Educational innovation with IT
Focus on the lecturer

Position Paper

Eight recommendations for governors and managers on effective professional development for lecturers in higher education

Acceleration plan
Educational innovation with ICT

Facilitating professional development of lecturers

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Acceleration Plan for Educational Innovation with IT
Facilitating professional development for lecturers zone
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Inhoud

Introduction

Digitalisation of education in the Netherlands has been accelerated by the nationwide measures taken in the spring of 2020 to combat the spread of the coronavirus. In higher education, too, much work has been done under considerable pressure to keep supporting students remotely in their learning process[1]. The sudden transition from mostly on-campus to fully online education has meant that lecturers have gained a wealth of experience in using educational technology in their teaching practice. Although the COVID-19 pandemic has accelerated the digitalisation of education, the urgency to do so predates this by a long way. In its 2017 position paper 'Doordacht digitaal' (Smart digitalisation), the Dutch Education Council describes the education sector's search for the right role and structure in the digital age to ensure that it does not miss the boat. 'Sustainable for the Future' – the Dutch Ministry of Education, Culture and Science's 2019 Strategic Agenda for Higher Education and Research – states that IT can be a powerful tool for increasing the quality of education and student success. It can facilitate student-centred learning and experiential learning, help to involve students more deeply in their education and improve their learning outcomes[2].

For now, the impact of the initiatives taken at all institutions during the COVID-19 pandemic to safeguard educational quality is hard to predict. The same applies to support for lecturers, which understandably is still very ad-hoc in nature. 'Smart digitalisation' is not that straightforward, as was outlined in the Education Council's aforementioned position paper. It requires a smart combination of the right knowledge and support. Whether digitalisation is indeed a powerful tool for learning and whether this will boost students' learning outcomes depends to a large extent on the innovative capacity of educational institutions and lecturer's pedagogical and didactic rationale and actions[3]. A SURF working group concluded in 2015 that "there are many opportunities to innovate educational practice using IT, but that it is still difficult to actually put this into practice. An important factor here is lecturers' competence in the use of IT in education"[4].

1 Schildkamp et al., 2020
2 Da Rocha Seixas, Gomes & De Melo Filho, 2016; Han & Finkelstein, 2013; Pellas, 2014;.
3 Smits, 2020
4 SURF, 2015

In this position paper, we, the initiators of the *Facilitating professional development for lecturers* zone share lessons learned with the aim of informing all stakeholders, especially governors and managers of higher education institutions, about important characteristics of effective professional development for lecturers. We put forward eight recommendations based on the knowledge and experience we have gained. We ask governors and managers to include these recommendations in their strategic policy and its implementation in their own institution.

The Zone: Facilitating professional development for lecturers

In 2018, as part of the Dutch digitalisation strategy, higher education institutions set to work on implementing the Acceleration Plan for Educational Innovation with IT. The Acceleration Plan focuses on bringing together initiatives, knowledge and experience so that the higher education sector can work effectively on themes that allow for synergy in areas where gains can be made. The plan has three focal points: (a) improving access to the labour market, (b) promoting more flexible education, and (c) smarter learning with the help of technology. This takes place in eight different Zones.

In the *Facilitating professional development for lecturers* Acceleration Zone, eighteen higher education institutions work together on facilitating professional development for lecturers in the area of educational innovation and IT. Professional development and support for lecturers in the use of technology in education are essential[5]. Making optimal use of the possibilities of IT in education requires new knowledge and skills on the part of those who have the greatest influence on the quality of education: the lecturer. It calls for the right balance between people on the one hand and technology on the other.

The aim of the Zone is to enable all higher education programmes to facilitate the use of IT by lecturers in teaching in a way that will accelerate educational innovation and thus improve the quality of teaching. It is important to bear in mind that digitalisation is not the end goal but a necessary means to continuously improve the quality of education. Nor is it about every lecturer becoming an innovator with the competence to use IT in every possible way. Our aim is to ensure that as many lecturers as possible make use of the possibilities offered by IT.

[5] Strategic Agenda for Higher Education and Research, 2019

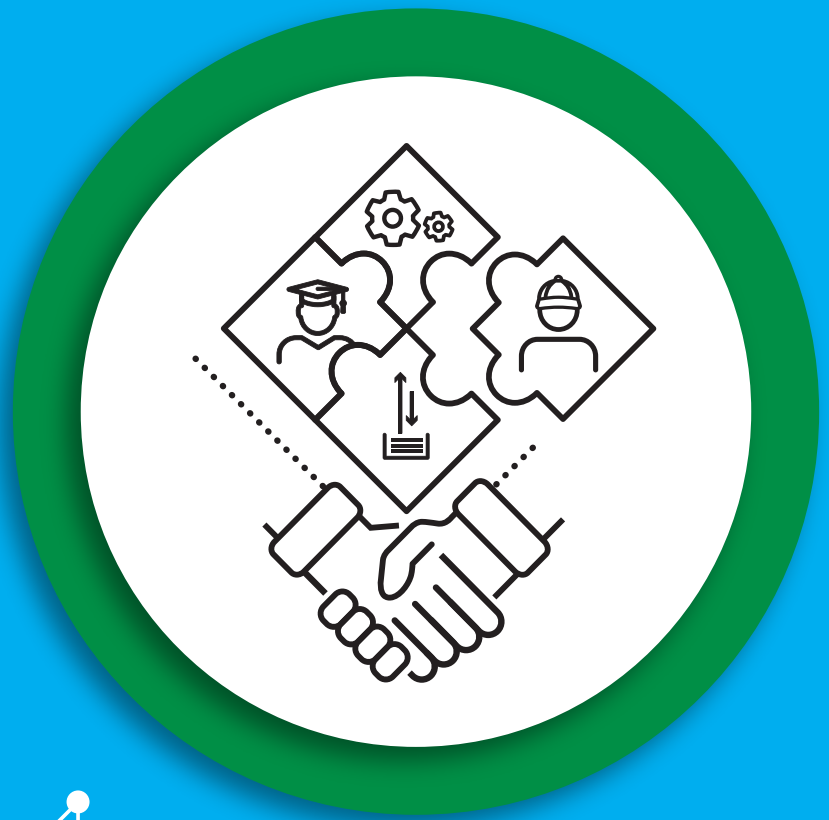
Lecturers generally recognise the urgency of educational innovation with IT and the importance of paying attention to the role of IT in the profession and in society. They also see the added value of learning and teaching with IT, but at the same time many lecturers are very hesitant to act (iXperium/CoE, 2019). As far back as 2010[6], it was noted that educational institutions are, by their nature, not geared towards the learning process of lecturers. Ten years later, educational innovation with IT is still far too much considered 'nice to have' rather than 'need to have'. It is now clear that the COVID-19 pandemic has accelerated the digitalisation process and that IT in education has become an 'absolute must have'. In a report on the impact of the COVID-19 pandemic, the OECD, too, states that there is room for improvement in lecturers' digital skills. It argues that facilitating professional development for lecturers in the area of IT in education is urgently needed.

It is important, particularly now, that the use of IT is not seen as a temporary necessity but that all institutions realise that IT can also be used to improve educational quality beyond the COVID-19 pandemic. The ultimate aim is a flexible curriculum that does justice to the differences between students. Some of the reasons for this are increased diversity among students, the evolution and emergence of as-yet unknown professions and the need for lifelong learning[7] (Kirschner & Stoyanov, 2020). Lecturers must be able to connect with these developments and prepare their students for lifelong learning and development so that students are better equipped do deal with an increasingly digital world. Innovating education with the help of IT is a critical prerequisite for this. Not only does this require students to continuously learn and develop, lecturers have to do so too. A flexible curriculum also requires flexible development opportunities for lecturers.

Drawing on work carried out by the members of the Zone over the past eighteen months and experience gained within higher education institutions in the Netherlands, we have formulated eight recommendations for universities of applied sciences and research universities on how they can best facilitate their lecturers in the use of IT in their teaching: (1) Involve students as partners in professional development; (2) Foster evidence-informed professional development; (3) Provide room for experimentation; (4) Make good examples accessible; (5) Adopt an integrated approach; (6) Make sure there are enough advisors/supervisors in the institution and make their role explicit; (7) Invest in sector-wide embedding; and (8) Invest in a national expertise network.

We have also elaborated the lessons learned into a number of practical recommendations which we share below.

[6] Van Veen, Zwart, Meirink & Verloop, 2010
[7] Kirschner & Stoyanov, 2020



Recommendation 1

Rather than considering students merely as the target group for professional development, also involve them as partners in professional development

1. Involve students as partners in professional development

Lecturers are more motivated to engage in professional development when they see that it helps their students learn better[8]. Of course, professional development for lecturers is ultimately about improving the quality of teaching and thus the learning outcome of students. Students are the target group of the Zone. This calls for a broad view of lecturers' professional development, as reflected in a widely used definition of professional development: "systematic efforts to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the *learning outcomes of students*"[9].

However, we should not only see students as the target group but also as partners in a collaborative effort to design and improve education. SURF (2015) recommends involving students in professional development for lecturers in the area of educational innovation with IT. By involving students in educational development, the student perspective is included from the outset. Research shows that this has several benefits for students and lecturers alike: higher satisfaction and engagement with teaching, higher motivation, improvement in the quality of lecturer-student interactions and enhancement of learning and metacognitive skills[10].

Certain professional development activities obviously lend themselves better to student input than others, but there are plenty of activities in which students could play a role. One example of student engagement is active involvement of students in design teams. We see, in a number of institutions, teams of lecturers engaged in redesigning their teaching (so-called teacher design teams[11]). Students can, as part of a design team, think about the goals of education and how best to achieve them. Another possibility is the participation of students in so-called data teams[12]: teams of lecturers and often also managers who use data to try to solve specific problems within an institution or study programme. One such example is a data team that uses data to identify the causes of dropout in the first year of a programme so that, based on this data, measures can be taken to prevent dropout[13].

8 De Rijdt, 2013
9 Guskey, 2002. p. 2
10 Martens, Meeuwissen, Dolmans, Bovill & Könings, (2019).
11 For more information see Binkhorst, Poortman & Van Joolingen (2017)
12 For more information see Schildkamp, Handelzalts, Poortman, Leusink, Meerdink, Smit, Ebbeler, & Hubers (2018)
13 Bolhuis, Schildkamp & Voogt (2016).

Recommendation 2

Foster evidence-informed professional development

2. Foster evidence-informed professional development

In the field of education, we often tend to rely on our own experiences and ideas of what constitutes good teaching. We know from research, however, that this always carries a certain bias and therefore does not always lead to better education[14]. We also know from research that adopting an evidence-informed design approach to professional development initiatives leads to more effective forms of professional development in terms of better teaching and performance[15]. From this same research, we know that having a 'theory of improvement' is crucial: an evidence-based and explicit reasoning why professional development leads to improved teacher learning and student learning. It is important to use different types of evidence, such as evidence from education data, but also evidence from practice-oriented research.

The Zone has published a manual for designing or redesigning professional development initiatives in an evidence-informed manner according to the educational design research approach[16]. We know from research what the building blocks are for effective professional development for lecturers. These are building blocks relating to the characteristics of the lecturer (e.g. prior knowledge), the characteristics of the professional development itself (e.g. collaboration) and the characteristics of the internal and external context (e.g. support from the manager), all of which must be considered in conjunction. It is reasonable to expect that higher education, as well as teaching practice in higher education, should base its professional development activities on what works and what does not, and that these building blocks[17] should therefore be used as a foundation for designing or redesigning professional development initiatives.

[14] Bolhuis, Schildkamp, & Voogt, 2016; Katz & Dack, 2014; Vanlommel & Schildkamp, 2018
[15] Cordingley et al., 2015; Darling-Hammond et al., 2017; Elliott, 2017; Hubers et al., 2020; Kennedy, 2016; Van Veen et al., 2011
[16] McKenney & Reeves, 2020
[17] versnellingsplan.nl/publicatie/bouwstenen-effectieve-docentprofessionalisering/

Recommendation 3

Provide room within institutions for experimentation with lecturers' professional development and educational innovation with IT

3. Provide room for experimentation

In today's digital society, continuous professional development or lifelong learning is vital[18]. An ever-changing society requires teachers who are committed to constantly monitoring and improving the quality of their teaching. It is important to provide room to develop new ideas in education and for experimentation in regular educational practice[19]. A prerequisite for success is room for experimentation within institutions, both in terms of professional development for lecturers and in terms of specific educational innovations using IT. Institutions must therefore invest in professional development for lecturers; at the same time, lecturers must have the freedom to decide how to do this. This includes lecturers being able to learn through trial and error without being called out for it, and for there to be a culture of talking about mistakes in order to learn from them.

Institutions that wish to create scope for experimentation with professional development for lecturers on the one hand, and educational innovations with IT on the other can draw inspiration from field labs and the associated work packages (such as a manual, slides, worksheets) from the Facilitating professional development for lecturers zone of the Acceleration Plan. A field lab is a well-founded professional development approach in the area of educational innovation with IT, for example in the area of digital peer feedback and digital formative assessment. Institutions can adapt the work packages we have developed to suit their own contexts. Alternatively, they can set to work with our manual for designing or redesigning professional development initiatives. The Zone also carries out research in these field labs. We will share successful professional development initiatives, which can serve as inspirational examples for institutions to innovate their own professional development initiatives.

Provide room within institutions for experimentation with lecturers' professional development and educational innovation with IT.

[18] VH (Association of Universities of Applied Science in the Netherlands), 2019, VSNU (Universities of the Netherlands), 209, 2020
[19] SURF, 2015

Recommendation 4

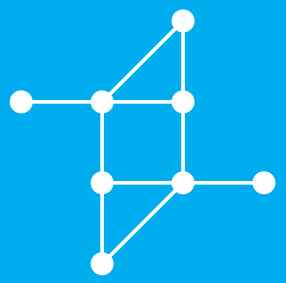
Collect, share and discuss best practice examples of educational innovation with IT from and with colleagues

4. Make good examples accessible

Lecturers often find it difficult to incorporate IT in their teaching practice. They may doubt their own digital skills, not know which application to use or simply not know where to start. It is therefore essential that lecturers have access to best practice examples from their colleagues: how did they tackle a specific educational issue and how did they use IT to do so? It helps the lecturer form a vision of the added value IT can bring. There are already many impressive and inspiring examples at operational level in the Netherlands (and beyond) when it comes to educational innovation with IT. However, sharing these best practices is often limited and happens mostly within the digital walls of the institution. This is a pity, because it is always beneficial to learn from the successes of frontrunners and from their lessons learned. It is important to collect, share and discuss best practices. This is inspirational and lowers the threshold for lecturers and can have a positive influence on their learning process.[20]

We advocate that institutions work together to provide professional development support for lecturers, which is why we are collecting best practices of educational innovations with IT within our own institutions. By collecting these best practices, we can inspire lecturers to set to work on educational innovation with IT themselves and thereby further boost their professional development. NRO is currently developing a knowledge platform on educational innovation in higher education and we, as Acceleration Zone, are also involved in this effort. Until that platform is launched, we will share best practices here[21]. You can use these best practices for inspiration and when designing or redesigning professional development initiatives within your own institution. We also encourage you to share your own best practices, as you can help others by doing so.

[20] Lam & de Jong (2015); McIntyre-Bhatty & Bunescu (2019).
[21] versnellingsplan.nl/zones/docentprofessionalisering/goede-voorbeelden/



Recommendation 5

Adopt an integrated approach to facilitating professional development for lecturers, taking into account vision and policy, leadership, the professional development itself and the supporting infrastructure

5. Adopt an integrated approach

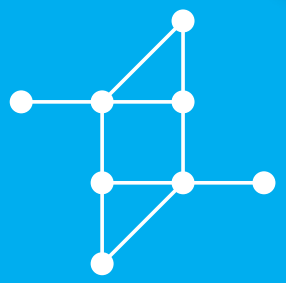
In facilitating professional development for lecturers, the focus is not only on an individual lecturer. It must be an institution-wide endeavour, as a lecturer does not work alone. Every lecturer is part of a team, a programme, a faculty, an academy or an institute and of an institution, which is why adopting an integrated approach is crucial. The institution must optimally facilitate the lecturer in designing and providing quality education.

To support institutions in this effort, we have developed the 'integral motion sensor[22] a tool to inspire ideas and action on educational innovation with IT in the institution. We designed this motion sensor by means of a talking plate consisting of four pillars, each of which features indicators we know from research[23] to be essential in effective professional development for lecturers (in the area of educational innovation with IT): (1) Vision and policy (example of indicator: policy on professional development and recognition); (2) Leadership (example of indicator: the leader as a role model); (3) Professional development (example of indicator: facilitation in time, money and space); (4) Infrastructure (example of indicator: IT and pedagogical support).

We recommend that all institutions use the integral motion sensor. Have a substantive discussion with various stakeholders such as students, lecturers, ICTO coaches, governors, HR, internal academy, executives and/or education managers on the basis of questions such as: What can our organisation do to facilitate professional development for lecturers in using IT in education and in educational innovation, in the best possible way? What barriers can we remove and what incentives can we offer? Who does what based on which role and expertise? Drawing from this discussion, it is possible to determine what is satisfactory and what still needs to be developed in the area of professional development and educational innovation with IT. This concerns the institution's own wishes or ambitions: where are we now, where do we want to go, and what can we do to achieve our goals? In this way, we can work together on professional development for lecturers but also ensure that their professional development is effective.

[22] versnellingsplan.nl/publicatie/praatplaat-bewegingssensor-2-0-docentprofessionalisering/

[23] See for example Avalos, 2011; Borko et al., 2010; Cordingley et al., 2015; Darling-Hammond et al., 2017; Gast et al., 2017; Hubers et al., 2020; Postholm, 2012, van Driel et al., 2012; van Veen et al., 2010



Recommendation 6

Education is teamwork. Make sure the institution has enough advisors/supervisors operating in education development teams

6. Make the role of the adviser/supervisor explicit

A person or working group that can advise and guide lecturers in the workplace is central to facilitating professional development for lecturers. We are seeing more diverse forms of team teaching, where the person or persons concerned become part of a team that is jointly responsible for the design, implementation and evaluation of education. We also see, at many higher education institutions, the role of IT and Education coach (ICTO in Dutch) emerging alongside other roles such as functional manager, key user and helpdesk employee. Uniformity in these tasks and responsibilities is desirable for the professional development related to and evaluation of this new role. Staff members who are well positioned because of their organisation and the clarity of their roles are better able to initiate and sustain educational innovations.

Recommendation 7

Make educational innovation with IT a part of the BKO and BDB qualifications

7. Invest in sector-wide embedding

Bottom-up initiatives are not enough if we want to accelerate in the area of facilitating professional development for lecturers – we need a combination of top-down and bottom-up approaches. Consequently, we must work at sector level and ensure that facilitating professional development for lecturers in the area of educational innovation with IT becomes firmly established.

The Basic Teaching Qualification (BKO in Dutch) is common practice at Dutch research universities as proof of the didactic competence of lecturers in academic education. At universities of applied sciences, this is the Basic Didactic Competency Qualification (BDB in Dutch). In research universities and universities of applied sciences alike, agreements have been made about the mutual recognition of these qualifications between the institutions. The use of IT in education is currently not part of, or at best only marginally, the competence profiles used for the BKO and BDB qualifications[24]. Given the rapid developments in online and blended education, the BKO and BDB programmes must also focus on specific IT skills and the changing role of the lecturer as a result of digitalisation[25].

Because it is important nowadays for lecturers in higher education to have a basic level of IT skills, this should become part of the BKO and the BDB qualifications. This means that the importance of IT skills must be recognised at an administrative and sectoral level and that agreements must be made about this. A clear framework is required for this, including operational definitions of IT skills, so that decisions can be made about what should be included in the BKO and BDB and what should come later, for example in the Senior Qualification in Education (SKO in Dutch). The Professional Development for Lecturers Zone is currently developing such a framework, based on which it will come up with practical recommendations on how educational innovation with IT should be included in the BKO and BDB, but that it should be included is already clear.

[24] SURF, 2015
[25] VSNU, 2018

Recommendation 8

Initiate and invest in a national expertise network or centre in the area of lecturers' professional development

8. Initiate and invest in a national expertise network

A final recommendation is to invest in a national expertise network or centre in the area of professional development for lecturers. One such centre in the UK is: www.et-foundation.co.uk. In the Netherlands, the COVID-19 pandemic has already given rise to a kind of online national centre of expertise in the form of the Online Education Information Desk[26]. However, we believe that this is not yet sufficient, and we have a number of arguments in support of this.

The current demand for educational services is high, knowledge is fragmented and the pressure on lecturers and staff is high. It is important to pool fragmented knowledge and experience and to spend resources more effectively to reduce the pressure on almost 50,000 lecturers, managers and staff in almost 60 institutions of higher education. Institutions and government should work towards greater cooperation and less unnecessary competition[27]. This is where cooperation with existing networks is the obvious solution. A national centre of expertise can gather evidence on relevant themes for professional development and share this knowledge but also draw from it to develop modules/programmes. Institutions can adapt these to suit their own needs and offer them in their own institution. After all, organising support close to the institution itself is as important as ever. There are many themes (e.g. digital assessment, peer feedback, blended learning, learning analytics) that require institutions to provide effective professional development for lecturers within their organisation. Furthermore, there is currently a lack of explicit and practical professional development opportunities for advisers and supervisors themselves – a need which a national network or centre could address.

We recommend that governors and managers at research universities and universities of applied sciences join forces to set up a national network or centre of expertise. New professional development activities can be developed here, but existing professional development activities can also be made accessible (e.g. making professional development activities accessible to lecturers from other institutions and also recognising and reward them).

[26] www.communities.surf.nl/vraagbaak-online-onderwijs
[27] See also the Strategic Agenda for Higher Education and Research (Dutch Ministry of Education, Culture and Science, 2019)

Conclusion

In this position paper, we provide eight recommendations based on the lessons learned in the Professional development for lecturers zone:

1. Rather than considering students merely as the target group for professional development, also involve them as partners in professional development
2. Foster evidence-informed professional development
3. Provide room within institutions for experimentation with lecturers' professional development and educational innovation with IT
4. Collect, share and discuss best practice examples of educational innovation with IT from and with colleagues
5. Adopt an integrated approach to facilitating professional development for lecturers, taking into account vision and policy, leadership, the professional development itself and the supporting infrastructure
6. Education is teamwork. Make sure the institution has enough advisors/supervisors operating in education development teams
7. Make educational innovation with IT a part of the BKO and BDB qualifications
8. Initiate and invest in a national expertise network or centre in the area of lecturers' professional development

If, as set out in the Acceleration Plan, we jointly invest in the quality of professional development for lecturers in the area of educational innovation with IT, we can (1) make education more flexible to better meet the needs of lecturers and students, (2) use technology more intelligently and effectively for learning, (3) work on improving the match with the labour market, (4) improve the quality of education and (5) improve student success.

The members of our Zone develop practical products, and we will be happy to discuss how to put the recommendations and associated tools into practice.

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The Acceleration Plan for Educational Innovation with ICT is a four-year programme focused on bringing initiatives, knowledge, and experiences for digitalisation together. The programme is an initiative of SURF, the Netherlands Association of Universities of Applied Sciences, and the Association of Universities, and is organised in eight acceleration zones. In the zone Facilitating professional development for lecturers, 16 institutions are working on improving the professional development of lecturers in Dutch higher education.

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