however, are the nationwide core curricula changes according to the so-called "21st-century skills" (Sahlberg, 2011; Skola2030, 2017).

The third educational system, that of San Diego, California, where the fieldwork was done, has a rich experience with aiming to improve instructional leadership and professional learning (Hubbard et al., 2006), and educational leaders in California propose the California

education system as a model in educational pedagogy that other countries can learn from and replicate (California Department of Education, 2016). California has embraced the ideas of capacity building and continuous improvement as an alternative to compliance-based solutions – to define targets, measure outcomes and establish consequences, that is, reward those who succeed and punish in various ways those who don't (Fullan & Rincon-Gallardo, 2017). This step that California took is regarded as the right direction as compliance strategies do not produce their intended results (Fullan & Rincon-Gallardo, 2017). In the US, innovators have adopted new pedagogies called “project-based learning” and “problem-based learning” accompanied by performance assessment of student learning to provide them with the learning experiences that lead to acquiring 21st-century skills. But that does not reflect the whole system (Pearlman, 2010). In California and other states in the US, new curriculum standards stress creativity, critical thinking, problem solving and communication – all of which are associated with 21st-century skills. However, the same problem arises – bringing these curriculum changes to life is problematic, as appropriate assessments of them have not been introduced. Many states in the US have no coherent system for assessing and improving teaching, which makes it difficult to come up with effective solutions to the problems of teaching practice (Darling-Hammond et al., 2012, p. 1). Different states have implemented various, sometimes experimental teacher assessment programmes.

It is acknowledged that curriculum and other educational changes are not identical in these three cases. Moreover, institutional and other factors vary greatly, such as the status of the teaching profession, the preparation of student teachers, support systems for teachers and principals at the school level, the type of curriculum standards, teacher professional standards, remuneration systems and so on. Nevertheless, schools and education systems globally are facing rapid changes, and this dissertation research looks at the existing practices and the experiences and meanings of teacher assessment and different forms of available teacher professional development at the school level in these three education systems.

In Chapter 3, these education systems are described by taking several topical categories: qualification requirements for teachers and the selection requirements for granting an entry into the profession; professional standards of the teaching profession; methods and requirements of professional development, teacher assessment and teacher self-assessment; qualification requirements and professional development of school leaders.

Research Questions and Goal

The goal of the dissertation is to phenomenologically explore and analyse the linking of teacher assessment with professional development for schools' organizational development.

To realize the research goal, the following research questions are proposed:

1. Which organizational development elements are necessary for schools that aim to implement the teaching of 21st-century skills?
2. How can teacher formative assessment be linked to the required professional development at the school level?
3. What kinds of teacher assessment practices are used in schools in Latvia, Finland and California according to teachers, school leaders and education experts?
4. How do teacher assessment practices and experiences of them inform the linking between assessment and teacher professional development?
5. According to phenomenological insights, what new social structures and practices could be recommended for schools in Latvia to support the linking of teacher formative assessment with professional development and improve the school organizational development processes needed for implementing 21st-century teaching?

The following research assumptions are proposed:

1. The way in which teacher assessment is formally structured (in Latvia) leads to weak links between teacher assessment and professional development, which prevents providing the necessary professional development to meet the different professional development needs of teachers, risking the successful implementation of the initiated curriculum reform at the classroom and school level.
2. Both formal and informal social structures of the school should be designed and implemented in a way that they provide a positive and meaningful experience of assessment for it to be more effectively linked to the required professional development.
3. School-based leadership is central to ensuring links between teacher assessment and professional development.

The research object is the linking of teacher formative assessment to professional development.

The research subject is the experience of the linking of teacher formative assessment and other assessment practices to their professional development.

To realize the research goal and answer the research questions, the following tasks will be carried out:

1. Identifying and analysing the central elements of organizational development and developing a theoretical model for analysing organizational development processes in schools in relation to teacher formative assessment.
2. Analysing teacher assessment, its different applications, and possible ways to link it to teacher professional development in order to inform the analysis of existing assessment practices and their experiences in Latvia, Finland and California.
3. Conducting a qualitative research to gather information on what the existing teacher assessment practices are and phenomenologically analysing the ways in which these practices are experienced as linked with assessment to teacher professional development for school organizational development.
4. Making recommendations for the Latvian education system for how to effectively ensure that teacher assessment is done in a way that helps inform their needed professional development in order for the school as an organization to be able to implement the new curriculum and achieve other topical organizational goals.

Research Novelty

Firstly, in Latvia there has been very little phenomenological research related to teacher professional activities. Two published research articles have tackled teachers' experiences. One research explored teacher mathematical identity and further consequences for professional practice in the context of education for sustainable development (Pipere & Micule, 2014), and another article aimed to find out how teacher educators construct and carry out their professional activities and interpret their experience in relation to the social and emotional aspects of their competence (Belousa & Uzulina, 2012). International research has tackled school principals' lived experiences of being evaluated (Parylo et al., 2012). Another study looked at veteran teacher perceptions of evaluation and support systems (Maxwell, 2019) and university academics' experience of doing formative assessment on student learning (Asghar, 2012). This research dissertation contributes to the phenomenological research field by adding insights that represent three very different educational systems and that represent different involved agents – teachers, school leaders and experts – and their experiences and meanings of formative assessment and its link to professional development. These insights are informed by organizational development literature, thereby also being interdisciplinary.

The dissertation takes the analytical approach of organizational studies, more specifically organizational development, where problem-driven research is adopted and takes research questions derived from real-world problems and seeks answers by using organizational paradigms, rather than pursuing questions arising strictly out of the paradigms themselves. Research of various organizational settings tends to be multidisciplinary (Scott & Davis, 2016, p. 28). The research questions are derived from practical problems that schools are facing; research questions were observed and formulated by the author in previous research done within an industry-driven research project funded by the European Regional Development Fund “The Application of Principles for Information System Modelling to Structured and Goal-Oriented Competence Management²” (2017–2020). The research questions were further refined by analysing relevant literature and the theoretical basis of this dissertation is a mixture of various fields – organizational studies, sociology, human resource management, educational sciences and public policy. In organizational studies, since the 1970s a majority of studied contexts have been narrowed down to for-profit organizations (Scott & Davis, 2016, p. 28). By taking the approaches offered by organizational studies and more specifically organizational development to study schools that are publicly funded, this dissertation adds to the field of organizational studies applied to non-profit organizations.

In this dissertation, an analytical focus is put on teacher professional development within the school as a learning organization where it is oriented towards supporting teacher instruction in the classroom and is practice-based. Teacher assessment is an improvement-focused and evidence-based set of actions aimed at providing new knowledge on how to further plan teacher professional learning and development in the context of teaching 21st-century skills. Teacher competence development is an activity that results in improvements in teachers’ instructional activities, which enhances the ability of students to achieve their learning goals (Dekker-Groen et al., 2013).

The dissertation research aim is related to the National Development Plan’s (NAP2020) (Cross-sectoral coordination centre, 2012) strategic objective “Development of Competencies”, the development of an education system that is appropriate for the demands of the future labour market, and supports the transformation of the national economy and development of necessary competencies. By taking evidence-based research approaches, the strategic objective aims to support teachers during educational changes. Thus, quality education is a proper long-term investment and solution for the improvement of society’s productivity and quality of life.

² Interdisciplinary centre of educational innovation (2020). Informācijas sistēmu modelēšanas principu piemērošana strukturētai un mērķtiecīgai kompetenču pārvaldībai: Projekta kopsavilkums un realizācija. Retrieved: <https://www.siiic.lu.lv/petnieciba/praktiski-petijumi/>

Teacher professional development and learning at the workplace is a rather new trend and is still in a quiet grass-roots experimentation phase, depending on the country or education system. Scholars see teacher professional learning as something that has an impact on already working and experienced teachers instead of only pre-service or novice teachers. This dissertation encourages a rethink of teacher assessment and how it happens at the school level as an institutionalized regular practice necessary for improving teacher professional development, which represents a major break with the past (Collinson et al., 2009).

This dissertation outlines research on teacher assessment and professional development and how these two domains may be linked. Empirical research in this dissertation is based on interviews conducted in three different education systems (Latvia, Finland and California). Interviews were conducted for inquiring into the experiences and their meanings of school-based practitioners – principals and teachers – to see what the current situation and mindset about these two phenomena are. In the interviews, principals and teachers shared their insights about their existing practices. Additionally, educational experts were also interviewed about the current state of teacher assessment in their education systems. The results of such insights of the practitioners who have hands-on experience of experiencing and leading teacher assessment and development can be useful to educational policy developers and implementers. Teachers cannot bring about necessary changes without organizational and systemic change; in other words, collaboration with governmental agencies and other institutions is needed (Collinson et al., 2009) and the research results presented in this dissertation can transfer new knowledge from processes happening at school level to higher levels of the education system.

There has not been enough research on current teacher assessment practices in Latvia. For example, currently, Latvian legitimate Cabinet Regulation prescribes a procedure for assessing teacher professional activity with a list of criteria groups with the assessment levels “*yes; somewhat yes; partly; not much; no; not observed*”. Although the three quality levels that a teacher may acquire are described, there is no evidence as to how the assessor determines the difference between levels such as “*somewhat yes*” and “*partly*” (Republic of Latvia Cabinet Regulation No. 501, 2017). This indicates there is a need for more research on how teacher assessment is actually done at the school level.

The recently published Teacher Professional Standard emphasizes several new aspects of teacher duties. Teachers are required to collaborate with other teachers with the goals of: assessing their pedagogical competence and improving instruction; assessing their instruction for planning professional development based on student learning; participating in the school’s development planning in the attainment of goals (MES, 2020b). In this dissertation, the

aforementioned teacher duties will be tackled in a way that formative assessment is based both on teacher self-assessment (Danielson & McGreal, 2000) and peer assessment (Gordon & McGhee, 2019) and is guided by school development goals.

Structure of the dissertation

The research dissertation is structured into an introduction, two theoretical sections, a section presenting a selected education system overview, a results section, conclusions and recommendations, a list of references including 342 sources and eight appendixes. The introduction presents the research topic, novelty and significance, introduces the rationale of international comparative research, research questions, the research goal, assumptions and tasks. The first theory section overviews the concept of organizational development and related concepts important for linking teacher assessment to professional development. The second theory section outlines teacher formative assessment and other kinds of assessment. The theory sections are summarized in two figures. Next, education systems are overviewed by using several comparative categories. Results are structured into two subsections: an overview of teacher assessment practices and the linking of formative assessment to professional development. Conclusions are structured into theoretical and empirical conclusions and recommendations and further research. The main text of the dissertation contains 132 pages. The dissertation contains eight tables.

1. ORGANIZATIONAL DEVELOPMENT

Organizational development as a field of multidisciplinary research and practice is as broad as the variety of different organizations around the world and it generally aims to offer solutions for how organizations can redesign their structures and processes in order to be more effective, adapt to different changes, reach desired goals and set new ones.

Up until now, the way in which human capital is treated in some organizations has been influenced by the ideas of Frederic Taylor and scientific management ideas created for factory settings during and following the Industrial Revolution. Some areas like private-sector organizations developing and providing information technologies are adapting fast and rethinking their organizational structures in order to outperform competitors. Schools, on the other hand, as government-funded organizations, tend to have hierarchical structures that change more slowly. Nevertheless, the public school's function of providing basic education in society is important and it influences overall human capital development as a public good. We can understand a lot about a specific organization from knowing about other organizations (Scott & Davis, 2016, p. 15) because most organizations under capitalism exhibit the same characteristics and tend to confront similar problems. In this dissertation, organizations are conceptualized as social structures created by individuals to support the collaborative pursuit of specified goals (p. 23). Therefore, the goal of this theory chapter is to identify and summarize the kinds of organizational development dimensions that are useful for schools regarding the topical curriculum and other changes they are faced with. The dimensions and elements are summarized in Figure 1 and represent a theoretical model for analysing and informing school organizational development based on teacher formative assessment linked to professional development and its experiences in schools that aim to implement the teaching of 21st-century skills.

Nowadays the topic of change forces that schools and the education sector are subjected to becomes more and more prevalent and unavoidable. The scarce economic resources for education, increased diversity of pupils and their learning needs, changes of required skills for future jobs, and the changing nature of communication and learning are among some of the societal and economic changes that schools and educational professionals need to adjust to (Cummings & Worley, 2015, p. 694). In the light of these unavoidable changes, planned organizational development practices are more than welcome in the school leadership processes. The change forces mentioned above make the task of schools very complex and multifaceted. School leaders are faced with different demands from the school community –

students, teachers, parents, employers, investors, local education boards, national education agencies and so on. The school as a non-industrial organization differs from other industrial and business organizations in that they form school systems that are far more tightly embedded in the larger social system. Schools are nested within local municipalities, and those municipalities are nested in wider regions or state departments that decide on new policies or standards. Schools are directly affected by changes in policy and also by state funding. Secondly, schools are tightly connected with communities – firstly with parents, who have their own goals and ideals for what and how their children need to learn (Cummings & Worley, 2015, p. 698).

A view is offered on schools as organizations whose development can be organized in many ways depending on their sizes and structures, adapted management and leadership styles, topical strategies, goals and other priorities and the organizational culture. For research purposes, not all organizational development dimensions described in the research literature will be covered due to their broadness but they will be narrowed down to a few selected dimensions that have been identified as being most related to the topic of this research and provide the reader with a conceptual description of a school’s “ideal type” of organizational development. This chapter will describe what organizational development is and how it can be applied to the research of schools as organizations, followed by describing what learning is in organizations and how it can be supported by using teacher (formative) assessment; what the role of leadership and goals is in organizational development; and lastly how all these dimensions apply to the specific school context.

As the level of analysis in this dissertation is the mezzo level – the organization and the micro level – teachers, the conceptual description of the school’s “ideal” organizational development is meant to be more practice-based by giving practical advice and examples for the practitioners working in schools – principals, assistant principals, teachers, head teachers and other supporting staff. In Chapter 2, a more in-depth look will be presented about what is known about teacher assessment regarding school development.

1.1. Organizations and Organizational Development

This chapter seeks to formulate a framework of organizational development in schools that is oriented towards linking teacher assessment with professional development. The framework will be used for analysing empirical material.

Organizational development as a subfield in organizational studies has largely been influenced by “human relations” scholars – social psychologists and sociologists who

emphasize the social features and general human side of organizational life (Scott & Davis, 2016, p. 21). There are countless definitions of what organizational development is. Organizational development can be defined as a “planned change aimed toward improving overall organization effectiveness by way of enhanced congruence of such key organizational dimensions as external environment, mission, strategy, leadership, culture, structure, information and reward systems, and work policies and procedures” (Bradford & Burke, 2005, p. 12). A more recent definition states that organizational development is a system-wide application and transfer of behavioural science knowledge to the planned development, improvement and reinforcement of the strategies, structures and process that lead to organization effectiveness (Cummings & Worley, 2015). Organizations are also systems of elements (environment, strategy and goals, work and technology, formal organization, informal organization and people) in which each of them affects each other and organizations are best understood if elements are viewed holistically (Scott & Davis, 2016, p. 34). The aforementioned definitions imply the different existing organizational dimensions that if aligned can help introduce development. A short review of these aforementioned dimensions and elements will be given and used to enable a better understanding of the functioning of organizational development.

Warner Burke, a scholar in socio-organizational psychology, also states that **organizational development** implies change and is analogous with organizational change (Burke, 1982). Development as such is closely linked to planned changes and has always been a component of organizational development (Marshak, 2006). Organizations that support and implement continuous and transformational change remain more competitive (Cohen, 1999). Studies of organizational change tend to show the complexity of change processes (Blau, 1957). For example, internal and external conditions both generate change in an organization, and the implementation of innovations can have a variety of repercussions, such as producing new problems (Blau, 1957). Change management means the process of helping individuals, groups or organizations change and here “management” implies an effort to best manage and implement the change. It is important to note here that intervention is the implementation or execution phase of a change effort or a change process (Rothwell et al., 2016). As was mentioned in the introduction, a change process that happens in schools is curriculum change. This is an external change, and in the interviews teachers and principals were asked if they had carried out teacher assessment in relation to curriculum changes.

Organizations may be analysed by looking at three different **levels of analysis** as identified by American sociologist and theorist Peter M. Blau (1957). Levels of analysis are

determined by what the nature of the dependent variable is or to what is given the primary attention – the behaviour of individuals (the socio-psychological level or the micro level), of organizations (the organizational level or the mezzo level) or of whole systems of organizations (the ecological level or the macro level). Primary emphasis throughout this dissertation is given to the socio-psychological level – the everyday practices of teachers and principals in their schools regarding assessment. At this level, organizational characteristics are viewed as the context or the environment and its impact on individuals' attitudes and behaviour. The organizational level of a school is also taken into account to explain the structural features and processes that characterize schools. The different forms of professional learning groups, management and/or leadership teams and communication between them and hierarchies of power will be taken into account to examine the organization of formative assessment and professional development. Lastly, the ecological level is studied through the interviews additional desk research (see Chapter 3) and is taken into account to see what external factors and institutional settings influence schools when they plan and carry out teacher assessment and development (Scott & Davis, 2016, p. 28).

The external environment (the **ecological level**) is where an organization is embedded. If we take one of the most prominent organizational sociologists Richard Scott's and Gerald F. Davis's proposed view on organizations, then that offers to view organizations as open systems: "organizations are congeries of interdependent flows and activities linking shifting coalitions of participants embedded in a wider material-resource and institutional environment" (Scott & Davis, 2016, p.40). Organizations, including schools, are open systems to their environment and therefore greatly influenced by different institutional contexts. One such example of what outside environmental factors influence a school's functioning, especially teacher assessment and development, are teacher professional standards and other centrally created policies and guidelines that are taken into account in the comparative analysis of selected education systems. The preparedness of early career teachers starting their work in schools can also be interpreted as an external environmental factor that influences organizational development in the school as pre-service teachers' initial education influences their personal and professional development (Caires & Almeida, 2005). The changes happening in the external environment (the ecological level, methodologically speaking) can and will bring in changes to organizations even with the most stable structures and no internal problems (Blau, 1957). For interviewing experts, a question that is related to the external environment is added to find out the necessary changes of school principals' and other school-based leaders' preparation for leading teacher assessment and professional development.

Organization studies were founded through the joint consideration of both the physical and **formal structures** within an organization (technical, instrumental, rational emphases) and on the **informal structures** (human, social, natural system emphases) (Scott, 2004). Formal structures consist of explicitly defined processes and structures, job definition, metrics, the physical layout and environment, and other officially specified aspects of work; informal structures are the less explicitly defined or tacit understandings, processes, methods and norms that comprise how work is actually done (Nadler & Tushman, 1983, cited in Anderson, 2017, p. 122). This structural dichotomy is also taken into account when analysing organizational development. For example, groups and teams as organizational structures may be either formal or informal where the informal structures can exert a powerful impact on an individual's behaviour (Anderson, 2017). Leadership practices, communication networks and learning processes are some of the structures that may manifest as formal or informal (Weisbord, 1976). Understanding the functioning of both these forms of structures can give insight into the possible causes of problems and required interventions (Weisbord, 1976).

One of the organizational development fundamental principles is the use of data as the basis for planning subsequent interventions (Rothwell et al., 2016). Taking into account the recommendation made by the OECD, Latvia needs to improve the data it gathers about the education system and improve its ability to use them for further improvements for the future (OECD, 2016, p. 16). Gathered data as an intervention in itself can be used by an organization or by an outside expert/consultant to expand their knowledge of the organization's problems; experts assist in the development process in schools and function as formative intervention researchers (Engeström & Sannino, 2010; Postholm, 2019). Methods such as interviews, focus groups, surveys, observations and unobtrusive measures can be used and each of them has advantages and disadvantages, therefore a mixed-method approach may be the ideal solution (Anderson, 2017). Data offer information and without valid information it is difficult for an organization to learn and for interventionists to help; valid information is that which describes the factors, as well as their interrelationships, that create problems for an organization (Argyris, 1970). Bearing in mind the importance of data for planning development, the interview questions also had an additional question about data gathering and data use regarding teacher assessment in schools.

Organizational development works best if supported by an organization's senior **leadership**. Leadership in organizational development is necessary for many obvious reasons. One of them is the dimension of change and organization members' high involvement in change (Rothwell et al., 2016). Organizational development is not real development if people are

coerced to follow changes that they oppose (Rothwell et al., 2016). Decisions on what should be changed and developed, and how, within an organization should be made by involving all members, not just managers (Rothwell et al., 2016). A more in-depth overview of leadership for school development is given in Chapter 1.1.2.

Development and **goals** are both very broad yet very important concepts in the organizational research literature. Given that development in organizations means changes and transformations that are not unexpected but are aimed at achieving a certain desired improvement, then goals should be taken into consideration. Goals are among one of the most important concepts of organizations and they serve a central point of reference in organizations (Scott, 2003). In general, goals in an organizational context may be interpreted in various ways, such as official and operative goals (Bamburg & Andrews, 1991; Perrow, 1961), or there can be varying goals among groups and members depending on their different motivations and roles in the organization (McAuley et al., 2007). Goal setting is used both for organizing work and motivating employees (Locke, & Latham, 2006). As mentioned before, school (development) goal setting is topical due to curriculum changes introduced at the system level. Goal setting as a topic is included in the interviews in relation to teacher assessment and whether teacher assessment is somehow linked to goals for development. An additional question is added to ask what other practices are used to make decisions for setting goals if assessment is not linked to goals. A more in-depth overview of goals and goal setting in organizations and schools is given in Chapter 1.1.3.

The last organizational dimension to be included in analysis of schools as organizations that are developing is **learning**, as it is a value that differentiates organizational development from most other management and consulting work (Anderson, 2017). Learning primarily, but not exclusively, affects change during development processes (Rothwell et al., 2016). Organizational development is closely related to, and integrated with, human resource management (Cummings & Worley, 2015; Hatch, 2013, p. 4), but the dilemma that this field is dealing with is how to make learning for organizational development an outcome at both the individual and organizational levels (Van Woerkom, 2004). Whether and how teacher professional learning needs are identified in schools is an important element to be analysed, as it determines whether necessary professional development actions are taken. **Development needs** are an identified lists of teachers' needs for their (professional) development to enhance their instruction (Zein, 2017). Development needs are obtained through gathering a combination of data such as observation notes on teaching activities and interviews (Zein, 2017). Two questions are included in the interviews about how principals and teachers

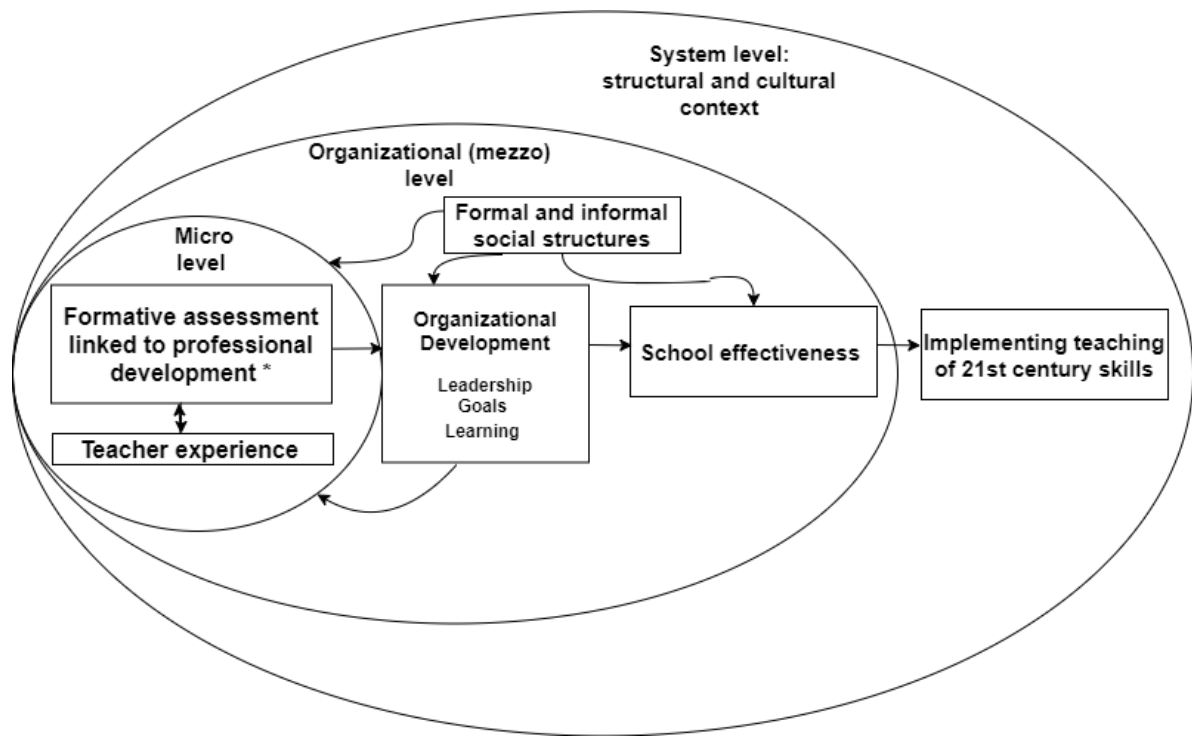
themselves identify their development needs. A more in-depth overview of learning in organizations is explored in Chapter 1.1.1.

This chapter gave a short overview of the organizational dimensions that if aligned can help introduce organizational development. Several important organizational development elements were not included in this theoretical overview but it is still relevant to mention them: management and assessment of development and change processes, and closure stages of organizational development (Rothwell et al., 2016) such as how to sustain introduced development processes over time and how organizational development occurs at different levels of an organization (Anderson, 2017).

The selected elements for analysing and informing school organizational development are based on three levels of analysis (see Figure 1). The micro level is being examined by taking an agency perspective – teacher and principal experiences of the linking of assessment and professional development. The logic of linking formative assessment to professional development is explained in Chapter 2, Figure 2. This process is viewed as influencing how organizational development happens and, in turn, how organizational development encompasses leadership, goals and learning processes that may influence the micro level. Micro and mezzo levels are influenced by formal and informal social structures. Two outcome variables are added: school effectiveness for implementing 21st-century teaching (the mezzo level) and the implementation of 21st-century skills at the system level. Related interview questions are derived from these elements. Further subsections overview three organizational development elements, namely learning, goal setting and leadership, in greater depth and in the contexts of educational research literature.

Figure 1

Theoretical Framework of School Organizational Development Based on Formative Assessment Linked to Professional Development for Implementing Teaching of 21st-Century Skills



1.1.1. Learning

The goal of this subsection is to find out what the role of teacher learning and professional development is for organizational development in schools. The link between development, performance and learning has been established in the organizational studies literature (Bierema & Eraut, 2004). The new trends of human resource development approaches include learning by doing, non-formal learning, peer learning, workplace learning, etc. Workplace learning is an “umbrella term” for professional development that takes place formally or informally at the school level and it is considered to be both individual and collaborative (Avalos, 2011). What can be learned about these trends to inform current practices in the school organizational context?

Schools cannot be characterized simply as organizations or communities. They have characteristics of both (Cummings & Worley, 2015, p. 694). An extended concept of collaborative learning for development applied to the school context is professional learning communities (DuFour & DuFour, 2013; Easton, 2008; Stoll et al., 2002, 2006). The idea of a learning community in the school context comes from organizational studies literature, more

specifically, organizational learning literature. Peter Senge, a scholar in social systems modelling, was the first to use the concept of learning organization in his widely acclaimed book *The Fifth Discipline*. Organizational learning was targeted at private-sector organizations but found its way to the education sector (Blankstein, 2004). Thomas Sergiovanni, a strong proponent of ideas-based leadership and the development of a responsibility-orientated community, translated one of Senge's five learning organization principles, "team learning", into the educational context. He wrote: "[T]he idea of school as a learning community suggests a kind of connectedness among members that resembles what is found in a family, a neighbourhood or some other closely knit group (Sergiovanni, 1992). Since the 1990s the concept of schools as learner-centred communities has emerged and continues to evolve (Cummings & Worley, 2015, p. 699).

With respect to paradigm changes in management theories, characteristics of professional learning communities reflect the **self-government** idea in management (Hatch, 2013). This idea was first developed by Mary Parker Follett, a leading management theorist, in the early stages of classical management theory (Hatch, 2013). In 1924, Follett presented a management theory based on the principle of self-government, which she claimed would facilitate "the growth of individuals and of the groups to which they belonged [...] by directly interacting with one another to achieve their common goals, the members of a group fulfilled themselves through the process of the group's development" (Hatch, 2013, p. 26). Such ideas, developed over 100 years ago, are gaining more momentum when organizations should reflect the democratic values of the democratic societies where they are embedded. Follett showed how power with people instead of power over them is the source of new breakthroughs (Follett, 1918; Hargreaves & Fullan, 2012, p. 8) in the case of professional development – creating new knowledge and new understandings on how to support teacher development and instruction in the classroom.

How could teachers be supported from within the organization so that their classroom instruction would be improved in a sustainable and continuous way? Teachers can learn from each other and from their own practice and create new knowledge for improving their instruction within their school more than has been traditionally assumed. In his review of different theoretical models of schools, Jaap Scheerens, a Dutch educational and school effectiveness researcher, discusses the learning organization as one of the models for an effective school (Scheerens, 2016). One aspect important to organizational learning is how to turn individual learning into learning that happens at the organizational level (Scheerens, 2016). According to him, the two key variables of a learning organization are professional

development and assessment and feedback for development (Scheerens, 2016). The importance of learning at the organizational level will be further explored.

The theoretical basis of organizational learning was developed by Argyris and Schön (1974) by introducing the concepts of single-loop and double-loop learning. Double-loop learning depends on being able to take a “double look” at the situation by questioning the relevance of the operating norms (Morgan, 1986, p. 88, cited in Scheerens, 2016, p. 87). For example, schools are well practised in planning teacher professional learning and development in a particular way; that is, they have a certain operating norm (choice of learning provider, invested amount of time, group size of teacher learners, school leadership engagement in learning activities and so on) (Scheerens, 2016). How can it be determined whether the learning practices are organized in a way that they produce the necessary outcomes? Double-loop learning introduces the idea that any practice at the organizational level should be re-evaluated to determine its value to the organization. To re-evaluate something, assessment information/data is needed on organizational functioning that serves as a basis for corrective or improvement-oriented action (Scheerens, 2016). This takes a step-by step incrementation orientation. Goals (or expectations) are given the function of standards for interpreting this assessment information (Scheerens, 2000, p. 86). This means that assessment information about the functioning of an organization, mainly the performance of its members, is used to acquire new insights for improvement-oriented actions (Morgan, 1986, cited in Scheerens, 2016, p. 17). A cycle of assessment – feedback – corrective action may happen if the school members are aware of their desired goals for learning and they have gathered data/information about the practices performed for reaching those goals. This is learning at the organizational level. Teachers and school leaders learn together in their school to reflect on their activities and processes to re-evaluate whether they lead to the desired goals. Structures that encourage employees to think for themselves and subunits aimed at reaching shared goals are two of the factors that can help foster learning at the organizational level. Such reflection and reassessment is especially important when the school is facing changes brought from the outside. Implementing new practices brings in uncertainty about their outcomes, therefore reflection and critical thinking are needed. Critical thinking is used in organizations to examine assumptions, discern hidden values, evaluate evidence and assess conclusions (Myers, 2007, p. 24).

Teacher learning also happens at the individual level in the form of professional development. Traditional teacher development approaches have been criticized for some time now. Traditional in-service approaches to teacher development lack knowledge about how teachers learn, ignore teachers’ own definitions of the problems of teaching, ignore the critical

context within which teachers work, and don't consider the importance of support mechanisms and the necessity of learning over time (Lieberman, 1995). In the context of traditional in-service development, teaching was often described as a technical set of skills leaving out invention and the building of craft knowledge (Lieberman, 1995, p. 75).

In the past, teacher development was called "training" – the word "training" fits the factory model of education, which does not reflect the current state of schools and the teaching profession when taking into account global changes in the capitalist labour force (Easton, 2008). "Training" was replaced by "development" – this word evokes an image of what someone does to someone else: develop them. In education, professional development has, in fact, often been what someone does to others (Easton, 2008). If development (growth, improvement, progress and so on) were enough for teachers and other education professionals, there would be no need for something new or something else; but because the learning needs of students change rapidly and other school conditions also change, teachers need to respond to these changes and rethink their teaching practices (Easton, 2008). This requires learning. In general, professional learning has been linked to successful teaching and learning, and also to successful schools and systems. Teachers in professional learning-oriented schools are never fully satisfied with what they know, but they can, however, approach their work open-mindedly (Dinham, 2016).

On the other hand, effective teacher **professional development** features include: long duration, collective participation and a focus on core features – content, active learning and coherence with other learning activities (Garet et al., 2001). Such features have a significant and positive effect on teachers' self-reported increase in knowledge and skills and changes in classroom practice (Garet et al., 2001).

Similar findings have been reported in the Latvian context. Professional learning for teacher development that is school-based and classroom-based for gaining hands-on experience, highly collaborative, happens over a longer period (two school years), is based on content that is related to current teacher professional learning needs, is based on analytical reflection and experimentation and, lastly, is continuous in nature has proved to be effective. Teachers who participated in the continuous professional development model improved their skills to teach 21st-century skills, and perform activities such as lesson planning and giving feedback to students, and brought overall changes to how student learning happens and how teachers feel about themselves professionally (Namsone et al., 2016). Professional learning that is collective already implies how individual development can turn into organizational development – it is when teachers start to learn with each other at their workplace, but for this to happen in a more meaningful way, teachers and school leaders need adjusted formal and

informal social structures for how to organize teacher formative assessment linked to professional development and objective and structured data about teacher work to guide their required professional development planning.

However, the way the school culture functions in terms of professional development is not directly teachers' responsibility but the enabler for a learning-oriented school, and school-based leaders such as principals play an important role. Thus, in the process of identification of, and support for, teachers' professional development needs the leadership practices in schools are crucial, and in research literature about educational leadership this topic is often discussed under the approaches of **instructional leadership** (e.g. Dinham, 2016) or broad-based pedagogical leadership (e.g. Lahtero & Kuusilehto-Awale, 2015). Furthermore, it has been observed that the leadership of a principal has a positive effect on student learning outcomes (Robinson et al., 2007); however, the principal's role is related to classroom activities and student learning indirectly (Dinham, 2016; Lahtero & Kuusilehto-Awale, 2015). Therefore, the way principals perceive and understand their role in leading the professional development of their school, and how they support it, plays an important role. In the next subsection, the role of leadership regarding teacher assessment, development and organizational development is discussed.

Schools are knowledge-intense organizations, but how does workplace learning happen in a school? Firstly, let's examine how decisions for learning happen. The ways in which teacher learning takes place within the school and what the available support for learning is are less studied (Hoekstra et al., 2007). Even newer research states that only rarely do studies address what teachers themselves would like to learn (i.e. what their professional learning needs and goals are) (Janssen et al., 2012). As Timperley (2011, p. 47) points out, when professional learning is not driven by identified student and teacher needs, teachers might find the experience interesting, but in the absence of a need to solve a specific problem concerning practice or to improve a particular outcome for students, there is little urgency or motivation to change and develop. As regards teacher assessment (see Chapter 2.1), teachers themselves are alienated from the criteria for assessment action and any instructional improvement goals tend to emanate from external criteria rather than the teacher's self-perceived needs, a reality that works against the intrinsic motivation associated with professional development and improved teaching (Gordon & McGhee, 2019). As mentioned before, interview questions include the ways in which teacher development needs are identified in schools.

Taking into account the need for assessment information, **data use/evidence-based** practices are also key components of a sound foundation for a learning organization (Senge,

2006) just as for organizational development. Teacher assessment is meaningful if it is followed by appropriate teacher continuous professional development and learning (CPDL). On the other hand, CPDL can be effective if the school agrees on a definition of effective teaching that is also evidence-based. For this to take place, an objective methodology is required that would help assess teachers for identifying their learning needs. Organizational development emphasizes members' participation in assessment of the current state of the organization and in planning for a positive future state, including the making of collaborative decisions on how implementation should happen and empower the organization members to take responsibility for creating and assessing results (Rothwell et al., 2016).

In this dissertation it is proposed that teacher professional competence is closely related to professional learning. Competence, consisting of different attributes, is learnable and teachable, not innate and static (Kunter et al., 2013), and thus may be fruitfully applied to the teaching profession (Goodman et al., 2008), which is topical in the context of curricula changes demanding new teaching approaches in the classroom. The question is: how are teachers supported in identifying their professional learning needs, and how do they know which competence areas to focus on in their practice? In Chapter 2 it will be outlined how teacher assessment may be used to assess teachers in order to identify their professional learning needs.

This subsection has overviewed several aspects that are important for teacher professional learning and development to happen within an organization that is aiming to develop. Learning can happen at the organizational level, group level and individual levels. Professional learning communities are one way to conceptualize how effective learning may happen in schools. Learning communities promote values like shared responsibility, self-governing, learner-centredness and close connectedness among members. If professional learning is combined with assessment and feedback, then learning can happen at the organizational level. Data about teacher work can serve as assessment information to rethink how teacher learning and development is conducted at the organizational level and goals function as a reference point to determine whether learning and development actions and other investments are producing the desired results. Data gathering is also relevant for identifying teacher learning needs, a less studied process in schools. Lastly, both teacher development and learning are important, with professional learning being a slightly newer conceptualization of improvements in teacher work that can be attained.

1.1.2. Leadership

The guidelines of the Latvian curriculum reform (Skola2030, 2017) emphasize the role of effective school leadership for implementing the new curriculum at the school and classroom level. General education experts and educational sociologists look at aspects of school organization, such as leadership style, when studying education effectiveness (Scheerens, 2000, p. 19). Educational science research uses recent organizational leadership models that recognize leadership as emerging from many individuals within an organization rather than being vested in a small number of formally recognized leaders (Taylor et al., 2011). This subsection explores the meaning of leadership for organizational development.

In educational research there are countless accounts of how and why school management and leadership approaches impact **school effectiveness**. Effective leadership is one of the school effectiveness-enhancing approaches and is also one of the conditions that are included in past educational effectiveness research (Scheerens, 2016, pp. 78–79). School leaders can either enable or constrain teacher professionalism, for example, by providing meaningful opportunities for teachers to continue learning (Leithwood et al., 2008; Talbert & McLaughlin, 1994, p. 146), and principals play an important role in providing actionable **feedback** to teachers, create professional communities in which teachers share goals, work and responsibility for student learning outcomes, and forge systems where teachers have an opportunity for CPDL (for a review, see Hallinger et al., 2014). Understanding and developing people is a way for school leaders to indirectly improve teaching and learning quality (Leithwood et al., 2008). If school leaders act as educational leaders they can communicate with teachers as fellow professionals and colleagues and discuss educational issues (Scheerens, 2016, p. 89).

There can be diverse practices that school leaders use and diverse areas they focus on to reach school goals and answer the demands from stakeholders. These include improving the quality of teaching and learning, which is a leadership domain most characteristic of **instructional leadership** that tends to focus on school-wide rather than classroom-specific strategies (Leithwood et al., 2010). The school takes on a learning mission and the school leader aligns teaching and learning activities with the defined purpose (Hallinger, 2005), and it entails monitoring and assessment activities for school development (Nettles & Herrington, 2007; Waters et al., 2003; for a review, see Brauckmann & Pashiardis, 2011, p. 14). Other practices include: providing clear vision and coordination (structural leadership), involving other school members in leadership-related activities (participative leadership), utilizing external networks and resources (entrepreneurial leadership), developing school staff (personnel development

leadership) (Brauckmann & Pashiardis, 2011). Instructional leadership-related strategies align with school organizational development but the efficacy of this approach to leadership and school development strategies must still meet dual criteria of empirical evidence and feasibility (Hallinger et al., 2014).

These leadership domains are not formed in a vacuum, as school leaders' actions and perceptions depend on the context in which they work. The context can be broadly divided into two levels: 1) system-level variables (schools' external environment), which include patterns of centralization/decentralization and patterns of assessment and accountability arrangements; 2) school-level variables, which consist of variables pertaining to the characteristics of the school and demographic information (Brauckmann & Pashiardis, 2011, p. 13). In the context of reforms, an alignment and coherence need to be established between the bottom level (teachers as change agents (Fullan, 1993)) and the top level (policymakers). These two levels cannot accomplish a large-scale reform on their own. Middle management (school leaders) has to function as a mediator between these levels (Nonaka & Takeuchi, 1995, p. 128). Practical experiences from successful reforms in other countries (England, Canada, New Zealand) show that school principals as leaders are important for leading change because the key players in a reform are schools and districts, i.e. middle management (Fullan, 2015; Hargreaves & Ainscow, 2015).

Despite the prevalent opinions of teachers highlighting the importance of school leaders regarding their professional development, improvement of teacher leadership qualities and helping to bring about innovations by managing the practical organization of teacher collaboration and professional learning is still missing in school practice (Butkēviča & Zobena, 2017; Namsone et al., 2016; Namsone, Čakāne, France et al., 2016). Contrary to these findings, under the Soviet regime, school principals' role was mostly understood as administrative. Such a role is mostly related to activities such as resource management, and monitoring activities without involvement in the professional pedagogical issues of the school (Bluma & Daiktere, 2016). This reflects the informal tradition of the school leaders' profession, but also, until now Latvian school principals have had no formal requirement to have further education on leadership and management (Bluma & Daiktere, 2016). Consequently, principals lack commitment to being leaders (Bluma & Daiktere, 2016). Experience from failed national reform efforts in the US also shows that schools tend to focus too much on non-academic issues, such as student discipline and parent involvement, rather than on educational core issues of teaching and learning (Cummings & Worley, 2015, p. 696). A similar trend has been observed in the Latvian context where school leaders, when talking about the central goal of their school,

overemphasize national and local school rankings, achieving high results on national student tests, the school's historic relevance, reputation and facilities, as well as teacher behaviour related to friendliness toward students and collaboration with parents and fulfilling parenting-related functions (Butkēviča, 2018). The majority of these perceived school goals are non-academic (Butkēviča, 2018). Despite the strong focus on the end results of schooling (high results in national tests), school leaders spoke minimally about their goals and activities for supporting teaching and teacher professional learning and development (Butkēviča, 2018). Contrary to these findings, one of the underdeveloped areas of the Latvian education system analysed and brought forward by the OECD Review of National Policies for Education is the area of human resource strategy for high-quality teaching and school leadership. This area should be improved comprehensively and for the long term and would be an important step for improving learning outcomes in the country (OECD, 2016, p. 16). This raises important implications for supporting school leaders in a way that may be helpful for management practices for cultivating the school as a learning community (Stoll et al., 2006) and a learning organization (Argote, 2012; Fullan, 1995) and for setting realistic and achievable goals for the school and teachers.

Leadership no longer belongs to principals only but has been understood as a wider phenomenon including all professionals working in schools (Dinham, 2016). Therefore, formal and informal leadership roles can be taken by both the teachers and principals and other members of the school. As Hargreaves and Fullan summarize Follett's ideas regarding leadership: effective leadership is not about commanding obedience but rather about "giving expression to external realities and the interior aspirations of others" (Hargreaves & Fullan, 2012, p. 152). Teachers themselves play an important role in determining their professional development and learning. Viewing teachers as active agents who can take informal leadership roles began in the 1980s with the first attempts to conceptualize the meaning of what it is to be a "**teacher-leader**" (Crowther, 1997). Teacher leadership is the process by which teachers, individually or collectively, influence their colleagues, principals and other members of the school to improve teaching and learning practices (York-Barr & Duke, 2004). Teacher leadership may be perceived as being based on holding administrative positions and tasks. On the other hand, it can also be conceptualized as leadership that is based on classroom work that is neither supervisory nor hierarchical but focused on (a) individual development, (b) collaboration and (c) organizational development. Teacher leadership is not a formally recognized role or position within a school and definitions of it are often ambiguous (Taylor et al., 2011).

The already mentioned changes in educational goals brought about by curricula reforms or other changes imply that teachers' instructional work must also change accordingly, which has important human capital implications, including those related to teacher professional development and learning (Saavedra & Opfer, 2012). Research in Latvia on teacher competence, teaching activities in lessons and teacher assessment of their professional development needs shows that teachers require support to be able to design and conduct lessons that facilitate appropriate teaching practices for students to acquire 21st-century skills (Dudareva et al., 2015; France et al., 2015; Volkinšteine & Namsone, 2014). In most countries, supervising teacher development usually falls into the hands of principals.

There are distinctive sets of practices and behaviours that school leaders can exhibit in order to influence the behaviour of others (Brauckmann & Pashiardis, 2011, p. 13) and general school effectiveness. Leadership oriented towards pedagogy at the school level plays a key role in ensuring the effectiveness of the link between assessment of teachers and identifying areas for development needs that lead to making individual development plans (Pont et al., 2008). This subsection has given a short overview of these different practices and their importance for supporting teacher professional learning and development. Instructional leadership as one of the leadership styles is emphasized as it is oriented towards monitoring, and assessing teaching activities for their development. Instructional leadership also implies inviting other school members to take on leadership roles, therefore teacher leadership is also taken into account. However, school leaders also need substantial support to realize such leadership activities in their schools. Lastly, the functioning of school leadership is influenced by external school factors, and educational changes such as curriculum reforms specifically emphasize the role of leaders as middle-level managers – as they are in the middle between the school and the external educational institutions implementing the curriculum.

1.1.3. Goals and Goal Setting

Goal setting is one of the key dimensions and practices when it comes to the impact of school leadership on student learning (Hallinger, 2005). The kinds of goals schools set for themselves and the kinds of activities where school leaders involve themselves determine students' academic success (Bamburg & Andrews, 1991, p. 190). Teachers, together with students and school leaders, can collaborate on reaching the specific goals of a curriculum reform (Fullan & Langworthy, 2014; Leana, 2011). As already discussed on organizational development, planned changes demand some sort of goals to be set. This subsection explores

what the role of goal setting is for organizational development, and how goals can help schools align teacher assessment and professional learning and development.

The relationship between members of an organization and the organizational goals implies whether members are fully integrated within the organization (McAuley et al., 2007). This idea represents one of the different theoretical models applied to researching schools as organizations – the **human relations perspective**. This theory, developed by business theorist Elton Mayo, represents the behaviourist perspective on scientific management and is understood as a theory of organizational effectiveness. Human relations theory can be characterized as the shift from the technical and economic aspects of work in organizations to the human, social and psychological aspects. Also, it emphasizes the work of individuals not as isolated but as collective and group-based (Tompkins, 2005, p. 153). The well-being of teachers, the importance of collegial relationships, motivation and human resource development are among some of the aspects that are important for those taking the human relations approach (Mintzberg, 1979).

This approach also advocates the congruence between individual and organizational goals – in other words, the extent of alienation of the members in an organization (Louis & Smith, 1990). Gaps between individual work and the organization's goals are not the only gaps that organizations face. Additional gaps may exist between the organization and its environment or between different organizational units (Anderson, 2017).

Research in Latvia shows indications that school leaders don't set goals for teacher development, contrary to what educational research literature says about school leaders' role, which is to understand and develop people to indirectly improve teaching and learning quality (Leithwood et al., 2008). Previous studies have shown that school leaders in Latvia view the school goal primarily as the end result of schooling, overemphasizing high results on national tests, school rankings, teacher behaviour such as being friendly toward students and collaborative with parents and fulfilling parenting-related functions. Latvian school management practices are underdeveloped in terms of linking the appropriate content of teacher professional learning activities with the goals of the school (Butkēviča, 2018; Butkēviča et al., 2018), which is a prevalent theme in both schools and other public and private organizations in Latvia (Zandbergs et al., 2018). Such findings indicate that teachers are not being fully integrated as members of the school and its organizational goals (McAuley et al., 2007). The development element of organizational goals aligned with employee (teacher) work is interpreted as assessment that is an improvement-focused set of actions oriented toward not only reaching goals as a purely bureaucratic action but also toward providing the necessary

teacher professional support needed for reaching the goals. Therefore, mutual beneficial goals between the organization (school) and the teacher are needed (Stronge, 2006). A balance of individual needs and institutional expectations is essential for promoting productive work environments (March & Simon, 1993).

Educational literature that looks at school effectiveness emphasizes a clear mission and **clearly defined goals** (Hallinger & Heck, 2002, p. 19). The problematic vagueness and complexity of goals have been pointed out in the school effectiveness literature before (Bamburg & Andrews 1991; Murphy et al., 2001). Turning to school effectiveness, researchers in this field have frequently concluded that schools tend to have complex and vague goals, which hinder the power to plan and direct action, especially teachers' actions relating to successful attainment of organizational goals (Murphy et al., 2001). A provisional assumption is made that the same problem applies to Latvian school management practices. On the other hand, effective school leaders are characterized as setting specific and clear goals oriented toward teacher growth and thereby indirectly influencing student learning (Leithwood & Montgomery, 1982) and encouraging **ownership** among teachers and mobilizing them to work towards school goals (for a review, see Murphy & Torre, 2015).

Goals may function as standards for interpreting assessment information. Performance appraisal is a feedback system that involves the direct assessment of individual or work group performance by a supervisor, manager or peers. Most organizations have some kind of assessment system that is used for performance feedback, pay administration and, in some cases, counselling and developing employees (Cummings & Worley, 2015). This process involves collecting and feeding back data about individual or group performance and the way results are achieved (Cummings & Worley, 2015). When the goal is ambiguous, norms and standards for interpreting assessment information gathered through, for example, teacher assessment are also ambiguous (Scheerens, 2000, p. 86). Again, the clarity of goals is emphasized as specific goals reduce ambiguity about expectations and measurement of progress for goal attainment, therefore goals should be operationally defined (Cummings & Worley, 2015). But it is known that in the teaching field it is difficult to reach a consensus on setting goals and how to operationalize and quantify them (Scheerens, 2000). Holistic teacher competence management in the school is interpreted as the combined activities of professional competence identification, assessment and planning further development (Zandbergs et al., 2018). Human resource management (including teachers' and school leaders' competencies) is part of the impact cycle for achieving goals at the school (Čakāne & Butkēviča, 2018). In the scientific literature on educational sciences "competence management" in relation to teacher

competencies is rarely used; “human resource management” is the more common usage. Also, it follows the same idea that teacher performance management is the formal teacher appraisal processes designed to ensure that individual and organizational goals are met (OECD, 2013, pp. 11–12). Teacher assessment is analysed in greater depth in Chapter 2.

Goal setting involves members of the organization in jointly establishing and clarifying employee goals, therefore goal setting describes the interaction between managers and employees in jointly defining member work behaviours and outcomes and can clarify the duties and responsibilities associated with a particular job or work group (Cummings & Worley, 2015). Goal setting may happen at the **individual level** and reinforce individual contributions (Cummings & Worley, 2015). Goal setting can also be applied to **groups and teams**; it can be directed at group objectives and can reinforce members’ joint actions and overall group outcomes (Cummings & Worley, 2015). For the empirical analysis, gathering information about school practices regarding goal setting was taken into account, specifically goals for school development. Also, in the interviews, attention was given to teachers’ individual goals and how teachers determine whether they are able to reach their goals, and additionally to how school principals determine whether the goals set are achievable. To make an inquiry into the decision-making process of the goal-setting process, teachers and principals were asked how they know that their goals are the “right” goals.

To summarize the full cycle of goal setting and its meaning in organizations: 1) goal setting specifies the kinds of performances that are desired; 2) performance appraisal assesses those desired outcomes; 3) training and development systems build individual competences; 4) reward systems provide the reinforcement to ensure that desired outcomes are repeated (Cummings & Worley, 2015, p. 440). In addition to the aforementioned topics included in the interviews, teachers and principals were also asked if they were carrying out teacher competence assessment in relation to goal setting. To set research boundaries and not overwhelm research participants with lengthy interviewing, teachers and principals were not asked in detail about all the possible steps and practices regarding goal setting.

According to Michael Fullan (1999), there are five components of organizational practices and norms of a school that, if realized, can lead to a more successful reform outcome: resolute leadership for sustaining focus on the priorities through all stages; intelligent accountability through shared responsibility; collective capacity building with a focus on instruction (the breakthrough concept); individual capacity; morale, purpose and high expectations. Such activities are related to knowledge creation and sharing, which serves as a way of collective meaning making. If performance data in a school are made available for all

involved people, and if they collaboratively examine this evidence to bring in positive changes based on the information, then teachers and school leaders gain a shared understanding of how they are performing. Additionally, such activities should help the school to understand its shared values and goals (Fullan, 1999, p. 28).

Goal setting functions as aligning members' goals with the goals of the organization. Members of the organization can risk alienation if goals set for them are not realistic. Goals can also function as standards for interpreting assessment information on the progress of reaching the goals and what investments and support are needed, but for this to happen, the goals must be defined in a clear way. To summarize, organizational development is planned change and learning in the school that might be analysed by taking three levels (see Figure 1).

At the individual level are teachers' and school-based leaders' experiences and their meanings of the practices. At the organizational level three elements are happening – goal alignment between the individual and organizational levels, learning (also at the organizational and individual levels) and leadership, which influences how learning and goal setting is done. At these levels, practices might be done within formal or informal organizational structures and might include different processes – in this case assessment and professional development and learning (further explained in Chapter 2). The third level is the system level, which characterizes the contextual environment of the school and influences its functioning such as professional standards or the professional preparation of in-service teachers. Planned change might be initiated by the school members or by outside experts such as formative interventionists and must use evidence to inform the direction of change.

2. TEACHER FORMATIVE ASSESSMENT FOR PROFESSIONAL DEVELOPMENT

In this research, teacher evaluation is used as an all-encompassing concept for the various approaches of how teaching quality (Nilsen & Gustafsson, 2016) may be defined, identified, observed and measured in various ways to inform various decision-making at the three analytical levels of organizational analysis. Teaching quality places emphasis on classroom instruction (Kinght et al., 2015). Berliner (2005) introduced the distinction between good teaching, which exhibits the standards of the profession, and effective teaching, which refers to reaching student achievement goals. Teaching quality is made up of both good and effective teaching (Kinght et al., 2015). Assessment is based on predetermined criteria; it is observation-based and involves data collection often with the use of (multiple) instruments (Nolan & Hoover, 2011). The diagnostic use of assessment to provide feedback to teachers is called “formative assessment” (Boston, 2002) and it is distinguished from the general sense of teacher evaluation. Both concepts are used in this dissertation. In the educational literature the concept of appraisal is also used as one of the forms of formative assessment (OECD, 2013; Pont et al., 2008).

All education systems have different approaches for how to assess teachers and their instruction. Teaching and learning cannot improve if teachers do not have access to high-quality feedback based on accurate assessments of their instruction as measured against clear standards for what is known to be effective in the classroom. Without quality assessment of teacher instruction, school leaders are left blind when making critical decisions in an effort to achieve their school goals (Archer et al., 2015). Teacher **instructional quality** is a multidimensional construct (Baumert et al., 2010) reflecting features of teacher instructional practices in the classroom that are positively related to student (cognitive and affective) outcomes (Decristan et al., 2015; Fauth et al., 2014; Good et al., 2009; Klusmann et al., 2008).

The previous chapter introduced key ideas of what is necessary for organizational development to happen in schools that are oriented towards linking teacher assessment to professional development and through that improve such school effectiveness indicators as improvement of teacher instruction of 21st-century skills. This chapter seeks to explain teacher evaluation, especially formative assessment, and its link to professional development by also considering the previously explored organizational development elements.

Generally, teacher assessment functions to make sure that an education system can filter out poor-quality teachers and support teacher instructional quality. Both approaches are

explored but a greater emphasis in this research is put on the latter approach – how formative assessment can be linked to teacher professional development. Often educational researchers look at the links between teacher assessment and how it affects student learning; this is an important research topic, but for setting research boundaries, this link is not explored. Considering the ideas summarized on organizational development, this chapter further explores what teacher assessment is, how it differentiates, how it may be done practically at the school level with in-service teachers and what risks concerning its practical applications should be considered. The chapter seeks to explain teacher formative assessment links with teacher professional development to inform how schools can support instructional development both on an individual (micro) and on an organizational (mezzo) level in order to implement system-level goals such as the instruction of 21st-century skills.

The first subsection starts by exploring what teacher evaluation, formative assessment and summative assessment are and what should be taken into account to ensure formative assessment that is linked to professional development. The second subsection explores in greater depth teacher competence and performance, as two aspects of teacher instruction and valuable types of evidence for informing professional development needs and activities dedicated to improving teacher instruction of 21st-century skills.

2.1. Teacher Evaluation and Formative Assessment

Since the turn of the century, teacher evaluation has been put forward as an important strategy for ensuring and developing educational quality in many countries (Skedsmo, & Huber, 2018). Effective teacher evaluation is necessary for verifying and maintaining high-quality instruction and therefore also student learning, ensuring that school goals are achieved, providing a focus for instructional improvement and holding teachers accountable for their work (Phillips et al., 2014). Why teacher evaluation is done in the first place is to determine what activities and factors of schooling have the largest and most positive effect on student learning. But teacher evaluation may also help in making human resource decisions at the school and providing feedback for professional development planning (Hallinger et al., 2014).

First, some necessary preconditions of what is needed for good teacher evaluation will be overviewed. Evaluation and formative assessment can be analysed by taking the system level. It can be difficult to introduce teacher evaluation into an education system or school where no regular evaluation approaches existed previously (OECD, 2013, p. 9). Teacher evaluation requires goals (or expectations) that fulfil the function of professional standards guiding the

process of interpretation of results obtained (Scheerens, 2000, p. 86). Standards can be created and used both at the organizational and system levels.

As was discussed in Chapter 1, schools are organizations nested in a wider network of other educational institutions that influence them. For teacher evaluation to work well at the school level, it must be designed and function as one part of an integrated system. Educational researchers suggest that teacher evaluation is influenced by the quality of school leader evaluation, which is influenced by whole educational system evaluation (Marzano & Toth, 2013). Formative assessment for the purpose of instructional improvement often requires expertise in the teacher's content area, yet few school leaders have sufficient content and pedagogical content knowledge in all content areas or across all grade levels to masterfully conduct assessments (Gordon & McGhee, 2019). Evidence also suggests that equipping school leaders with the necessary skills to conduct teacher formative assessment is more challenging than expected (Blasé & Kirby, 2009; Darling-Hammond et al., 2012; Kimball & Milanowski, 2009).

In the school's external environment, the effectiveness of evaluation depends on agencies that are authoritative voices in the areas they cover, are highly credible in terms of their expertise and technical capacity, and are good at providing advice for implementing evaluation and assessment procedures in the education system (OECD, 2013). Those agencies should provide: technical leadership (e.g. in developing evaluation instruments and guidelines); effective approaches to monitoring the education system, teaching and school leadership professions; results-based innovations; capacity development for evaluation and assessment across the system; and technical support for school agents to implement evaluation and assessment procedures at the local level (OECD, 2013, p. 77).

Roegman et al. (2016), exploring one framework of teacher evaluation, concluded that it can serve as a tool for two purposes, namely professional development and accountability, but this combination is difficult. Scholars and practitioners find it difficult to integrate administrative efforts to introduce teacher evaluation at the school level while also maintaining development-oriented instructional support and development for teachers (Blasé, & Kirby, 2009; Darling-Hammond et al., 2012), which are the two main reasons why teacher evaluation is done in most countries (CDE, 2015, p. 4).

There are also serious risks concerning teacher evaluation and formative assessment that should be taken into account. Monitoring and evaluation should not happen in a way that it threatens teachers' professional autonomy (Scheerens, 2016, p. 81). If teachers perceive the evaluation approaches to be generating incorrect or arbitrary results, perhaps because the

evaluation of a specific teacher varies widely from year to year for no explicable reason, teachers could well be demoralized, with adverse effects on their teaching (Baker et al., 2010). Next, if teachers see a minimal relationship between their classroom work and how they are evaluated, their motivation to improve their teaching will also be lowered (Baker et al., 2010). This emphasizes the importance of taking a phenomenological agency-based perspective for researching teacher formative assessment.

The OECD summarizes the significant organizational and capacity challenges to teacher evaluation implementation as follows: limited professional expertise among evaluators; schools that are unprepared to conduct evaluations; limited understanding among teachers of the purposes and uses of evaluations; a sense of unfairness on the part of those teachers being evaluated; an excessive workload; and a reluctance among teachers to accept the legitimacy of the evaluators (OECD, 2013, p. 9).

Next, there is a debate on what purpose teacher evaluation should serve (Huber & Skedsmo, 2016). Taking into account the educational research literature, evaluation is differentiated into summative and formative approaches. The sole purpose of summative assessment is accountability, and teacher evaluation historically and globally has been used and perceived as an instrument for accountability with narrow concepts of effective teaching or other control-oriented activities with a hierarchical structure where the teacher is being assessed by a superior (principal, etc.) (Huber & Skedsmo, 2016) to determine the teacher's fitness for the profession. This approach to evaluation is summative assessment, whose results may be used to determine teachers' career advancement, salary increases and performance rewards, or to establish sanctions for underperforming teachers (OECD, 2013). To meet legal requirements, such evaluation is usually highly formalized and standardized. All teachers are evaluated on the same criteria using a unified set of instruments and procedures. Summative assessment takes place over a specified period of time and follows a prescribed schedule (Gordon & McGhee, 2019). Summative assessment is essential for identifying incompetent or abusive teachers who lack the capacity or commitment to improve (Gordon & McGhee, 2019). However, past efforts at teacher evaluation systems have not accurately measured teacher quality because they have failed to do a good job of discriminating between effective and ineffective teachers (Marzano & Toth, 2013). Emphasizing the summative approaches (such as student test scores) for teacher evaluation impedes efforts to motivate a change of teacher behaviours in desired directions, and there is little or no evidence for the claim that teachers will be more motivated to improve student learning if they are evaluated or monetarily rewarded for student test score gains (Baker et al., 2010). This is a problem that schools are facing in many education systems. According

to the OECD, there are weak links between teacher evaluation and developments of teacher practice and this is a widespread phenomenon. According to the OECD (2009) TALIS research, only 16.2% of teachers indicated that the evaluation and/or feedback they receive leads to a moderate or large change in the likelihood of their career advancement. Only 26.7% reported that it leads to changes in work responsibilities that made their job more attractive (OECD, 2009). Accountability in education works as a way to ensure that some kind of quality level or standard is met. Summative assessment includes a number of restrictions, and while summative assessments are necessary, they can be problematic when used as a vehicle for developing teaching and learning.

On the other hand, the purpose of **formative assessment** of instruction is to promote the teacher's professional growth leading to the improvement of teaching and learning (Gordon & McGhee, 2019). Formative assessment is done to provide informative feedback to those who are being assessed while promoting some resulting improvements in instruction. This reflects the philosophy of formative assessment for continuous and long-term development and learning (Binkley et al., 2012; Čakāne, 2018; Jurāne-Brēmane, 2018; Nieveen & Plomp, 2018; Van Aalst, 2013).

It should be taken into account that assessment can be done either by another assessor or by teachers themselves as the focus of formative assessment is a constructivist process of self-assessment and self-development in which learning builds upon learning (Vidmar, 2006, p. 138). Formative assessment is most successful when situated within an ongoing (Vidmar, 2006) and continuous cycle of assessment, planning and action (Gordon & McGhee, 2019) and is exploratory, flexible and open (National Education Association, 2010).

Formative assessment is largely based on collegiality and collaboration (Vidmar, 2006). This does not exclude self-assessment. Self-assessment is one of the tools for formative assessment of teacher competencies (European Commission, 2013, p. 37). The best types of formative assessments are ongoing and centred both on self-assessment (therefore done by teachers themselves) and self-reflection assisted by collegiality, collaboration and dialogue with others (Maslow & Kelly, 2012; Vidmar, 2006). Teacher reflection is a formative assessment process in which the teacher reflects on his or her work, helping them to understand the opportunities for development needs in the future (European Commission, 2013). Reflection can be done as reflection-in-action and reflection-on-action (Schön, 1987). Although a single colleague should be the primary facilitator of a teacher's formative assessment, multiple colleagues can support the process (Gordon & McGhee, 2019). Discussions, reflection and continuous feedback stimulate changes in beliefs and routines (Goldsmith et al., 2014), which

is an important precondition for effective professional development. The professional standards of teachers in Latvia also indicate that teachers should be able to conduct self-analysis, self-assessment and self-reflection of their pedagogical activities (MES, 2020b).

The principles of adult learning show that when people use self-assessment and self-directed inquiry in professional development, they are more likely to sustain their learning, in more disciplined ways, than when outsiders impose professional development requirements (Danielson & McGreal, 2000). When people select their own problem to be solved, their own project to pursue, they devote greater energy to it than if someone else has chosen the issue (Danielson & McGreal, 2000, p. 25). Taking such insights into account, it would be advisable for teacher assessment to be modelled in such a way that it allows teachers to have some degree of professional autonomy over their own assessment and professional development. In the Latvian context, however, by combining professional development activities, lesson observations and their subsequent analysis done jointly by teachers and expert coaches (Namsone & Čakāne, 2018), it is evident that teachers show a tendency to highlight aspects of their instruction that they think are important and needed, but that do not reflect the reality of their teaching in the classroom. The possible causes of such situations may be the lack of knowledge, or a lack of reflection skills (Namsone et al., 2015) that should be taken into account if implementing assessments based on self-assessment.

One form of formative assessment is peer coaching. The peer coaching process typically involves collaborative work between peers that can cross an entire academic year or be conducted over a shorter period of time work (Gordon & McGhee, 2019). For example, colleagues meet in an initial session that allows ample time to discuss a goal or set of goals for the coaching initiative work (Gordon & McGhee, 2019). The pair makes timelines for planning lesson observations and other inquiries, and follow-up conversations, data and types of sources of evidence are planned. Shifting the locus of control and reflection to the individual teacher is one of the most powerful aspects of this form of peer work (Gordon & McGhee, 2019). This form of formative assessment corresponds to learning that may happen at the individual and organizational levels of the school but also implies that for effective formative assessment there is also a need to support teachers' own ability to conduct continuous self-assessment of their instruction as well as doing it collegially in the school.

A similar approach to formative assessment is appraisal. A key objective of teacher appraisal is to identify areas for development of individual teachers, leading to the preparation of individual development plans that take into account the overall school development plan (Pont et al., 2008). Firstly, it can be concluded that for a school's organizational development,

teacher formative assessment (in the form of appraisal, for example) functions as aligning teacher professional development (at the micro level of the organization) with the school-level goals. Secondly, formative assessment for informing development and organizational development processes requires and/or implies that there is some kind of intended goal or objective to be reached.

Combining summative and formative assessment has its pros and cons. One of the drawbacks of combining both is that for teachers it is difficult to separate the roles of judge (somebody who conducts summative assessment) and helper (somebody who performs formative assessment) (Maslow & Kelly, 2012). Phenomenologically speaking, summative assessment tends to be experienced as a controlling mechanism and can harm teachers' work, which is counteractive to the trusting, risk-taking environment necessary for professional growth (Gordon & McGhee, 2019). Generally, teachers may experience any kind of assessment as a high-stress, high-stakes situation and even the gentlest message of support for improvement may be viewed as threatening rather than constructive (Maslow & Kelly, 2012). This should be taken into account regarding teacher experience of formative assessment – whether it is experienced as more formative or more summative in nature depends on its planning and execution by school leaders, especially how feedback is provided afterwards and whether the teacher can identify a meaningful link between assessment and his/her instruction (Gordon & McGhee, 2019). A clear distinction between formative and summative assessment conducted at the school level simultaneously will foster the collegiality, trust, honesty, safe space and teacher risk taking associated with successful formative practice (Gordon & McGhee, 2019).

One way to combine both approaches and that can minimize the risks would be to conduct assessments with a time gap. Summative assessments may happen every three to five years and formative assessment may be conducted annually between summative assessments (Smagorinsky, 2014). Formative assessment is better suited to being combined with teacher continuous professional development. Since formative assessment does not need to be tied to a particular time or schedule, as summative assessment is, it can be an ongoing process that reflects continuous teacher development.

For separating summative and formative assessments, the school can split evaluative tasks between school leaders. In both large and small schools, mentors, instructional coaches, teacher leaders and/or peers can facilitate formative assessments (Gordon & McGhee, 2019). When summative assessments are the primary purpose, a small set of elements is sufficient to determine a teacher's performance. However, if the emphasis is on teacher professional development, assessments need to be both comprehensive and specific and focus on the

teacher's growth in various instructional strategies (Marzano, 2012). These distinctions are crucial to the effective design and implementation of current and future teacher formative assessment systems (Marzano, 2012).

Lastly, such complicated and new processes require support for the school teams to go through these steps of separating formative and summative assessments. Professional development opportunities can help leaders and teachers understand the differences and the importance of separating the two as well as the roles and responsibilities involved with both types of evaluation (Gordon & McGhee, 2019). Additionally, successful professional development should make educators aware of the many options that are available to those participating in formative assessment (Gordon & McGhee, 2019).

Teacher evaluation practices might also be distinguished by the format used, that is, whether they are formal (institutionalized and formally defined and regulated) or informal (unstructured, without documentation and spontaneous in everyday interaction). Principals may carry out classroom observations by using formalized observation forms within a planned schedule or they may do them informally, unannounced or infrequently to develop a quick impression of what a teacher is doing in the classroom. Such informal and unstructured assessments do not carry substantial consequences for teacher employment; they are conducted for formative purposes. High-stakes evaluations, on the other hand, use summative information to carry significant consequences for teachers, like tenure, dismissal and pay decisions (Little et al., 2009). Principals may use both formal and informal evaluations and each might reveal a different perspective on teacher instructional quality. Varied impressions protect the principal from reaching hasty conclusions based on a single determinant (for example, if a conclusion of a negative evaluation comes from analysing only student results) in situations where a teacher is in some way underperforming (Yariv, 2009).

Evaluations can be based on different evaluative criteria that can be broadly categorized into two groups: inputs (bachelor's degree, certification, etc.) and outputs (the results teachers achieve in their work) (Danielson & McGreal, 2000, p. 32). There is growing agreement that teacher quality as defined by input measures is weakly linked to student achievement. Such input measures are currently being replaced or supplemented by output measures of teacher quality, such as performance assessment (Campbell et al., 2000). The next subsection explores more closely two concepts, performance and competence, which are proving to be suitable types of evidence for formative assessment in a way that can inform teacher instructional quality and therefore professional development at the individual and school level. All informants were asked to share what practices are used in their schools/education systems to evaluate teacher

competence, but it was apparent that competence (as it is conceptualized within this research) is used rarely when educational practitioners talk about teacher instruction and work in general. Nevertheless, information was gathered about all other practices used for teacher evaluations.

2.2. Teacher Competence and Performance as Evidence for Formative Assessment

This subsection outlines the logic for how competence assessment can be linked to teacher professional development and learning by identifying teacher professional development needs at the school as an evidence-based approach. Existing practices of such an approach will be outlined.

An organization's success ultimately depends on individuals' competence at work (Sandberg & Targama, 2007, p. 51). In recent decades, the scientific literature has suggested different approaches for explaining how quality teaching can be defined, one of them being the concept of professional competence. Competence generally is defined as an integrated set of knowledge, skills, beliefs and other constituents that manifest in work situations (Kunter et al., 2013; Mulder, 2001, p. 82; Namsone et al., 2018; Sandberg, 2000), including teacher instruction (Kaiser et al., 2017). What is important in the context of formative assessment linked to professional development is that competence is viewed as learnable, and helps explain differences in teachers' performance (Kunter et al., 2013). Competence is described in terms of observable on-the-job behaviours and thus may be more useful for showing content validity (Campion et al., 2011). For this research purpose teacher competence is conceptualized as manifesting through teacher performance that is observable in work situations, such as teacher instruction to teach 21st-century skills (Kaufman, 2013).

According to the OECD, a global organization that greatly influences both economic and educational trends, the concept of competence implies more than just the acquisition of knowledge and skills: it involves the mobilization of knowledge, skills, attitudes and values to meet complex demands (OECD, 2018, p. 5). The word "competence" is used in various ways, for example, "competent professional". A competent human is self-sufficient, able to focus attention and plan, has a future orientation, is adaptable to change, has a sense of responsibility, has a belief that one can have an effect and is capable of commitment (Haste, 2001).

When defining teacher competence assessment, one should take into account the many complex aspects that characterize both assessment as an activity and competence as the object of assessment. Many teacher competence frameworks (the structure, content of competence and domains of competencies) are based on Shulman's (1986) concept of pedagogical content knowledge (PCK) that implies the multidimensionality of professional competence. There are

different teacher competence models, and each country and each field may develop and define their own set of teacher competences. One recent example is the pedagogical content knowledge (PCK) consensus model for science teachers that presents it as consisting of several elements: subject matter knowledge (teacher professional knowledge bases, student learning assessment, pedagogical knowledge of students and curriculum); topic-specific professional knowledge and skills (instructional strategies, content representations, student understandings, science practices and habits of mind); and teaching practice (PCK and skills – planning, enactment and reflection within a context) (Berry et al., 2017). Their elements are influenced by beliefs, orientations, prior knowledge and experiences (Berry et al., 2017).

In Latvia, a Framework for Teaching Performance to Develop 21st-Century Skills developed by researchers from the Interdisciplinary Centre for Educational Innovation (University of Latvia) focuses on significant classroom practice domains and the teaching of 21st-century skills that are significant for school development in the context of the curriculum reform in Latvia (Bērtule et al., 2019). Currently, the theoretical framework covers 21st-century skills related to the development of students' critical thinking, student cognitive activation, student self-regulated learning, student collaboration and digital skills (Bērtule et al., 2019), and to the following elements of teaching practice: planning, teaching and classroom environment (Namsone & Čakāne, 2018), as well as classroom management, including instructional techniques and strategies (Namsone et al., 2020).

Taking into account the aspects of competence, its assessment is holistic (Kaiser et al., 2015), situation-specific (reflects work situations) and multidimensional as it is done by using a variety of assessment tools and data sources (Cheung, 2008; Kaiser et al., 2015; Tschannen-Moran et al., 1998), which also applies to competence assessment in educational sciences (Westera, 2001) and reflects the conceptual construct of what a competence at the workplace is. Competence assessment may be done through using different sources of evidence such as lesson observation, reflective interviews and written teacher tests (Roelofs & Sanders, 2007). If a real-life setting is not used then the method at least aims to create an assessment situation that reflects a real-life classroom situation that can be a less costly approach (Klug et al., 2013). Other research has looked into teacher self-assessment (aimed at assessing perception and beliefs) (Cheung, 2008; Goddard et al., 2000) and suggests doing it also in authentic situations (Tondeur et al., 2017).

Teacher competence assessment is one of the possible approaches for objectively informing teacher and teaching quality. For example, researchers in Latvia have created and validated a two-piece assessment tool – test and questionnaire (Namsone et al., 2020). One part

of the tool is a test for assessing knowledge according to the Framework for Teaching Performance to Develop 21st-Century Skills (Bērtule et al., 2019) and the second part is a questionnaire where teachers self-assess and reflect on their typical behaviour in given classroom situations. The created tool was validated in Latvian schools (Butkēviča et al., 2019b) and it is used in combination with lesson observation. The idea to combine lesson observations with an additional assessment tool comes from similar research done in private-sector research on trainers' competence assessment (Zandbergs & Judrups, 2015) and is an element of competence management, which is part of the impact cycle for achieving goals at the school level (Čakāne & Butkēviča, 2018). Not only may assessing competence be valuable but also assessing the development of competence is important as it can raise teachers' awareness of the need to develop their competencies and permit the recognition of these (new) competencies. Overall, descriptions of teacher competences (whether detailed, broad or general) tend to be currently used as references for the delivery and assessment of initial teacher education programmes and outcomes (European Commission, 2013). Their relevance is also highlighted for continuing professional development and in-service training (European Commission, 2013). They can be employed not only for summative or quality assurance (accountability) purposes, but also for formative assessment (European Commission, 2013).

The need for new formative assessment approaches has been guided by an initial assumption that there is a gap between what is called "teachers' actual competence" and required competence (Febrianis et al., 2014). A **competence gap** is obtained by comparing the scores of two or more differently obtained assessment results (Febrianis et al., 2014). This provides the basis for assigning appropriate and personalized professional development and learning modes described in teacher competence **profiles** that serve as a starting point to identify what kinds of competencies are essential for teaching and help in planning further development (Gilis et al., 2008). Teachers' actual performance is compared with what one can find in the profile. Competence profiles differentiate between the knowledge, skills and attitudes (competencies) teachers should have. A competence profile may also involve outcome measures that describe behavioural indicators and several levels of performance (Gilis et al., 2008). As a result, each teacher has guidelines and support for how to minimize his/her competence gap and reach both individual and school goals.

The different identified competence gaps might be used not only for planning professional development and learning at the school level, but also at the municipality/district level, and have the potential to help schools and teacher educators to move towards evidence-based, as well as needs-based (Zein, 2017), teacher professional development. Prospectively, to minimize

the gaps it is necessary to create a link with suitable professional development activities (Namsone et al., 2020).

All evidence of competence should be registered and interpreted within specific teaching situations (Roelofs & Sanders, 2007). Competence assessment through lesson observation serves as a source of evidence of competence. Lesson observations and other assessment approaches serve as feedback practices for in-service teacher continuing professional learning opportunities (McNamara et al., 2013). Lesson observations range, for example, from context-free assessments based on visits to lessons. A lesson is a valid way in which the content of competence can be represented in a real work situation through tasks and task situations (Roelofs & Sanders, 2007). In a lesson, two main processes can be observed: teacher actions and student activities (Roelofs & Sanders, 2007). In the interviews, experts were asked to give their view on what should be changed about teacher formative assessment and other assessments in their education systems, specifically in regard to how teacher professional development and learning is organized. All interviewees were asked about how school principals support teacher professional development and learning and whether information gained from teacher assessment is used to make decisions for these development activities.

As previously mentioned, one of the proposed conceptualizations of competence is that it consists of an integrated set of knowledge, skills and beliefs and other constituents (Campion et al., 2011; Kunter et al., 2013; Namsone et al., 2018) and manifests through performance (Spencer & Spencer, 1993), including instruction (Niemi et al., 2016). In order to measure competence, it cannot be directly observable but it manifests in performance, that is, work situations (Spencer & Spencer, 1993), therefore competence is the ability to achieve a specific level of performance (Mulder, 2001, p. 76, cited in Roelofs & Sanders, 2007). Appropriate task situations (kinds of performance) must be picked so that they quantitatively and qualitatively reflect the competencies one wants to observe (Roelofs & Sanders 2007).

Performance is another concept used to explain what the object of teacher formative assessment is. Performance assessment is regarded as part of the learning process for teacher candidates, also known as “pre-service teachers”, upon finishing their university-level studies (Porter et al., 2001). If the assessment approaches are appropriately designed and used, they can effectively help pre-service teachers improve instruction (Wei & Pecheone, 2010). The same applies to in-service teachers. Performance assessment may be used for assessing teachers’ work and professional development in various ways, for example, pre-service or novice teachers’ performance assessment, annual assessment of teacher work within a school or another educational institution or gathering information on development needs, for research

purposes (Namsone et al., 2018). School leaders together with teachers preferably and, if needed, with an outside expert interpret the assessment results that are in line with evidence-based school practices (Taylor et al., 2005). Performance assessment tools include a clear set of standards against which to benchmark teacher performance, more intensive classroom observations, validated instruments and data on the learning gains of a particular teacher over time. These kinds of tools are proposed as means of assessing teachers for the purpose of instructional development. Research has shown significant differences in the performance of teachers within a single school (Lipowsky & Rzejak, 2012). As a result, the need for individualized professional development solutions becomes critical, as *one size does not fit all* (Lipowsky & Rzejak, 2012). For teacher professional development to be effective, it is crucial to choose the appropriate development solutions that can have the greatest impact on instruction (Lipowsky & Rzejak, 2012).

In the context of a curriculum reform that changes instruction and sets a new goal for the education system to ensure students acquire 21st-century skills, a change happening in Latvia (Namsone, 2018) and many other countries (Care et al., 2017; Nieveen & Plomp, 2018), schools and especially teachers have to adjust to this change. The new learning process is formed in a way that students' scope of competencies³, a complex use of knowledge, skills, attitudes and values, and students' ability to solve complex problems in changing real-life contexts are developed. This change is attainable only if teacher competencies fully comply with the implementation of such a process. Teacher professional competence and performance is taken as a reference point for tracking whether teachers are well equipped for implementing the changes in the classroom and contribute to attaining school goals. Organizational practitioners often face the following questions: how to assess employee competence and performance on something they are not doing yet but they should do in the near future due to various changes in their work; how to identify, assess and develop anticipated competencies for future work; who is knowledgeable enough and qualified to conduct such assessments (Sanghi, 2016). In the interviews, experts, teachers and principals were asked to share whether and how teachers have been assessed in relation to curriculum changes or other educational changes they have recently experienced.

With performance assessment, teaching quality is measured in terms of how a teacher performs in the classroom (e.g. competence in a work situation) and how the teaching practice can be informed by necessary professional development. In performance assessment,

³ Language skills, communication and cooperation skills, work skills, entrepreneurship, citizenship, creativity, ability to solve problems and to think critically, plan finances, assess risks and find solutions, knowledge and use of information and communication technologies.

predefined criteria are used (Namsone et al., 2018) and are based on direct evidence of teacher activities in classroom instruction (Admiraal et al., 2011; Delandshere & Arens, 2003). Performance is seen in tasks and task situations that are able to qualitatively and quantitatively represent the competencies one wants to assess (Roelofs & Sanders, 2007). This turns attention to one of the central questions of teacher formative assessment: what areas of teacher work should be assessed in order to obtain necessary information to inform professional development?

Teacher professional standards and different theoretical models describing what effective teaching is may be used (Namsone et al., 2018), or competence frameworks can be used that define and describe the competencies needed for teachers. Competence frameworks are used to assess competence development, teacher performance management and/or teacher development (European Commission, 2013, p. 18). Teacher effectiveness and impact on student learning can be determined in different ways, depending on what variables one chooses to look at. While teaching effectiveness focuses on teaching processes, teacher effectiveness tries to identify teacher characteristics, such as skills, experiences, dispositions and sometimes even personality traits, associated with teaching quality and student achievement (Scheerens, 2016, p. 60). The most recent overview of key factors in teacher effectiveness currently is the one by Muijs et al. (2014), and they include: opportunity to learn, time, classroom management, structuring and scaffolding including feedback, productive classroom climate, clarity of presentation, enhancing self-regulated learning, teaching metacognitive strategies, teaching modelling, more sophisticated diagnosis, importance of prior knowledge (cited in Scheerens, 2014). Scheerens (2016) proposes the following general dimensions of variables explaining teaching and teacher effectiveness (see Table 1). Most of these dimensions relate to classroom instruction:

Table 1

Variables Explaining Teaching Effectiveness (Scheerens, 2016)

Dimension	Elements
Curriculum	Opportunity to learn
	Strategies to learn about the deep structure of domain-specific knowledge
	Textbooks
Teacher classroom management, climate creation	Achievement orientation
	High expectations
	Disciplinary climate
	Activating measures, variation in representation, media, forms of practice
	Variation in applications, differentiation, adaptive teaching

Teaching strategy	Structured, direct teaching, mastery learning orientation, drill and practice
	Constructivist-oriented teaching strategy, teaching metacognitive strategies, cognitive activation, frequent open learning tasks, discovery learning, fading from more structured to more open assignments
Climate	Support and positive interactions
Assessment, feedback	

These dimensions of effective teaching and teacher professional standards point out to what sort of work areas one should look at when developing and conducting teacher assessment. Therefore in this dissertation, to explain how teacher formative assessment can be linked to professional development, such teacher output measures as competence, performance and classroom instruction are taken as sources for gathering information and making inquiries into teachers' instructional quality and potential professional development needs. For setting research boundaries, inputs of teacher work such as years of experience and level of education, and school contextual factors such as teacher-student ratio, school size and so on, are left out.

Instructional research also uses the concept of instructional quality, which points to three basic dimensions, namely classroom management, cognitive activation and student support (Hertel et al., 2010; Klieme & Rakoczy, 2008; Kunter et al., 2006, cited in Scheerens & Blömeke, 2016, p. 80). It is hypothesized that the first two dimensions influence student achievement, whereas the latter one is hypothesized to be positively related to student motivation.

As was discussed in Subsection 1.1.3, goals may function as standards for interpreting assessment results. As mentioned before, one approach that helps in linking formative assessment with needed professional development is the use of professional standards. When there is an observation of quality instruction, how can we know that we have reached the goals set in the school or in the education system? Internationally, teacher and teaching quality is assessed with various kinds of performance assessment. They are usually based on certain teacher professional standards describing dimensions of teacher instruction, competencies and career levels. Professional standards provide a unified understanding and shared sense making (Hargreaves et al., 2009) on what quality instruction looks like, an important precondition for successful reforms (Pietarinen et al., 2017).

The development in the Australian national education system since 2009⁴ is a good example of introducing national professional standards for teachers. The standards define the work of teachers and make explicit the elements of high-quality, effective teaching in 21st-century schools. They provide a framework that describes the knowledge, practice and professional engagement required throughout teachers' careers. The standard is organized in four career stages, raising the status of the profession and reflecting the continuum of a teacher's career, from undergraduate preparation through to being an exemplary classroom practitioner and a leader in the profession. The career stages are beginner, basic, professional and teacher-leader. The standards provide consistent benchmarks to help teachers assess performance and identify further professional learning opportunities (OECD, 2013, p. 24). Such an approach of formative assessment of teachers is conducted according to specific competencies that, in turn, comply with a common vision of what effective teaching is (Jayaram et al., 2012).

One of the early leaders in the US, Delaware, in efforts to refine observation instruments for each of the aspects appraised, uses a rubric that describes specific teaching competencies, which it calls "criteria". The purpose of the rubric is to allow "the teacher and assessor to develop a common understanding of the teacher's strengths and areas for improvement" and to help "ensure assessor consistency" (OECD, 2013, p. 36). Technically, a rubric is a set of unified criteria for assessing work that includes descriptions of quality levels for each criterion (Brookhart, 2013). In countries like Denmark, Norway, Spain and Finland, it is difficult for school leaders to regularly review their teachers' instruction in the absence of a shared understanding of what is good teaching and what it looks like (OECD, 2013, p. 21). It is clear that one of the key elements of teacher standards is that they provide a common understanding of what effective teaching looks like and how to identify it by using defined criteria, including levels of competence.

As a successful example, in Switzerland there is a system that concurrently provides a competence description and a tool for conducting assessment at three levels (Helmke, 2009). Performance descriptions according to levels (rubrics) are applied as feedback tools (Farr, 2010). By creating a description of teacher performance according to levels, the dimensions are identified as a result of massive research by studying the most excellent teachers with the greatest influence on student behaviour (Farr, 2010). Namsone et al. (2018) reviewed several successful examples of how rubrics may be used in teacher formative assessment. Performance-level descriptions are used in a similar way by choosing competence dimensions and their

⁴ AITSL (2011). Australian Professional Standards for Teachers. Retrieved from: <http://ejuz.lv/tld>.

indicators that explain the dimensions. Performance-level descriptions indicate teacher performance at development levels, such as “beginner, basic, professional, expert” levels, and assessment results as “effective, semi-effective, not effective”. Defined development levels (or a scale of development) are an important characteristic of a teacher assessment system that wants to focus on development. An example is given in Table 2:

Table 2

Performance-Level Descriptors (Namsone et al., 2020)

Level	Performance-level description
Level 0	Described teacher performance of the chosen criterion is not observed and is under Level 1
Level 1	Approach is fragmented, with separate elements and attempts to realize the criterion description, but it is not done professionally and systemically enough
Level 2	Necessary criterion description corresponds to the activities in the lesson, but incompletely
Level 3	Criterion description is realized accordingly, and in a way that has a positive impact on students’ learning in the lesson
Level 3+	Criterion description is realized fully at an expert level

Teachers can use such a development scale to guide and track their development. These levels may be “not using, beginning, developing, applying, and innovating” (Marzano et al., 2011). At the “not using” level, a teacher is not even aware of a particular instructional strategy or is aware of it but has not tried it (Marzano, 2012). At the “developing” level, the teacher uses the strategy without significant error and with relative fluency (Marzano, 2012). The “applying” level and above implies that the used instructional strategy starts to produce positive results in student learning (Marzano, 2012). At this level, a teacher monitors the class to ensure that the strategy is having its desired effect (Marzano, 2012). At the “innovating” level, the teacher not only monitors the class to ensure a strategy is having its desired effect with the majority of students but also makes necessary adaptations to ensure that all student populations represented in class are experiencing its positive effects (Marzano, 2012).

Development needs are identified lists of teachers’ needs for their professional development to enhance their professional work (Zein, 2017). Based on assessment results, a suitable professional development plan is defined and planned out to develop teachers’ competencies in a more personalized way for each teacher’s specific needs. A teacher development plan is a set of defined activities aimed at developing teacher competencies and is based on a clear model of teacher competencies. A development plan supports teacher self-reflection, takes into account the level of individual teacher readiness and generally provides opportunities, encouragement and expectations (European Commission, 2013, p. 35). This provides the basis for assigning appropriate and personalized CPDL approaches such as

professional learning activities (Opfer & Pedder, 2011) described in individualized teacher professional learning profiles to teachers so that each of them has guidelines and support for how to minimize his/her competence gap and reach both individual and school goals (King & Newmann, 2000). Teacher professional learning needs (OECD, 2013) may help minimize the gap between actual competencies and required competencies. Formative assessment helps teachers concentrate on their individual needs. Individualization, combined with the absence of anxiety associated with summative assessment, enables the intrinsic motivation associated with authentic instructional improvement (Gordon & McGhee, 2019).

While analysing the situation in the US, it is recommended by researchers (Jayaram et al., 2012) to “segment teachers and deliver professional development strategically”. The traditional “one size fits all” of professional development and learning activities can only be informative (Lipowsky & Rzejak, 2012) and is not enough to improve instruction. When implementing professional development in schools, a challenge arises in getting a balance between approaches such as “one model fits all” and “every teacher is unique”. Limited resources pose the question as to which investment will give the largest improvements in teacher work and student achievement (Jayaram et al., 2012). Identifying teachers according to different professional learning needs and criteria (defined in a profile, for example) may help answer this question (Jayaram et al., 2012).

Teacher competence and performance assessment can be used to distinguish more accurately the differences between novice and expert teachers. We know that teachers require different types of professional development support at different career stages (Livingston, 2014); for example, learning needs differ among new and more experienced teachers (Scheerens, 2010). A study conducted in Germany aimed to assess early-career teachers’ competencies and the development of their competencies from the end of teacher education into the first years of teaching practice. An assessment model developed by researchers also helped in distinguishing novice teachers from expert teachers and allows the development of the structure of teachers’ competence during their career to be assessed. The authors conclude that:

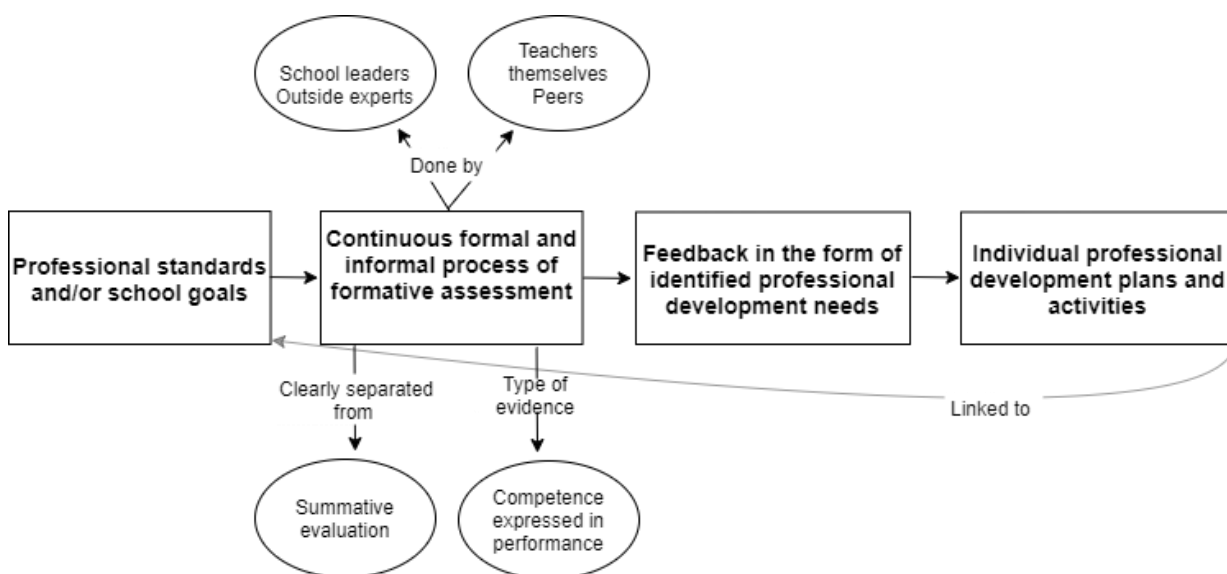
We will be able to assess how differently balanced cognitive affects and situated competence facets are shaped comparing different groups of teachers and which facets and levels of professional competence are characteristic of expert teachers in contrast to novice teachers. This insight will have considerable consequences for teacher education and in-service teacher training not only in Germany but also worldwide. (Kaiser et al., 2015)

Differentiating is possible by making alternative formats available to teachers and giving teachers some level of choice over which format they participate in in the assessment (Gordon & McGhee, 2019).

Summary. This chapter overviewed the different aspects of teacher evaluation, formative assessment and how it can be organized in a way to inform teacher professional development. A theoretical model of steps and elements of formative assessment linked to teacher professional development is presented in Figure 2 along with specifying the theoretical framework of school organizational development based on formative assessment linked to professional development (see Figure 1). As the goal of this dissertation is to explore and analyse the role of linking teacher formative assessment with professional development, more attention is given to formative assessment, which is regarded as more suitable for improving teacher instruction.

Figure 2

Theoretical Model of Steps and Elements of Formative Assessment Linked to Teacher Professional Development



Formative assessment should be grounded in an understanding of what exactly teaching quality is. For formative assessment to be linked to professional development, firstly there should be a common understanding of what teaching quality is and what it looks like in classroom work, which might be defined in professional standards or might be determined by topical school goals. Schools may use professional standards (system level, see Figure 1) or different validated theoretical models that define quality instruction in performance-level descriptors. Phenomenologically it is important for teachers and school leaders to mutually

experience formative assessment as linked to professional development if from the beginning it is clear to all involved parties what the intention of formative assessment is.

For evaluation to be effective, schools' external environment should be taken into account, and several risks and restrictions such as teacher misinterpretation of what the actual aim of formative assessment is should be outlined. Evaluation might be differentiated in how it is done, that is differentiated into formative and summative approaches, and formative assessment is proposed to be more effective if it is clearly separated from summative assessment. The conclusion is that summative assessment poses several risks in terms of how it is perceived by teachers, therefore it is a less successful approach for linking assessment to professional development. However, it is taken into account that schools have both summative and formative assessment, and these should be clearly separated from each other to avoid misunderstanding about the goal of assessment. Schools as organizations should bear in mind that they experience both summative and formative assessment and both of them are needed and legitimate approaches to monitoring educational success. There are ways that researchers recommend these two different assessment approaches might be combined but at the same time separated in a way so that teachers don't mistakenly perceive and experience formative assessment as summative, which can harm the overall assessment processes. This can be done through picking different timings of the assessments, clearly separating the roles of assessors (who does summative and who does formative assessment).

Formative assessment is also differentiated in the kind of information that is used to inform evaluation – output and input measures. Input measures might be expressed in terms of years of experience, obtained education degree or certifications. Output measures might be in the form of competence manifesting in performance and is interpreted as an information source to be more suitable if the assessment seeks to be followed by informative feedback in the form of identified professional development needs. Sources of information are very wide-ranging; however, for this dissertation research, focus is placed on formative assessment based on evidence like teacher competence and performance as the most suitable sources of data that can be used to analyse and plan needed professional development, especially if the goal of the development is to improve instruction (an output measure of teachers and teacher work) for teaching 21st-century skills.

If assessment must help inform teacher professional development then it should be designed in such a way that it helps differentiate teachers according to their learning needs so the support can be individualized. Ideally, the outcome of formative assessment is an individual teacher development plan based on identified lists of teachers' needs for their professional

development to enhance their professional work (Zein, 2017). Based on assessment results, a suitable professional development plan is defined and activities are planned out to improve instruction. Individualization, combined with the absence of anxiety associated with summative assessment, allows for the intrinsic motivation associated with authentic instructional improvement (Gordon & McGhee, 2019).

Additional professional development about how to conduct teacher assessment can help school members understand the meaning of summative and formative assessment and how and why to separate them as well as the roles and responsibilities involved when performing both types of assessment. This is one approach for how schools may identify required teacher competences based on school and individual goals, and what tools are already created to assess actual teacher competence and identify a possible competence gap and, lastly, offer needed professional development. Lastly, formative assessment can reflect both formal (institutionalized and formally defined and regulated) and informal (unstructured, without documentation and spontaneous in everyday interaction) social structures of the organization. Each might reveal a different perspective on teacher instructional quality.

3. OVERVIEW OF THE SELECTED EDUCATION SYSTEMS

This chapter takes a closer look at each country's educational system characteristics regarding several topical categories, including the qualification requirements of teachers and the selection requirements for granting entry into the profession. This is reviewed to get a closer look at how teachers are prepared and the extent to which they have to demonstrate their preparedness for the profession. Next, professional standards of the teaching profession are reviewed. Methods and requirements of professional development, teacher assessment and teacher self-assessment are reviewed. The next chapters also look at the qualification requirements and professional development of school leaders as this may also provide a deeper understanding of each education system's context regarding teacher assessment and its possible links to professional development as school leaders are responsible for facilitating such processes.

3.1. Latvia

Attempts to create a standard for the teaching profession in Latvia had been dragging on for years, with a new version being published in 2020 by the Ministry of Education and Science (MES), which happened after the fieldwork of this dissertation was done. The new standard includes criteria describing teachers' responsibility to plan and develop their professional competence and practice as well as participating in strategic development activities related to the school, teaching profession and subject field at the local and national levels of the education system. The standard notes that it is part of teachers' responsibility to assess their pedagogical competence and improve it through collaborating with colleagues. Professional development planning should be based on teachers' evaluation of student learning. The standard indicates that teachers and principals are responsible for conducting teacher assessment according to the profession's qualification specifications and overall planning. Doing professional development is a teacher's own responsibility but teachers' performance as a source of evidence for planning professional development is not mentioned (MES, 2020b). One conclusion of the new standard is that professional development planning can be done without evidence from teachers' actual performance in the classroom.

Several underdeveloped areas of teacher qualification requirements analysed and brought forward by the OECD Review of National Policies for Education will be further explored. First, for promoting learning outcomes, the Latvian education system lacks the capacity for evidence-

based policymaking, including school-level teacher assessment and feedback practices for professional development (OECD, 2016).

Second, the lack of selective requirements for entering teaching and school management professions should be considered. There are no formal requirements for school leaders to have an extra qualification to become a principal. Also, aspiring teachers don't face barriers like selective criteria, exams, practicum or probation to become a teacher, as is the case in other countries (OECD, 2016). A teacher's qualification requires her/him to comply with one of the following requirements: higher pedagogical education and subject/level qualification; higher education in the relevant field and qualification; higher education and master's/doctoral degree in education or pedagogy; higher education in a field corresponding to the subject; the teacher has been working in the school for no longer than one year under the guidance of a mentor (Cabinet Regulation No. 569, 2018). Most importantly, there is a law that allows pre-service teachers to start working in a school before finishing their studies: Education Law, Section 48, Part 1: *A person who has a pedagogical education or who acquires pedagogical education has the right to work as a teacher* (LR Saeima, 1998). Self-assessment of pre-service teachers in higher education institutions is rarely included in the evaluation system (Lāce, 2014), therefore it is difficult to make judgements on teachers' ability to carry out self-assessments of their own work. Research evidence has already pointed to the need to modernize the teacher education curriculum in Latvia (Silova et al., 2010; Webster et al., 2011).

Further, the qualification requirements have been relaxed in recent years as a strategy to make the teaching profession easier to enter due to shortages of teachers (MES, 2020a). For example, for a subject teacher to take on another subject, there is a requirement to do 160 hours of professional development or a part of a study programme (equivalent to six ECTS⁵). Students of STEM study programmes (without education in pedagogy) can work in schools for one year under the guidance of a mentor. There are no qualification-related restrictions for teachers to teach at primary and secondary level. Graduates of "Mission Possible" (*Iespējamā Misija*) are entitled to work as teachers if they have a higher education diploma and at least 18 months of practical work experience in a school (Baškere, n.d.; MES, 2020a). Later changes to these requirements allow university and college-level lecturers to be teachers without doing any extra professional development (MES, 2020). According to MES, the improved regulations have allowed the educational process to become more flexible and provide wider opportunities for the employment of teachers. Kārlis Šadurskis, the then Minister of Education and Science,

⁵ European Credit Transfer and Accumulation System credits.

stated: “[Y]oung people will have the opportunity to try out whether the position of a teacher is suitable for them” (MES, 2020).

Next, in regard to further professional development, according to the law there are relatively small requirements. Teachers and school leaders are required to do a minimum of 36 hours of professional development training every three years (12 h per year), which is low compared with many OECD countries. In particular, school leaders are not required to attend development training before or after taking up a management position at a school. For example, 27% of lower secondary school principals report that they have never participated in a school administration or principal training programme (OECD, 2016). The vast majority of teachers (95%) participate in professional development and learning in the form of courses and seminars, while 61% participate in training based on peer learning and coaching (OECD, 2018), proving the need to widen the professional development practice that would be practice-based and done together with school leaders on the school site.

It is very questionable whether the teaching profession can be sustainable over time with such ongoing loosening of qualification requirements and minimal requirements for ongoing professional development, and if the goal of a teacher’s profession is to be a testing ground for young people to try out whether being a teacher is their professional calling, especially taking into account all the responsibilities and tasks defined in the new teacher professional standard as well as the new curriculum implementation.

These and similar aspects of the teaching and school leadership professions point out to an urgent need to explore new possibilities for how to implement and lead teacher professional development that is supported by evidence-based practices such as assessment of teacher performance and competence. There has not been any research on how the process of professional development would be directly linked with changes in teacher instruction, therefore one of the OECD recommendations for the education system of Latvia states: Develop a coherent assessment and evaluation framework for informing policy and educational practices (OECD, 2016).

The Assessment System for Teacher Performance implemented in Latvia since 2009 can be considered a positive national-level development as it recognizes the performance of effective teachers. But it may not sufficiently recognize the complexity of good teaching and the need to support teachers’ career-long quest for better practice. The limited impact of teacher assessment and feedback on teaching practices, and the fact that less than half (48%) of teachers reported having personal development plans to improve their work (OECD, 2014), should be considered and imply that there is room for improvement to strengthen school leaders’ capacity

(school-level capacity) to conduct assessments and use them to inform teachers' professional development (OECD, 2016, p. 157). Current legitimate Cabinet Regulation prescribes a procedure for assessing teacher professional activity with the list of criteria groups with the assessment levels "yes; somewhat yes; partly; somewhat no; no; not observed". Assessment is supervised by the school leader (principal) in combination with teachers' self-assessment. Although the three grades of quality (*kvalitātes pakāpes*) that a teacher may acquire (lv.portāls, 2017) are described, there is no evidence indicating how the assessor (principal) determines the difference between assessment levels such as "somewhat yes" and "partly". It is based on teachers' initiative to be assessed for acquiring a quality level, therefore it is not obligatory. Thus the goal of this assessment might also vary and be very individual. For example, in one school's internal document it is stated that the goal of this assessment is to improve teachers' independent professional development of competencies and career growth through increasing teachers' responsibility for student learning results. It is a voluntary activity. The information is uploaded to the state education information system⁶. There is a surcharge for each quality level (Liepājas Liedaga vidusskola, 2019). It is evident that the assessment goal for each school can vary as the goal in another school's internal document is "to find out the teacher's ability to purposefully organize the teaching and upbringing process, ensuring a favourable learning environment, choosing appropriate teaching methods, forms of cooperation, performing the assessment of students' learning results" (Pļaviņu vidusskola, n.d.).

In regard to the accreditation process, experts of the accreditation commission may observe lessons (25 to 30 % of teachers working in a school), do semi-structured interviews and/or conversations with teachers, and conduct surveys, among other methods. The goal of accreditation is primarily to assess the organization's functioning in accordance with the law, to determine the level of performance quality, to monitor the quality of education and to strengthen good practice (Cabinet of ministers, 2020; State Education Quality Service, 2020). In terms of teacher performance, several criteria are relevant: teaching and learning, teacher professional capacity, implementation of education programmes. Evidence for assessing these criteria might include: teachers' self-assessment and reflection on lesson observations, student results analysis, investments in teacher professional development, teacher satisfaction with the provided professional development, examples of student work, lesson and thematic plans, etc. (Ozols, n.d.).

⁶ MES (2020). Valsts izglītības informācijas sistēma [State education information system] <https://www.izm.gov.lv/lv/valsts-izglitibas-informacijas-sistema>.

Even though research shows that school leaders are perceived as important for teacher professional development, learning and collaboration in Latvia (Butkēviča & Zobena, 2017; Namsone et al., 2016; Namsone, Čakāne, France et al., 2016;), they have very low professional standards and lack guidelines for determining what qualitative teacher work really is. They also have no formal requirement of an extra qualification to become principals (OECD, 2016). This information, however, is relevant for the year 2016 when the first interviews in Latvia were conducted, and therefore reflects the situation at that time.

Previous research on Latvian school principals concluded that little attention is paid to research on the various aspects of their work, and such issues as leadership, qualification standards and the criteria for recruitment due to the official situation in relation to their status in the Education Law are left out (Bluma & Daiktere, 2016). General education full-time school principals in Latvia do not use human resource management techniques systematically as they have no skills and require special training for it (Daiktere, 2012). The greatest challenge in the change process for a school principal now is to become a leader of a learning organization (Bluma & Daiktere, 2016). School leaders in Latvia are mostly concerned with administrative tasks in their schools. And they have only recently started to tap into the teaching domain (Daiktere, 2012), which is the primary core process of education (Scheerens, 2016, p. 77). In Latvia there is very limited evidence of empirically documented formal processes that show whether Latvian schools practise such teacher assessment linked to organizational development goals (Butkēviča et al., 2018). These aspects of the education system are important, bearing in mind that conducting teacher assessments and setting school development goals are school leaders' responsibility.

3.2. Finland

Once PISA test results started to provide comparative data on student achievement in OECD countries, Finland started to gain a positive worldwide reputation in education. Since 2001, Finland has consistently ranked in the very top tier of countries in all PISA assessments, and its performance has been especially notable for its consistency across schools. The high results in student learning also go hand in hand with the high status of Finnish teachers, as well as high confidence in the schooling system (Lankinen & Kumpulainen, 2014; Saarivirta & Kumpulainen, 2016;), creating international interest among researchers and policymakers. To sum up, Finland is seen as a major international leader in education (Lankinen & Kumpulainen, 2014). In Finland, the school system is public, and there are almost no private schools. The few private schools in the country follow the national curricula and are without student fees

(Ministry of Education and Culture, 2020) as the Constitution of Finland states that free basic education is everyone's right, which also applies to private schools such as Steiner and Montessori (Statute of the Council of State 11.6.1999/731, 2020).

Historically, starting from the early 1990s, the country experienced a restructuring of its educational system from a highly centralized top-down approach toward a system built around commitment to mutual accountability, professional responsibility, formative assessment, trust and also increased teacher professional autonomy (Ellison, 2012; Sahlberg, 2011). Further, some insights will be given into the contextual characteristics that shape the Finnish education system and teacher profession in regard to teacher assessment.

At the centre of a comprehensive teacher assessment system are professional teaching standards linked to student learning standards, curriculum and assessment, and at the core of this process is creating a relationship between what teachers do in the classroom and how they are prepared and assessed. Teaching standards mean having a shared vision of educational goals (Darling-Hammond et al., 2012). Finland is one of those countries that do not have professional teaching standards. However, Finland has a common core curricula framework that serves as a student learning standard that provides an essential context for teacher development and assessment (Darling-Hammond et al., 2012). Those countries that do not have teaching standards, such as Belgium, Denmark, Iceland, Norway, Spain and also Finland, indicate that it is difficult to conduct teacher assessment in the absence of an understanding of what constitutes good teaching (OECD, 2013).

Finland is famous for treating the teaching profession as a highly prestigious profession. Teaching is consistently rated as one of the most admired professions, ahead of medical doctors, architects and lawyers, typically thought to be dream professions (Liiten, 2004, cited in Sahlberg, 2011, p. 111). In contrast to most countries, the teaching profession is also a highly selective process. For example, each year, only about 10–15 % of applicants for teacher studies are accepted (Kumpulainen, 2017). Teacher education programmes are research-based, emphasizing the development of teachers' pedagogical and reflective thinking mediated by research knowledge in education (Lankinen & Kumpulainen, 2014, p. 202; Niemi & Nevgi, 2014). The education programmes also imply that during the five years of studies teachers practise critically reassessing their instructional practices, methods and materials, as well as their social and other skills when working with students (Niemi, 2011)

Finnish teachers become qualified teachers when they have obtained a five-year-long master's degree (300 ECTS) and as part of that completed pedagogical studies worth 60 ECTS. If a class teacher (basic education grades 1 to 6) wants to become a subject teacher in grades 7

to 9 then a teacher needs to do 60 ECTS worth of studies in the subject that the teacher will teach (Paronen & Lappi, 2018, p. 16). And the organizations that provide pedagogical studies are universities and higher education institutions of vocational teacher education (Hammerness et al., 2017; Harju & Niemi, 2016; Paronen & Lappi, 2018).

The school system is characterized as highly decentralized and with minimum controlling mechanisms imposed. Municipalities are the most common education providers in the country, and individual schools respond directly to the municipality and follow guidelines developed by the municipality. The Finnish Education Evaluation Centre (FINEEC) is the main responsible institution for the evaluation of education. Systematic assessments are done based on sampling to assess student learning outcomes related to the objectives of the national core curriculum for basic education. Additionally, information is collected from principals, teachers and students, for example, on working methods and teaching arrangements, educational resources, student evaluation and student attitudes towards their learning (FINEEC, n.d.). It is stated in Finnish law that assessments should be used for supporting local education development and decision-making, and for providing information for education policymaking and to support student learning, the work of teaching staff and the development of educational institutions (Statute of the Council of State 1061, 2009). The way in which evaluation data are used by education providers (usually municipalities), schools and teachers is not subject to a particular law. This is a matter for the discretion of the education provider, as are decisions concerning educational arrangements overall (Lankinen & Kumpulainen, 2014, p. 203). In Finnish basic education, school evaluation is based on self-assessment by professionals working in the school. Under this legislation, education providers must evaluate the quality of the education they provide and participate in external evaluations. There is no school inspectorate. It is up to education providers to decide what they want to review in their internal evaluations, and how the findings are reported and published (Finnish Ministry of Education and Culture, 2011).

Accountability is also a somewhat grey area in the Finnish schooling system (Saarivirta & Kumpulainen, 2016, p. 5), and in fact, such a word does not exist in the Finnish language. Instead, the system depicts elements of what Sahlberg (2010) terms an “intelligent accountability system” that involves internal accountability at the school level (school processes, self-evaluations, critical reflection and school-community interaction) and external accountability built on monitoring, sample-based student assessment and thematic evaluations appropriate to the stage of development of each individual school. When student evaluation is done, it is not exercised to control or to sanction but rather to develop education at all levels in the system (Lankinen & Kumpulainen, 2014, p. 199). The Finnish education system does not

have any form of school inspection, and it does not employ external standardized student testing to inform the public about school performance or teacher effectiveness (Sahlberg, 2011), making the evaluation culture in Finland very different in comparison to several other countries (Kumpulainen & Lankinen, 2012; Lankinen & Kumpulainen, 2014).

A similar approach applies to teacher assessment. Finland is among those countries that do not have regulatory frameworks for centralized teacher assessment (Lankinen & Kumpulainen, 2014, p. 199; OECD, 2013, p. 16). Teacher assessment does happen at the school level, giving considerable freedom to school principals as to how to do it, however the guidelines for teacher assessment are defined in a contract between the local government employer and the teachers' trade union as a part of labour market negotiations (OECD, 2013, p. 25).

Teacher assessment at the school level is based on annual development discussions and/or assessments happening between each teacher and the principal (Lankinen & Kumpulainen, 2014, p. 204; OECD, 2013, p. 47). Such assessment happens informally and feedback given to the teacher is based on qualitative and descriptive data (Hammerness et al., 2017). Typical assessment criteria for teachers consist of mastery of the profession, pupil performance, renewal capability and the ability to cooperate. Through the annual development discussions between a teacher and principal, teachers are assessed against the goals and contents of the national core curriculum and, to some extent, against their school's development plan for the year (OECD, 2013, p. 25). They also review whether the teacher fulfilled the objectives agreed during the previous year and determine developmental needs for the following year (p. 47). To sum up, the monitoring and control of teaching or curriculum implementation is somewhat alien in the Finnish context and the principal is seen as a facilitator of teacher growth and empowers teachers to take responsibility for achieving their goals (Robinson, 2010; Soini et al., 2016).

While teachers have a moral responsibility to continuously improve their work, municipalities as employers hold a legal responsibility to offer professional development opportunities to teachers and principals (Hammerness et al., 2017). Teachers also participate in the formulation of the school-based work plan and curricula (based on the national curricula), which is led by the principal (Sahlberg, 2011).

According to the current decree on educational personnel (Asetus opetustoimen henkilöstön kelpoisuusvaatimuksista 986/1998), qualification requirements for principals in Finland consist of several areas: a master's degree, a teaching qualification relevant to the educational level, work experience as a teacher and a certificate in educational administration approved by the Finnish National Board of Education (15 credit points), university studies in

educational leadership and administration (minimum 25 credit points) or other knowledge on educational administration. The degree includes topics like public law and administration, education, personnel and finance (Lahtero et al., 2019). Municipalities have their own policies and goals for principal professional development. There is a professional leadership programme that has an obligatory part and includes practising leadership, with optional topics like human resource management, customer management, production management and network management (FNBE, 2011).

Most reforms entail new ideas having to be transformed into new understandable educational practices. For this to happen, a complex sense-making process for those who are involved is required (Hammerness et al., 2017). In a large-scale reform implemented in Finland it has been proven that combining bottom-up- and top-down-level approaches is crucial for the coherence of the reform and it can be accomplished through shared sense making (Ahtiainen, 2017). Involved people should view the reform goals as meaningful and significant (Pietarinen et al., 2017).

The Finnish Ministry of Education launched a “Capable Programme” (*Osaava*) in 2010–2016 to drive educational institutions to take greater responsibility for their own staff development activities (Hammerness et al., 2017). The goal of the programme was that staff development systems become embedded into normal routines of schools and the networks in which they collaborate (OECD, 2013, p. 68).

3.3. California

Teachers need to acquire a bachelor’s degree equivalent to four years of full-time university studies, which also includes an internship programme in schools. For a tenured position aspiring teachers have to do a teacher preparation programme (a minimum of one year of full-time studies and work with teachers). There are alternatives to teacher qualification just like in Latvia. Teachers may have a bachelor’s degree in a subject-related field. Verification of subject matter knowledge is done by passing the California Subject Examinations for Teachers (CSET). Those interested in teaching in self-contained classrooms (grades K–8) must also verify content area knowledge by passing the appropriate CSET exams. Additionally, all applicants for a preliminary California teaching certificate must meet basic skills testing requirements. This may be done through completion of the California Basic Educational Skills Test (CBEST) and the California Subject Examinations for Teachers (CSET), including the basic writing test (Teacher Certification Degrees, n.d.).

Due to a shortage of qualified teachers in California, some unnecessary barriers to entry into the profession have been introduced, such as easing rules for licence reciprocity for teachers from other states, and candidates can substitute scores from other academic tests for the basic skills exam. In 2016, 57% of schools reported shortages of qualified teachers, therefore schools tend to increase their hiring of teachers with substandard credentials due to “acute shortages” of teachers in mathematics, science and special education (Darling-Hammond et al., 2018).

One of the key problems with traditional ways of assessing pre-service teachers in the US is that they are not linked to teachers’ actual capacity to teach in the classroom. For example, existing federal, state and local policies for defining and assessing teachers either rely almost exclusively on classroom observations by principals or focus on teachers’ course-taking records and on paper-and-pencil tests of basic academic skills and subject matter knowledge, which have been proven to be poor predictors of teachers’ later effectiveness in the classroom (Darling-Hammond, 2010, p. 2). As the National Research Council report states, most teacher licensure tests in the US “are not constructed to predict the degree of teaching success a beginning teacher will demonstrate”, and studies suggest that indeed they do not (National Research Council, 2001). Teachers in California are required to do four entry tests if they want to be multi-subject teachers and three entry tests if they want to be single-subject teachers, but only one of these tests – the teacher performance assessment taken at the end of candidates’ training – has been shown to be related to later teaching effectiveness (Darling-Hammond et al., 2018).

Standardized teacher performance assessments have been established for credentialing teachers in California since 1998. In 2002, the development of the Performance Assessment for California Teachers (PACT) was started as an answer to that. The PACT assessments use multiple sources of data: teacher plans, teacher artefacts, student work samples, video clips of teaching, and personal reflections and commentaries, which are organized in four categories of teaching: planning, instruction, assessment and reflection (Pecheone & Chung, 2006). This change reflected the move towards teacher assessment that is based on their teaching practice.

States and districts in the US have rapidly developed and adopted new teacher assessment systems. One key component of these revised systems is the use of formal observations of teaching practice. According to the National Council on Teacher Quality, 39 states now require annual observations of classroom instruction, and 22 of those states require multiple classroom observations each year (Mihaly & McCaffrey, 2015).

Within one district of California, a choice-based assessment system has been implemented since the 1990s that is aligned with the California teaching standards for the teaching profession. Tenured teachers in this district have three options for assessment: administrator (principal or assistant principal), partner (peer) or portfolio-based assessment. Administrator assessment has to include at least two observations with review meetings before and after the observation. Partner assessment is done as peer coaching where teachers collaborate, coach and appraise progress towards professional development goals. Lastly, under the portfolio option the teacher develops a portfolio related to professional development goals selected from the California Standards for the Teaching Profession (CSTP). As in other districts in California, the assessment involves a cycle of three elements: planning conference, classroom observations and a closing feedback conference. In the planning conference the teacher meets with the chosen assessor before the observation to discuss the lesson and the teacher's topical development goals. This assessment procedure is for tenured (permanently hired) teachers and happens every two years. The difference for early-career pre-tenured teachers is that they are assessed by an administrator annually (Conley et al., 2019).

California has implemented professional standards for teacher and school leaders and a standard for professional learning. The CSTP are intended to provide a common language and a vision of the scope and complexity of the profession by which all teachers can define and develop their practice. They define and describe how effective teaching is understood at the state level. The standards state that they are not intended as regulations to control the specific actions of teachers, but rather to guide teachers as they develop, refine and extend their practice through reflecting about student learning and teaching practice, formulating professional goals, guiding and **assessing** the progress of teachers' practice towards the set professional goals. The CSTP are organized around six domains of teaching practice:

- Engaging and Supporting All Students in Learning;
- Creating and Maintaining Effective Environments for Student Learning;
- Understanding and Organizing Subject Matter for Student Learning;
- Planning Instruction and Designing Learning Experiences for All Students;
- Assessing Students for Learning;
- Developing as a Professional Educator (Commission on Teacher Credentialing, 2009).

The standard is accompanied by the Continuum of Teaching Practice, which serves as a tool for self-reflection, goal setting and inquiry into practice and provides a common language for teaching and learning. This tool is one component of a comprehensive formative assessment system for teachers, based on the CSTP. Self-assessment can support teachers in making

decisions about their continuous professional development. Evidence of practice includes multiple sources, including lesson plans, lesson observation and student work, and is used to make self-assessments within this self-assessment tool. Data collection should happen over time, not on a single occasion. Five levels of development are described and serve as a formative self-assessment tool. Each level – emerging, exploring, applying, integrating and innovating – describes what a teacher should know and be able to do within the six CSTP standards (Commission on Teacher Credentialing, 2012).

Similarly, the California Professional Standards for Education Leaders (CPSEL) identify what an administrator, at site, district, regional and state levels, must know and be able to do in order to move into sustainable, effective practice. The CPSEL are a set of broad policy standards that are the foundation for administrator preparation, induction, development, professional learning and assessment in California and reflect current and emerging expectations for education leaders. The six standards are built on guiding principles such as how to inform career-long leadership development and performance, acknowledging the need for an ongoing dialogue challenging assumptions and continued learning among staff, incorporating existing, accepted descriptions and guides for professional education leadership, promoting student performance attainment and well-being. The standards are organized into six categories that represent the responsibilities of an education leader:

- Development and Implementation of a Shared Vision;
- Instructional Leadership;
- Management and Learning Environment;
- Family and Community Engagement;
- Ethics and Integrity;
- External Context and Policy (Commission on Teacher Credentialing, 2014).

To become a principal in California, candidates have to have a valid teaching credential, meaning that the candidate has completed at least a bachelor's degree and a teacher preparation programme. Additionally, principal candidates have to complete a commission-approved administrator preparation programme. This is for a preliminary position valid for five years. For a permanent credential, principals then have to do either an individualized programme of advanced preparation, a State Board of Education-approved administrator training programme or a Commission-approved alternative preparation programme. Principals may take the California Preliminary Administrative Credential Examination (Teaching Certification, n.d.).

Instructional leadership training for school leaders is common in the United States, with only 4% of school leaders having never received any training in instructional leadership,

compared to the OECD average of 17%. It is interesting to point out that school leaders express a strong need for professional development in areas such as designing professional development for/with teachers and using data for improving the quality of the school, with more than 20% of school principals reporting this (OECD, 2019).

The example indicators outlined in the CPSEL define instructional leadership as being oriented towards establishing coherent, research-based professional learning aligned with organizational vision and goals for educator and student growth; promoting professional learning plans that focus on real situations and specific needs related to increasing the learning and well-being of all educators and students; capitalizing on the experience and abilities of educators to plan, implement and evaluate their professional learning; strengthening educators' trust, shared responsibility and leadership by allowing structures and processes for promoting inquiry and problem solving. These are the defined example indicators of how school leaders promote a school culture where teachers are engaged in both individual and collective professional learning. Under the element "Fiscal and Human Resources" school leaders have to engage teachers in professional learning and formative assessment, including giving specific feedback for continuous growth and conducting teacher assessment to improve teaching and learning (Commission on Teacher Credentialing, 2014).

In addition to these standards, the state of California has also developed and implemented Quality Professional Learning Standards. The standards describe the indicators for quality professional learning and point educators toward evidence-based elements and indicators to use when making decisions about how to create and improve professional learning for teachers and leaders in their own systems. The standards are meant to guide systems at the state, regional, district and local school levels and to recommend a system of professional learning that brings together the goals of the state, districts and schools, as well as individual educator needs. The standards are not meant to be used to assess any educator in any aspect of his or her work (California Department of Education, 2015). As was described about the difference between professional development and professional learning (Easton, 2008), the professional learning standard distinguishes how professional learning is better suited to answering the needs of teachers and school leaders and describes how quality professional learning may happen:

- Varied use of data to guide priorities, design and assessments;
- Enhancing educators' expertise in content and pedagogy to increase students' capacity to learn and thrive;
- Equitable access opportunities and outcomes for all students, with an emphasis on addressing achievement and opportunity disparities between student groups;

- Evidence-based approaches, recognizing that focused, sustained learning enables educators to acquire, implement and assess improved practices;
- Facilitating the development of a shared purpose for student learning and collective responsibility for achieving it;
- Dedicating resources that are adequate, accessible and allocated appropriately toward established priorities and outcomes;
- Coherent system of educator learning and support that connects district and school priorities and needs with state and federal requirements and resources (California Department of Education, 2015).

At the state level, the education system in California is moving away from **accountability** to building systems of continuous support and capacity building for educators. As state board president Mike Kirst noted, “we must move now from the back end of accountability to the front end of capacity”. The implementation of such change means applying continuous improvement theory of change to ensure cycles of inquiry where educators reflect on, and analyse, current practice and then ongoingly collaborate to support growth and improve results (Torlakson & Price, 2016). The central institution that implements such changes, the California Department of Education, is setting itself to establish ongoing cycles of continuous improvement and is becoming a learning organization. The key reason that learning, teaching and leadership are not changing in any significant way is that people don’t know how to do them, not because they are not allowed to or don’t want to (Fullan & Rincon-Gallardo, 2017).

Summary. Firstly, each country has different qualification requirements for entering the teaching profession. Each education system requires a higher education diploma: in Latvia, a three-year full-time bachelor’s programme; in California, a four-year full-time bachelor’s programme; and in Finland, a five-year full-time master’s programme. In California, there are additional requirements: a one-year teacher preparation programme and various examinations. Latvia stands out by having a law that allows pre-service teachers to be hired as teachers. What is common for Latvia and California is their shortage of teachers, which leads to a pressing need to hire teachers with substandard credentials. In Latvia, a variety of qualification requirements have been mitigated. One example is the difference of required ECTS – in Latvia, a subject teacher can take on another subject if he/she has completed a professional development programme equivalent to six ECTS; in Finland, it is 60 ECTS for such a change. In Latvia, teachers don’t face barriers like selective criteria, exams, practicum or probation to become a teacher, which can cause problems in the long term and raise questions as to whether

teachers are able to fulfil all responsibilities and tasks described in the new teacher profession standard. Qualification requirements for principals in Latvia are also low compared to California and Finland.

In regard to teacher professional standards, Finland stands out as having no such teaching standard; the common core curriculum provides the essential context for teacher professional development and formative assessment. A new teacher professional standard has been approved relatively recently in the Latvian education system, while in California, standards for the teaching profession in its current version have been used for more than a decade, making each selected education system very different regarding the use of a teacher professional standard. In Latvia, the standard is focused more on teachers participating in overall/large-scale goals related to the profession and education system, while in California, the standard accentuates teachers forming professional goals based on reflection and self-assessment. A good practice example of the CSTP is its accompanying tool the Continuum of Teaching Practice, which serves as a tool for teacher self-reflection and goal setting, and provides a common language (in the form of rubrics) for teachers and school leaders to know what effective teaching at different levels (emerging, exploring, applying, integrating, innovating) looks like.

Teacher assessment in Latvia is based either on voluntary applications (for acquiring grades of quality (*kvalitātes pakāpes*)) or summative assessment, which is based on accreditation procedures. In California, teacher assessment is guided by the PACT and can be conducted in three modes: administrator (principal or assistant principal), partner (peer) or portfolio-based assessment. Also, Finland stands out as having no particular law defining teacher assessment procedures; it happens through following the core curriculum and teacher self-assessment. In terms of the latter, Finland stands out as preparing teachers the most to perform self-assessment and reflection because during the five years of studies, teachers practise critically reassessing their instructional practices, methods and materials, their social and other skills when working with students. This is combined with the high level of trust towards teachers that they are capable of self-assessing and, together with the principal, planning professional development. As was reviewed about the Latvian education system, self-assessment of pre-service teachers in higher education institutions is rarely included. In California, teachers self-assess by using the Continuum of Teaching Practice.

From the reviewed information it can be concluded that in Finland, teacher formative assessment is linked to professional development the most through yearly development discussions carried out informally between the teacher and principal, and feedback given to the teacher is based on qualitative and descriptive data. What stands out is the minimal requirement

of yearly professional development in Latvia, which is 12 hours, while choosing professional development modes is also teachers' own responsibility. On the other hand, California has its own quality professional learning standard pointing toward evidence-based indicators for improving professional development and guiding it to link state-, regional-, district- and local-level goals and individual teacher needs.

4. METHODOLOGY

4.1. Qualitative Research Design

A qualitative research design was used to obtain data that reveal the qualitative features of experts, teachers and school principals, experiences, activities and working contexts related to teacher assessment and professional development. Qualitative research approaches are focused on studying phenomena in their natural settings and strive to make sense of, or interpret, phenomena with respect to the meanings people bring to them (Denzin & Lincoln, 2018). In order to obtain answers to the research questions, fieldwork was done in three education systems, Latvia, Finland and California, US (San Diego area), through semi-structured in-depth interviews with education practitioners representing different levels of the education system:

- Teachers (school micro level and the classroom level);
- School-based leaders (school organizational level);
- Local education boards (school district level);
- Experts (the broader educational context of each education system) (see Appendices 1–6).

A variety of educational practitioners were interviewed – principals, assistant principals, teachers, teacher-leaders, researchers, policy developers, implementers, and representatives from government organizations and teacher unions.

The logic of including different involved groups of people in the study was to collect data on the studied phenomena's many observable implications in order to construct richer information on the phenomena (King et al., 1994, p. 24). To increase the validity of the research data, the interviews are done with informants representing multiple groups of involved practitioners, thus using one data-gathering method (interviews) but multiple types of informants (Creswell & Poth, 2018). Such data triangulation helped to increase the validity of the evidence and was useful in uncovering the complexity of the studied phenomena. By including multiple perspectives about the same phenomena, the researcher can make some generalizations of *what something is like* from an insider's perspective, which is useful for phenomenological research (Leedy & Ormrod, 2016, p. 255).

Phenomenological research depends almost exclusively on lengthy interviews (perhaps one to two hours in length) (Leedy & Ormrod, 2016). Semi-structured in-depth interviews are the main method for gathering empirical data. Interview questions have a predefined topical theme and structure, but the researcher must be flexible and allow interviewees to talk about things that are important to them (Harvey & MacDonald, 1993, p. 199). Therefore the

interviews are semi-structured. Semi-structured in-depth interview data constitute the empirical backbone of most qualitative research in the social sciences (Campbell et al., 2013).

Qualitative interviews have more flexibility than questionnaires. They give researchers the opportunity to follow up ideas and probe responses, thus potentially giving more detailed information than other forms of data collection (Taylor, 2005). The purpose of a semi-structured interview is to understand the respondent's point of view, therefore open-ended questions are used to enable the interviewee to talk more freely (Norton, 2009, p. 99). In-depth interviews as a formal research method are suitable when the researcher's goal is to capture interviewees' point of view on their constructed meanings about their social reality. It also allows the researcher to go deeply into an aspect of the interviewee's attitudes and experiences. It also appeals to those researchers who are interested in the "lived experience" of their research participants, rather than some second-order perspective where the aim is to get some sort of objective reality that is researcher driven (Norton, 2009, p. 98). If the aim is to ask questions of greater depth where the knowledge sought is often taken for granted and not readily articulated by most members (..) and where different individuals or groups involved in the same line of activity have complicated, multiple perspectives on the same phenomenon, then in-depth interviews are likely the best approach, despite their known imperfection (Johnson, 2003, p. 105).

Interviewees were selected according to a commonly used qualitative research sampling approach – theoretical sampling – with a combination of other sampling methods depending on each country case (outlined further). A qualitative researcher employing theoretical sampling is focused on the representativeness of concepts in the research, and on being able to access the social processes in which she or he is interested. In that regard, theoretical sampling leads to the selection of respondents where the phenomena in which the researcher is interested are most likely to occur (Henn et al., 2005, p. 157). Therefore, school employees – teachers, principals and deputy principals who also teach – were targeted for selection and interviewing, as well as experts whose background and work responsibilities were directly related to teacher assessment, teacher professional development and other related topics. Schools were selected based on convenience sampling, which is a non-probability sampling approach (Kothari, 2004, p. 59).

Interviewee selection was based on their voluntariness and availability to participate in the research and on whether they had experienced the phenomena being studied (Creswell & Poth, 2018) – teacher professional development and teacher assessment. Selecting research participants based on voluntary principals has a "bad reputation" in research and brings some

possible limitations such as non-self-exclusion of possible informants who have had a negative experience of assessments or not sufficiently taking the goal of the study and the criterion of information richness into account. In the invitation emails, potential interviewees were introduced to the topic, with interview questions attached so that they could determine whether they had experienced the research topic. However, as the goal is to do a phenomenological exploration and because experience is assumed to be universal, the experience of any human being qualified to have that experience is considered a case in point, therefore no special sampling strategy is required, meaning that convenience sampling can be sufficient (Scheier, 2018).

Teachers were selected based on whether they were involved in leadership and management activities, such as leaders of a teacher team, assistant principals, etc. Such teachers can be characterized as teacher-leaders, who are teachers still actively teaching in the classroom and who are aware of the instructional difficulties that teachers face (Snell & Swanson, 2000), but who are also involved in decision-making at the school level and can serve as a bridge between the teachers and the administrative school leaders (Taylor et al., 2011). In this way, the experiences and viewpoints of both sides in the school are represented. Principals and teachers were interviewed to gain in-depth insight into their school organizational practices regarding how teachers are assessed (or not and why not), how teachers and principals know teachers' professional development needs and what the strategies of principals are to respond to those needs. Another part of the empirical fieldwork consists of experts – professionals working in various organizations and institutions that are related to decision-making and research related to the teaching profession and educational context.

In phenomenological research, a typical interview sample size is between five and 25 interviewees, all of whom have had direct experience of the phenomenon being studied (Leedy & Ormrod, 2013, p. 255). The goal of the sampling was to conduct approximately the same number of interviews from each of the three education systems and at the same time from each of the interviewee groups (teachers, principals, experts) as the interview material is to be used in other future research on teacher assessment. The number of interviews by country was as follows: 25 teachers and teacher-leaders were interviewed (8 in Latvia, 9 in Finland, 8 in California), along with 25 principals and other school-based leaders (8 in Latvia, 9 in Finland, 8 in California) and 20 experts (6 in Latvia, 7 in Finland, 7 in California). Unfortunately, one recorded interview file was broken and could not be fixed even with professional help. In total, 70 interviews were conducted – 22 in Latvia, 25 in Finland and 23 in California (see Appendix 7 for an interview transcript example).

Interviews conducted in Latvia were performed in the local language. Interviews conducted in Finland and San Diego were done in English. Interviews were audio-recorded and later transcribed by the researcher, maintaining the speech of the interviewees as closely as possible. Taking into account the large number of interviews conducted, with a third of them being in English, some of the interview transcripts in English were transcribed automatically using an audio-to-text transcription service⁷. The final transcriptions received from the service were checked for mistakes. There are no such automatized services in the Latvian language available at the moment, therefore interview transcripts in Latvian were all transcribed manually by the researcher.

The interviews were based on a specific set of topics: how teacher assessment is done and how it is done in relation to curriculum reforms or other major educational changes; the professional learning needs of teachers and what support is available to them; and lastly, how development goals are set in schools and whether and how assessments are done in relation to school goals. The order of the questions varied depending on each interview, and additional questions were also asked to obtain clarifications or to explore a topic in more depth. In Latvia, teachers and experts were additionally asked to share their experiences in regard to the upcoming curricula changes, while Finnish interviewees were asked to share their experience about the curricula reform post-factum.

Further, fieldwork in each country will be outlined, details about all interviewees are compiled in tables, and the analytical approach – phenomenology – is explained and interview coding steps are described.

4.1.1. Fieldwork in Latvia

Interviewed Latvian principals and teachers were selected from eight schools based on three criteria: representing the different school types, administrative regions and size of the school. First, school size was expressed in terms of administrative management workload rate and number of students. All schools that are registered as actively working in Latvia are ranked in six groups (very small to very large) according to these size measurements and four of these groups are represented in this school sample. The second criterion is the different administrative territorial division where five different groups are identified, and selected schools represent all of them. The third criterion is the type of education programme provided by the school. Schools in Latvia may have seven different types of education programmes and five of them are represented in this research (see Appendix 8) (Butkēviča et al., 2018). To ensure anonymity,

⁷ Temi (n.d.) Advanced speech recognition software. Retrieved from: www.temi.com.

the cities of Latvian schools included in the study are not shown and the numbers of students are approximate. Only public schools were included in this school sample. A detailed description of schools and the interviewees is shown in Table 3. Data on interviewee years of experience represent the time when the interviews were done – for principals it was the school year 2016–2017 and for teachers and experts it was the school year 2018–2019. An approximate number of students represent the school year 2016–2017.

Table 3
Interviewed Principals and Teachers in Latvia

Interviewee, gender and assigned code	Years of exp.	School type, grades and assigned code	No. of students
Principal (M) 20L2	-	Public high school, grades 1–12; 20L	1100
Teacher / assistant principal (M) 20L1	11		
Principal (M) 21L2	-	Public high school, grades 1–12; 21L	900
Teacher / assistant principal (F) 21L1	23		
Principal (M) 22L2	-	Public high school, grades 1–12; 22L	350
Teacher / assistant principal (F) 22L1	-		
Principal (F) 23L2	-	Public primary/secondary school, grades 1–9; 23L	200
Teacher / assistant principal (F) 23L1	15		
Principal (F) 24L2	-	Public technical school; 24L	500
Teacher / assistant principal (F) 24L1	28		
Principal (M) 25L2	-	Public high school, grades 1–12; 25L	550
Teacher / assistant principal (F) 25L1	22		
Principal (M) 26L2	-	Public state gymnasium, grades 7–12; 26L	400
Teacher / assistant principal (F) 26L1	20		
Principal (F) 27L2	-	Public primary/secondary school, grades 1–9; 27L	150
Teacher / assistant principal (F) 27L1	-		

The school sample in Latvia voluntarily participated in the European Regional Development Fund (ERDF) research project “Application of information systems modelling principles for structured and targeted management of competencies” (period 2017–2020). For scheduling the interviews, selected schools were contacted by the researcher and interviews were also conducted by the researcher. In Latvia, interviews with principals were carried out in the period 03.–05.2017 either face to face or through phone interviewing. Interviews with teachers from the same selected schools were conducted in the period 30.11 till 14.12.2018. Interviewed teachers were all in some form also teacher-leaders who combined their teaching responsibilities with administrative positions or were the leaders of their subject’s methodological groups. All interviews with teachers in Latvia were done through phone interviewing.

Interviews with Latvian experts followed in the period of 04.03 till 26.03.2019. Experts were selected based on suggestions from the researcher’s professional network (a professor

from the LU pedagogy faculty, a content expert from the curricula reform project, two members from “Mission Possible” and a project manager at “Edurio”) in the education field and availability of the experts themselves. Interviewed experts represent the following work areas: school accreditation experts and principals (2); the head of the content and quality department at a municipality education board; the deputy head of the Department of Professional and Adult Education at the Ministry of Education and Science; and a director of an educational support centre for teachers (see Table 4).

Table 4
Interviewed Experts in Latvia

Organization	Interviewee position, gender and assigned code	Years of experience
Ministry of Education and Science	Head of a department (F) LX1	30
Educational development company	Director of a department (M) LX2	10
-	School accreditation expert, principal (F) LX3	32
Municipality education board	Head of curriculum and quality LX4	9
-	School accreditation expert, principal LX5	25
Centre of Educational and Methodological Support	Head of department LX6	28

All interviews were audio-recorded and transcribed in preparation for analysis. One interview with a principal in Latvia was transcribed on the fly during the interview. The length of interviews varied between 21 and 45 minutes. In total, 622 minutes of recorded interview material was gathered and the fieldwork in Latvia was regarded as successful.

4.1.2. Fieldwork in Finland

In total, nine basic schools (*peruskoulu* in Finnish) were chosen in this part of the fieldwork. The schools were from the Greater Helsinki metropolitan area, namely the cities of Helsinki and Vantaa. The area can be characterized as a highly urbanized area of the country. The schools represent basic-level education at primary and lower secondary levels. Eight schools are public schools, one is private, and all follow the national core curriculum and are without fees. A detailed description of the schools and interviewees is shown in Table 5. Data on interviewee years of experience and number of students in each school represent the school year 2018–2019, i.e. the time of the interview.

Table 5
Interviewed Principals and Teachers in Finland

Interviewee, gender and assigned code	Years of exp.	School type and assigned code	No. of students	City
Principal (M) 1F1	8	Public basic school, grades 1–6; 1F	897	Helsinki
Assistant principal/teacher (M) 1F2	16			
Assistant principal/teacher (M) 2F1	8	Private basic school, grades 1–9; 2F	1240	Helsinki
Principal (F) 3F3	16	Public basic school, grades 1–9; 3F	724	Helsinki
Deputy principal, teacher (F) 3F1	33			
Vice-principal/teacher (F) 3F2	26			
Principal (F) 4F2	15	Public basic school, grades 1–9; 4F	180	Helsinki
Special needs teacher (M) 4F1	11			
Principal (F) 5F2	8	Public basic school, grades 1–9; 5F	860	Helsinki
Teacher (M) 5F1	4			
Assistant principal (F) 6F1	2	Public basic school, grades 1–10; 6F	550	Helsinki
Teacher (M) 6F2	10			
Deputy principal (F) 7F1	8	Public basic school, grades 1–10; 7F	770	Helsinki
Teacher (F) 7F2	10			
Principal (M) 8F2	14	Public basic school, grades 1–9; 8F	820	Vantaa
Teacher (F) 8F1	5			
Principal (F) 9F2	27	Public basic school, grades 1–6; 9F	400	Vantaa
Assistant principal, teacher (F) 9F1	4			

The author contacted school principals based on research cooperation with Helsinki University. Principals were contacted through email invitation and then through follow-up phone calls. After the principals agreed to participate in the research, they selected a teacher from their school who would also give an interview and who was involved in leadership-related activities and could share the richest experience regarding assessments and professional development conducted in the school.

In addition, seven experts working in the field of education were interviewed. The experts represented different educational organizations. In order to secure the anonymity of the experts, the organizations they represent are expressed at a general level (Table 6). Finnish schools and education experts were contacted with the support of colleagues at the Centre for Educational Assessment, University of Helsinki. Interview length varied between 18 minutes and an hour and 12 minutes. In total, 810 minutes of recorded interview material was gathered and the fieldwork in Finland was regarded as successful. Interviews were carried out between 8.8.2018 and 30.10.2018. Interview questions were sent to the interviewees beforehand. The interview questions were categorized into three broader topics: teacher assessment, professional learning needs, and development goals in relation to teacher competence and professional learning. As mentioned before, each interview also had additional questions depending on what the important thoughts and stories of each interviewee were.

Table 6
Interviewed Experts in Finland

Organization	Interviewee position, gender and assigned code	Years of experience
University of Helsinki	Professor, former director (M) FX1	31
University of Helsinki	Professor (F) FX8	41
University of Helsinki	Head of department, researcher (M) FX2	15
University of Turku	Head of Faculty Development (F) FX5	13
Ministry of Education and Culture	Counsellor of Education (F) FX3	36
Finnish Principal Association	Principal, member of the association (F) FX4	-
Metropolitan Area City, Education Department	Head of a district (F) FX7	8
	Head of department (F) FX6	19

4.1.3. Fieldwork in California

From the California sample, in total, 10 schools were involved in the fieldwork (eight of them from San Diego county, one from Riverside county, one from Los Angeles county). The included schools were public (except one private), charter and non-charter, and they represented grades from kindergarten through to 12th grade. Eight school-based leaders were interviewed including five principals, one assistant principal, one instructional leader and one assistant head of school for academic affairs. Eight teachers were interviewed, one of them who works both as a teacher and in staff development. The aim was to include in the study one teacher and one principal/assistant principal from each school; in some schools both categories of informants were included, in some schools only either one of them. In total, seven experts were interviewed. All the experts work in the San Diego area, except for one interviewed expert who works in Los Angeles. Fourteen of the interviews happened face to face, seven with zoom.us online video calls, one as a phone call, one written and all were electronically transcribed for analysis. One interview happened as a double interview (principal together with a teacher). Interviews in California were conducted in the period between 11.01.2019 and 5.03.2019. The interview length varied between 19 minutes and an hour and 4 minutes, and in total, 710 minutes of recorded interview material was gathered and the fieldwork in California was regarded as successful. The research participants from schools interviewed (coded for anonymity) are outlined in Table 7, and expert participants interviewed are outlined in Table 8.

Table 7
Interviewed Principals and Teachers in California

Interviewee, gender and assigned code	Years of exp.	School type and assigned code	No. of students	County
Assistant principal (M) 10C2	4	Public intermediate/ middle school, grades 7–8; 10C	839	San Diego
Teacher (F) 10C1	7			
Principal (F) 11C2	28	Public elementary school, grades kindergarten–6; 11C	441	San Diego
Teacher (F) 11C1	15			
Principal (M) 12C2	37	Public charter high school, grades 6–12; 12C	816	San Diego
Teacher, Staff Developer, Dept. chair (F) 12C1	29			
Instructional leader (F) 13C1	20	Public elementary charter school, grades kindergarten–8; 13C	426	San Diego
Principal (M) 14C2	14	Public high school, grades 9–12; 14C	2,496	San Diego
Teacher (F) 14C1	19			
Teacher (F) 15C1	24	Public high school, grades 9–12; 15C	2,142	Riverside
Principal (F) 16C1	22	Public high school, grades 9–12; 16C	682	San Diego
Principal (F) 17C2	4	Public intermediate/middle school, grades 6–8; 17C	1,565	Los Angeles
Teacher (F) 17C1	16			
Assistant Head of School for Academic Affairs (F) 18C1	8	Private K–12 school, grades kindergarten– 12; 18C	1105	San Diego
Teacher (M) 19C1	26	Public high school, grades 9–12; 19C	995	San Diego
Teacher (M) 19C2	5			

All informants were selected based on availability, i.e. if they were willing to give an interview. Contacting interviewees happened in cooperation with the Global Leadership Institute at the University of California at San Diego where an assigned coordinator contacted experts and schools on behalf of the researcher to reach out and propose giving the interviews. In the first stage of contacting schools, a randomization approach was used. The researcher compiled a list of all San Diego area schools from the California Department of Education school directory⁸, numbered the list and used an online randomization tool⁹ to randomly select schools to be contacted. One school answered positively about giving interviews. In later stages,

⁸ California Department of Education (n.d) California School Directory. Retrieved from: <https://www.cde.ca.gov/SchoolDirectory/>.

⁹ Random.org (n.d.) What's this fuss about true randomness? Retrieved from: <https://www.random.org/>.

when this approach proved to be not so effective, given the limited time frame, snowball sampling was used if interviewed experts, principals or teachers suggested another interviewee should be interviewed. Snowball sampling is used where there is no obvious list to refer to in order to generate a participant base for research. It relies on the researcher obtaining a strategically important contact who can recommend other possible participants who might be approached to participate in a research. Snowball sampling proved to be a useful way of gaining access to an otherwise hidden group of people, especially for a researcher who is conducting interviews in a foreign country. This sampling approach gave insight into the typical cases of school practice and experts' insights rather than generalizable cases (Henn et al., 2005 pp. 90, 156–157). Additionally, experts were contacted based on: 1) researchers' own assessment of their experience and if it matched with the theme of the dissertation (which was based on information available on the Internet); and on 2) other experts' suggestions from their own professional networks.

Table 8
Interviewed Experts in California

Organization, department	Interviewee position, gender and assigned code	Years of experience
University of San Diego	Professor (F) CX1	23
San Diego County Office of Education	Board Member (F) CX2	20
Self-employed	Retired superintendent / principal mentor (F) CX3	50
UCSD¹⁰	Director of a Department (F) CX4	25
UCSD	Supervisor of Elementary Education (M) CX5	40
San Diego District Teacher Association	President (F) CX6	25
UCSD	Assistant Professor (F) CX7	16

4.2. Phenomenological Approach to Interview Data Analysis

As previously mentioned, competence and performance is directly related to its context where it manifests – a real-life work situation, in this case classroom instruction. The classic managerial responsibility is to develop human competence at work. To accomplish this, organizational leaders need to understand what constitutes human competence at work. The main approach to answer this question is the rationalistic approach: competence consists of a specific set of attributes (knowledge, skills, etc.). This approach is criticized for operationalizing competence attributes into quantitative measures, making them abstract,

¹⁰ University of California at San Diego.

narrow and simplified descriptions that do not adequately represent the complexity of competence at work. Rationalistic models tend to predefine what competence is for the individual who should possess it and confirm a researcher's own model of competence rather than capturing the real individual's competence. Lastly, it does not help to capture why, for example, two individuals may possess identical attributes but accomplish their work differently (which attributes are used and how) (Sandberg, 2000).

An alternative is the interpretative research tradition and this comes from works by phenomenological sociologists such as Alfred Schütz, Peter L. Berger, Thomas Luckmann and Anthony Giddens. Dennis Wrong (1961) and others who argued that structuralist ideas left too little room for the creative actions of individuals, and many sociologists turned to more agency-focused perspectives, such as symbolic interactionism, phenomenology and ethnomethodology (Giddens & Sutton, 2014, pp. 46–54). “Interpretive sociology” is a term usually confined to those sociological approaches that regard meaning and action as the prime objects of studying social life (Scott & Marshall, 2009). This shift towards the actor's perspective was part of an emerging theoretical pluralism that students of sociology now experience as the normal state of affairs.

The main feature of the interpretative research tradition is its phenomenological base, the stipulation that person and world are inextricably related through people's lived experience of the world (Berger & Luckmann, 1966; Husserl, 1970/1900–01; Schutz, 1945, 1953, cited in Sandberg, 2000, p. 11). The importance of reflection on experiences for teachers' competence development is broadly recognized (Kwakman, 2003; Timperley et al., 2007). Phenomenography was originally developed within education as a method for describing the qualitatively different ways in which people understand aspects of their world (Marton, 1981; Marton & Booth, 1997, cited in Sandberg, 2009, p. 1142). To summarize, a phenomenological approach tries to capture the lived experiences and their meanings of a phenomenon through the individual's perspective (Finlay, 2009; Langdrige, 2007) and record the characteristics of the emerging phenomena (Leedy & Ormrod, 2016). Therefore, it will be studied how various assessments both as formal and informal social structures appear to teachers, and how the phenomena studied (assessments and development activities) appear because a variety of things can appear in a number of different ways; that is, phenomena appear in experience. Phenomenology can thus be described as the study of experience and of things as experienced (Smith, 2016, p. 1).

According to the philosopher Edmund Husserl, science had become divorced from the fabric of human experience and was in fact alienating our understanding of ourselves.

Phenomenology as a philosophical method of inquiry tries to bridge this gap between research and the individuals that are researched (Scott & Marshall, 2009). This theoretical perspective is chosen as it puts teachers and principals and their experiences at the centre of empirical investigation. Phenomenology avoids pre-constructed, fixed procedures, and instead uses personal experience as the starting point for inquiries into a phenomenon. If, for example, individuals' competence and performance is interpreted phenomenologically then these phenomena are viewed not primarily as a specific set of attributes (knowledge, skills, etc.) but as individuals – here, teachers' and principals' own conception of competence and performance, and its assessment and development process. And this conception defines what sort of competence areas should be developed and used to perform a desired type of work (instruction in this case). Teachers and principals may experience different kinds of formative and summative assessments in their school, but each may have their own interpretation of the experience and meaning of them. Attributes do not have fixed meanings, they have acquired meanings through the specific way in which work is conceived by individuals (Sandberg, 2000).

In researching teachers and their relations with a work area, a phenomenological approach can be useful for bringing deep issues to the surface and making voices heard. This is not always comfortable for research participants, especially when the research might expose taken-for-granted assumptions or challenge a comfortable status quo (Taylor et al., 2011). Therefore it was assumed that in the interviews not all teachers expressed, for example, negative or otherwise problematic experiences of assessment at work, and this is taken into consideration when making generalizations of the results.

To summarize, phenomenology as an analytical approach is taken to interpret and understand teachers' experiences, perceived meaning, actions, knowledge, intentions and sense of organizational processes in their schools related to their own assessment and their professional development, and especially if and how they find these phenomena are linked in their everyday work lives at the school level. School leaders' and experts' views on existing teacher assessment practices are also taken into account for data triangulation to increase the validity of the evidence and are useful in exploring the complexity of teacher assessment and its experience.

In phenomenological studies, qualitative methods are usually used to obtain a description of individuals' experience and meaning (Langdrige, 2007). Phenomenologists focus on describing what all participants have in common as they experience a phenomenon (Creswell & Poth, 2018). The analysis may look at “what” phenomenon participants have experienced and “how” they experienced it. The analysis aims to capture and describe the common meaning

expressed by several individuals of their lived experiences of a phenomenon – in this study, teacher assessment and professional development as well as related topics. It is proposed that teachers and principals may experience different kinds of assessment in their school, but each may have their own interpretation of the experience and meaning of the assessment. Therefore it would be valuable to identify what kind of teacher assessment practices are experienced as being linked to teacher professional development and learning.

Several theoretical categories of a “positive assessment as linked to professional development experience” are proposed by summarizing ideas gained from formative assessment and organizational development literature. As was mentioned before, teachers may experience any kind of assessment as a high-stress, high-stakes situation (Maslow & Kelly, 2012). Experience of formative assessment reflects experience of professional development, therefore formative assessment needs to be organized as part of professional development initiatives that require an environment that is characterized by trust and is safe for risk taking, is characterized by collegiality and honesty, and is generally experienced as a safe space, which is necessary for professional growth (Gordon & McGhee, 2019). This implies several aspects described in Chapter 2. Firstly, the central focus when exploring teachers’ experience of their work (competence and performance) being assessed should be placed on whether assessment is experienced as summative or formative. This implies that before starting the assessment procedure, the intentions and goal of the assessment are clearly and honestly communicated between school leaders and teachers. Summative assessments are related to accountability, formative assessments to development (Huber & Skedsmo, 2016; OECD, 2013), and it should be taken into account that each school tends to conduct both types of assessments, therefore these activities should be clearly separated. Honest communication in an organization is key. School leaders’ responsibility is to clearly separate the roles of a judge (when doing summative assessment) and a helper (when doing formative assessment) (Maslow & Kelly, 2012), or assessments can be conducted with a distinct time gap to be experienced separately (Smagorinsky, 2014). Experience of formative assessment should also reflect some ownership of the assessment process according to self-government ideas (Hatch, 2013, p. 26), thereby also reflecting democratic values within the school as an organization. Lastly, formative assessment should be experienced as a collaborative and collegial activity (Vidmar, 2006), for example, if professional development initiatives are planned for a group of teachers (Namsone et al., 2021).

The benefit of the phenomenological approach is that what is captured is experience as participants live and understand it rather than how researchers or other experts outside the school understand and conceptualize it. As such, phenomenology in this research may uncover

teachers' and principals' established assumptions, prejudices or concerns – which are important elements for improving areas of schools as organizations' functioning and development for providing effective education for society. Why such an approach is used – the arguments that policy and practice are not always the same thing in education therefore asking directly to the actors who are having and deciding on how the hands-on practices are being organized in the school and what are their interpretation about their work.

The interview text was coded and structured in topical codes and their subcodes that initially emerged from the theoretical knowledge base compiled about organizational development, teacher assessment and professional development (Leedy & Ormrod, 2016). The theory informed what initial central topics to include in the interview questions and these were also used as initial groups of common themes when coding: 1) teacher assessment practices; 2) practices of teacher professional development; 3) goal-setting practices in the school and traces of how these practices have been experienced by teachers.

Each of these broader themes (codes) includes subthemes (subcodes) and their dimensions. For example, the common theme “teacher assessment practices” has a subcode “aim of assessment”, which has dimensions like “summative” under which are smaller code groups with full quotes (one or multiple sentences capturing one idea) that illustrate the different dimensions of teacher summative assessment: certification for employment (after finishing studies); employability; auditing agency; assessment for a specific professional status; no summative assessment; assigning grades of quality. Coding was done manually by the author. A codebook was developed in Excel. During the coding process with deductively defined original themes and codes, emergent subcodes that were common for the different groups of interviewees were inductively included in the list of initial themes. This is in line with doing explorative data analysis (Flick, 2018) and thematic analysis widely used in phenomenology. Sentences or sentence clusters were read several times with the question “What statement(s) or phrase(s) seem particularly essential or revealing about the phenomenon or experience being described?” Some phrases from the interviews were especially evocative and therefore were added to the codebook as possible rhetorical “gems” and helped to develop the phenomenological description (Van Manen, 2016) of teacher assessment and PD.

Returning to the coding process, being open to detecting new meaningful concepts during the coding process makes it possible to show the various experiences and their meanings that interviewees might hold and can help describe the typical experience of the phenomena (Leedy & Ormrod, 2016, p. 258). For example, there were interviewee responses that were unique and simultaneously significant but could not be coded using the existing themes, therefore a new

separate code was designed to capture all such responses: for example, future plans/needs regarding assessment/PD.

Good phenomenological analysis requires the researcher's preconceived notions or personal experiences about the phenomenon under study to be suspended in order not to influence the results. Such a suspension, called *bracketing*, can be extremely difficult for researchers who have personally experienced the phenomenon under investigation (Leedy & Ormrod, 2016). Such a risk is minimized as the researcher is relatively new to the educational science field itself and has not experienced work-related assessments as a teacher.

Summary: Phenomenological Description of Teacher Formative Assessment Linked to Professional Development

Phenomenology gives an agency-focused perspective on how teachers themselves experience different existing practices of their assessment, but experts' and school leaders' perspectives are also taken into account for the sake of better data triangulation. The phenomenon in question is any kind of assessments of teacher work; of course, the centre of attention is formative assessment and also partly the preceding professional development and if and how it is linked with assessments. In the coding it is taken into account how these phenomena are experienced, how they appear to teachers, experts and school leaders, how they reflect the phenomenon and experience of it, and what the given meanings of the experience are.

Taking into account the theoretical frameworks of organizational development and formative assessment, a positive experience of assessment linked to professional development should be as follows: experiences of both formal and informal social structures should be taken into account; assessment should be experienced as development and therefore needs to be organized as part of professional development activities; formative assessment should be clearly separated from summative assessment, otherwise there is a risk that formative assessment could be perceived as summative and could be experienced as not related to development initiatives; at the beginning of formative assessment everything should be clear in terms of the intention and goal of formative assessment; teachers' experience should reflect some ownership of the process according to self-governing ideas introduced by Mary Follet; formative assessment should be experienced as a collective activity that is done with peers and not alone according to best practices of PLC; school leaders hold responsibility for teachers' positive experience of formative assessment. Overall, the goal of coding is to gain a description of how the phenomenon of teacher assessment is experienced commonly among teachers and how the process is described by school leaders and experts.

It is proposed that if teachers experience assessments of their work as linked to professional development, then the assessment process is effective (reaches the goal) and efficient (reaches the goal with smaller investments in the process) in linking with identified professional development needs, and that, in turn, can positively influence school organizational development and help the school reach curriculum reform goals. In the coding, both actual practices and experiences of them are taken into account and compiled.

5. RESULTS

Results of the analysis of 70 semi-structured in-depth interviews with three groups of interviewees – teachers, school leaders and educational experts representing three selected education systems, namely Latvia, California and Finland – are presented in this chapter. The content of this chapter is structured according to the topical aspects of teacher assessment at the school level overviewed in Chapter 2.

Section 5.1 aims to answer the research question *What kinds of teacher assessment practices are used in schools in Latvia, Finland and California according to teachers, school leaders and education experts?* and gives descriptive qualitative information about the assessment practices used in schools such as the summative practices, followed by a description of what the sources of information for teacher assessment are, and how assessment is conducted, followed by a description of agents who are doing the assessment and, lastly, a description of the different sources of assessment instruments used in the school.

Formative assessment practices and other ways in which assessment is linked to teacher development are described in Section 6.2, and this section seeks to answer the research question *How do teacher assessment practices and experiences of them reflect the linking between assessment and teacher professional development?* The identified existing teacher assessment practices used in the three selected education systems are interpreted by using the knowledge synthesized in Chapters 1 and 2 of this dissertation to find out what aspects of existing teacher assessment practices indicate that they successfully lead to informed professional development. Lastly, a phenomenological description of experience is given.

5.1. Teacher Assessment Practices

Summative teacher assessment practices tend to reflect the formal structures of schools. The largest subcategory of summative assessment practices is “certification for entering the teaching profession” with 13 quotes (Latvia = 1; California = 8; Finland = 4), which is related to pre-service teachers. In the California context, teacher candidates’ readiness for the profession is assessed based on examining their **performance** (Commission on Teacher Credentialing, 2009). The examination may consist of different elements. The high-stakes element of this examination is based on pre-service teachers’ submitted evidence of their classroom practice in the form of a video that they have planned and filmed themselves within three to five lessons in mathematics and literacy. Pre-service teachers then also examine their own teaching by analysing the video and this should be made evident, therefore this submitted

evidence reflects both practice and teacher candidates' reflection of the practice. Then the video of teachers' performance is assessed by using several rubrics (CX4, CX7, CX5). This summative assessment process is similar to national board certification in the US (CX7), which is a voluntary certification process whereby teachers who are considered to be highly effective can demonstrate, and gain recognition for, their knowledge and teaching skills nationally:

We have a national board of professional teaching standards. Teachers can voluntarily take that evaluation and if they pass, then they have a credential that allows them to teach anywhere in the US. Expert CX4, California

This type of certification's mission originally was to establish high and rigorous standards for what accomplished teachers should know and be able to do. Such certification may serve as a signal of teaching effectiveness that schools or districts may use to **identify skilled teachers** for leadership roles or critical teaching positions and encourage effective teachers to remain in the teaching profession longer than they otherwise would (Goldhaber & Anthony, 2007). Two California interviewees also point out that to become a certified teacher, one must take a test and this is becoming increasingly required (10C1; CX4). In Finland, it is pointed out that there is a need for a competence model that would define what phenomena should function as evidence for assessing competence in prospective students who apply for university programmes related to teaching and pedagogy (FX5).

Turning back to in-service teachers, in their assessment they might also encounter summative assessment that serves the function of **verifying employability** continuously. This is expressed in nine quotes (Latvia N = 2; California N = 5; Finland N = 2). One Finnish principal shared how she uses a few standard questions to inquire about a potential teacher's classroom practices and ideas, and problem-solving approaches before hiring a new teacher: "When I take a new teacher in my school, I have a few standard questions (..) I am strict to look who I will take in" (FX4). Latvian and Finnish interviewees mentioned this topic in the hiring process of teachers. As noted by an expert in Latvia, the performance component of teacher assessment as a way to make decisions about their suitability for the profession is missing in the Latvian education system:

When they [teachers] apply for the job they have to demonstrate a lesson before getting the teacher's job but as far as I know this is done rarely. And it is becoming less popular. Because of this point, basically anyone who is willing to be a teacher gets hired. Expert LX2, Latvia

This situation might cause **risks**, such as not having enough systematic approaches for selecting the best teacher candidates upon starting their studies and entering the profession. If

teachers entering the profession have not been required to show proof of their instructional capabilities needed to guide classroom work, and if this situation is combined with not having enough support structures for mentoring newly hired teachers in schools (OECD, 2016), then the education system might encounter difficulties implementing the new curriculum.

Turning back to the context of California, the teacher assessment process is very much driven by formal organizational structures, that is, the working **contract** (16C1) of teachers, which, interestingly, includes formal lesson observation (14C2) that is done yearly by the principal (CX5): “I do the main assessment that is going to determine whether we are going to rehire them” (13C1). In California, teacher employment status is directly related to experience, which is expressed in number of years working as a teacher, and depending on the amount of experience, early-career teachers have yearly regular assessments whereas tenured teachers have less regular assessments. The regularity of assessment is differentiated depending on teachers’ experience in working in the profession. For example, if you have more than ten years of experience, once you’re tenured, it goes from an annual assessment to one every two years (14C2).

To sum up, summative formal assessment procedures might also include elements of evaluative information that is obtained from directly observing teacher practice and is therefore based on performance, except in the case of California, where this information is used for informing both professional development and teacher employability.

Summative assessments are also organized in a way to **assign levels of quality** that describe in what stage of experience or professional development the teacher is. This is expressed in eight quotes (Latvia N = 4; California N = 1; Finland N = 3). In the case of Finland, in the Helsinki area teachers experienced a new assessment system for digital skills that assigns “digital badges” (7F2). Teacher 5F1 stated that when completing the survey, information is given about what level the teacher is at and an explanation of what it means and what the goals of the different levels are, but this was not found to be helpful. As pointed out by a Finnish expert, the system is built for educational quality assurance: “We try to get them all to that certain level, so that they can work in our systems and they can teach children” (FX6).

Further, the subcategory **pay and funding** as a dimension of summative assessment stood out and was expressed in eight quotes (Latvia N = 6; California N = 1; Finland N = 1). In California, if such an approach is implemented then that has to be negotiated with their local teachers’ association (CX4). To add to this, teacher unions in California play a role in protecting teacher rights when it comes to assessment (CX5). In the Latvian context, teachers may receive a bonus to their pay according to assigning grades of quality. One of the interviewed Latvian

experts has experience in assessing teachers as an outside expert and explains that a teacher prepares a portfolio about what he or she is learning professionally and how they work with students. Then they demonstrate six to eight lessons. The assistant principal is the observer or the commission (LX6) formed in the school. There is an element of self-assessment (25L2; LX5).

Lastly, as regards summative assessment, Finland stands out in this regard in having no centralized assessment system (5F1; FX7; 7F2). As one teacher describes, having such a system would be against a teacher's professional freedom, and by not having a formal obligation to be assessed, teachers take it as their own individual responsibility to ensure they meet the needed quality levels:

At the school level we don't have any obligatory system because in Finland and also for me as a teacher the freedom of my own work is really high and highly evaluated. I can and I am responsible for me, that my competence is enough.

Teacher 7F2, Finland

Education systems are being compared by taking different analytical categories. One of them would be accountability, which can either be accountability asserted by educational authorities onto schools or accountability that is exercised among peers and stakeholders. The other analytical category would be work organization; that is, the processes in schools are hierarchical and authoritarian on the one hand or the processes might be flat and based on collegiality on the other. These are a continuum of approaches to education and they are partly linked to a country's economic advancement. As the OECD suggests, for an education system to attract motivated graduates to take on the teaching profession, education systems need to strive to transform the work organization of the school into an environment where bureaucratic and administrative forms of control are replaced with professional norms of control (OECD, 2011, p. 17). In this regard, Finland is an example of **accountability that is exercised horizontally** among members of a school or wider community or education system where teacher assessment is mostly done within informal organizational structures and not within formal guidelines brought in from the external environment of the school, thereby reflecting the idea of organizational management based on self-government (Follett, 1918).

Turning to the next subcategory, teacher assessment might be based on different sources of information, e.g. **evidence**. Two types of sources used to inform teacher assessment results were identified in the coding process – student learning in the lesson and teacher skills (this might refer to different kinds of practical skills; this terminology is used as it reflects the language that most interviewees use to describe their work). In the Finnish context, social (FX5;

FX4) and digital (7F2; 7F1; 5F1; 3F1) skills were mentioned as important and topical for assessment. What is similar in California and Latvia is that teachers alone or together with the school leader select one or a few skills to focus on, based on the assessment (19C1). According to a Latvian teacher, “in last year’s experience we understood that we have to highlight specific teacher skills” (24L1). Two Latvian interviewees also pointed to a complex set of skills that are defined and assessed through lesson observation. One school adjusted their lesson observation form according to the curriculum reform with four elements – learning goal of the lesson, meaningful learning tasks, student self-directed learning and feedback (23L1). Another school includes digital skills, teachers’ ability to plan lessons, setting learning goals for students, feedback and also collaboration skills in teamwork, foreign language, and softer skills like initiative and creativity (27L1). Other smaller subcategories include teacher formal education, knowledge, teacher interaction with parents, portfolios and multiple sources of information that schools use for assessing teachers:

We look at all things. So it could be classroom environment, it could be subject matter knowledge, it could be, um, lesson planning and design. Or it could be something like student-teacher interactions. 16C1, California

As one principal notes, “I am not observing the teacher, I’m observing the children” (9F2). Observing how student learning in the classroom happens is another type of evidence gathered for assessing teachers. Interviewees mention student learning engagement, speech and vocabulary, behaviour, needs, the physical environment of the lesson and generally student work and performance as important evaluative criteria for lesson observation in all three cases.

I’m also observing that the students aren’t using it [vocabulary] so they’re not employing it the correct way. Let’s pause there. What adjustments or pivots do we need to make in terms of our teaching approach? 18C1, California

Next, several practices for teacher assessment identified in the coding process will be described – **lesson observation, self-assessment, assessment in the form of testing, questionnaires, exams and analysing student learning results**. Self-assessment is also a major topic that emerged in the coding process and it is described in Section 6.2. These practices are interpreted by applying the knowledge synthesized in Chapters 2 and 3 of this dissertation.

The largest group of subcategories under the theme teacher assessment is the already mentioned **lesson observation** with 51 quotes, where Finland is represented the least (Latvia N = 19; California N = 24; Finland N = 8). Firstly, according to interviewees, the primary focus of lesson observation is to look at teacher instruction, such as questioning when interacting with students, leading student learning and student engagement (19C2; CX6; CX1; 17C2; 17C1;

22L1; FX4; LX1; LX6). In the case of Finland, where interviewees rarely mentioned lesson observation, **co-teaching** was mentioned as a way of observing the lesson, assessing each other's work and learning about instruction from each other (3F2; 6F1). As was overviewed in Chapter 2, assessing teachers based on observing directly their instruction is one of the central conditions for linking assessment to professional development and learning. In the case of Latvia, lesson observation was mentioned partly in relation to the previously described assessment system that assigns grades of quality that define at what stage of experience or professional development the teacher is, and the grades of quality determine pay rises, but there are also other ways in which lesson observation is done. For example, schools may also use observation forms that are developed outside the school, such as at a university (22L1), or observation that is done between teachers (24L2). Interviewees also mention more specific aspects of **observation tools** such as a rubric that defines the indicators for observation and that is used as an observation form (LX5). The rubric may be structured in five areas broken up into six observation components that are aligned with the lesson observation procedure. The components are scored on a scale from one to five where five is the strongest performance indicator (13C1). The use of a rubric in teacher assessment may be interpreted in different ways. The main feature to be emphasized within this research context is the function that a rubric may serve, that is, to ensure **transparency** of the assessment procedure and aims between the teacher and the evaluator and develop a common understanding of teachers' strengths and areas for needed improvement (OECD, 2013, p. 36). Using a rubric can also minimize the risk that the teacher perceives the assessment as controlling or threatening to their employment security or producing results that don't reflect their work activities.

As one expert in Latvia pointed out, no school can exist without lesson observations (LX5), and as noted by an expert in California, observations have become much more important in teacher assessment over the last few years (CX4). The importance of lesson observation was expressed by both Latvian and California interviewees. Lesson observation is the main and most consistent evaluative practice (10C1; 15C1) where in one Latvian school each teacher has four lesson observations per school year (23L1). In one San Diego district goal is that principals are regularly observing all lessons in the school (11C2).

Teachers might be evaluated by using **student learning results**, as one Finnish principal states: my point is that the input comes through the children learning (9F2). The subcategory "student learning" under the theme "teacher assessment" is expressed in 23 quotes (Latvia N = 7; California N = 12; Finland N = 4). In California, interviewed practitioners in their schools very often use student test scores to evaluate teachers' work formally (CX7; 10C1), including

summative standardized test data (CX1); and it is a strategy used to inform which teaching/learning areas should be given more attention (13C1) or it is used to decide what's happening with the teacher's employment status (CX3). Using student learning results might be one of the many pieces of evidence gathered to evaluate teachers' work; sometimes the teachers are also required to provide other documentation or evidence of student learning (CX4; CX6; CX7). But there is also criticism of using student learning results as evidence for assessing teachers:

Student achievement tests – who knows what they actually measure. CX7, California

I don't think that student test scores are the best measure that should be used for evaluating teachers. Test scores are part of it [teacher evaluation], school districts love their test scores because they can say, look at us, look how well we're doing. CX6, California

In Latvia, student results are used in an aggregated form from yearly centralized exams and national diagnostic results (20L1; 20L2; 24L2), the change that happen in the results over time (24L1) and they might be employed as one of the components of evidence used in teacher assessment (25L2). Assistant principals in Latvia point out that teacher competence is evaluated indirectly through looking at student results (20L1) and that student results are the main indicator if new instructional interventions have had some positive effects on student learning (22L2).

Forms of assessment such as **tests and questionnaires** are also being used to evaluate teacher work (7 quotes). In Finland, the metropolitan area of Helsinki has a new approach to systematically gathering information through an online survey about teacher skills for using digital tools in the classroom (5F2; 5F1; 3F1; FX1). In California, a teacher is evaluated by using a test for attaining national board certifications or another similar distinction (14C2). Using surveys and similar automated tools for gathering information might be a way in which a school or a district can be more autonomous in terms of its own information management (LX4).

Interviewees also stated that they might use **feedback from students and parents** (2F1; 10C2; 20L2; 26L2; 24L2) as an input for assessing teachers (7 quotes, Latvia N = 5; California N = 1; Finland N = 1). Student surveys are being used for informing teacher development (23L2) and are given special attention if a larger number of students complain about similar problems (21L2). Formative assessment can utilize methods that are seldom used in summative assessment, such as peer review, student feedback and parent feedback (Gordon & McGhee,

2019), and including evidence from various sources can ensure that assessment is comprehensive enough, which is one of the conditions needed to ensure that it is informing development (Marzano, 2012).

Organizational development requires the gathering and using of reliable data that could inform teacher development and other interventions in the school, but interviewees noted that they are **not using data** and this code is represented in 11 quotes (Latvia = 1; California N = 1; Finland N = 9). Using data to inform decisions in the school is also in a development phase in Latvia (24L1), and in California this kind of approach is dependent on the principal, and there is no specific policy on how to do it at the school level (CX1). All interviewees from Finland expressed the same attitude towards using data at the school level – that it is not done systematically (5F1; 3F2; FX4) as the school system is strongly decentralized and decision-making is delegated to the local level (FX3), therefore principals can choose how they evaluate their teachers (FX6; FX7). As one assistant principal puts it, “in Finland, the whole system is based on trust and understanding and discussions and mutual planning of what we are doing” (2F1), contrasting approaches based on trust with approaches based on using measures and gathering data. One principal noted that such information on teacher performance is not being collected even for long-term review (3F3). If a teacher is collecting his/her own notes, then it is not for submitting them to others, but it is just for themselves (8F1).

With regard to the **agents who do the assessment**, three main groups emerged from the interview coding – teachers (4 quotes, all countries represented), school leaders (29 quotes, Latvia N = 5; Finland = 8; California = 16) and an outside evaluator (12 quotes, Latvia N = 8; Finland = 3; California = 1). An outside assessment in California may happen if a school is chronically underperforming, and in such a situation the state can come in and take a look at the situation (CX1). In Latvia, an outside evaluator might be an expert-consultant coming in to observe lessons (LX2; 22L1), or the assessment happens as part of accreditation done every six years (LX3; LX6) or assigning grades of quality (LX1; LX2). One principal notes that the best information sources for the school come from outside agencies like the National Centre for Education (NCE), and not from sources internally created in the school (20L2). In Finland, assessment by somebody outside the school might be done not at the teacher level but for the whole organizational level and is both a yearly evaluative and development intervention where the school members also express their problems and possible solutions are discussed with a local education authority (FX7). Similarly, a local education authority in Finland measures how well the national curricula are implemented in the classroom and how well the local-level strategy is implemented, including the monitoring of teacher skills (FX1). For example, the

previously mentioned assessment of teacher digitalization skills is one instance of teacher assessment done by somebody outside the school. As one principal notes, “I think it was quite a fine way but mainly we don’t collect that kind of data” (8F2).

According to interviewees from all three cases, the main responsibility of doing teacher assessment is assigned to **school-based leaders** – a principal or an assistant principal. In California, the principal and/or assistant principal conducts lesson observation (10C1; 12C1; 13C1; 10C2; 17C2; 18C1; 19C2; CX1; CX4; CX6; CX3; CX5), which might be part of the formal or informal assessment (19C1) and might even be a daily activity (11C2) and with the focus on teacher practice (CX1), which emphasizes the international context of principals holding a role as an **instructional leader**. The Education Code states that the site administrators/supervisors (school-based leaders) are responsible for the assessment of teachers, but an administrator’s next steps with regard to the results of the performance levels vary among districts and schools (CX2). Principals, just like teachers, use the CSTP for the assessment process (19C2), meaning that both teachers and principals refer to a common reference point to inform their decision-making in the school. In Latvia, principals are also responsible for assessment (20L2; 27L1), for example, in the form of yearly review discussion (23L1). In Finland, principals also engage in lesson observation (FX4; 9F2) and development discussions (FX3; FX8) and the principal and the municipality staff might interpret the results together (FX2). However, both in Finland and Latvia it was expressed that the ways in which principals conduct assessment vary:

It depends on the principal; if they take it very formally then they get excellent results from the system. Expert LX4, Latvia

And it depends a lot on the principal; we can have principals who have no strategy for how it happens but then we can find principals who have quite clear strategies. Expert FX2, Finland

Teacher assessment instruments may come from, or may be based in, **different sources**. Three subcategories emerged under this theme: assessment instruments that are based on national or local teaching standards or other similar approaches to inform assessment (35 quotes, Latvia N = 2; Finland = 20; California = 13) and which are centrally used by schools; assessment instruments that are developed within the school by teachers and school leaders (12 quotes, Latvia N = 1; Finland = 9; California = 2); and other instruments such as instruments that are developed by a non-government organization (12 quotes, Latvia N = 10; Finland = 1; California = 1).

First, in California, pre-service teachers are evaluated by using teaching performance expectations (Commission on Teacher Credentialing, 2009) (CX5). In-service teacher assessment is guided by, and based on, the California Standards for the Teaching Profession (CSTP), which are centrally used in the state as guidelines to inform what performance criteria should be included in the assessment (19C2), such as supporting student learning and maintaining effective environments for students (19C2). The use of the **standard** is determined by the law (California Education Code, Section 44662, 1999) (14C2) but the district may have freedom to adjust the possible tools and methods of assessment, such as determining that principals conduct lesson observation regularly (11C2) and the guidelines may be adjusted to their local needs:

The city decided to redo the way they do their evaluations a couple of years ago and instead of just taking that exact list of standards, they kind of rephrase them in a more teacher- friendly version, 17C2, California

Similarly, in Latvia, the teacher assessment system related to the **grades of quality** also allows autonomy for schools to organize the assessment as it is best seen by schools themselves. Interviewees in California guide lesson observation and adjust assessment rubrics based on the CSTP (CX4; CX6; 17C2). Further, the interviewees mention that the standard is used for setting both school-level and teacher individual goals:

We evaluate according to the California standards for the teaching profession, the CSTP. There are six CSTP, the teachers would identify from the CSTP what goals they want to work on and how they would evaluate that themselves, 16C1, California

We use the California standards for teaching profession. These would be our competencies. There are 30 to 35 competencies. That is a lot to focus on like in one year. And so typically we pick one or two to focus on each year or every two years specifically. Then that would be our guideline or a reference point of what we're looking for. So we already have these established by the state. 10C1, California

In Helsinki metropolitan area, teachers have experienced one major unified approach to assessment regarding the digitalization of education (4F2; 5F2; 7F1; 3F3) and have also been evaluated through a questionnaire regarding welfare-related topics that is used in every city (4F1). At the city (municipality) level there are strategies for strategic development that requires assessments (FX2). At the city level, monitoring is done based on representative samples and

teacher self-assessment, and cities are monitoring the implementation of the curriculum, as one expert states:

National-level monitoring is how we monitor, we don't look at each site. Based on representative samples we know what is going on (..) Helsinki has a very strict, clear strategy for digitalization in education and part of that is emphasizing an active learning process, learning of generic competence, phenomena-based approach (..) they are using self-evaluation, teachers fill in a questionnaire – how often in your classroom you are pushing your students to plan to collaborate in small groups for example (..) this monitors details – how competences are implemented in the classroom. Expert FX1, Finland

Every school does it every year; in spring we do self-evaluation and we send the report to the local education division. 3F2, Finland

Assessment is also guided by the **core curriculum**, which describes what high-quality education in schools is and gives teachers quite a wide frame for education values, major aims and strategies for their pedagogy (FX8). A new initiative (2016–2017) regarding teacher assessment was a teacher education forum where national brainstorming was done by using an online platform to gather opinions about what is important in teacher education. Different stakeholders important for making discussions on teacher competence were involved – people from teacher education institutions, schools, administration and the teacher union. The outcome was a consensus agreement – what the aims of teacher education are, reflecting what the teacher should be able to do in the classroom (FX1). In other words, hundreds of teacher educators and thousands of teachers have been involved in public discussions about which way education should go (FX8). Latvian interviewees mention the three grades of quality that a teacher can obtain through assessment, which brought a unified structure for how teachers should be evaluated introduced by the Cabinet of Ministers in 2017 (lv.portāls, 2017). This system determines that schools **internally** foresee how the professional work quality is evaluated and how bonuses related to the grades of quality are distributed (LX3). Second, teachers are evaluated through school accreditation, which happens every six years with the involvement of outside experts (LX6).

Schools may also use assessment **tools that are created by the teachers and school leaders**. This is more prevalent in Finland due to the high decentralization of the school system and teachers' and principals' autonomy of their own actions at the school level (FX6; FX7; FX3), as in topics related to development, teachers' autonomy is respected (FX5). Schools write

their school-level curriculum (which is based on the local-level curriculum formulated in each municipality), which provides the main recommendations for how to organize teaching and learning in schools. At the municipality level, the wider framework of goals is set for schools and schools are free to choose and develop the methods for how these goals will be reached depending on what the school sees as useful to use (FX8). This freedom is also used to carry out assessment between schools where a school leading group can evaluate each other's work (FX6; FX7) or a school can take the initiative to develop assessment tools that other schools can also use (3F3; 3F1; 4F2). In California, schools might develop their own lesson observation rubric for detecting evidence in the classroom with the focus that the indicators for evidence are clear and transparent for all involved parties:

What we've done is we've created a rubric where when we go into the classroom, we look for evidence; we're using that and we've made it very clear what we're looking for and made it that it's not evaluative (..) it is for coaching needs and for us to collect evidence. 10C2, California

Another example is that a teaching group is formed where the teachers formulate together a goal for a lesson observation and how to evaluate the lesson (17C1). In Latvia, assessment procedures might be locally developed in relation to the system of assigning grades of quality to teachers:

Every school is defining their own criteria, the state has defined only the areas that must be evaluated, we call them directions. Each school defines their own process according to which assessment happens. Expert LX1, Latvia

Schools may also use instruments that come from an organization that is not related to the government, such as universities (3F2; 12C2; 22L1), or private companies such as Edurio, which provides quality monitoring for educational organizations including schools (21L2; 22L2; 24L2; LX2; LX4):

It's maybe student assessment or as we call it Edurio. So it might be the teacher competence is evaluated through the feedback of students. Expert LX5, Latvia

Summary. This subsection overviewed the existing teacher assessment practices used at the school level as described by teachers, school-based leaders and educational experts in three education systems – Latvia, Finland and California.

Teacher assessment can be informed by observing teachers in the classroom and/or student learning in the classroom, reviewing feedback from students and parents, using student

learning results, and yearly discussions between the principal and the teacher. The schools where interviewees work use **multiple sources of evidence**, which is needed to make assessment comprehensive if it aims to inform needed development. Assessment might be done by school-based leaders, who are formally responsible for doing it in all three education systems, teachers themselves or an outside evaluator, but primarily it is somebody from within the school. In Latvia, schools rely more on outside sources that provide either centralized student exam or diagnostic test results provided by the NCE or survey data provided by Edurio. Finnish interviewees reported that have developed their own assessment tools or have used tools that have been developed by schools in the area.

Pre-service teacher assessment may be based on investigating their practice by including **different evaluative elements**. In California, formally teachers experience assessment before entering the profession, which includes performance-based measures such as video-recorded classroom instruction and pre-service teachers' reflection about the instruction, therefore this evidence reflects both practice and teacher candidates' reflection on the practice. Skilled teachers may be identified more easily thanks to a voluntary national board certification procedure that also involves an assessment process that is based on several evaluative elements. In Finland, the process of selecting in-service teacher candidates would require a competence model that defines the evidence used for assessing competence to ensure even more precise selection of prospective students. Schools might also use feedback from students and parents to inform teacher assessment indirectly.

One conclusion is that summative assessment might also be done in a way that it includes elements of assessment oriented towards linking the assessment results towards development as it involves looking directly at teachers' performance. However, the **performance component** of teacher assessment for making decisions about their suitability for the profession is missing in the Latvian education system.

All three education systems conduct **lesson observations**, and according to interviewees, in the observation, focus is on teachers' instruction – one of the main components if assessment seeks to inform development. In some cases it is on student learning, and in Finland, lesson observation is often done as co-teaching that serves as assessment and mutual reflection and learning about instruction in a collegial way. Interviewees in Latvia and California share the same attitude that lesson observation, overall, is gaining in importance. Yearly lesson observation to monitor teacher practice is institutionalized through the work contract of teachers in California. The frequency of the formal lesson observations depends on

the years of experience that a teacher has, with early-career teachers experiencing assessment more frequently than tenured (permanently hired) teachers.

Contrary to this approach, in Finland, there are no formally imposed systems for how teacher assessment should be done according to Finnish interviewees. A centralized system of formal assessment, as portrayed by Finnish interviewees, would oppose teachers' professional freedom and autonomy. Accountability in Finnish education is shared horizontally among members and is driven by professional norms of control and reflect the idea of organizational management based on **self-government**.

In California, **student test scores** are often used to evaluate teachers formally in combination with other evidence to inform what teaching and learning areas should be improved, but this approach to teacher assessment also faces criticism as it can't always be determined what the student standardized tests are measuring, therefore they might give misleading information.

One interesting difference is that in California, teacher contracts determine that teachers save lesson observation plans and reflection notes, whereas in Finland such saving on notes and other documents form assessment is not systematically done and is up to each individual. Being obliged to compile and submit documentation on teacher practice is regarded as an unnecessary bureaucratic burden for Finnish teachers. Therefore, the formal structures are contrasted as being a threat to teachers' professional freedom.

Even though all interviewees shared the assessment approaches and different sources of evidence, overall, if speaking in terms of *data use* in schools, it is regarded as not systematic and it greatly depends on each principal's approach to using data for informing teacher assessment.

Finland's and California's education systems have approaches for how schools can guide their teacher assessment and development. In California, it is the CSTP that is used in all steps of teacher assessment and development, including development planning at the organizational level of the school. What is important to emphasize here is that such guidelines are used both by teachers and school leaders, therefore they can form a **common understanding** of what is regarded as quality teaching and what improvements may be required to develop teacher classroom instruction. In Finland, instead of using professional teaching standards, the common core curriculum is used as a framework to inform teacher development and assessment. For seeking further improvements in the education system regarding teacher preparation, inclusive and open public discussions have been conducted to gather input on what should be important in teacher education with respect to their classroom instruction. In Latvia,

the areas for what is important to measure when assessing teachers are defined within the framework of assigning grades of quality and schools have autonomy to decide how the assessment process will be done; however, several setbacks of this system were openly expressed by the Latvian interviewees.

5.2. Linking Teacher Formative Assessment with Professional Development

There are various teacher assessment practices related to conducting **formative** assessment as a way to inform teacher professional development and learning. As was described in Chapter 3, formative assessments are done for informing continuous and long-term learning (Binkley et al., 2012; Čakāne, 2018; Jurāne-Brēmane, 2018; Nieveen & Plomp, 2018; Van Aalst, 2013), which applies both to students and teachers. For initial interview data coding, topical subcodes were identified based on the theoretical literature review: giving feedback/reflection for development (Nieveen & Plomp, 2018); formative assessment as unstructured and/or informal everyday practice (Little et al., 2009; Yariv, 2009), discussion (Lankinen & Kumpulainen, 2014, p. 204) and teacher peer assessment (Gordon & McGhee, 2019). Other, smaller subcategories emerged during the coding process – formative assessment still being implemented, school-to-school assessment and trust.

Giving **feedback** for development through formative teacher assessment is a step towards a school being a learning organization (Scheerens, 2016). The subcode giving feedback/reflection for development consists of 32 quotes (Latvia N = 7; Finland N = 5; California N = 20), being one of the largest groups of quotes under the theme of formative assessment. Therefore, these quotes are further coded and grouped into smaller codes, and each of them will be described. Several initial quotes are divided so they represent one single topic of assessment. The most frequently discussed method of formative assessment by interviewees is the provision of feedback to teachers that is based on their observed lessons. If such information is mentioned, in most cases such feedback is given by an evaluator who is the principal or somebody else representing the management team of the school. In fewer cases it is an outside evaluator or other teachers as peer evaluators.

As the two following quotes show, this formative assessment procedure actually overlaps with professional development activities and serves the function of orienting the teacher towards the next development steps. As in the following quote by a Finnish teacher, these kinds of assessments are experienced as “nothing like assessment” and they are not always part of formal assessment but part of teacher development processes:

Some school systems have things like instructional cultures that provide ongoing observation and feedback and work more directly with teachers. That is not necessarily deemed as part of the formal assessment in the system, that is actually part of teacher development and teacher professional learning.

Expert CX7, California 09.02.2019

We do cooperation now with universities, they are coming to check how we are teaching. It is nothing like assessment, it is (..) more about developing your skills rather than assessing them. Teacher 7F2, Finland

Such findings indicate a positive practice of linking assessments with development solutions. Such practice is oriented towards organizational development as it provides regular updates on teacher instruction that is informed by evidence gathered directly from observing teacher instruction. Interestingly, the interviewees experience it more as an informal development practice and there is a separation between assessment and development, meaning that assessment is automatically perceived as different from development activities.

Assistance plans are another smaller theme that emerged among California interview data. Assistance plans are made with teachers who, after the assessment, have not reached a predefined minimum requirement level. As was shared by teacher 15C1, regarding the use of technology by teachers, there are three levels: below basic, basic and proficient. Assistance plans in California are a form of formal practice, therefore it is an institutionalized practice that all schools have to follow (Torlakson, 2012). If a teacher receives a below basic assessment (unsatisfactory), then this teacher is assigned a mentor who works together with the teacher to make an assistance plan for how to improve the teaching practice ensuring an individual approach to the teacher's development:

If there's an issue, then the teacher may receive an unsatisfactory assessment; (..) provide what's called an assistance plan. The administrator has to very clearly delineate what supports as well as what the concerns are and what the expectations are for the teacher to improve. Principal 14C2, California

Reflection is pointed out as the main important aspect of assessment (principal 25L2). Teachers are actively engaged in formative assessment in the way that they function also as reflective tools that pose questions to the teacher to think about the processes happening in the observed lesson (teacher 10C1). With an assistance plan the teacher holds **ownership** of the following development process. As was illustrated in one of the interviews, the feedback giving can also be a more in-depth reflection process for the teacher, where the evaluator tries to lead the teacher on to identify one area of needed improvement:

They might ask me, well, what is something you'd think you need to work on? (..) then I might come up with something that they've already noticed. They'll usually come up with one area of refinements. Teacher 19C1, California

The Peer Assistance and Review Program (PAR) (or as interviewees call it, “assistance plans”) is the first statewide programme in the US to support intensive assistance for struggling teachers who need support. What is interesting about the PAR is that it is based on **involving accomplished teachers** as part of the assistance plan as providers of additional subject-specific expertise and “person power”. More extended involvement by peers may happen by establishing panels of teachers and administrators who oversee the assessment process to ensure that it is thorough, of high quality, fair and reliable. Such panels have been shown to facilitate more timely and well-grounded personnel decisions that avoid grievances and litigation (Torlakson, 2012).

Other, smaller subcategories emerged, such as teachers receiving this feedback from teacher colleagues who did the lesson observation, having a feedback cycle between observations, giving feedback as part of the formal assessment procedure, feedback giving through lesson observation specifically for early-career teachers, planning development by using a rubric, giving feedback at a teacher group level or self-assessment survey for getting feedback.

Discussion as a formative teacher assessment approach is another practice of teacher assessment that is linked to development. The subcategory “discussion” consists of 26 quotes (Latvia N = 2; Finland N = 21; California N = 3), being one of the largest groups of quotes under the theme “formative assessment”. Discussions as a formative teacher assessment approach are mostly related to the Finnish education system where there is a formal system of principals having yearly individual development discussions with their teachers (Lankinen & Kumpulainen, 2014). The subcategory “discussion” is analysed by taking themes that characterize it – the frequency of the discussion, who is leading the discussion, does it happen individually or in a group of teachers, what the content of the discussion is.

Almost all discussions are yearly and therefore continuous and long-term, except, as reported by Finnish principal 3F3, for development discussions, which happen twice a year, and one principal (13C1) in California reported doing them three times a year. In the Finnish context, the development discussions are not only yearly but also regular throughout a teacher’s career.

The majority of these discussions are done individually, that is, teacher with principal. Some interviewees (N = 4) stated that these discussions also happen with a group of teachers

and the principal. In one Finnish case, a representative from a local education board (FX7), as an outside evaluator, does yearly discussions with groups of teachers in all district schools. The contextual subjective aspect of discussions influences their quality, as expressed by a Finnish assistant principal:

As so many things, it is so subjective. What kind of person is your principal, the environment in your workplace. It all depends. With our teachers – most feel that they get some strength from the discussions, that somebody listens, helps.

Assistant principal 6F1, Finland

As expressed by an expert in Finland, there is a need for further support for principals and teachers on how to conduct development discussions in the school in a way that they help to get “a good picture about the situation in their school”. Providing practical examples, how to modify the content of the discussion and how to use the development discussions for planning development at the school level:

On the national level we have tried to support and encourage principals, schools and local school authorities to develop this discussion system (..) I think they need some material that would show examples of how to do it and that is why the Finnish Agency of Education has models on the website for teachers and principals, for example how to add questions in the development discussions and how to do development planning at the local level. Expert FX3, Finland

The content of the discussions is mostly related to **continuous** professional development topics, as most of the quotes come from the Finnish context where teacher-principal yearly development discussions are a common practice (Li & Dervin, 2018). The content of the discussions is related to: the planning of teacher development, identifying needs for improvement including teacher learning needs, discussing future development plans, for the principal “to hear what teachers do”, to discuss teacher individual goals, give suggestions and feedback, discuss how teaching is aligned with the curriculum or how teaching is done in general, reflecting with teachers about their work, teacher welfare. These topics mostly relate to the Finnish context where the development discussions are repeatedly also formulated as “formal assessment”. Within the Latvian context it was expressed that if a yearly discussion happens, then the content of it relates to finding out the situation of teacher competence, teacher strengths and weaknesses. Or as one quote illustrates, discussions may be based on different sources of information:

Individual discussion may be based on lesson observations but it may also not be based on that. It may be separated from data (..) It might be based on the

collaboration between principal and teacher during the school year. Expert LX5, Latvia

The next subcode emerging from the formative assessment practices is **on-the-fly, unstructured formative assessment** with eight quotes (Latvia N = 6; Finland N = 2). The quotes illustrate how everyday situations and informal spontaneous communication among teachers and school-based leaders might be used for intentionally or unintentionally inquiring about needs or problems that teachers are facing in their work. Such formative unstructured and informal assessment is helpful for providing teachers with on-demand assistance, but it might also rely too much on chance. Informal assessment might assist in a context where formal assessment is not strongly established, as one assistant principal from a Latvian large urban school points out:

In reality (assessment) is not done so specifically. The assessment of teacher competence is done in an indirect way. That means student results, student and graduate informal feedback, sometimes formally with Edurio (electronic surveys), complaints from parents, notes and feedback from colleagues. That's why I'm saying that directly (assessment) does not happen, it is indirectly through interpersonal contact and communication, this is the way we obtain qualitative data. Assistant principal 20L1, Latvia

Another positive, development-oriented practice in the case of California is the application of lesson observations with a **post-observation meeting** and analysis where the teacher receives feedback and possible improvements are discussed (CX1; 12C2). The teacher might make notes on lesson observation that are used for linking teacher assessment to their own goals and are reviewed in post-observation discussion:

We take notes. In the observation we write up the notes into a summary. Then in the summary, which should map back to the goals that the teacher selects for him or herself. Those summaries are then discussed in a post-observation. The post-observation notes are used to write the final observation for the school year. 16C1, California

Also, in Latvia, lesson observation might be followed by suggestions for improvements and general explanations of what the main emphasis of assessment and needed improvements (21L1) is or the teachers may be involved in doing the post-observation analysis themselves:

All of us teachers wrote a review of two observed lessons, whether the lesson was successful or less successful. 25L1, Latvia

Lesson observation might also be linked to the goals of the school. As one principal stated: “When I walk into the class I am checking to see if the lesson is set up around our goals (17C1), lesson observation with these goals and tasks that in the school and in the methodological groups have been set” (21L1). Using this source of information also shows how gathering evidence for teacher assessment directly through observing practice serves as monitoring whether there is a link between the **school-level goals and the everyday practice that teacher does, like engaging students in setting learning goals**. This reflects the idea of aligning individual goals to the organizational goals and here is an example of how this alignment is ensured by the principal who is doing lesson observation and determining whether this alignment is happening through looking directly at the teacher’s instruction. This is useful not only for teacher development but also for the school-level development.

For learning to happen in the school in a more focused way, teacher development may be done based on identified problems that heighten the urgency to solve them (Timperley, 2011) and give more ownership to the teacher to be involved in the learning over a longer period of time and do it in a careful and disciplined manner (Danielson & McGreal, 2000). Interviewees shared how observation may be initiated due to a **specific problem** that the teacher is facing:

In my subject [science], if I am not clear on how to implement feedback giving in the classroom, if I understand that I have problems with it then I try to find the best option and invite a colleague to observe my lesson to get another’s view on it. Look at what I did and then we discuss it. 26L1, Latvia

But every now and then they [teachers] have some issues and then they have to discuss the lesson and they [principals] drop by [in the lesson]. FX5, Finland

Previous chapter described how lesson observations are done in interviewees’ schools. Here are outlined a few aspects of how the ways in which lesson observation is done indicate linking to teacher professional development and learning. For example, a rubric may be used to ensure **transparency** of the observation goals between the observer (in the following example, a principal and the teacher) and assessment criteria:

Going into the classrooms, using a rubric to kind of score what we see and then sending it to them [teachers] so that they can know what we’re looking for (..) we’re looking for a specific math practice and we’ll collect data on that and then share it with the department and with the teacher. 17C2, California

In California, the lesson observation form is also linked with the CSTP (CX6). Lesson observation is also used to detect whether desired changes in teacher practice are happening in the classroom and if they reflect school goals (25L2) or the goals that were agreed with the

teacher (25L2), there by linking development planning with follow-ups on the development progress through gathering evidence in the lessons:

I do look at their notes and I do try to see what instructional strategies they are selecting so that when I go into classrooms, I do see what they [teachers] said.

11C2, California

We are conducting walk-through data using this form centred around a science and engineering practice with engaging in argument from evidence, which is a smart goal for our school this year. 17C1, California

The admin comes in and observes you in multiple settings where you are engaging in that particular goal and they take their notes and then you write what is called a degree of achievement. 19C2, California

It is interesting to note that in California interviewee speech, a clear distinction is made between what is a formal and informal observation. The **formal** observation has a procedure where the observation date is agreed between both involved parties and a lesson plan is provided before the lesson (14C2; CX3), and that is done throughout the year (CX5), and depending on that initial formal observation, there could be a series of **informal** observations (14C2) that have a less predefined procedure:

They [schools] do what they call informal observation. The teacher might not be aware and then they do walk-throughs, where they walked into the classroom maybe for a few minutes just to do a drop in. CX3, California

Also, our school does non-evaluative walk-throughs where they just hop into your classroom every once in a while, they check and see. 10C1, California

Peer assessment is another form of formative assessment. To illustrate one case in California – teachers have formed a teaching team where one of them is teaching a lesson and other teachers are observing and sitting together with the students to observe their learning. After that, the teaching team meets and debriefs the lesson to find out what was done in the lesson to support the learning goal, or what might be needed to support student learning (17C1). A teacher may act as an evaluator in the case of mutual lesson observations (17C1) and this can be done as teamwork (4F2). Specifically, the teamwork element of lesson observation is pointed out as having a positive influence on teacher development and introduces new teaching approaches (LX3). One teacher in Latvia shared her positive experience when inviting her colleagues to do mutual lesson observation:

You know, an incredible amount of colleagues volunteered, including teachers not teaching my subject. This means that teachers are interested in

this process, they understand that mutual discussions and mutual observation do something good in the school. Teacher 26L1, Latvia

Next, the largest group of subcategories under the theme “teacher assessment” is **self-assessment** with 32 quotes, where Finland is represented the most with more detailed insights into how it is done (Latvia N = 13; California N = 4; Finland N = 18). In California, teachers plan their goals by referring to the CSTP and the goals that are defined in it and how the self-assessment might be done accordingly (16C1). Self-assessment is also linked to lesson observation where the teacher evaluates the lesson plan prepared prior to the observation, and in this assessment the teacher might also include evidence. Self-assessment is also done before teachers formulate and set their goals (12C1).

As regards Finland, it should be highlighted that for Finnish teachers self- assessment is part of their education, therefore, upon starting to work in the profession they are used to reflect on their instruction (FX3), but there is no common system for self- assessment in the country and it is slightly problematic that there is no theory or evidence-based model of teacher competencies that could be used for self- assessment (FX5). Still, teacher self- assessment is regarded as the main approach for assessing teachers (7F2) and teachers know it will not make any impact on their salary or have any other effects, and it is believed that teachers are conducting self-assessment honestly (FX1). Another aspect of self- assessment in Finland is that it is linked with yearly development discussions that happen between the principal and the teacher (1F1; 9F2; 5F1). Self-assessment is done for assessing teachers’ classroom activities related to using digital learning tools in the classroom and other topics related to digitalization with a specialized rubric (3F3; 8F2), or, as described by one interviewee, “self-assessment is done by filling out a questionnaire about teachers’ skills” (3F1). Self-assessment might also be done electronically (5F2) or systematically within a municipality where all schools in a district send the teacher self-assessment results to the local education authority (3F2):

It is quite a new thing, they have measured teachers’ competence in that area at municipality level. And it is good. It is some kind of self-assessment. We asked teachers – what do you feel about your competence in these areas? What kind of in-service training do you need? FX2, Finland

With pedagogies for a deep learning rubric from Michael Fullan’s programme. That is what we use for digitalization in teaching. We did that last week and it is done in every school in Helsinki. That is one method of self-assessment. 4F2, Finland

Self-assessment might also be done not only on an individual level but on a group level. For example, in Latvia, teacher subject groups might do assessment together to identify the common problems and challenges, but this is related to “organizational topics” such as communication with parents, not teacher classroom instruction (20L1). In Finland, traditionally, self-assessment was done individually and now also tends to be done on a group level:

The old system is that every teacher reflects about their work alone. Teachers used to work mainly alone. Now we are doing more and more teamwork. And teams reflect their work. 7F1, Finland

In the context of Latvia, self- assessment is also linked to assigning grades of quality to teachers and it might be combined with a principal’s or assistant principal’s assessment (LX1; LX3). Self-assessment that is outside this system might be focused on identifying strengths and weaknesses (24L1; 26L2) or it might be linked to school goals and topical needs that change yearly and self-assessment is adjusted to these priorities (23L1). One school has specifically prioritized implementing self-assessment as self-analysis of classroom instruction and the school community is looking for the best ways to do it (25L1). Nevertheless, teacher self-assessment still has room for improvement, especially in regard to teachers reflecting on their skills and how fully they can accomplish something in their teaching (24L1). As one expert points out, improving self-assessment is an issue both at individual and organizational levels:

Self-assessment of teachers, just like assessment of organizations and institutions, is still in a very subjective state. Expert LX5, Latvia

Another source of information used for assessing teachers is **discussion notes** (14 quotes, Latvia N = 2; California N = 5; Finland N = 7). In California, teacher contracts determine that teachers save their lesson observation plans and reflection notes (13C1; 17C2) and they are used in the next study year to follow up for the next observation (6F1).

The notes are based on yearly discussions (23L1; 26L1; 3F3; 7F1) or a portfolio (12C1) or individual professional development plans (12C2) or are in the form of a self-reflective diary (FX8). Notes might be used for writing down the goal and agreements between the teacher and principal (4F2) and can be useful for the principal to know what kinds of competence teachers actually have (6F2), or it can be useful for the teacher to look back on the notes from previous development discussions to prepare for the next discussion and plan the next development steps (8F2). One Finnish principal notes that at least in her school saving these notes has not been done in a systematic way, therefore organizational knowledge may be lost when the principal’s position is changed:

In my last school when I had development discussions with teachers, I always made some written notes and we were planning some changes in the school and I could check from those notes what a teacher said about this or that. But I did not leave the notes for the next person who replaced me. It was for the moment and not for the longer development of the school. 7F1, Finland

Some further aspects of assessment not linked to development will be explored.

One common aspect between Helsinki metropolitan area and the Latvian education system is the approach to evaluate teachers in a summative way with the goal of sorting them into predefined groups characterized by their level of performance. However, this approach has drawbacks. Finnish teachers tend to describe their experience of such a system as not helpful. In the case of Finland, in the Helsinki area teachers experienced a new assessment system for digital skills that assigns “digital badges” (7F2). To quote the teacher: “I think I know better about my level, I know what kind of things I need to improve and for me that system (where) I only do some test and get some certificate about it did not help me a lot” (5F1). One expert explains the relationship between **informal and formal** practices:

It is in such a way formal that they would make some reports or memos (...) teachers very often don't like to make reports because it takes time and for whom are the reports? Is it for bureaucracy? See, that is a problem in many countries that teachers report and report and they are fully overloaded with different kinds of bureaucratic reports. We have tried to minimize teachers needing to do this kind of formal reporting. Expert FX8, Finland

The problematic nature of assessment that is designed to be linked to **differentiated pay** is revealed through the interviewees' accounts of how it is done at the school level, revealing how important **informal structures** in organizations are. A teacher applies for a specific grade of quality that he/she wants to obtain through the assessment and the approximate increase in salary is calculated beforehand. The preparation phase of the assessment is customized in a way so that the necessary criteria are fulfilled, and the observer can see if it is something implemented in the actual practice or if it is a **theatre play** (LX1). This means that the actual assessment process is done in a way that it **imitates** the formally described assessment in order to obtain the desired outcomes of the assessment, therefore it is driven more by **informal structures** of the school – how people agree to do it informally. Preparation of this assessment is experienced as an **obligation** of the school to help teachers to be assigned a higher grade of quality because then it boosts the school's level of prestige and functions as a way to increase teacher salary (LX2). It was pointed out that the system of differentiated pay based on grades is not so flexible for motivating teachers (25L2), and that for more experienced teachers, the

assessment system should not be about a salary bonus but about an offer for how to work better such as development courses (LX1). It can be seen that such an assessment system is minimally linked to teacher professional development and learning, but more importantly, when teachers might be involved in formative assessment that is specifically intended for informing needed PD, then teachers might bring in this past experience and perceive formative assessment as something that “needs to be done” either for the school, the principal or for some bureaucratic reasons and not for the teachers’ own professional growth. On the other hand, this is a normal dilemma for the whole organization to experience a tension between the ideal of rationality (clear objectives, efficacy, regulation, planned change) and the reality of the actors’ actual practices. Teachers and principals might be prisoners of multiple logics, a culture, a habitus, inheritances and multiple constraints (Perrenoud, 1994, p. 142, cited in Serpa & Ferreira, 2019).

A less represented practice of teacher assessment is the use of tests or questionnaires, where Latvian interviewees expressed the use of such practices the most. However, this approach can include the same drawback of teachers knowing what evidence to show in order to fulfil the needs of the assessment but it does not reflect actual teacher instruction, therefore it can’t be determined whether such an assessment in any way affects changes to teaching practice. However, the way how such tools might be treated can be counterproductive:

In surveys it comes out that teachers write that they do [new teaching practices]. In Latvian schools there is this practice: I know that I don’t do it, but I write that I do it. It is some kind of double bureaucracy. Expert LX2, Latvia

Summary: The Essence of Formative Assessment that Is Experienced As Linked To Professional Development. This chapter overviewed the existing practices of formative assessment and other assessment practices that indicate experiences of linking between assessment and professional development. Assessment that results in providing feedback to teachers in Finland are not experienced as assessment but as a development process which represent the idea of instructional culture within the school. Yearly development discussions are the central approach to teacher assessment, with autonomy for each school to decide how this is done, and are based on teachers’ self-assessment, which is then discussed with the principal. Assessment is experienced more like a dialogue and not assessment. Development discussions are yearly and therefore experienced as continuous and long-term. The outcome of these discussions is teacher development planning, identifying the needs of teachers, and overviewing individual goals. They are mostly done individually or with a group of teachers and the principal therefore experiences them collectively.

In California, assistance plans are included in the formal assessment and are used as an approach for teachers who have not reached a predefined minimum requirement level. They are intended for planning teachers' needed development for improving practice together with a mentor. Collegial support might be experienced by the teacher as more accomplished teachers tend to be involved in organizing these assistance plans. Also in California, the reflection process of the teacher is an important part of the assessment, therefore the teacher is more actively involved in the assessment process, thus to some extent ownership is experienced. Formal lesson observation is accompanied by a post-observation meeting and analysis where the teacher receives feedback and possible improvements are discussed, and therefore a continuity of the assessment and a dialogue are also experienced. Pre-service teacher assessment involves assessment that uses performance-based evidence.

Assessment that is linked to development might be experienced informally or, as it may be called, "on the fly", based on topical needs and specific problems, therefore it can provide on-demand assistance. Teacher involvement is higher if assessment addresses problems that the teacher is facing. What stands out among the practices is teacher peer work, whether it is to do lesson observation, peer assessment or planning together development activities in teams. Two aspects emerge that are important for organizational development – teachers are building mutual understanding of the problems they are facing and they are having ownership of their professional development, which is shared horizontally among colleagues.

Finland stands out with a strong professional culture of teacher self-assessment as Finnish teachers are well prepared throughout their education to reflect on their practice, therefore self-assessment is the main trusted approach to assessing teachers and may be done individually or on a group level. Assessment in Finland is not linked to high-stakes decision-making such as pay or employment security. In California, teacher self-assessment and goal setting at the individual level is done by using the CSTP accompanied with a rubric that provides goals and transparency of the assessment process.

In both California and Finland, notes from lesson observations, yearly discussions or other activities might be used for following up on teacher development progress between study years or could be used for tracking the linking of teacher assessment to their own goals and the notes might be reviewed in post-observation discussion. Except the difference is that in California, teachers' work contract determines that they save notes and other documentation about their practice whereas in Finland there are no such formal obligations either at the teacher level or at the school level.

In Latvia, self-assessment might be linked to assigning grades of quality to teachers or is used in yearly assessment meetings, but assessment is not experienced as linked to professional development. Education experts in Latvia describe the assessment process as driven by imitation where the teacher demonstrates a lesson that does not reflect the everyday practice and the assessment is driven by informal processes and decisions to boost the school's prestige, and the attached differentiating of pay depending on the acquired grade of quality does not motivate teachers. There might be a risk that when teachers do experience formative (not summative) assessments they might bring in past experiences and assumptions that this new formative assessment is also "just a bureaucratic burden" or an "empty obligation" with no links to their actual problems or professional development needs.

To summarize the management of formative assessment, at the mezzo level (the organization's level) it should be the principal's responsibility to clearly communicate the goal of assessment, provide transparency and minimize unnecessary paperwork for the teacher as well as helping to identify problems that the assessment will be seeking to fix, and therefore increasing teacher ownership, providing feedback right after the assessment in the form of a dialogue and lastly involvement of other teachers might be included to provide support and collegiality. Principals' responsibility should also include overseeing both formal and informal processes of assessment and organizing summative assessments as clearly separate from formative assessments. At the ecological (system) level, it should be policymakers' responsibility to provide guidelines and tools that show education system goals, how they are related to the curriculum and what teacher instructional quality looks like at different development levels such as a rubric. Such tools can also be developed and disseminated at the level of a municipality.

6. CONCLUSIONS

This chapter gives an overview of the central conclusions made about the dissertation's empirical research results and theoretical insights and proposes several recommendations for educational policymakers and schools in Latvia on how to ensure the linking of teacher assessment to their professional development and learning as part of the organizational development in the school.

The **goal of the dissertation** was to phenomenologically explore and analyse the role of linking of teacher assessment with professional development for schools' organizational development within the context of educational system changes such as the introduction of teaching and learning of 21st-century skills. To realize this research goal, five research questions and three research assumptions were proposed.

To answer the research questions and test the research assumptions, several tasks were completed. First, a theoretical overview was presented in Chapter 1 to identify and analyse the central elements of organizational development in order to develop a theoretical model for analysing teacher formative assessment in relation to organizational development processes in schools. Second, teacher evaluation and formative assessment and their different applications were analysed in Chapter 2 by reviewing educational science literature in order to identify the possible ways to link assessment to teacher professional development. Knowledge gathered in the theoretical overview helped to inform the empirical research steps, such as forming interview questions and identifying central dimensions of organizational development and characteristics of teacher assessment, that were used as analytical categories to interpret the empirical material (practices and experiences of assessment). Third, qualitative research was conducted to gather information on what the existing practices and experiences of these practices are at the school level of in-service teacher assessment in three selected education systems: Latvia, Finland and California. Three groups of interviewees were included in the study: teachers, school-based leaders (principals, assistant principals) and educational experts from each education system. A **phenomenological description of the essence of formative assessment that is experienced as linked to teacher professional development** was summarized from the data analysis. Fourth, the existing teacher assessment practices and experiences as described by the interviewees were described and interpreted by using the theoretical frameworks developed in Chapters 1 and 2. Lastly, recommendations at the end of this chapter are given for the Latvian education system on how to implement formative assessment and effectively ensure that teacher assessment is helpful for informing needed

professional development and learning, thereby creating a link between assessment and professional development.

Teacher formative assessment is the **central concept** of this dissertation, and as a phenomenon it also reflects the multifaceted nature and interdisciplinarity of organizational processes happening in schools. The dissertation research was informed by **theoretical insights** gained through an interdisciplinary approach combining organizational studies and their subfield, organizational development studies, with educational sciences that study and seek to explain the concept of teacher assessment and teacher professional development.

A **qualitative research methodology** was used to obtain data that reveal the qualitative features of educational experts', teachers' and school-based leaders' practices, working contexts and experiences of them specifically regarding assessment and professional development in their schools and education systems. These three groups of informants were interviewed through semi-structured in-depth interviews in three education systems, namely Latvia, Finland and California, making this research **internationally comparative**. Including three different groups of informants proved to be especially useful as each of them could share information on all three analytical levels – the system level (experts), the organizational level (school leaders) and the individual level (teachers). In interview data analysis, a **phenomenological** approach was used to highlight the “lived experience” component of teacher assessment and development at the individual level of the school. The phenomenological approach to thematic interview analysis helped to focus on the lived experience of the interviews that is placed in its context, and participants' local meanings could be taken into account.

The choice of a qualitative approach to researching this topic proved to be especially useful and fruitful for gaining access to teachers', principals' and educational experts' honest descriptions of their everyday life practices and experiences that touch upon assessment and development planning. However, it would be useful to analyse the obtained interview material using other analytical approaches. The problems shared through interviewees' qualitative research are especially well suited for accessing tacit, taken-for-granted, intuitive understandings of a culture (Tracy, 2020). In this dissertation research, an understanding of school culture regarding teacher assessment was gained through establishing a more personal contact with the interviewees, who did not hesitate to respond to any additional questions that came up during the interview, which is one of the benefits of choosing in-depth interviews.

In total, 70 interviews were conducted – 22 in Latvia, 25 in Finland and 23 in California – obtaining rich enough information on each of the education systems for phenomenological

analysis. Fieldwork was carried out in the period from spring 2016 until winter 2019 with field trips to Helsinki metropolitan area in Finland and San Diego district in California, US, and parallelly in Latvia.

Research questions 1 and 2 were posed for guiding the theoretical study of this research and the answers to these questions will be given first under the section “theoretical conclusions”. This is followed by an overview of the main empirical conclusions obtained from analysing the interview material and answers will be given to research questions 3 and 4. Lastly, recommendations for how to implement and improve the linking of teacher formative assessment to their professional development and learning in schools in Latvia are made by answering to the fifth research question.

6.1. Theoretical Conclusions

In the theoretical review in Chapter 1 and 2, several elements were identified and analysed as being important when interpreting how to link teacher assessment to their professional development.

Organizational studies offered several valuable concepts and their combinations that are important for organizational development in schools and they are included in the theoretical model (see Figure 1) for analysing the linking of teacher assessment and professional development. Organizational development is defined as a system-wide application and transfer of behavioural science knowledge to the **planned development**, improvement and reinforcement of the strategies, structures and processes that lead to organization effectiveness (Cummings & Worley, 2015). Organizational development means having planned changes aimed towards desired improvements in the organization.

Schools are viewed at **three analytical levels**: the individual level (the social psychological level or the micro level), the organizational level (the mezzo level) and the whole system of organizations (the ecological level or the macro level that explains the context of the organization). The school is viewed as an **open system**, therefore it is influenced by the macro level where it is embedded. In Chapter 3, reviews of the three selected education systems were presented where several system-level topical categories were overviewed: qualification requirements for teachers, professional standards of the teaching profession, methods and requirements of professional development, teacher assessment and teacher self-assessment, and lastly, qualification requirements for, and professional development of, school leaders.

It is taken into account that in schools **formal and informal social structures** coexist. Formal structures are the explicitly defined processes and structures that are regulated by

normative documents. Informal structures are the less explicitly defined actions, processes, methods and norms. The formal and informal nature of organizational structures are also taken into account for the analysis of teacher assessment and professional development.

One of the most fundamental aspects needed for organizational development to happen is the ability to **gather and use reliable data** to inform the needed planning of interventions.

Leadership is important at the organizational level for ensuring that all members of the organization are actively involved in development as it can't be fully realized if members are forced to follow changes that they don't agree with or feel alienated from in any way. One of the responsibilities of school leaders is to ensure some extent of ownership and transparency for teachers during assessment processes.

Goals and goal setting are also emphasized as they can guide the planning process of needed changes both at the individual and organizational level and schools may also have goals set for them by an outside institution (the ecological level of the school).

Lastly, **learning** at individual, group/team and organizational levels also influences organizational development, but for learning to happen meaningfully it should be informed by members' own needs and problems regarding learning and development. This summarizes the answer to the research question: *Which organizational development elements and their combinations are topical for schools within current educational changes such as teaching and learning 21st-century skills?* Its visual summary is given in Figure 1.

Next, educational science literature was analysed to find out how teacher assessment and professional development and learning may be linked together in order to ensure both organizational and individual development in schools, which related to the second research question posed in this dissertation. First, several important aspects of the concept of teacher assessment were overviewed in Chapter 2. For assessment to be linked to development, firstly there should be a common understanding of what quality and effective teaching is and what it looks like, which might be defined in professional standards or might be determined by topical school goals. The main responsibility for conducting assessment is usually given to the school leader, but ensuring they have the necessary skills to do it proves to be challenging.

Assessment is differentiated into formative and summative approaches. The purpose of **summative assessment** is accountability and it may be used to determine teachers' career advancement, salary increases and performance rewards, or to establish sanctions for underperforming teachers (OECD, 2013), or it may be used to inform other high-stakes decisions about teacher work. Summative assessment is different from formative assessment in the way that it is highly formalized and standardized and it has a greater chance of being

perceived as a controlling mechanism and can harm teachers' work, which contradicts the trusting, risk-taking environment necessary for effective professional development (Gordon & McGhee, 2019).

The purpose of **formative assessment** of teaching performance, on the other hand, is to promote teachers' professional development, leading to the improvement of instruction and learning (Gordon & McGhee, 2019), and is characterized as low-stakes intervention, that is, it won't influence teachers' work security in any way. Formative assessment more often resembles the informal social structures of a school but may also be formalized in order to ensure clarity and transparency of the assessment procedures. Assessment that is done in a formative way is interpreted as more suitable for linking it to following professional development and learning as it is oriented towards providing actionable **feedback** to the teacher.

As schools conduct both summative and formative assessment, these should be **clearly separated** from each other to avoid any misunderstanding about the goal of assessment and minimize the risk that formative assessment is misleadingly perceived as not helping teachers' professional development. Other risks of assessment might include assessment results that give incorrect results and don't reflect teachers' classroom work.

Assessment might also be differentiated depending on what kind of information is used to inform assessment – **output or input** measures. Input measures might be expressed in years of experience, obtained education degree or certifications. Output measures might be expressed in the form of performance – instruction in the classroom – and are offered as an information source suitable for identifying professional development and learning needs and therefore may be more fruitful for linking assessment to development. **Performance** assessment that is done in a formative way is also useful for linking assessment to the needed development solutions as it gives direct evidence of teacher instruction, therefore it is better suited to inform needed developments of it. Performance represents teachers' competence that is actively used to perform their instruction in the classroom. To evaluate performance and/or competence, tools such as rubrics (also called “performance descriptions” depending on levels) may be used to ensure **transparency** of the assessment goals between the teacher and the assessor. Rubrics reflect teacher performance at different development levels, i.e. “beginner, basic, professional, expert”, and assessment results, namely “effective, semi-effective, not effective”, and can help to differentiate teachers into groups according to their development needs as the professional development approach of *one size fits all* can only be informative (Lipowsky & Rzejak, 2012) and not actionable to introduce needed change. To conclude, teacher output measures like **competence, performance and classroom instruction** are perceived as the most useful sources

from which to gather evidence and make inquiries into teachers' instructional quality and plan its further development and teacher professional learning activities. Assessments can be done not only by the school leader but by an outside expert, by other teachers or through self-assessment.

Assessments of competence and performance must be comprehensive (include different types of sources for evidence to reflect fully the complexity of teachers' work) and specific, which can be ensured by using tools such as rubrics that clearly define the assessment goal and procedure and ensure transparency. One of the most effective ways of assessing performance is by doing lesson observations. As previously mentioned, one source of evidence is not enough to fully capture teachers' performance, therefore a combination of multiple assessment approaches that capture different evidence are welcome, such as self-assessment, which is widely used as a formative assessment practice. Self-assessment is also a way of making the teacher a more active and engaged agent in his/her own assessment; however, in Latvia, research has shown that teachers are not equipped with the necessary skills, such as reflection, to adequately assess their instruction. Formative assessment linked to professional development may consist of four steps – setting goals (either at the system or organizational level); conducting continuous formal and informal assessments based on evidence such as competence expressed in performance and clearly separated from summative assessment; provision of feedback in the form of identified professional development needs; and developing individual teacher professional development plans that are linked to the goals set at the beginning. This summarizes the answer to the research question: *How can teacher formative assessment be linked to the required professional development at the school level?* A visual summary of it is given in Figure 2.

6.2. Empirical Conclusions

Existing teacher assessment practices used in Latvia, Finland and California. This section will summarize the main results obtained in the analysis of 70 semi-structured interviews with educational experts, teachers and school leaders who shared their experiences and views on teacher assessment practices at the school level and education systems, thus answering the third research question. The existing practices were interpreted by using the insights and concepts gained from the theoretical overview of organizational development and teacher assessment in order to identify how teacher assessment is already being linked to their professional development and learning.

The results section overviewed both summative and formative teacher assessment practices. Summative assessment is used for assessing pre-service teachers, and in the California context, this summative assessment also includes gathering evidence of pre-service teacher performance, such as a video recording of classroom work that is also examined by the teacher candidates, therefore the assessment includes both practice and teacher candidates' reflection on their practice. Specifically in California, summative assessment is driven by formal organizational structures, that is, the working contract, which also includes formal observation of teacher classroom work. The regularity of assessment depends on teachers' work experience expressed in years. Summative assessment is also used for teacher national board certification in the US, which helps to identify skilled teachers for leadership roles or critical teaching positions, encouraging effective teachers to stay in the profession longer (Goldhaber & Anthony, 2007). The Finnish education system stands out as having no formal summative assessment, which, if it were to be implemented, would undermine teacher professional autonomy. Quality assurance is centred around teachers taking individual responsibility for ensuring the quality of their work, and therefore having accountability that is exercised horizontally. According to one expert, the Finnish education system requires a competence model that defines what evidence for assessing pre-service teachers is needed. Summative assessments are largely also experienced by in-service teachers in all three cases as serving the function of continuously verifying employability.

Summative assessments are also organized in a way that can help in making decisions about teachers' pay, and for assigning levels of quality that describe at what stage of experience or professional development a teacher is, which also serves the function of teacher quality assurance. In the Latvian context, this assessment system has several drawbacks as expressed by interviewees: the preparation phase is customized so that necessary criteria are fulfilled in the lesson observation but it does not always reflect everyday classroom practice and thus is more like an imitation, thereby proving to be more driven by informal organizational structures; or this assessment is **experienced** as a formal obligation and does not motivate teachers to undertake further professional development that would be based on specific identified problems. Although these results are based on qualitative descriptive data that are not representable, two research assumptions are proven to be true. **First research assumption: The way in which teacher assessment is formally structured (in Latvia) leads to weak links between teacher assessment and PD.** The current assessment system for assigning grades of quality as a formal structure imposed at the system level at the school organizational level has elements that do not link it to the required professional development. **Second research**

assumption: Both formal and informal social structures of the school should be designed and implemented in a way that they provide a positive and meaningful experience of assessment for it to be more effectively linked to the required PD. For example, tests and questionnaires as a form of assessment are also used, but they do not reflect a regular school-level practice, and Latvian interviewees expressed the use of such practices the most. As one Latvian expert pointed out, such an assessment approach serves as a double bureaucracy; that is, the teachers know socially desired answers and mark them even though they don't reflect their actual teaching practice. Literature has pointed out that such an assessment based on self-report has a measurement problem for determining teacher instructional quality as such reports frequently reflect responses that the teachers consider socially desirable (Little et al., 2009; van de Vijver & He, 2014). If the goal of assessment is to obtain information useful for informing necessary professional development then such an aspect of self-reported tests or questionnaires should be taken into account. In the example of assigning grades of quality and other examples provided by the interviewees, it can be seen that both formal and informal social structures play an important role in how assessment is perceived and done. To compare California to Finland and Latvia, in California there are the CSTP as a formal social structure that guides the assessment and professional development process, and in Finland and Latvia, assessment processes tend to be experienced as informal social structures, e.g. "how it is agreed to be done".

According to a Latvian expert, the **performance** component of teacher assessment as a way to make decisions regarding their suitability for the profession is missing in how pre-service teachers experience assessment. This situation might cause risks such as not having enough systematic approaches for selecting the best teacher candidates upon starting their studies and entering the profession. If teachers entering the profession have not been required to show proof of their instructional capabilities needed to guide classroom work, and if this situation is combined with not having enough support structures for mentoring newly hired teachers in schools (OECD, 2016), then the education system might encounter difficulties implementing the new curriculum. To sum up, summative formal assessment procedures might also include elements of assessment information that is obtained from directly observing teacher practice, therefore based on performance.

California has several formal state-wide structures that determine how teachers are assessed and interviewees did not share experiences of not following these structures. California stands out as having teacher assessment procedures that are regulated by the formal structures of the school such as the work contract, doing regular classroom observations, assisting teachers with the help of a mentor if assessment results are below requirements and differentiating the

frequency of assessment depending on their work experience. In contrast to this, Finnish teacher assessment is less formally structured and the quality of assessment is ensured through **trust** among school employees in taking responsibility for the quality of teaching. Also, following obligations like compiling and submitting documentation of teaching practice is regarded as an unnecessary bureaucratic burden for Finnish teachers. The formal structures are contrasted as being a threat to teachers' professional freedom. In this regard, Finland is an example of accountability that is exercised horizontally among members of a school or wider community or education system. Latvian interviewees openly shared the critical aspects in the formal assessment the most; that is, the actual practices don't always reflect the formally described procedures of assessment.

Student learning in lessons and teacher skills are two of the **types of evidence** used to inform teacher assessment results. Student learning engagement, speech and vocabulary, behaviour, needs, the physical environment of lessons, and student work and performance generally are important assessment criteria during lesson observation. Selecting areas of teacher skills for assessment points to the fact that teachers along with school leaders identify themselves what areas of practice should be improved for teaching a new curriculum, for example, and therefore also evaluated. This is more prevalent in the contexts of Latvia and California.

Assessments might also be more holistic and in different combinations include elements like teacher formal education, knowledge, teacher interaction with parents, feedback from students and parents, portfolios or other sources of information. Teacher assessment can be done through using various methods (Gordon & McGhee, 2019), and using evidence from various sources can ensure the comprehensiveness of that assessment, which is one of the conditions needed to ensure that assessment can inform professional development and learning (Marzano, 2012).

Analysing **student learning results** and the learning process in the classroom can be useful for informing what areas of teaching practice should be improved either individually or within groups of teachers (subject areas or grade levels). These kinds of evidence should not be used as the only way to inform teacher assessment and development, but they can be useful for detecting whether new instructional interventions in the classroom have an impact on improving student learning. In the California context, experts openly express the critical aspects of such evidence as it can't always be determined what student results are measuring, especially in an aggravated form.

Overall, in the three cases, interviewees indicated that they do not systematically **gather data** for teacher assessment. This kind of approach is either in a development stage, or it

depends on each school leader, or it shows that there is no specific need to gather systematic data on teacher work. Informal gathering of information that may be transformed into data may happen at the individual level of the teacher who wants to compile his/her portfolio.

Turning back to the assessment practices, assessment is mostly done by a **principal or assistant principal** and it is also their formal role to do it. In California, the assessment process is guided by the CSTP, but the next step of what is being done with the results of assessment varies, as this part of the assessment practice is not regulated at the school level. Also, in Latvia and Finland, as interviewees expressed, the way in which principals do assessment varies, and they have substantial autonomy over how to do it. Teachers as colleagues may also be involved in assessment, and less frequently it is done by somebody outside the school. To conclude, the empirical research proves the important role of the principal in leading teacher assessment. **Research assumption no. 3 is proven to be partly true: School-based leadership and involvement of other teacher colleagues is central to ensuring links between teacher assessment and professional development.** Although it is the formal role of the principal to organize and oversee different assessment processes, other teachers may be involved in the form of peer assessment where other teachers observe a lesson and then discuss it together, or assessment can happen at a group level and therefore be experienced collectively and can provide collegial support and mutual understanding of professional development needs. More accomplished teachers can also be involved in assessment and feedback provision.

According to interviewees, **lesson observation** is the most popularly used teacher assessment practice and its importance is growing; it is especially widespread in California. Elements of teacher instruction are observed, such as questioning when interacting with students, leading student learning and student engagement. Assessing teachers based on directly observing their instruction is one of the central conditions for linking assessment to professional development and learning. In Finland, lesson observation is often done as co-teaching that serves as assessment and mutual reflection and learning about instruction in a collegial way. Gathering evidence for teacher assessment through observing practice can have several benefits for organizational development as well, such as regularly monitoring whether there is a link between the school-level goal and the everyday practice of teachers, and if the practice is changing and evolving according to goals. A rubric may be used to ensure **transparency** of the observation process and goals between the teacher and the evaluator, which is also important for building a common understanding of what is important to evaluate, what results are obtained and what next steps for development should be planned. Using a rubric can also minimize the risk that the assessment process is perceived as controlling or threatening to teachers'

employment security or producing results that don't reflect their work activities. In other words, rubrics ensure transparency of the assessment process between involved parties and might mitigate any risks of the assessment being perceived as somehow negative for the teacher. In California, lesson observation is perceived as the formal part of assessment, which is often combined with additional informal classroom walk-throughs.

Teacher assessment instruments may come from, or may be based on, **different sources**. In Latvia, schools rely the most on outside sources that provide either centralized student exams or diagnostic test results provided by the NCE or survey data provided by Edurio, which are also used to inform teacher assessment. Finnish interviewees have developed their own assessment tools or have used tools that have been developed by schools in one local area. In California, it is the CSTP that are used in all steps of teacher assessment and development, including development planning at the organizational level of the school. In Finland, instead of using professional teaching standards, the common core curriculum is used as a framework to inform teacher development and assessment.

Experience of linking teacher assessment and professional development. The chapter continues the description of results obtained from analysing interviewee reports with the focus on describing the existing practices and experiences of formative assessment and other assessment practices that indicate a linking between assessment and professional development. All interviewees shared their experiences of doing or receiving assessment that is formative in nature; that is, it helps to inform continuous and long-term development in the form of giving **feedback, reflecting or planning further development**, unstructured and informal everyday assessment, and teacher peer assessment. **Giving feedback** for development through formative teacher assessment is a step towards the school being a learning organization (Scheerens, 2016) and this subcode was one of the largest groups of quotes under the theme of formative assessment.

Feedback is largely based on lesson observations and given by the principal or assistant principal but it is also provided in other forms and procedures. Assessment that results in providing feedback to teachers in Finland is not **experienced as assessment but as a development** process, which represents the idea of instructional culture within the school. In California, formal assessment, if necessary, includes **assistance plans** that are used as an approach for teachers who have not reached a predefined minimum requirement level to plan their needed development for improving practice together with a mentor. What is interesting about the PAR is that it is based on involving accomplished teachers as part of the assistance

plan as providers of additional expertise and “person power”. Using a rubric is helpful in the way it provides experience of **transparency** for all involved parties over what is observed. In California, formal lesson observation is accompanied by a **post-observation meeting** and analysis where the teacher receives feedback and possible improvements are discussed.

Other, smaller subcategories emerged, such as teachers receiving this feedback from teacher colleagues who did the lesson observation, having a feedback cycle between observations, giving feedback as part of the formal assessment procedure, feedback giving through lesson observation specifically for early-career teachers, planning development by using a rubric, giving feedback at a teacher group level, self-assessment survey for getting feedback. Such findings indicate a positive practice of linking assessment with development solutions. Such practice is oriented towards organizational development as it provides regular updates on teacher instruction that are informed by evidence gathered directly from observing teacher instruction and multiple teachers and school leaders are involved, therefore there is a collaboration between the school’s individual and organizational levels, which can ensure a more holistic organizational development.

Yearly **development discussions** are another central approach to teacher assessment and are based on teachers’ self-assessment, which is then discussed with the principal, as occurs in the case of Finland. Yearly development discussions or similar forms of yearly review between a teacher and a principal are also experienced in a way that gathers formative assessment evidence of teachers’ work. The outcome of the discussion is teacher development planning, identifying professional development and other needs of teachers, and overviewing individual goals. Teachers may make notes from the discussions, individual development plans or portfolios and they can serve as a bridge between the yearly discussions to follow up on whether necessary changes in practice have happened. In the Finnish context, the development discussions are not only yearly but also experienced as regular activities throughout a teacher’s career. This corresponds to organizational development as it makes development a continuous and cyclical process instead of being an occasional one-time event with no follow-up of succeeding changes to practice. In both California and Finland, **notes** from lesson observations, yearly discussions or other activities might be used for following up on teacher development progress between study years or may be used for tracking the linking of teacher assessment to their own goals and the notes might be reviewed in post-observation discussion, except the difference is that in California, teachers’ work contract determines that they save notes and other documentation about their practice whereas in Finland there are no such formal obligations either at the teacher level or at the school level. Development discussions are mostly

done individually or sometimes also with a group of teachers and the principal. This is a formal system with principals doing yearly individual development discussions with their teachers (Lankinen & Kumpulainen, 2014). Yearly development discussions are most prevalent and institutionalized in Finnish schools, and the experiences of these discussions, as expressed by Finnish interviewees, are less about assessment as they are experienced more as a conversation and relationship building.

Assessment that is linked to development might also be experienced **informally** or, as it may be called, “**on the fly**”, based on topical needs and problems, therefore it can provide **on-demand** assistance. Informal assessment might assist in a context where formal assessment is not strongly established as it is in the Latvian school context.

What stands out among the practices is teacher **peer work**, whether it is doing lesson observation, peer assessment or planning together development activities in teams. **Co-teaching** practice in Finland as a form of collaboration where informal assessment happens with both collegial feedback and learning is experienced as oriented towards development. In Latvia, the teamwork element of lesson observation is pointed out as having a positive influence on teacher development and introducing new teaching approaches. Two aspects emerge that are important for **organizational development**: teachers are building a mutual understanding of the problems they face and they are having ownership of their professional development and learning, which is shared horizontally among colleagues.

Finland stands out with its strong professional culture of teacher **self-assessment** as Finnish teachers are well prepared throughout their education to reflect on their practice, therefore self-assessment is the main trusted approach to assessing teachers and may be done individually or at a group level. In Finland, self-assessment is regarded as a safe assessment practice; that is, teachers know it will not make any impact on their salary or have any other effects and it is done honestly. Also, in California, the **reflection** process of the teacher is an important part of the assessment, therefore the teacher is more actively involved in the assessment process. In California, teacher self-assessment and goal setting at the individual level are done by using the CSTP. In Latvia, **self-assessment** might be linked to **assigning grades of quality** to teachers or is used in yearly assessment meetings, but this area requires improvements both on organizational and individual levels.

Interviewed California educators tend to repeatedly refer to **goals** being linked to the assessment process: for example, lesson observations serve as a way to monitor whether necessary changes needed to reach school goals are reflected in the classroom instruction or if

they reflect school goals, thereby linking development planning with follow-ups on the development progress through gathering evidence in the lessons.

Phenomenologically speaking, assessment must be experienced intrinsically as valuable, positive and focused towards identifying necessary development and learning solutions, which is especially important in contexts where teachers and school leaders lack the knowledge, experience and tools for identifying teacher professional needs. At the individual level (the micro level of the organization), teachers' and school-based leaders' **experiences** of teacher assessment might influence its perceived meaning and if it is meaningfully helping inform what next steps a teacher should take for improving instruction on learning new classroom instruction techniques. If formative assessment is experienced as controlling and having high stakes such as work security or reduction of pay, then that is a risk for the formative intervention being perceived as a bureaucratic burden or threat rather than adapted as a development-oriented activity. At the school level it would be **recommended** for school leaders and teachers to discuss how they see quality teaching and learning to form a common understanding of what might need to be changed.

6.3. Recommendations and Further Research

Curriculum changes related to teaching and learning 21st-century skills are experienced internationally (Voogt & Roblin, 2012). All three education systems that were researched in this dissertation have experienced curriculum changes and schools need solutions for how to reorganize instruction for implementing any kind of new curriculum. According to interviewees in Latvia, the current system of teacher formal assessment for assigning grades of quality has several drawbacks overviewed in Chapter 6.1 in how it is done at the school level and how minimally it is linked to teacher professional development and learning. This chapter gives several practical recommendations to different stakeholders in Latvia for how to improve the linking of teacher formative assessment and professional development. The recommendations are based on the analysis of empirical material obtained within the dissertation research. Some of the recommendations are based on positive existing practices of teacher assessment and development that were shared by interviewees in Finland and California, thereby answering the fifth research question.

The interview analysis revealed how the school-level formal teacher assessment linked to differentiated pay and assigning grades of quality to teachers in Latvia is guided by informal processes and decisions. This formal teacher assessment at the national level serves the function of monitoring teacher quality. The most important informal approach of this assessment would

be that the observed lessons (one element of the whole assessment) don't always reflect teachers' actual everyday practice, and it may be intended to mimic the desired method of instruction so that the assessment leads to a specific desired outcome. Second, phenomenological analysis shows that participation in this assessment may be experienced as an obligation to acquire higher quality levels and therefore boost the school's prestige and is not motivating for further developments. The recommendations are intended to give empirically based advice on how to implement formative assessment in the everyday practices of teachers and school leaders in Latvia.

In regard to the micro level of the school as an organization, several recommendations can be given:

1. In California and in Finland, teacher self-assessment and reflection on their practice are important elements of any assessment activities. Interviewees in Latvia share how self-assessment is important in their schools but also how this skill needs improvements both at individual (teacher) and organizational (whole school) levels. There is a discrepancy between the actual performance of the teachers in the classroom and their understanding of what they were doing (Volkinsteine et al., 2014a). This demonstrates the urgency of improving teacher self-assessment skills needed for implementing the new curriculum at the classroom level. In Finland, a great deal of any teacher assessment is based on teachers' self-assessment, and when Finnish teachers enter the profession they already have a rich experience of assessing their own instruction as it is an important part of their formal education. In Latvia, this approach cannot be as effective because of the contextual differences in teacher preparation. For example, higher education institutions in Latvia that prepare teachers rarely include self-assessment in their assessment systems (Lāce, 2014).

This problem can be compensated for at the individual level. **Educational policy could tackle this problem by developing a system-wide change where in-service teacher professional development targeting self-assessment skills is the goal.** As identified in Section 3.1, self-assessment of teachers in Latvia is at a questionable quality level. **Pre-service teacher education and preparation should seek ways to integrate self-assessment in the study processes so teachers can independently self-assess their instruction without assessing themselves based on socially desirable information.** Self-assessment is part of existing practices regarding formative assessment in Finland and California, and self-assessment positively affects teacher ownership of the assessment process. Further research could be focused on teacher awareness of their self-assessment

skills and how these skills could be taught and disseminated effectively at the school organizational level among in-service teachers.

2. Continuing the first recommendation, teachers' responsibility is to be able to identify problems and drawbacks in their instruction. If they are aware of their problems, teachers can more confidently demand help from school leaders and other colleagues to assist in assessing their performance. But trust in the organizational culture is needed for formative assessment to be implemented. Further research could tackle school organizational culture in regard to how trusting the culture is for teachers to openly communicate about problems they are facing regarding instruction. For trusting new formative assessment practices, tools and guidelines are required. **Education experts and researchers are responsible for providing formative assessment instruments** such as rubrics, guidelines for planning professional development for teachers with different performance levels and similar tools that can provide transparency of the assessment process. The use of rubrics ensures transparency among principals and teachers and can minimize the risk that the assessment process is perceived as controlling, but also appropriate use of such tools requires research-based preparation, sometimes long-term. Trusting organizational culture is important for formative assessment to lead to professional development solutions tackling teachers' real classroom problems.

In terms of the mezzo (school organizational) level, there are several recommendations for school-based leaders:

1. **School leaders are recommended to organize the learning of how to do formative assessment.** Group work can assist in building a common understanding of what formative assessment is and how to implement it in daily practice.
2. **It is recommended for principals to clearly communicate what the goal of formative assessment is when implementing it in school practice.** This is needed for providing transparency and gaining trust from teachers, which is necessary for implementing formative assessment. Further research can look into the necessary competence constructs for principals needed to organize and set goals of formative assessment and how organizational development goals are communicated to teachers and are linked to teacher professional development.
3. **If summative and formative assessments are done, then these assessments should be clearly separated from each other.** The recommendation is to plan separate times for each assessment. The risk is that, if a school member mimics one assessment

activity, then other assessments that are more focused on identifying development and learning needs might also be treated with a similar “double bureaucracy” attitude and not give the necessary evidence to plan development, thereby hindering both individual and organizational development in the school. Phenomenologically speaking, teachers might perceive new formative assessments by taking attitudes and values gained from past experiences. If past experience consists of negative experiences, these might influence how new ones are experienced. This connects to having a trusting culture in combination with principals providing transformational activities for teachers to gain new understanding of what formative assessment is and how to implement it.

4. **For formative assessment to be experienced more as a development activity the school leader should provide a context of an ongoing dialogue with the teacher.** Both Finland and California interviewees pointed to yearly and otherwise regular formal and informal assessment processes representing continuity, which is one of the backbones of effective professional development (Jovanova-Mitkovska, 2010). One of them could be combining lesson observations with post-observation discussions where feedback is provided.
5. **School leaders’ responsibility is to minimize excessive documentation and bureaucratic burdens** during the assessment as it negatively influences teacher motivation to participate in the assessment.
6. School leaders could provide occasional outside assessment done by an expert who can provide the function of a formative intervention for school development (Engeström & Sannino, 2010) in a context where schools are not well equipped for doing self-assessment. **Capable teachers are recommended to hold new roles such as a learning consultant or a teacher-leader. The education implementors can support such new roles and exchange expertise for additional pay.** Diversifying the teacher profession with different roles could also make it more attractive. Further research could look into how in Latvia, the teaching profession could be complemented by teachers having new roles such as formative assessment mentors and teacher-leaders.
7. Since feedback is necessary in learning new behaviour and can also be a motivating measure, **it is recommended that principals should be supported in how to provide constructive feedback, especially when coupled with setting goals for organizational development.** Researchers are recommended to develop and provide the necessary formative assessment tools. According to interview analysis, principals and assistant principals are the key agents of leading teacher assessment. The teachers

should be involved in setting goals, and later assessments should consider whether and how progress is happening towards the goals. In this case, lesson observations in California are the places where principals determine whether classroom activities are aligned with teachers' and with school goals.

Overall, it is recommended that the schools receive support to strengthen their own capacity and know-how to assess teacher work and become more self-sufficient and dependent in their own organizational development planning as currently schools in Latvia largely depend on outside sources that provide data and other information (NCE and Edurio).

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APPENDIX

Appendix 1 Interview questions to principals (Finland)

Competence assessment

1. What kind of practices are used in your school in order to assess competence? In what way are the practices you use different from the presented Latvian *competence assessment model*?
 - Do you gather data? What kind of data are that?
 - What do you do with the data?
2. Have you assessed your teachers' competences in relation to the competences needed now when you have implemented the new curriculum?
 - If not, have you talked about professional learning needs for reaching the goals of the new curriculum?

Professional learning needs and competence development

3. How do you know what are your teachers' professional learning needs?
4. How do you support teachers in terms of their professional learning needs?
5. How do your teachers know their strengths and weaknesses? (how do they know that they are doing quality work)

Goal setting and reflecting on goals

6. Have you done teacher competence assessment in relation to setting school development plans/goals?
 - If not, what other practices you have, to make decisions for setting development plans/goals?
7. How do you determine that teachers are able to reach the goals that are set in the school? (in other words – how do you know the goal is realistic?)
8. How do teachers evaluate their ability to reach the goals that are set?
9. How do you know that your goals are the right goals?

Appendix 2 Interview questions to teachers (Finland)

Competence assessment

10. What kind of practices are used in your school in order to assess your competence? In what way are the practices you use different from the presented Latvian *competence assessment model*?
 - Is there some data that's being gathered? What kind of data are that?
 - What is being done with the data?
11. Look at the Latvian *competence assessment model*. How would such a model be perceived in your school? Why?
12. Have you had competence assessment in relation to the competences needed now when you have implemented the new curriculum?
 - If not, have you talked about professional learning needs for reaching the goals of the new curriculum?

Professional learning needs and competence development

13. How do you know what are your professional learning needs?
14. How are you supported in terms of your professional learning needs?
15. How do you know your strengths and weaknesses in your instructional work?

Goal setting and reflecting on goals

16. Were your competences assessed, when development plans/goals are being set in your school?
- If not, what other practices you have in your school, to make decisions for setting development plans/goals?
17. How do you evaluate your ability to reach the goals that are set?
18. How do you know that the school goals are the right goals?

Appendix 3 Interview questions to principals (Latvia)

1. **Pastāstiet, kāpēc Jūsu skolas mērķu un uzdevumu struktūra ir tāda, kāda tā ir (kā tas palīdz Jums un darbiniekiem mērķu izvirzīšanas un pārraudzības procesā)?**

Papildus jautājumi:

- Vai mērķi/uzdevumi tiek prioritizēti, vai tie ir vienlīdz svarīgi?
 - Cik mērķi/uzdevumi attiecas vienā laika posmā (māc.g.?) uz katru darbinieku?
2. **Pastāstiet lūdzu, kā mērķa izvirzīšana praktiski notiek! Cik liela ietekme uz skolas mērķiem ir katrai iesaistītajai pusei?**

Papildus jautājumi:

- Kā Jūs nonākat pie „īstajiem” mērķiem / uzdevumiem, saprotat, ka tie ir reāli / sasniedzami?
 - Kā tiek risinātas pretrunas (ja ir) starp iesaistīto pušu vēlmēm uzstādīt atšķirīgus mērķus/uzdevumus? Vai ir specifiski mērķi/uzdevumi kādām skolotāju grupām: tos formulē skolas vadība vai viņi to dara paši?
 - Vai gada/semestra ietvaros mērķi/uzdevumi var tikt izmainīti? Kāda loma šajās izmaiņās ir skolotājam, vai viņi iesaka izmaiņas?
3. **Vai / kā skolotājiem tiek izvirzīti individuāli mērķi/uzdevumi: to dara skolas vadība; vai viņi to dara paši, vai kopā ar kādu? Kāds tipiski ir šo individuālo mērķu sasniegšanas termiņš?**

Papildus jautājumi:

- Kā skolotāju mērķi ir saistīti ar skolas mērķiem/uzdevumiem? Miniēt, lūdzu, kādu piemēru! (Kā skolotājam tiek parādīts, ka viņš sasniedzot savu mērķi, palīdz sasniegt skolas mērķi?) Vai skolotājiem ir iespēja precizēt sev uzstādīto mērķi?
 - Kā Jūs pārliecināties par skolotāju izpratni par mērķiem? Kā notiek pārliecināšanās par skolotāja spēju/prasmēm/ vajadzībām, lai sasniegtu savus individuālos mērķus? Kādā veidā skolotājs izvērtē savu spēju sasniegt mērķi, formulē savas attīstības vajadzības? Kas notiek, ja skolotājs netic savām spējām sasniegt mērķi?
 - Vai / kā vienošanās tiek dokumentēta?
4. **Kā Jūs redzat, ka mērķis ir sasniegts?**
5. **Kā konkrēts skolotājs redz, ka ir sasniedzis mērķi?**
6. **Kā jūsu skolotāji zina, ka viņi labi strādā - kā jūsu skolotāji zina savas stiprās un vājās puses; ko viņi labi prot, kas vēl jāiemācās?**

Appendix 3 Interview questions to teachers (Latvia)

Kompetenču vērtēšana

19. Kādas pieejas Jūsu skolā tiek lietotas, lai vērtētu Jūsu kā skolotāja kompetences? Kādā veidā šī prakse atšķiras no augstāk pasniegtā *kompetenču vērtēšanas procesa*?
- Vai tiek ievākti un apkopoti dati? Kāda veida dati tiek apkopoti? Kas tiek darīts ar šiem datiem?
20. Kā kompetenču vērtēšanas process tiku uzlūkots/uzņemts Jūs skolā? Kāpēc?
21. Vai tika veikta Jūsu kompetenču vērtēšana saistībā ar patreiz nepieciešamajām kompetencēm notiekošās mācību satura reformas kontekstā?
- Ja nē, vai Jūs esat apsprieduši savas profesionālās mācīšanās vajadzības saistītas ar jaunā mācību satura reformas mērķiem?

- Vai Jūsu profesionālās mācīšanās vajadzības ir apspriestas citu aktuālo skolas mērķu saistībā?

Profesionālās mācīšanās vajadzības un kompetenču pilnveide

22. Kā Jūs ziniet savas profesionālās mācīšanās vajadzības?
23. Kā Jūs tiek atbalstīts/-a saistībā ar Jūsu profesionālās mācīšanās vajadzībām?
24. Kā Jūs ziniet savas stiprās un vājās puses savā pedagoģiskajā darbā?

Mērķu nosprašana un refleksija par mērķiem

25. Kā Jūsu skolā notiek skolotāju kompetenču vērtēšana saistībā ar skolas attīstības mērķu/plānu izvirzīšanu?
 - Kādas citas prakses ir Jūsu skolā, pieņemot lēmumus par skolas attīstības mērķiem/plāniem?
26. Kā Jūs, kā skolotājs, izvērtējat savas spējas sasniegt izvirzītos mērķus? Kā Jūs pārliecināties, ka mērķis ir sasniedzams?
27. Kā Jūs ziniet, ka izvirzītie mērķi ir īstie mērķi?

Appendix 4 Interview questions to principals (San Diego)

Competence assessment

28. What kind of practices are used in your school in order to assess competence? In what way are the practices you use different from the presented Latvian *competence assessment model*?
 - Do you gather data? What kind of data are that?
 - What do you do with the data?
29. Look at the Latvian *competence assessment model*. How would such a model be perceived in your school? Why?
30. Have you assessed your teachers' competences in relation to curricula changes (or other recent educational changes)?

Professional learning needs and competence development

31. How do you know what are your teachers' professional learning needs?
32. How do you support teachers in terms of their professional learning needs?
33. How do your teachers know their strengths and weaknesses (how do they know that they are doing quality work)?

Goal setting and reflecting on goals

34. Have you done teacher competence assessment in relation to setting school development plans/goals?
 - If not, what other practices you have, to make decisions for setting development plans/goals?
35. How do you determine that teachers are able to reach the goals that are set in the school? (in other words – how do you know the goal is realistic?)
36. How do teachers evaluate their ability to reach the goals that are set?
37. How do you know that your goals are the right goals?

Appendix 5 Interview questions to teachers (San Diego)

1. What kind of practices are used in your school to assess your competence? In what way are the practices you use different from the presented Latvian *competence assessment model*?
 - Is there some data that's being gathered? What kind of data are that?
 - What is being done with the data?
2. Look at the Latvian *competence assessment model*. How would such a model be perceived in your school? Why?

3. Have you had competence assessment in relation to curricula changes (or other recent educational changes)?

Professional learning needs and competence development

4. How do you know what are your professional learning needs?
5. How are you supported in terms of your professional learning needs?
6. How do you know your strengths and weaknesses in your instructional work?

Goal setting and reflecting on goals

7. Were your competences assessed, when development plans/goals are being set in your school?
 - If not, what other practices you have in your school, to make decisions for setting development plans/goals?
8. How do you evaluate your ability to reach the goals that are set?
9. How do you know that the school goals are the right goals?

Appendix 6 Interview questions to experts (Latvia)

1. Lūdzu pastāstiet – kā skolotāju kompetence (zināšanas, prasmes attieksmes) tiek vērtēta Latvijas skolās?
 - Kādi dati tiek ievākti?
 - Kurš to dara?
 - Kas tiek darīts ar šiem datiem?
2. Kā skolotāja kompetence tiek vērtēta jaunā izglītības satura izstrādes un ieviešanas kontekstā?
3. Kā skolu vadība apzina skolotāju profesionālās mācīšanās vajadzības?
4. Kā skolu vadība atbalsta skolotāju profesionālo mācīšanos?
5. Kā skolotāju kompetences vērtēšana notiek saistībā ar skolas attīstības mērķu/plānu izvirzīšanu?
6. Kas būtu jāmaina pašreizējās skolotāju kompetences vērtēšanas praksēs skolās, it īpaši domājot par skolotāju profesionālo mācīšanos?
7. Kā *skolotāju kompetences vērtēšana* kā tēma un prasme tiek iekļauta skolu vadītāju formālajā izglītībā un tālākizglītībā? Ja netiek iekļauta, kāds ir Jūsu viedoklis par to?

Appendix 7 Interview passage example (expert, California)

Can you tell me – how is teacher competence usually assessed in California/San Diego schools?

I don't think that student test scores are the best measure that should be used for evaluating teachers. School districts want something very tangible something that they can point out and say this is why the teacher is good or this is why this needs to improve. Those of us in the classroom knows whether or not we are a good teacher is based up on variety of factors not just a test. Teachers are also observed on CSTPs California standards for teaching practices. these are guidelines that help us understand how should teaching be. And so we are also assessed on we are meeting the CSTPs which is more of a of global view there are 6 different fields with sub headings below you don't are we doing all of this and that is so important not just are we teaching to a test. Test scores are part of it school districts love their test scores because they can say look at us look how well we're doing but his teachers we appreciate being evaluated practice is because we can sit a yes we are asking students to provide evidence in at the

beginning of the year they didn't even know what that was and now they can point out relevant evidence with in a moment of reading and an article.

Can you tell more about school ranking?

That is based on test scores. If our school wants to be a top 10 in the country to show ranking of school in that neighborhood they're ranked out of 10 there are many websites devoted to that yeah yes real estate agents are very interested in how well our schools are doing so I think like I said before test scores are something concrete that can be pointed at and and say look this is how we are doing but we know that does not tell the whole picture because perhaps a school is only a 2 out of 10 and they've implemented new teaching practices and now there are 4 out of 10 wow that's great yes you're still only a 4 out of 10 negating all the work that that it done so I think people like numbers because they can point to them and you know is important I think in many parts of our lives.

What is in the lesson observation form?

So in the observation form it has the 6 different see STP and so when an administrator comes in to do an observation they have identified which of those areas there going to be focusing on it is too much to try and judge or observe and take notes about all 6 plus all the sub areas so they generally will focus on one area and then they will focus on how does the lesson start you know . teacher ask inquiry questions to find out what do the students already know what is the hook for the lesson to get the students interested and then the watch how the lesson how does the teacher interact with students how did the students learn, interact with each other and then how does the lesson end is there is an ending or does it lead into something else and what is very trendy - seating that you no longer sit in rows you have flexible seating when we talk about how are students interacting with each other it's even how does your classroom environment help students to interact are always your chairs attached 2 desks that we look around do you have sofas circle tables so that even is judged a so it's not just you and your teaching but also how you set up your classroom.

What kind of data are gathered?

- **Who is doing it? Who is responsible for it?**
- **What is done with the data/knowledge?**

Especially newer teachers because newer teachers are observed more frequently than teachers have been in the profession for a while so there's a set of standards for observations if you are you are one or 2 then 3 through 6 and then 7 and beyond so teachers especially in years one and 2 are heavily scrutinized and after each observation there is a post observation meeting and so on. I was talking about there's a ranking right we like our rankings so the principle will explain to the teacher why they were ranked a certain way and what are they doing well and what What are some areas for improvement and then the next time that the administrator comes in to observe the teacher they will be looking for areas of improvement and hopefully the administrator has worked with the teacher to give them ideas on how to improve if not the teacher has someone called a support provider is another for teacher who's experienced sure steps in and says here are some ways you can improve and in a very non judgmental way helps the teacher to do better so that in the next observation the administrator will see shall we say the fruits of their labor, they will see the effort that is been put into improving their teaching practice, once you get further along you have less observations other still have observations and you listen to administrator what are they looking for but I think the more experienced teachers also are ones who look for Or professional development you know they want to stay current because they have been out of school for awhile so although we don't we don't have to take a test of how well are we doing on some sort of sheet or computer We are constantly being judged by our administrators because even if were not being formally observed administrators frequently walkthrough classrooms and S sit and listen and then will give informal feedback. And my background I'll stay for that is not just as a teacher but I'm also the president of our teaching or teacher union or Association and so I have dealt with the teachers who don't want

to improve and helping them so when it teacher gets tenure it is because supposedly through observations of their teaching practice achieved a high enough Level this district wants to keep them the problem with this to shall we say is that a principle has to be going out and doing these observations of principle has to be doing the documentation of either good or bad practices is a principle has not been doing their job well and is not documenting specifically what this teacher is not doing then the teacher gets tenure because supposedly they've achieved this level even if the principle sits there and goes and says well they haven't well where in your documentation here did you take the time to write that down so there is Is a common misconception that it is hard to fire a teacher it's actually not if an administrator documents everything well I have seen teachers no longer with a district because perhaps it just wasn't the right fit for them with that type of students in that neighborhood maybe they don't see you know better with you know a higher level of student perhaps middle school high school or a different socioeconomic class of student but it is totally up to the administrator as to whether or not that teacher states and I've seen some wonderful administrators do a great job of trying to help a teacher improves and maybe just the teaching profession is not right for that person and through diligent documentacion that teacher does not earn tenure or maybe they earned tenure Elsewhere in the district transferred to the school this administrator says whoa we have some problems refers then there's something called car peer assistance review where it is a formal program for fellow teachers who have signed up saying I want to help a formal program and so even their peers are in charge of documenting what their doing to try and help the teacher improved and whether or not the teacher is improving and so if you go through all of these steps and there is no improvement as you say the teacher just doesn't want to improve there is a way to get them out now I work in a smaller district in a larger district where administrator has maybe you know 100 teacher first together around 2 they don't get around to observing them as many times therefore they don't have as much documentation therefore it is harder perhaps to get rid of that teacher but it comes back again to lack of good documentation. If the administrator did not do what they are supposed to do that's why the teacher is still at work.

In what way are the practices in California/San Diego different and/or similar from the presented Latvian in-service teacher *competence assessment model*?

what competencies are needed now and what can be used as a guideline a reference point I think especially teachers have been teaching for a few years are good at identifying what it is that they are lacking weather it is materials weather it is knowledge and a lot of that is based upon expectations we have something here in California called the Common Core standards and so these are standards that have been given to us saying OK you were students need to be able to do all of this by the time that they are done with your class well if you're reading through and for example it talks about being able to um identify form and craft and meaning in a reading passage and you are sitting there going gosh I don't know how to teach that that would be a competency that you would need called close reading how do I teach close reading to students and then people experts would be brought in to teach how to do close reading so that then you can teach it so your students can meet that standard so when we look at guidelines and reference points I think for us right now a lot of it is standards and it also goes to materials we will get new math standards for example well our current math book is 11 years old it doesn't meet the current math standards so then we go out and look for what publishers have put out new books that meet the standards which ones we like the most do we have the money to buy it and then do we have all the supplementary materials that go along with the book that manipulatives etc needed in math so I think what we talked about what competencies are needed yes we need knowledge but it goes hand in hand with materials if you know how to do whatever it is there asking you to do but then you don't have the materials that sorry really I makes a difference because if you are spending 5 hours a night trying to find reading passages and things for your students because you don't have a textbook that really takes a toll on the teaching and learning in the classroom and so when then that was area number one competence identification where

I said really goes on at the guidelines of standards and then into area to do competency assessment you know what are the existing competencies and then it goes through teacher evaluation lesson observation self assessment report's tests and other sources And I think would we talk about lesson observation we need to not just be thinking about an administrator who maybe is not as familiar with those standards observing a teacher and also teachers observing other teachers a teacher that is very competent in that area and is very knowledgeable and so a fellow teacher goes and sees how they teach the lesson what are they doing with this concept and that helps teachers to self assess wow I'm not doing that I like how they're doing that I should start doing that as well. It is typical that teachers observe each other. Teachers inquiring into their practice - If there are a true professional they should be doing it um if you know always wanting to learn more always wanting to prove their teaching so that their students are improving in their area of learning I'm not back up when you said do principals support this idea at the secondary level which is grades 6 through 12 which is ages 10 or 11 through 18 those teachers secondary teachers have something called a prep period of preparatory. so they teach perhaps 5 classes and then one Class A day they don't have to student and so for a lot of us we use that preparatory. because we all have it at a different time during the day to go and see what is our teaching partner doing and so it's kind of built in for secondary teachers to do that and then as far as you know do we keep pushing ourselves do we do the inquiry constantly and I think like I said if you're a professional you should if you keep doing the same thing the same way that's boring and if you're boring if you're bored your students are bored and that's when chaos reigns in your classroom and so it has to be the opportunities have to be provided though for example perhaps the district office at the administrative office for the whole district perhaps has someone who is finding these opportunities for bringing in guest speakers or learning about it and presented it to their fellow teachers if that is not being done then I think it's difficult for a teacher to go out and learn just finding these things on their own they need to be provided and sometimes in our evaluations administrators will even put that as a goal for a teacher but the teacher will attend to professional development workshops throughout the so it's a professional obligation to go and then the principle would be looking for um evidence of implementation up something that the person learned at that workshop or at that class so it can be folded into the evaluation procedure again.

Appendix 8 School sample selection, Latvia

Size of the school expressed in terms of number of management workload rates and average number of students (Data based on 2016/2017 school year)												
G R O U P	School management workload rates (Vadības likmju skaits)	Average number of students in the school group	Total number of schools in the group	School 25L_1	School 26L_1	School 21L_1	School 22L_1	School 24L_1	School 23L_1	School 27L_1	School 20L_1	
	1	from 5 (including) till 9	840	84		8 rates				4.3 rates		7.15 rates
	2	from 4 (including) till 5 excluding	580	77			4 rates		4 rates			
	3	from 3 (including) till 4 excluding	400	85	3.4 rates			3.58 rates				
	4	from 2 (including) till 3 excluding	232	143								
	5	more than 1 till 2 excluding	115	178							1.4 rates	
	6	1 or less	56	139								
School groups according to the type of administrative territory												
1	Riga city		103								x	
2	Republic city		85	x	x							
3	City of Regional significance		78					x				
4	Other regional significance (cities, region, small region, Riga suburb)		122			x						
5	Other counties (citi novadi)		278				x		x	x		
Type of schools implementing general education programs												
1	Primary school (Sākumskola)		47									
2	Primary school (Pamatskola)		299						x	x		
3	Secondary school (Vidusskola)		305	x		x	x				x	
4	Gymnasium (Ģimnāzija)		18									
5	State Gymnasium (Valsts Ģimnāzija)		29		x							
6	Schools implementing a vocational education program (Skolas, kas realizē profesionālās izglītības programmu)		52					x				
7	Schools implementing minority education programs (Skolas, kas realizē mazākumtautību izglītības programmas)		104								x	