

# Policy Recommendations for the Professional Development of Teachers and School Leaders in Estonia

**Project:** Improving the system of professional development of teachers and school leaders in Estonia (September 2020 – August 2021). Requested by the Ministry of Education and Research in Estonia, funded by the European Union via the Structural Reform Support Programme and implemented by the British Council in cooperation with the European Commission.

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# Overview of Policy Recommendations

Estonia has a high performing school system, so why worry about the professional development of teachers and school leaders? In addition to global trends which affect teachers and leaders everywhere – including rapid technological changes and the impact of Covid-19 – there are three main reasons:

1. **Help young teachers stay in schools.** 41% of teachers below the age of 35 do not plan to stay in teaching for more than five years. According to the TALIS survey, only 17% of novice teachers have an assigned mentor in their current school (OECD, 2019; although note that the TALIS sample only covers teachers in Grades 7-9). If young teachers are observed in their classrooms without being judged, if they get helpful feedback from more experienced colleagues, if they can collaborate with colleagues in a purposeful way and in a supportive environment, then they are likely to be more satisfied in their jobs and continue to work as teachers.
2. **Make the teaching career more attractive.** Despite a big increase in teachers' salaries, teaching has not yet become an attractive career option. 11% of all teachers are below the age of 30, which is almost the same as the level of 10.3% in 2014. 49% of all teachers in Estonia are aged 50 and above, compared to the OECD average of 35%. If young people know that they can have a real career as teachers – taking on more responsibilities as a senior or master teacher in the future, with appropriate compensation that matches added responsibilities, in a school environment that prioritises teacher learning and development – then teaching becomes more attractive.
3. **Provide more individualised support to students.** Most teachers in Estonia teach in mixed-ability classrooms, with some gifted and talented students, some students who are falling behind in their subject, and some students with special needs. Supporting the individual and social development of all students was the central goal of the Lifelong Learning Strategy (2014-2020). However, only 24% of teachers feel well-prepared for teaching in a mixed-ability setting (OECD, 2019). A recent evaluation found no evidence of changed teaching practices in schools that had participated in continuing professional development programmes most actively (Haaristo, 2019).

For all these reasons it is important to improve the system of continuing professional development for teachers and school leaders. What are the main problems in the system that need to be solved?

- **Embedding new ideas in practice is difficult.** Teaching is complex and habitual; so is leadership of teachers. During lessons, teachers need to make quick decisions (How to respond to students who are misbehaving? What to do if students have not understood the new idea? etc.) Leaders of school improvement also need to work with this dynamic. This process becomes more automatic as teachers and leaders become more experienced. Even when training providers (such as universities) design and facilitate high quality programmes, there has been limited follow-up to help teachers and leaders to use new ideas and approaches and integrate them with

established practices and assumptions through Continuing Professional Development and Learning (CPDL).

- Professional development should be more relevant.** 30% of teachers reported that the programmes on offer were not relevant to them (TALIS 2018). The range of external Continuing Professional Development (CPD) programmes – as opposed to an ongoing programme of activities within schools – will always be limited in Estonia. For example, if a teacher wants to learn about formative assessment (which is a key teaching approach that supports the objectives of the Lifelong Learning Strategy), then there are no programmes on offer right now (Juhan, 2021). Even if a teacher finds an external programme with the right theme, it might not address the practical challenges that the teacher experiences in their specific context. To ensure that teachers can access the professional development and guidance they need, it must be offered to them on an ongoing basis, within schools. CPDL needs to become a continuous process in schools, led by principals, the head of teaching and learning, and master and senior teachers with inputs from external specialists via CPD programmes and ongoing evaluation. A practical model to implement this will be offered in this report.
- The impact on teaching and learning is unclear.** To evaluate the impact of CPD is challenging not just in Estonia but in all education contexts. There is no exploration of how teachers are making changes in their practice, and how students, in turn, are responding to these changes. This means it is difficult for funders (Ministry, school owners, school principals) to think about the value they are getting out of CPD programmes. As a result, CPD appears to be cost without clear benefit. In Estonia, the Ministry of Education and Research is currently spending about 20 million euros annually on teacher and school leader CPD. It is important to gather more evidence about the impact of CPDL, which helps inform funding decisions and develop a shared commitment to improving student learning and wellbeing.

Solving these systemic problems is possible. This requires some policy changes, suggested in this report, and high-quality implementation of these policies. The overall expected result is that more teachers and school leaders will be able to participate in CPDL that meets three key effectiveness requirements, which are informed by systematic, international research reviews (Cordingley et al., 2015; Cordingley et al., 2020):

Effective CPDL	Ineffective CPDL
<ul style="list-style-type: none"> <li>...is organised around teachers' and leaders' aspirations for their <b>students' progress and wellbeing</b>: for example, to improve the learning of students with learning difficulties in mixed ability classrooms</li> </ul>	<ul style="list-style-type: none"> <li>...does not articulate a clearly defined focus on improving specific aspects of student learning and/or wellbeing (for example, <a href="#">this programme</a> that supports teachers in creating a professional learning community within their school)</li> </ul>

<ul style="list-style-type: none"> <li>...is <b>tailored to participants' needs</b> by identifying and building on their existing knowledge, skills and beliefs, for example, by creating the time and space for all participants to share what they already know and discuss their beliefs and assumptions</li> </ul>	<ul style="list-style-type: none"> <li>...does not allow the facilitator to understand the prior knowledge, skills and beliefs of all participants, and tailor the programme to meet their individual needs (for example, because it is conducted in a large group of people with diverse needs and there is no plan for differentiation)</li> </ul>
<ul style="list-style-type: none"> <li>...involves planning and support for <b>sustained and structured, iterative refinement of new ideas, practices and skills</b> in the light of evidence about how students (and for school leaders, also teachers) respond to changes arising from the CPDL so they can be embedded appropriately in day-to-day practice</li> </ul>	<ul style="list-style-type: none"> <li>...is either too theoretical or tries to cover too much content, without a clear structure for participants to practice new ideas or approaches during training, try them out in their classrooms/schools and then reflect on how students/teachers have responded to these new ideas</li> </ul>

To improve the system of CPDL in Estonia, the following elements need to be put in place:

1. **Define a framework and criteria for effective CPDL** – a more nuanced version of the three key criteria briefly explained in the table above. This needs to be discussed and refined with various local stakeholders. The aim is that everyone is working towards coherent, more effective, and evidence-informed approaches to CPDL. It would apply to external CPD programmes, ongoing CPD programmes within schools, and self-study by teachers and leaders. *For more information, see Recommendation #1: Accreditation.*
2. **Accredit government funded programmes in an efficient way** – initially there should be a 2-3-year period when training providers can adjust their programmes to the effectiveness criteria mentioned above. During this period, there should be regular workshops with training providers 2-3 times a year, where they can get feedback on their programme design and how it can better meet the effectiveness criteria. After this period of adjustment, 90% of long-term publicly funded CPD programmes should meet the effectiveness criteria that have been agreed. This process can be managed by the Education and Youth Authority (Harno) efficiently, with the involvement of a stakeholder panel, including some novice, master and senior teachers, school leaders, school owners and programme providers. The results from accreditation should be summarised annually in a map of CPD provision, which can inform the decisions of all stakeholders (the Ministry, school owners, training providers, schools). *For more information, see Recommendation #1: Accreditation.*
3. **Support the formative evaluation of CPDL** – as part of CPD programmes, teachers need to evaluate regularly how students are responding to new practices and approaches (for example, if teachers are learning how to give precise, specific and actionable feedback to students, they need to evaluate the effect this is having on a

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sample of their students, e.g. a top performer in their subject, a low performer, and a student 'in the middle'). The same idea should apply for school leaders: as part of CPD programmes they should regularly evaluate the impact that new practices and approaches are having on teachers in their school. The purpose of formative evaluation is not to judge anyone, but for teachers and leaders to identify opportunities to improve their new practices. When programme providers prompt this and use the resulting insights to make changes, they can improve the relevance of their activities. *For more information, see Recommendation 2: Evaluation.*

4. **Evaluate the impact of CPDL in a light-touch way** – funders of CPDL need to commission independent impact evaluation of programmes. Evaluation teams should analyse programme design materials together with anonymised evidence arising naturally from formative evaluation activities, taking place within CPD programmes and during follow up. These teams would include researchers as well as a panel of stakeholders (senior and master teachers, school leaders, school owners). This evaluation is also informed by the accreditation results summarised in the map of CPDL provision. No additional burden is placed on teachers or leaders, beyond the formative evaluation they are already doing as part of the programme. This is an efficient process which will be suitable for the Estonian context, where decision makers want to make good use of limited resources. *For more information, see Recommendation 2: Evaluation.*
5. **Support in-school CPDL to embed new ideas and approaches in practice** – teachers and school leaders need to navigate the complexity of embedding learning in practice. High impact professional learning processes such as instructional coaching and collaborative enquiry, happening in schools, with expert support, can help with this. School leaders need to support this by creating the time, encouragement, routines and support for CPDL to become a continuous process in schools. Senior and master teachers can play a clearer and more significant role in supporting this. *For more information, see Recommendation 3: Career progression and Recommendation 4: Tools.*
6. **Expand the responsibilities and compensation of senior and master teachers** – conduct a pilot project in collaboration with a small number of local authorities, to define a clear role for senior and master teachers, release them from teaching one day a week, so that they have time to support the professional development of teachers in their schools and other schools. Communicate a transparent career and pay progression framework. Evaluate the pilot before deciding whether to roll this out across the entire school system. *For more information, see Recommendation 3: Career progression.*
7. **Scale up the use of teachers' and leaders' development tools gradually** – unique development tools have been created and piloted as part of this project. The teachers' tool professional development needs assessment, classroom observation, effective feedback, modelling of new practises, deliberate practice of new approaches, in a step-by-step process. The leaders tool focuses on instructional leadership, and enables structured dialogue among two principals, to identify specific steps for improvement. Using these tools provides a clear structure for effective, in-school CPDL. The tools are

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translated into the Estonian and Russian languages, so that they can also be easily used in schools where most teachers speak Russian thus avoiding the language barrier. The process of scaling up should be gradual, ensuring there is high quality training and support available to the teams who lead the use of the tools in schools. *For more information, see Recommendation 4: Tools.*

8. **Ensure all key players have a significant role in decision making** – teachers, school leaders, local authorities and other school owners, universities and other training providers all need to have a more significant role in making decisions about CPDL. For example, a stakeholder panel (including novice, senior and master teachers, school leaders, school owners and programme providers) approves accreditation and analyses the impact of CPDL programmes. Universities should play a bigger role in supporting the formative and summative evaluation of CPDL. School owners need to support and challenge school leaders to create an enabling environment in schools that fosters continuous CPDL. For more information, see *Recommendation 5: Roles and responsibilities.*
9. **Strengthen the quality of instructional leadership in schools** – principals and heads of teaching and learning (in Estonian: *õppejuhid*) in many schools are overburdened with administrative tasks, and struggle to prioritise their role as instructional leaders. The Ministry could incentivise instructional leadership in such schools by providing additional funding (through a grant) to schools where instructional leadership capacity is low, which would fund the role of a second head of teaching and learning. Such a role already exists in some larger schools, where one head of teaching and learning is more focused on administrative tasks and the other more focused on development activities. This instructional leadership programme needs to be funded by the Ministry but managed independently; the participants need to be recruited centrally, hired by principals in the schools where they will work. They will need to receive high quality support on a regular basis, at least in the first two years of their work. Over the course of 4-5 years, they can accelerate improvements in teaching and learning in 100 schools where such capacity has been most limited. *For more information, see Recommendation 5: Roles and responsibilities.*



## A summary of what should change

Now	Near future
<p>Teachers and leaders primarily participate in external CPDL programmes.</p>	<p>The main source of teacher improvement is in-school CPDL. This process is led by the principal, head of teaching and learning, senior and master teachers. External professional development programmes continue to play an important role in showing what is possible, introducing new ideas and thinking, challenging the orthodoxies, and supporting the effective implementation of in-school CPDL. Other important roles of external expert input (from universities and other key players) are explained below.</p>
<p>1-3 teachers or leaders per school participate in any given external programme, and there is no structure to share what has been learned with other colleagues in a meaningful way.</p>	<p>The learning from external programmes is shared more widely in schools, because senior and master teachers provide regular instructional coaching to colleagues in their schools, including young teachers who have recently started teaching:</p> <ul style="list-style-type: none"> <li>• Non-judgmental lesson observations 2x a month</li> <li>• Helpful feedback to improve aspects of teaching</li> <li>• Deliberate practice of new skills</li> </ul> <p>Master teachers also advise other schools on how to set up instructional coaching effectively.</p> <p>Other effective delivery models in addition to instructional coaching maybe used too, such as collaborative enquiry.</p>
<p>Participation and satisfaction rates are the main CPDL indicators that are tracked.</p>	<p>Evaluation of how CPDL is affecting student learning is built into all publicly funded CPDL. Independent evaluation teams use naturally occurring formative evidence during CPDL programmes to examine what teachers or leaders are learning, how they are putting new ideas into practice, and how these practices are impacting case students or teachers. Altogether, this allows to measure the impact of programmes.</p>
<p>Russian speaking teachers have significantly limited opportunities to participate in CPDL because of the language barrier, resulting in an ongoing achievement gap when</p>	<p>Teachers' and leaders' development tools are available in Russian as well as Estonian, enabling Russian speaking teachers to use the tools in their mother tongue. Overcoming this language barrier is important, because it is challenging to engage with difficult concepts (regarding teaching and learning) in one's second language.</p>



compared with schools where most teachers speak Estonian.	
Universities and other training providers design and deliver some very good CPDL programmes, but the impact is limited because there is not enough in-school follow up to embed new ideas in practice.	External and internal CPDL programmes continue to have an important role to build the capacity of a small group of expert teachers, who share their knowledge and skills with colleagues in schools through instructional coaching; universities also take on a more significant role in supporting the formative and summative evaluation of CPDL programmes.
Schools and school owners organise one-off workshops or conferences, which involve networking, interesting lectures, and training.	One-off workshops are largely stopped, because there is no clear benefit to improve teaching practice. Most external programmes are sustained courses helping lead to lasting changes in teacher practice.
School principals have few incentives to encourage their staff to obtain a senior or master teacher qualification and to reduce their teaching workload.	Senior teachers teach four days a week, but on the fifth day they have time to provide effective, individual support to their colleagues (through instructional coaching).  Master teachers receive additional training that will benefit their host schools (through better teaching and coaching) and other schools (whom they can support two days a month to improve the quality of instructional coaching).

## Measures of success

We propose tracking the following key indicators to measure the success of the policies proposed in this report.

Indicator area	Definition	Calculation
<b>Teacher retention</b>	(i) Percentage of graduates from initial teacher education who have worked as teachers for five consecutive years after graduation  (Source: OECD Indicator Selection 2021)	(Number of individuals who graduated from initial teacher education (ITE) programmes in year X and who have been working as teachers for at least 5 consecutive years) / (Total number of ITE graduates from academic year X)  The numerator includes teachers who have been working at least half-time.

	<p>(ii) Percentage of first-time teachers who have worked for five consecutive years after taking up their duties</p> <p>(Source: OECD Indicator Selection 2021)</p>	<p>(Number of teachers who entered the teaching profession for the first time in year Y and who have been working as teachers for the next five consecutive academic years) / (Total number of teachers who entered the teaching profession in year Y)</p>
<b>Status of teachers</b>	<p>Percentage of teachers and school leaders reporting that their profession is valued in society</p> <p>(Source: OECD Indicator Selection 2021)</p>	<p>Number of teachers/school leaders who agree or strongly agree with the following statements: I think that the teaching profession is valued in society / Number of teachers/school leaders who answer this question</p>
<b>Changes in teaching and learning patterns emerging from evaluation</b>	<p>Percentage of teachers whose case pupils demonstrate increased academic achievement and independence in their learning</p>	<p>Growth, year on year of the number of teacher case study accounts demonstrating improved academic achievement and growing independence in their learning; increases year on year in the number of teachers who agree strongly that their pupils are improving their academic achievement and working increasingly independently</p>
<b>Special Educational Needs awareness</b>	<p>Percentage of teachers reporting increasing confidence in differentiating support for learning for pupils with Special Educational Needs and Disabilities (SEND)</p>	<p>(Number of teachers reporting that they feel confident in their teaching practice as it relates to learners with SEND)/(Number of teachers enrolled in CPD programmes which have clearly-specified programme goals and content focussed on supporting SEND students in class and/or on Differentiation)</p>
<b>Match between accredited programmes, participation rates and perceived relevance</b>	<p>Percentage of teachers that have completed CPD programmes and follow up work to apply their learning in school and subsequently reporting that this has made a difference to student learning</p>	<p>(Number of teachers successfully completing given CPD programme AND who report that student learning was positively affected by CPD content)/(Number of teachers enrolled in said CPD programme)</p>

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## Key terms used in this report

We think of **professional development** (PD) as support provided to teachers and leaders to help them grow and develop skills, understanding and practices.

We think of **professional learning** (PL) as what teachers do to explore and apply new knowledge skills, ideas and practices to their own day to day context and approaches.

We think of **continuing** (C) PD or PL as support for either of the above happening on a sustained basis.

We think of **continuing professional development and learning** (CPDL) as planning and support that takes explicit account of both the support offered to teachers and the work they do to make use of it.

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# Recommendation 1: Accredit individual programmes, based on criteria of effective professional development

## Why is this important?

International research reviews help us understand the difference between effective and non-effective CPDL programmes (Cordingley et al., 2015; Cordingley et al., 2020). Effective programmes are focused on improving student learning and well-being, they are tailored to participants' needs and they support the sustained and structured, iterative refinement of new ideas, practices and skills (Cordingley et al., 2015; Cordingley et al., 2020). The preferences of teachers in Estonia are remarkably aligned with this evidence from research reviews. Government funding should be aligned with this evidence to ensure professional development has a positive impact on the quality of teaching, learning and leadership in schools. The annual investment from the Ministry in teacher and school leader CPDL is about 20 million euros. An efficient accreditation process can ensure that there is a tangible positive return from the resources invested in publicly funded CPDL programmes.

## Current State

- Some CPDL programmes that are currently available in Estonia meet many of the criteria for effective professional development, which are explained on pages 12-13. However, there is no systematic process for reviewing whether publicly funded programmes meet the criteria for effective CPDL, although accrediting individual programmes was recommended by OECD in 2016 (Santiago, 2016).
- CPDL programmes financed through the European Social Fund have been screened against the teachers' qualifications' framework, priority competencies and the specific priorities of the funding round.
- There is an online database of CPDL programmes ([Juhan](#)). Publicly available information about the programmes does not enable evaluate whether the research-based criteria for effective CPDL are met. Also, this database does not represent all programmes currently available to teachers and leaders.

## Desired State

- Short term (1-2 years): PD providers receive formative feedback from Harno based on the criteria for effective PD. There is a regular, system-wide review of PD provision, which enables to create a virtuous circle of planning and feedback.
- Long term (after 3 years): 90% of PD programmes that are publicly funded should, in line with the research about effective PD, be sustained over time (at least 4-6 months)

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to provide continuing support for embedding what has been learned in practice. These programmes should be accredited by Harno with advice from a specifically convened stakeholder panel. Harno approve accreditation of programmes based on the official criteria for effective PD and commission linked evaluation of impact.

- Government is able to make more informed funding choices about relevant PD. This will lead to improved quality of teaching and learning, and enhanced student learning experiences and outcomes. It will also secure better value for money from national PD investments.
- The proposed changes will lead to a sustainable process by which PD can demonstrate impact for teaching practice and learner outcomes, while still preserving the sense of professional autonomy for Estonian teachers and school leaders.

## Inputs

- A transparent model; a set of criteria for accreditation of PD as a requirement for public funding; an agency appointed to carry it out, plus a mechanism to incorporate teacher perspectives into the process via a panel.
- Requirements and issues around criteria:
  - Sub-bullet text style.

## Current State

- Bullet text style.
  - Nature of criteria – these should reflect both the TALIS findings regarding what Estonian teachers want and the wider research which are well aligned.
  - Criteria need to be structured to be applicable to school-based and non-school-based PD programmes.
- Requirement for public funding: criteria need to be compulsory to be taken seriously.
- Formal, planned and sustained, in-school PD programmes will be included but ongoing in-school activities to enable teachers and leaders to embed learning from formal programmes via, e.g. subject meetings will not.
- In adhering to the research, the criteria will secure a stronger emphasis on the agency, choices, starting points and ongoing professional learning of participating teachers and school leaders.

## Processes

- Government publishes criteria and a template which enables providers to describe their plans and accreditors to evaluate them against the published criteria.

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- Providers complete template and attach samples of programme materials that illustrate key criteria.
  - Documents analysed by accrediting agency, interviews carried out and preliminary judgements made.
  - Preliminary judgements fed back to providers if there are questions or areas for refinement required before accreditation.
  - A PD stakeholder panel verifies judgements and reports annually to Government on strengths achieved and areas for development in the planned provision.
  - Issues to be resolved: Panel composition, recruitment and governance; documents prepared and submitted by providers; documentary analysis by accreditation agency; interviews with providers; preliminary feedback to enable refinement; final approval or rejection.

## Outputs

- A clear and detailed overview of distribution (e.g. in terms of focus on curriculum area or specialty such as Special Educational Needs) and quality of provision (against which impact can be effectively evaluated); a clear basis for designing and carrying out impact evaluation of the PD programme.
- Requirements for mapping provision, which will entail:
  - Identifying the characteristics of publicly funded, sustained PD, how this links with the research about effectiveness and with the Government's analysis of emerging PD and system need
  - Creating an IT platform to streamline the process
- Determining how and when to revise the system.
- Requirements linking accreditation to PD impact evaluation e.g. by ensuring that the impact evaluation process builds systematically on accreditation outputs.

## Outcomes

- Better quality PD which more closely reflects government, teacher and school priorities.
- Teacher access to PD re national priorities that is also tailored to their own starting points and priorities.
- Better understanding of the needs and contributions of different groups of stakeholders.

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## Indicators

- Match between accredited programmes, participation rates and perceived relevance (more details in the section on *Measures of success*, on page 7).

## Assumptions and Risks

### Risks:

- The cost of the accreditation process will reduce volume of provision.
- Unless it is light touch and grounded in strong diagnostic and formative evaluation embedded in the PD process, accreditation will place an unreasonable burden on providers and those involved in the accreditation.
- The accreditation process will not respond quickly enough to the evolving needs of different schools or municipalities.
- The accreditation process ensures high quality PD but there are inequalities in access due to budget differences between schools or regions.

### Assumptions:

- Evaluating the impact of PD provision will take place as part of a separate strand of activity.
- The accreditation process will help improve quality of provision and build shared understanding among providers, schools, and teachers about achieving quality and relevance.
- That improving the quality of planning for PD, making it more explicit, and relating it to research about effective PD will be inherently helpful to providers.
- Accreditation will operate at provision rather than provider level as:
  - Blanket accreditation of providers would need to be more intrusive and demanding of resources.
  - Accrediting provision will create a stronger foundation for evaluating impact than evaluating providers.
  - Evaluating provision will be easier to keep distinct from and avoid replicating existing Higher Education accreditation processes.
  - Accrediting provision as opposed to providers is easier to focus on relevance and likely impact.
- Roles and responsibilities will be clarified to support the engagement of teachers, leaders, programme providers in the accreditation process.



Suggested criteria for effective CPDL	Why? How?
<p>1. <b>Appropriate duration and rhythm.</b> Organisers plan and facilitate programmes of appropriate and relevant duration, and rhythm for the objectives.</p>	<ul style="list-style-type: none"> <li>• <b>Why?</b> Teachers in Estonia view effective training programmes as including opportunities to implement new ideas and practices in one’s lessons (TALIS 2018). This requires suitable duration and rhythm.</li> <li>• <b>How?</b> Programme organisers plan a rhythm of at least three training sessions with associated gap tasks and collection of evidence of how case students (or colleagues, in the case of school leadership programmes) have responded to changes in practice. For more ambitious programmes, providers plan a rhythm of at least six activities over six months including several reflective cycles of in-school experimentation and formative evaluation.</li> </ul>
<p>2. <b>Shared responsibility for student learning and wellbeing.</b> Organisers plan and facilitate programmes so participants, leaders within their schools and programme facilitators take a shared responsibility for developing relevant aspects of the achievement and wellbeing of their students and the learning and professional growth of participants.</p>	<ul style="list-style-type: none"> <li>• <b>Why?</b> Lack of relevant programmes was cited as one of the main barriers to participating in professional development for teachers in Estonia. Relevance is a thread running through most of the criteria. Teachers view effective training programmes as taking into account prior knowledge and individual development needs.</li> <li>• <b>How?</b> The learning outcomes of CPDL programmes articulate specific objectives that relate to student learning and wellbeing. Organisers ask participating leaders and teachers to identify their prior knowledge, skills, beliefs, day to day practices and specific aspirations for how their students’ (for leaders, colleagues’) achievement, learning and wellbeing will develop as a result of participating in the programme. Organisers also support teachers and leaders in evaluating how students and/or colleagues are responding to the changes they make as result of the programme.</li> </ul>



<p><b>3. Theory and practice side by side.</b> Organisers plan and facilitate relevant programmes so that the professional learning process, content and activities align with the objectives, and theory and practice develop side by side. Organisers use tools to help learners manage complexity by taking account of the cognitive, practical and emotional demands made by CPDL.</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> Lack of relevance is a barrier to participation. Aligning programme process, content and activities scaffolds implementation. A recent review of CPDL quality in Estonia (which was broader than teacher CPDL) conducted by EKKA found that expected outcomes and programme activities are often not aligned (Kumpas-Lenk, 2020).</li><li>• <b>How?</b> Organisers to help teachers and leaders adapt new practices and approaches for different groups of students and subject contexts.</li></ul>
<p><b>4. Content focus.</b> Organisers plan and facilitate programmes that combine the relevant subject knowledge, subject specific pedagogy, models of learner progression and focus on how pupils learn to enable participants to effectively implement ideas in the classroom/school context.</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> Teachers view effective training as focusing on the content needed for teaching the subject and include opportunities to implement new ideas and practices in one's lessons (TALIS 2018). This ensures that CPDL programmes are relevant.</li><li>• <b>How?</b> Programmes need to support teachers in applying general ideas and approaches (for example, how to conduct formative assessment) in their specific subject(s).</li></ul>
<p><b>5. Focus on practical implementation.</b> Organisers plan and facilitate sessions to model openness to learning and to enable participants to understand the key ideas, purpose and relevance of new approaches; participants can practice during training, experiment in classrooms and formatively analyse impact on specific students (high, medium and low achievers) or colleagues (for those in leadership roles). The design of programmes is informed by behavioural science as well as evidence about how teachers learn and change.</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> Teachers view effective training as including opportunities to implement new ideas and practices in one's lessons (TALIS 2018). It is difficult to analyse the impact on all students, but it is feasible to focus on case students.</li><li>• <b>How?</b> Practising new ideas and approaches should be a core activity within CPDL programmes. For example, modelling of new practices such as effective questioning (by senior or master teachers) should be followed by deliberate practice by teachers participating in the programme.</li></ul>



<p>6. <b>External input.</b> Organisers pro-actively work with in-school and external specialists (in the subject, in CPD, and in the needs of target communities) to design programmes that enable participants to access relevant specialist expertise that helps them to implement new ideas and practices during and after programmes (in collaboration with others in and across schools).</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> External experts can bring in new ideas and approaches to schools. They can challenge the thinking that is accepted as norm.</li><li>• <b>How?</b> External experts can, for example, provide input in training, coach teachers or leaders, or provide external support and challenge when setting up an in-school training or coaching programme.</li></ul>
<p>7. <b>Collaboration.</b> Organisers plan and facilitate programmes to enable participants to develop the skills to collaborate with peers in and across schools focused on exploring how case students (or colleagues) respond to changes in practice during and after the programme.</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> Collaboration among colleagues fosters more openness to experimentation. Teachers in Estonia view effective training as being collaborative and including opportunities to implement new ideas and practices and offer follow up activities (TALIS 2018).</li><li>• <b>How?</b> It is important that collaboration is structured and purposeful, for example, by focusing on formative evaluation of how students (or colleagues) respond to changes in practice.</li></ul>
<p>8. <b>Leadership support.</b> Providers plan and facilitate programmes that pro-actively engage with leaders and school owners to support the development of learning environments within and across schools.</p>	<ul style="list-style-type: none"><li>• <b>Why?</b> The professional learning environment within the school will influence the extent to which purposeful collaboration and implementation takes place.</li><li>• <b>How?</b> Leaders help set the vision for teacher CPDL, ensure that time, resources and capacity is available to support teachers.</li></ul>

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## Recommendation 2: Evaluate the impact of programmes

### Why is this important?

If the Ministry of Education and Research manages to implement an impact evaluation system for CPDL, this would be a significant breakthrough among OECD countries. CPDL programme providers, teachers, leaders, school owners and the Ministry all want enhanced learning experiences and outcomes for students, and enhanced teaching and leadership in schools. Evaluating this evidence is not easy, because there are many variables and chains of activities. However, the exploration of the impact of changes resulting from CPDL for case students is central to effective CPDL. The proposed evaluation model establishes a golden thread between programme activities, participants' experiences, and benefits for students (and for leaders, other colleagues too). Without impact evaluation, CPDL will remain fragmented and the benefits of the Ministry investing 20 million euros annually remain unclear. If everyone can see good evidence about how students' and colleagues' professional learning is being enhanced, this increases commitment to CPDL. It also makes it more likely that school leaders and owners will start to monitor and invest in high quality CPDL.

### Current State

- Data is collected about participation in, and satisfaction with, CPDL. Some programmes ask participants to analyse the impact of new practices on students. However, no systematic process exists to gather evidence on the impact of CPDL on the quality of teaching, school leadership and student learning.

### Desired State

- The impact of publicly funded, large scale programmes on the quality of teaching, school leadership and student learning is evaluated, via...
  - Procurement by the Ministry and Harjo of independent evaluations of CPD programmes which tracks progress against the intended base line established by the accreditation of planned provision.
  - Formative use of the evidence generated by the PD and contributed to the Evaluation by CPD providers (and schools themselves) to analyse the local impact of their programmes.
- CPDL resourcing decisions by the Estonian Government take impact into account using the results of the evaluation and stakeholder advice on its implications, to enhance impact and maximise the cost effectiveness of the annual €20 million investment.

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## Inputs

- A national Professional Development and Learning (CPDL) framework that:
  - Establishes research informed criteria for professional development and learning.
  - Identifies questions for annual evaluation of impact of publicly funded CPDL.
  - Places formative evaluation and linked, iteration and refinement of new approaches or skills and/or the use of new understanding at the centre of the PD process.

## Processes

- Government sets framework and establishes a process to decide criteria, commissions national evaluation and establishes a multi stakeholder panel (including representatives of senior and master teachers, school leaders, school owners).
- Participants collect and use evidence regarding case students as part of PD programmes and follow up.
- School leaders use meta-analysis of anonymised case evidence to inform school evaluation of its PD culture/ environment with support from universities.
- Providers ensure formative evaluation is built into programmes and collect anonymised case data
- Universities provide support to schools for formative and summative evaluation.
- Evaluation teams meta-analyse programme materials and case evidence to provide annual overview of PD impact.
- The capacity to conduct evaluation is enhanced by (1) engaging international experts (e.g. from Finland) in the work of the evaluation teams, (2) supporting the professional competence of teachers interested in research, (3) supporting the pedagogical competence of education researchers who do not have a teaching background.
- Stakeholder panel comments on the implications of accreditation and evaluation reports.
- Government sets future priorities in light of emerging evidence and Stakeholder Panel commentary.

## Principles

- The framework will establish criteria for effectiveness regarding the impact of CPDL on improved teaching, leadership and student learning e.g. academic achievement, wellbeing, self-regulated learning.

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- Since effective CPD is an evidence-rich process, evaluation can use evidence that arises naturally within PD programmes, reducing bureaucratic and practical demands and enhancing the quality of evidence.
  - All evidence used in the evaluation of programmes will be anonymised to ensure the integrity of the system and to encourage teachers to explore impacts for their own students in a deep and open-ended way.
  - The framework will specify the kinds of evidence that should be embedded within the PD process as a resource:
    - For professional learners to help them explore how their own learning intersects with that of case students and enable deep reflection about links between participant learning and student success.
    - For helping programme providers refine programmes and enabling National PD evaluators to access evidence about processes and impact without creating unreasonable bureaucratic burdens.
    - Requirements for recording a sub sample of anonymised evidence from programme activities to be collected by programme providers, used by them to refine their programmes and, subsequently, made available to programme evaluators for meta-analysis.

## Outputs

- An annual report summarising:
  - The range, quality and impact of CPDL;
  - Programme provision and links between provision and
  - Changes in teachers' and leaders' practices
  - Changes in school PDL cultures
  - Student success trajectories
- This evidence would be based on meta-analysis of anonymised student and participant case data and school evaluations of their PDL culture.
- A stakeholder commentary on the implications of the evaluation for future professional learning and PD programmes, validated by multi stakeholder panels.
- Better awareness of what makes for effective CPDL.
- Better links between CPDL provision and - school leadership/CPDL culture and practitioner self-study.

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## Outcomes

- Better CPDL; better intelligence regarding the effectiveness of CPDL at every level; enhanced student learning experience, skills and progress; enhanced professional learning experiences, skills and outcomes for teachers and leaders; enhanced intelligence, connections with schools and professional learning for providers.

## Indicators

- Changes in teaching and learning patterns emerging from evaluation (more details in the section on *Measures of success*, on page 7).

## Risks

- CPDL programme providers see this as a threat.
- Schools and providers experience resulting system as overly bureaucratic.
- Teachers, school leaders and programme providers might be reluctant to use yet another online tool (for impact evaluation) if it does not integrate with other tools already in use.

## Why this approach

- Evaluation of impact becomes realistic and meaningful when diagnostic and formative evaluation are built into the PD process because evaluators can undertake meta-analysis of naturally occurring, anonymised evidence.
- Whilst meta-analysis will provide an overview, the commentary of stakeholders on the implications of findings is important for contextualising this, building ownership and respecting professional autonomy at every level.
- Teachers are more likely to engage with CPDL over an ongoing period if its successes are recognised and clearly articulated, and its value for their practice and their students learning can be made obvious to them.



## How evaluation works at multiple levels

	<b>Evaluating as a programme participant</b>	<b>Evaluating as a programme organiser</b>	<b>Evaluating as a funder</b>
Evaluation before CPDL programmes	Survey to prompt reflection on how CPDL relates to your students and your aspirations for their learning and wellbeing	Diagnosing the prior knowledge, skills and beliefs of participants, and clarifying learning outcomes	Checking that the CPDL programme and the selection of participants aligns with school/system goals, school self-assessment and CPDL framework
Evaluation during CPDL programmes	Micro enquiries, evidence-based instructional coaching, structured lesson study	Formative assessment to explore how teachers and leaders are changing their practice, how students and teachers are responding to changes, and why (or why not); this informs next steps during the programme	Checking that evidence (regarding how students/colleagues are responding to changes) is being used within CPDL, and how this aligns with school/system goals and school self-assessment
Evaluation after CPDL programmes	Participants' reflections on evidence regarding changes in practice and in students' learning during programmes	Quality of action plans, follow up impact surveys, evidence from any follow up coaching and form analysis across participants' case students/ colleagues	Post event follow up tracking, episode-based analysis of impact in relation to programme goals
Evaluation as part of school improvement	Participation in evaluation of school CPDL culture/ environment	Increased liaison with school leaders prior to programmes and in support of follow up evaluation	Comparing CPDL approaches and content with national goals, professional standards and strategic goals to refine the overall, funded CPDL offer

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## International experience

Although these impact evaluation principles have not yet been tested in Estonia, there is plenty of international experience which can inform their implementation.

- **Evaluation of 75 large scale programmes:** set out an approach based on a national framework like the one proposed here. This work was conducted by CUREE for the National Teacher Training Agency in England. It was used formatively with programme providers to significantly enhance programme design and with the Department for Education to identify the need for CPD standards in England (CUREE, 2011).
- **CPD standards in England:** Professional Development (PD) should have a focus on improving and evaluating student outcomes and should be underpinned by robust evidence and expertise. PD should include collaboration and expert challenge and PD programmes should be sustained over time. All this is underpinned by: PD must be prioritised by school leadership (Department for Education, 2016).
- **Teacher Research Panels:** from 2000–2011 the English Department for Education established a National Teacher Research Panel to comment on and support its policy of promoting teaching as a research informed profession and to quality assure and publish practitioner research (NTRP).

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## Recommendation 3: Revise career progression and compensation

### Why is this important?

Whilst teaching in Estonia is effective in comparison to other OECD countries, there are clear risks if the role of senior and master teachers is not strengthened. Most importantly, recruitment and retention of teachers may suffer. Estonia currently has a large cohort of teachers about to retire. Recruiting new teachers continues to be difficult: competition into initial teacher education courses remains on the average level, when compared to other university degrees (HTM, 2021). Retaining early career teachers beyond the first five years in the profession is not easy. Early career teachers need support from more experienced teachers (for example in dealing effectively with challenging classes), as well as attractive prospects for career progression and increases in salary. At the same time senior and master teachers feel inadequately compensated for the additional workload associated with the role. Without reforming pay structures and/or alternative incentives (for example teachers being able to follow career pathways that intrinsically interest), there is a risk that numbers of senior and master teachers remain too low and they do not generate school improvements at a local or system level.

### Current State

- The teacher progression model in Estonia is unclear. In 2014 Estonia introduced four career grades – ranging from teacher to master teacher, whilst at the same time raising teacher salaries by 59% between 2013 and 2018. However, there are signs that policy changes have not yet had the desired effect and further reform to progression and compensation structures are required (Santiago, 2016).
- Master and senior teacher roles are not universally understood, and numbers are low (linked to insufficient compensation, lack of knowledge about pathways, and administrative/time burden for candidates).
- Compared to many other school systems in the OECD countries, there is relatively less meaningful collaboration among teachers in Estonia. Senior and master teachers, if they have a well-defined role which is supported by school leaders, could be the engine of purposeful collaboration in schools.

### Desired State

- A career progression and compensation model that is clearly linked to effective CPDL and aiming to incentivise teachers to undertake the kind of PD that leads to improvement.
- This set of recommendations seeks to clarify master teacher and senior teacher roles; establish a pilot salary uplift for teachers in those roles recognising certification levels; and reform application processes.

- Expectations of master and senior teacher roles and expectations on school leaders to facilitate these roles are set centrally, but with enough flexibility to allow autonomy for schools and teachers (for example in chosen specialisms, deployment within schools or municipalities, and focus of coaching to meet the priorities of school leaders as well as the interests of senior and master teachers).
- An evaluation of local pilots conducted during the first year could inform any future roll-out.
- Depending on evaluation results, the Ministry should consider a longer-term national roll-out of this pilot with a view to establishing a transparent, clear and well-publicised career and pay progression framework.

## Possible inputs/policy levers

- Expansion of master and senior teacher programme across all schools in a small number of (5-10) municipalities.
- Core aim is to build capacity in the system to support regular, structured professional development of all teachers, based on their individual needs.
- Master teachers able to choose between “practice” (similar to Singapore pathway, see case study) and “research” (enquiry-based, as per Welsh Leading Practitioner, see case study) pathways.
- Mandate school leaders to release master teachers for a total of one day per week off-timetable (including planning, assessment and administration, in flexible increments, at a minimum, half a day). Over a month, this should include one day developing their own coaching and teaching practice, one day coaching in their employer school, and 1-2 days coaching in other municipality schools or across municipalities (practice pathway) or conducting research in other schools or municipalities, or attending research focussed sessions with partner university (research pathway).
- Published role description for master teachers should include clear expectation for working with school leaders to assess CPD needs across the school, planning CPD content and coordinating CPD for colleagues, observing lessons, demonstrating practice and coaching less experienced teachers (e.g. tied to the teachers’ development tool outlined in the next recommendation).
- Senior teacher role to focus on supporting early career teachers within their employer school. Option for a research pathway as per master teachers conducting action learning/research inquiry into improving learning within employer school, in partnership with a university (something like Welsh Leading Practitioner model).
- Public funding for a financial incentive in form of bonus paid to master (higher level) and senior teachers (lower level) rather than through salary. Payment should be tied to a set of outputs agreed locally/regionally, and reported on each year, allowing a

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level of individual autonomy to be retained within a structure that holds teachers and schools accountable.

- Public funding for small, ring-fenced grants for participating schools to compensate school leaders for loss of classroom time tied to centrally mandated expectation to release master teachers from classroom responsibilities.
- Administration of grants through municipality (in partnership with Harno and/or universities with teacher education responsibility).
- Public funding for additional monitoring and evaluation function.
- Application/qualification process reform to reduce administrative and time burden on candidates and incentivise observation of practice. E.g. qualification standard for senior teachers might require x hours of coaching from master teachers, sign off from master teacher and school leader and assessment (in the form of lesson observations) from partner university.
- Public funding for communication campaign to publicise master teacher and senior teacher roles in pilot municipalities.
- Public funding for an annual event at which senior and master teachers come together to share practice, learn from each other, and hear from the Ministry about plans for education.
- Longer term: Wholescale reform of national teacher pay structure with pathways for extending classroom expertise, developing whole-school leadership/improvement, clear salary threshold points based on externally validated assessments (observation plus portfolio element).
- Minimum input: It may be possible to run the pilot without the administration and monitoring of grants to schools, or to test this option in one or two municipalities, as a comparison.

## Processes

- Selection of pilot municipalities.
- Agree and mandate “bonus” salary uplift for senior and master teachers across participating municipalities.
- Building capacity for Harno to administer the senior and master teacher programme. Municipalities and school leaders able to set priorities for the support master and senior teachers deliver for more junior teachers.
- Monitoring and evaluation agreed by participating municipalities, led by universities.
- Establish partnerships with municipalities and universities to fulfil curriculum development and grant monitoring functions.

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- Same partnership to establish statutory guidance regarding role of master teacher and % of time spent teaching vs supporting, leading others, attending further courses, conducting research.
  - Dissemination of application process, role descriptors, grant payments.
  - Development of Ministry approved online hub for career progression information and resources.
  - Evaluation of pilot programme to measure impact.

## Outputs

- Revised application process for master teacher programme less time-consuming, with clear criteria for entry and systematised decision making about course entry each year.
- Revised curricula for master teacher (and senior teacher) programme is flexible – offers choices that better meet needs of individual teachers, school and local needs.
- Master teacher role descriptor closely tied to municipal priorities – incentivising school owners to encourage school leaders to release these teachers for system level work.
- Widely advertised Ministry website clearly sets out role descriptors, application processes, pay structures and stories/examples of effective practice and coaching.

## Outcomes

- School leaders incentivised to release teachers to take part in master teacher through ability to direct master teachers to tackle school priorities.
- Senior and master level role descriptors clearly set out coaching/mentoring roles that develop school pedagogy and meet school leaders' priorities.
- Pilot municipalities act as champions for wider roll-out/reform of national payscales.

## Indicators

- Teacher retention; status of teachers (more details in the section on *Measures of success*, on page 7).

## Risks/assumptions

- Incentives for school leaders.
- Pay linked to performance as well as development – performance must be framed as adding value beyond teachers' own classroom practice.
- Available funding over a longer-term.

## Case study: Career progression in Singapore

Singapore has consistently ranked as one of the most high-performing countries in the world in PISA and other international tests. This has prompted much interest in how the country has created a world class teacher workforce.

Singaporean teachers are recruited from the top third of high school graduates, drawn in by salaries that are competitive with other major professions and agreeing to a three-year minimum term of service. The recruitment and screening process select for individuals who have high levels of self-motivation to continually improve their teaching practice and develop their career.

In the first three years after qualifying, teachers are supported by a mentor to decide a career track. There are three primary career routes: the teaching track, leadership track and specialist track. Each track has 13 levels. A teachers' performance in their role determines whether they will advance to the next level in their track. This management and advancement system monitors teachers' performance in three areas: professional practice, leadership management and personal effectiveness. For each level, teachers are expected to set and meet personal goals for their work and demonstrate improvements to their assessors. For example, on the teaching tracking, improvements in personal effectiveness are evidenced through lessons observations.

On the teaching track, teachers eventually enter the 'senior' and 'super senior' stages of the career progression ladder. Once in the 'senior' stage, teachers start mentoring colleagues to support them in improving their teaching practice. In later stages of the 'super senior' stage, teachers start leading on professional development and improvement in practice between schools. At the top of the ladder for this track is the role of Principal Master teacher. At this stage, the teacher is held in extremely high esteem, vaunted as a leader by Singapore's national teacher training college and leading in research and professional development at a large cross-national scale.

For the first three years in the classroom, teachers' pay increases independent of performance. Once they specialize, teachers' pay increases as they advance in level. However, teachers only advance a level (and thus receive a salary uplift) if their agreed criteria for advancement are met. Teacher pay in Singapore is relatively high, with the Ministry of Education regularly amending salaries to ensure they remain competitive in the wider labour market. Teachers are also incentivized to stay in the profession for their entire career through retention bonuses that become available every 3-5 years in the profession and can be as high as 30% of a teachers' annual salary. Teachers are also annually eligible for one-off cash bonuses based on performance.

Throughout their career, teachers have access to a wide range of CPD through seminars, courses and qualifications at the National Institute of Education or the Academy of Singapore Teachers. These CPD opportunities are largely free of charge or, where required, paid for by teachers' school. Teachers may engage in as much as 100 hours of professional



development a year and it often plays a role in teachers' targets for advancing to the next level of their career track or improving their practice to make them eligible for a performance-related bonus.

Singapore's CPD and career progression structures contribute to high levels of teacher satisfaction relative to other countries (TALIS 2018, and teacher recruitment and retention (Cordingley and Crisp, 2021). Although there is a lack of experimental trial data, CPD and career progression was seen by policy makers as a key component of building a stable, highly skilled workforce, leading to Singapore (alongside Ontario), experiencing an over-supply of qualified teachers (ibid).

### **Case study: Career progression in Wales**

Wales shares some contextual features with Estonia notably in a dual-language education system and a number of geographically dispersed, remote rural schools alongside a heavily urbanised coastal region. The Welsh Government has a number of devolved powers including law-making powers in education and training. Following downward trending PISA results in 2010, the Welsh Assembly has embarked on wide-ranging educational reform., although it should be noted that it is too early to comment on the impact of these reforms on teacher satisfaction or recruitment and retention.

This case study picks out two features of reform:

#### **Overhaul of professional learning**

The Welsh Government has funded a number of initiatives that schools may choose to join, including:

- The National Professional Enquiry Project, supported by a Higher Education Institution, and in which teachers are expected to become professional enquirers on areas chosen by the school. Teachers within the project can undertake training and development to become "lead enquirers", playing a national role in future.
- The Welsh Government's Hwb platform, hosting a national collection of digital tools and resources to support education in Wales, including, a guide to a schools' "professional learning journey" providing examples of good practice and a range of ways in which teachers might extend their professional knowledge and skills.

Both initiatives involve teachers choosing which skills and knowledge suit them, and forging careers involving research and practice expertise in those areas. Professional development is linked to developing a new generation of skilled practitioners who can progress into better-paid senior leadership positions in schools. Leadership roles are explicitly linked to improving teacher CPD within schools.

#### **Compensation linked to career progression**

Teacher pay in Wales combines progression based on the number of years in post, with progression based on competence related "thresholds" where teachers may move to an upper pay-scale, or a "leading practitioner" role. Leading practitioners make up 0.1% of the

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teaching workforce in Wales. They are experienced classroom teachers (no further credentials or qualifications are required) who have the primary role of modelling effective practice and improving teaching within their own school. They also support their school to become a 'Lead Practitioner' school in their region, working with other local schools to improve their practice in that area as well. In practice, it is at the discretion of schools to decide their purpose in recruiting a lead practitioner and how best to deploy them.

More broadly, teacher pay in Wales is linked to a set of professional standards that clearly describe key features of teachers' work at different stages of their career. Descriptors of leadership standards are based on developing the teaching practice of others, as well as strategic improvements to pedagogy both within single schools and across groups of schools.

### **Case study: Career progression in Ontario**

Canada is one of the highest performing nations in PISA with a highly decentralised system that gives total control of education to individual provinces. In Ontario, the country's largest province, teaching has high entry requirements as a profession. However, once teachers qualify there is no formal differentiation between levels or grades of teachers. Teachers' salary follows a pay scale based on length of time in service.

Ontario has formalised the process of teacher career progression through a system of 'Additional Qualifications' (AQs) and 'Additional Basic Qualifications' (ABQs). These are further certificates of expertise in particular areas of teaching practice that qualified teachers can take during their career to develop a unique skillset.

The number and kind of AQs and ABQs completed by a teacher contribute to their categorisation by the Ontario College of Teachers. For example, a teacher may be categorised as A3 if they have a basic university degree, teaching qualification and have completed at least three AQs. These categorisations do not afford extra pay or privileges within the profession but are used to standardise recruitment decisions for schools across the province.

Ontario has also experimented with other methods of supporting teacher career progression and professional development. For example, the Teacher Learning and Leadership Programme (TLLP) was launched in 2007 and ran for 10 years. It offered experienced classroom teachers the opportunity to organise and deliver professional development courses in their local area with funding and support from the Ministry of Education. While there was no formal accreditation or salary uplift for leading a TLLP project, playing such a role did lead to other opportunities for career progression. For example, TLLP leaders were able to apply for a grant to participate in a knowledge exchange with their project delivered more widely across the province. Equally, 17% of TLLP leaders reported that organising a project had supported promotions to leadership positions (for example, to a role in school leadership or at the school board).

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As in Singapore, policy makers in Ontario believed that investing in high quality CPD, built into career pathways, for all teachers was an important factor in recruiting and retaining a strong workforce, both for experienced teachers supporting early career teachers, and for early career teachers themselves (Cordingley and Crisp, 2021).

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## Recommendation 4: Use the teachers' and leaders' development tools across the school system

### Why is this important?

Getting better at teaching is difficult to do. Since many of the challenges teachers face recur frequently, teachers rapidly develop habits (Hobbiss, Sims & Allen, 2020). Instructional coaching has been found to have significant effects on quality of teaching and student achievement (Kraft, Blazar and Hogan, 2018). The pilot project conducted between February and May 2021 showed us that teachers value the opportunity to have their lessons observed (if they are not being judged), to receive feedback from an experienced colleague (without being criticised), to reflect on their teaching practice in a detailed way (together with a colleague). The pilot also showed that school leaders value the opportunity to have in-depth conversations with another principal, about the substance of how to improve teaching and learning. There is significant interest and appetite to continue to work with the tools next academic year. Certain aspects of the tools need to be developed further (e.g. curriculum leadership as a separate area of competence for school leaders). Overall, using the teachers' and leaders' development tools offers a clear, structured process for in-school CPDL. Without adequate support, as suggested below, the tools cannot be used effectively.

### Current State

- Qualifications and competency models for teachers and school leaders are in place, but there are some challenges. The competency models do not enable detailed analysis of teaching or leadership practice. Teaching is not the central part of the teachers' model and instructional leadership is not the central part of the leaders' model. Teaching is covered in the qualifications' standard, but the amount of detail reduces the usability of the document.
- No tools exist for teachers and school leaders to analyse their professional practice in detail, determine their development needs and identify specific next steps.
- Teachers struggle to translate learning from PD into practice. External PD programmes need regular in-school follow-up, which is often lacking.

### Desired State

- Continuing Professional Development and Learning (CPDL) becomes an ongoing, purposeful and well-structured process within schools.
- The key ingredients for teacher CPDL include modelling new approaches, deliberate practice, feedback from colleagues and making change manageable.

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- CPDL is driven by leaders within schools, but it involves active collaboration with universities and other external experts who provide new perspectives and appropriate challenge.

## Goals

- Double the number of school leaders each year who develop their expertise and practice in instructional leadership (from a baseline of 10 principals in 2020/2021); double the number of teachers each year who continuously improve their teaching practice, while using the teachers' development tool (from a baseline of 30 teachers in 2020/21); increase the proportion of top performing students, decrease the proportion of low performers, increase the proportion of students who are able to self-regulate their learning (compared to the baseline in each participating school).

## Inputs

- Detailed descriptions of teachers' action steps across four core competencies, originally developed by the Steplab team in the UK, and adapted further by Estonian researchers and master teachers.
- Descriptions of school leaders' action steps and reflection questions which have been created in collaboration between UK and Estonian experts.
- Expertise on effective instructional coaching, probably from international experts, next academic year, with the view of building local capacity of master teachers and school leaders for 2022/23 and beyond.
- Steplab online platform which supports quality lesson observation and feedback, as well as management of the instructional coaching programme in schools. If it is decided to develop a new online platform locally, it may be advisable to use Steplab for another 1-2 years to develop a clearer understanding of the core functionality that will be needed for teachers, their coaches and school leaders.

## Processes

- Training and support to master teachers: ~20 master teachers participate in monthly training sessions (all numbers in this recommendation are indicative); delivered by international experts in collaboration with local experts; focused on building coaching expertise and delivering effective training to coaches in Estonian schools; 3-4 times a year in-person, the rest virtually; includes a week-long visit to the UK to observe high quality instructional coaching.
- Training to school leaders: ~20 school leaders will participate in four sessions per year, to help foster a common sense of purpose for improvement; includes a week-long visit to the UK to observe high quality instructional coaching in practice; focused

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on effective leadership of instructional coaching (building culture, launching and sustaining the system, effective implementation, making coaching fit with other school systems); delivered by international experts in collaboration with local experts in 2021/22; afterwards by local experienced school leaders and experts.

- Training and support coaches: monthly training to all coaches in all schools using the tools, including school visits to observe/model coaching; delivered by master teachers; ~20 schools in 2021/22, ~40 schools the following year; ~3 coaches in each new school in 1<sup>st</sup> year, 6 coaches in 2<sup>nd</sup> year.
- Further content development: university researchers and other local experts lead the creation of new content on priority areas (e.g. how to support learners with special needs; curriculum leadership for the school leaders' tool).
- Instructional coaching in schools: all participating teachers receive coaching once every two weeks (15-30-minute lesson observation plus 30-minute debrief meeting, focused on feedback, modelling, deliberate practice and structured reflection on theory and practice); delivered by coaches in their school or, sometimes, from other schools (need consider the benefits and costs of internal vs external coaching); ~10 teachers per school in first year, ~20 teachers per school in second year. Materials also support self-study. Coaching is appropriately directive or dialogical.
- Coaching conversations among school leaders: five sessions over a six-month period, focused on a specific aspect of instructional leadership, using the school leaders' tool; ~20 leaders in 2021/22 and ~40 the following year.
- Universities play a crucial role in supporting ongoing formative and summative evaluation, to analyse the quality of leadership, teaching and learning.

## Outputs

- A real-time picture of CPD processes and outcomes among teachers using the Steplab platform: which action steps are chosen, completed, etc.
- Naturally occurring evidence: written notes from teachers and coaches on the impact of teachers' action steps on students (top performers; low performers; 'the average students').
- Outcomes
- Schools: ~10 pathfinder schools who can demonstrate effective instructional coaching; ~40 schools use instructional coaching regularly by 2022/23. It will be important to ensure that schools where the majority of teachers speak Russian will be included, as they have traditionally had more limited opportunities to engage in professional development.
- School leaders: ~10 school leaders who are prepared to train, support and coach their peers on effective instructional leadership; ~40 school leaders with evidence of effective instructional leadership by 22/23.

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- Master teachers: ~20 master teachers who are expert coaches, prepared to train and support senior teachers on instructional coaching.
  - Senior teachers: ~5-10 teachers per school who become expert coaches and provide regular support to 3-4 of their peers in their school each year.
  - Teachers: continuous improvement of teaching practice, as a result of modelling, deliberate practice, feedback, reflection and making changes in small steps.
  - Students: better academic outcomes, wellbeing and self-regulated learning in schools that use the teachers' and leaders' tools.

## Indicators

- Changes in teaching and learning patterns emerging from evaluation (more details in the section on *Measures of success*, on page 7).



## Highlights from the pilot project (February to June 2021)

**30 teachers in 10 pilot schools received monthly lesson observations and coaching from master teachers**

- 93% of teachers reported that participating in the project was useful to them.
- 84% reported that the content of action steps was relevant to them.
- 70% want to continue using action steps next year.

*“I started thinking through my lessons more. Through our conversations (with the master teacher) and through the action steps, I began organising lesson objectives better. I had not planned them from the learners’ perspective before and thought how they would understand things.”* Teacher in a pilot school

*“I learned to consider the perspective of my students more and see the lesson through their eyes.”* Teacher in a pilot school

*“My students can analyse their mistakes better and improve them (as a result of changes in my teaching).”* Teacher in a pilot school

5 master teachers supported 6 teachers across two pilot schools as instructional coaches

100% of master teachers reported that participating in the project was useful to them.

*“Collaboration with my mentor was almost ideal. I liked the debrief conversations, because my mentor forced me, in a good way, to analyse my lessons. We came up with solutions during the conversations.”* Teacher in a pilot school

10 principals in pilot schools participated in monthly meetings with another experienced school principal to discuss issues related to instructional leadership

90% of principals reported that participating in the project was useful to them.

*“This project proved again that in order to learn something new or develop yourself, you don’t have to participate in a long external training programme. If you work step-by-step, you can achieve great results.”* Principal in a pilot school

5 experienced principals supported the principals of two pilot schools as dialogue partners or mentors

100% of experienced principals reported that participating in the project was useful to them

Experienced principals valued the opportunity to participate in creating the development tool through a collaborative process with international experts, local researchers and a small group of school leaders.

Heads of teaching and learning were free to choose how to participate/observe in the pilot project

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100% of them reported that they want to continue using action steps in their school next year (7 out of 10 heads of teaching and learning responded to our survey; 7 out of 7 responded 'yes' to this question).

*“Using the development tool is not a separate task in addition to teaching, but it becomes a natural part of daily work. Time is the most important resource for teachers and any additional responsibility can be viewed a bit negatively. Participating in continuing professional development is usually an additional responsibility, and people participate just to tick the box. Now, as it is possible to combine it with daily work and do it over a long period of time, it takes the pressure off to achieve quick results and therefore it does not require additional energy.”* Head of teaching and learning in a pilot school

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## Recommendation 5: Review roles and responsibilities of the Ministry, school owners and schools in decision making

### Why is this important?

EU funding for teacher and school leader CPDL in Estonia will diminish in the coming years, and the school system needs to make better use of limited resources. All key players need to be nudged to take on a slightly different role within the CPDL system. For example: if school leaders do not understand the principles of effective CPDL, they will not create the right culture and processes to ensure that classroom doors are opened (without fear) for lesson observations to happen, that teachers receive helpful feedback from colleagues (without being judged), that teachers have the time to deliberately practice new teaching approaches and refine them over time. If school owners do not understand the principles of effective CPDL, they will not challenge and support school leaders to create the environment for all teachers to continue improving their practice. If the responsibilities of senior and master teachers are not clarified and if their teaching workload is not reduced, CPDL will not become an ongoing process within schools. If the Ministry does not ensure that CPDL programmes need to be accredited and evaluated, there is little incentive for training providers to align their offer with the criteria of effective CPDL.

### Current State

- Teachers and school leaders can choose which programmes to participate in, based on availability. They have, however, little influence over decision making regarding the content and structure of PD programmes that are available.
- Most school owners have limited capacity to influence CPDL provision, apart from one-off conferences and workshops (which, according to research, have little impact on practice).

### Desired State

- All key players in the Estonian PD system own and play a significant role in decision-making regarding financing, content and format of PD.
- School leaders and School Boards play a more central role in decision-making to emphasise the importance at school level of creating the culture and the regular processes for supporting teacher development and learning.
- Teachers and school leaders take more proactive responsibility for PD and for contributing to collective professional growth.

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- Schools that have traditionally had limited capacity to focus on instructional leadership, employ a dedicated leadership team member with a primary focus on improving the quality of teaching and learning.
  - The system enables more high-quality PD and follow up to happen within schools, supported by external expertise
  - Teaching and school leadership are more widely respected and recognised professions. This should include greater recognition of the importance of teachers and leaders taking collective responsibility for student success and well-being by supporting each other's professional learning.

## Inputs

- A research informed framework for PD: evidence-informed principles drawn from international research on key contributions to successful PD from different stakeholders.
- A map of how PD roles are currently distributed in Estonia at national, middle and local levels to take account of the levels of autonomy across different Estonian municipalities and schools and acknowledges the resulting complexity.
- Detailed priorities for distribution of decision-making in commissioning and deploying PD set by the Ministry, underpinned by a clear set of principles for central funding, which can be used to inform decision-making in relation to edge cases.
- An impact evaluation framework which enables ongoing iteration and refinement of the PD system in the future.
- A clearer structure for recognising career pathways and progress along them.
- More extended piloting and implementation of the teachers' and leaders' tools (created as part of this project) to model and scaffold refinement of the PD system.

## Processes

- Establishing, collaboratively with stakeholders, the framework/criteria and plans to:
  - enhance school leader, teacher, school board and school owner involvement
  - partially re-orientate university contributions towards supporting evaluation and specialist programmes or specialist contributions to in-school/between school programmes
  - create a dedicated instructional leadership role in schools which have had limited capacity in this area to date, and
  - through all these processes establish a shared ownership PD system

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- Allocating roles on a pilot basis, including piloting e.g. development of co-coaching between “graduates” of instructional coaching programmes to establish a proactive professional learning culture and sustain the use of PD tools and the development of deeper links between universities and schools regarding the evaluation of CPDL.
  - Commissioning research to inform pilot evaluation.
  - Commissioning introductory development sessions for key stakeholders to establish shared understanding of how a PD System can enhance student learning and outcomes and recruitment and retention.
  - Commissioning evaluation to build on accreditation.
  - Establishing multi-stakeholder panels to validate/interpret results of accreditation and evaluation at system level.
  - Annual analysis to identify implications for further development and to refine roles and responsibilities.
  - Creation of principles to shape reframed roles and responsibilities.
  - Proposals to address gaps emerging from research.

## Outputs

- A clear framework defining roles and the responsibilities related to PD and criteria for effectiveness, accreditation and evaluation across the national system.
- A plan for establishing revised roles and responsibilities designed to secure stakeholder buy-in via clear principles and effective communication.
- Contracts communicating professional responsibilities (this will inevitably be focused primarily on those employed at national level, with decreasing levels of standardisation and centralisation at municipal/ school levels).

## Outcomes

- A PD system which articulates contributions from different stakeholders through a core framework.
- An embedded approach to use of evidence within PD and for formative and summative evaluation, to create a virtuous cycle of activity across all stakeholders, so that PD secures:
  - Greater confidence in PD provision among teachers and leaders
  - Provision that is effectively tailored to teachers’, leaders’ and students’ needs and national priorities
  - Better understanding in schools of the need to support follow up and willingness to engage with providers and evaluation of impact

- More coherent contributions from PD to the overall trajectory of education in Estonia.

## Indicators

- All indicators recommended earlier in the report (more details in the section on *Measures of success*, on page 7).

## Assumptions and Risks

- Teachers and leaders will value PD more if it meets the criteria highlighted by international research and also focusses on specific students to secure depth and relevance.
- Universities and providers will be motivated to support an increased role for schools and teachers if a) school leaders are willing to work more closely with them and b) they have a new role in supporting schools with evaluation within PD processes and of its outcomes.
- Stakeholders in Estonia are motivated in part by meeting their officially-designated responsibilities.
- Respect for PD as part of autonomy and professionalism ensure the PD system is not seen as over-elaborate or bureaucratic.
- Investment in PD by school owners and school leaders depends upon a greater role in and responsibility for strategic PD decision making.

## How responsibilities might evolve

	Now	Soon
<b>Teachers</b>	Analyse their professional development needs on their own, look for suitable external training programmes	Analyse their professional practice in detail with experienced colleagues, open the classroom door for lesson observations, give and receive helpful feedback, practice new teaching approaches, and analyse the impact on students
<b>Senior teachers</b>	According to the qualifications' standard, they should be supporting the professional development of colleagues in	Teach four days a week, on the fifth day provide instructional coaching to colleagues in one's

	their school, but in reality, the role is unclear	school (lesson observations, feedback, practice, review)
<b>Master teachers</b>	According to the qualifications' standard, they should be supporting the professional development of colleagues across the school system, but in reality, the role is unclear	Teach four days a week, on the fifth day provide instructional coaching to colleagues in one's school and advise other schools on how to implement instructional coaching well
<b>Head of teaching and learning – instructional leadership</b>	Some schools already have a dedicated leadership role focused on instructional leadership, but many (smaller) schools have not been able to afford this role; as a result, in these schools, leaders tend to focus more on the urgent administrative tasks that need to be solved, instead of more strategic activities to improve the quality of teaching and learning	Schools that have had limited capacity to date can employ a dedicated person focused on instructional leadership; this role will be funded by the Ministry for 10 years; candidates will be recruited centrally (20-25 people per year, for 4-5 years) and will receive regular training and support during their first two years in their role
<b>School principals</b>	Depends on the school; in many schools, it is limited to approving and funding teachers' requests to participate in external CPDL programmes	Develop a vision for CPDL in their school, ensure that time, resources and experts (including senior and master teachers) are available so that all teachers can access effective CPDL, support CPDL in becoming an ongoing process in school
<b>School owners</b>	Depends on the school owner; organise workshops for teachers or school leaders; in some cases, simply channel funding to schools for CPDL	Have a regular conversation with school leaders about strategies for making sure that all teachers can access CPDL that is effective and meets their needs
<b>External programme providers</b>	Design and deliver programmes according to the requirements of the funders and trying to meet	Diagnose the needs of participants before programmes begin; take a more active role in

	the needs of programme participants	the ongoing formative evaluation of CPDL programmes
<b>Universities</b>	Support ongoing school improvement through various projects; design and deliver external programmes for teachers and school leaders	<p>Research universities will:</p> <p>(1) Continue to provide specialist CPD programmes on priority themes such as self-regulated learning, supporting students with special needs, using formative assessment (to check student learning and meet the individual needs of students), etc.</p> <p>(2) Support CPD programme organisers within and outside schools in embedding formative evaluation into programme content. The purpose is to help implement an efficient process for ongoing evaluation of how teaching or leadership practices have changed (as a result of the CPD programme), how case study students or teachers have responded to such changes, and (if necessary) using naturally occurring evidence to enable programme leaders and leaders in schools make adjustments to the next activities in the CPD programme.</p> <p>(3) Support schools (principals, heads of teaching and learning, master/senior or other experienced teachers) in designing and implementing practices to make CPDL an ongoing activity within schools. This means strengthening instructional leadership in schools, setting up instructional</p>



		coaching programmes (that would involve regular lesson observations, feedback, deliberate practice of new teaching approaches, reflection on progress) or supporting collaborative enquiry among teachers (to identify common challenges, analyse relevant data and test new teaching approaches).
<b>The Ministry of Education and Research</b>	Organise procurement of government funded CPDL programmes, based on the best current understanding of teachers' and leaders' needs	Set up a CPDL framework which focuses all stakeholders on the common goal: improved teaching, learning and leadership in schools; ensure that most government funded CPDL programmes are accredited and evaluated; boost the role of senior and master teachers as engines of in-school CPDL

## The case for this option

- Principles of autonomy are clearly important to Estonian educators and speak well of their commitment to understanding the needs of individuals. But, in the context of thinking about roles and responsibilities, we need to set that alongside research evidence that suggests that PD is most effective when schools and providers position PD as collective responsibility for student progress and wellbeing. The research evidence also emphasises the importance of collective endeavour to build collective efficacy. It is reasonable to infer that the same is true nationally in terms of establishing a genuine PD system which creates a virtuous circle of learning.
- Recommendations in this report illustrate what a process for achieving this might look like. In doing so we have focussed on coherence; in effect, on using these reforms to build a PD system in which any one change helps to support other changes and in which all stakeholders are positioned in ways that help them accommodate changes in ways that enhance their contribution and their sense of professionalism.

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## Appendix

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