

Professional Doctorate Learning & Professional development

Programme Proposal

Developing team UAS PD L&P

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1 Introduction

The University of Applied Sciences Professional Doctorate (UAS PD) trains professionals to become “highly-skilled inquisitive professionals who are able to intervene in complex practices at EQF level 8” (Vereniging Hogescholen, 2021, p. 5). The UAS PD in the domain of Learning and Professional development (UAS PD L&P) trains professional-doctorate candidates (PD candidates) in the field of human development and education. More specifically, the UAS PD L&P focuses on interventions¹ in learning and professional development with the goal to help prepare and enable children, young people and adults to fulfil a meaningful place in society and work. These interventions can be executed in a variety of settings such as workplaces, training programmes and/or schools. Prime actors in this domain are professionals who work on the strategy, design, enactment and improvement of organised learning and professional development practices.

Similar to the other UAS PD domains, PD candidates in the domain of L&P develop interventions in complex practices and develop themselves both as a person and as a professional. However, the scope of this specific domain is learning and professional development *practices* as such, that is practices focusing on the development of others. Hence learning and development can refer to either the learning process of the PD candidate, or to the field of organised learning and development practices as a professional practice.

The PD L&P programme, executed by a national consortium of universities of applied sciences, is inspired by societal and economic challenges that urge for the need to innovate, develop, or improve organised learning and development practices. Topics at the heart of the UAS PD L&P programme therefore explicitly relate to regional and national challenges such as the transition to an innovative knowledge economy (SER, 2022), an inclusive society (Commissie Learning Communities, 2019; European Education Area, 2022; Kamerstukken II, 30012, nr. 135, 2020; Kamerstukken II, 30012, nr. 138, 2021; Ministerie van OVC, 2022), the future of work (SCP, 2021; European Commission), and the human capital agenda (Topsectoren, 2019; OECD, 2021). The PD candidates generate interventions for learning and professional development of people that relate to such complex challenges. The UAS PD L&P programme thereby aims to develop a state of the art of actionable knowledge (Markauskaite & Goodyear, 2017) in order to contribute to sustainable innovation.

¹ An intervention “is considered a set of acts, a process, a method, an approach, practical knowledge, a product or a prototype (demonstrator, simulation models, dashboards, software, (treatment) protocols, etc.), developed by the candidate to contribute to the issue that is central to the PD programme.” (Vereniging Hogescholen, 2021., p.12).

2 Programme profile

2.1 Scope

The scope of the UAS PD L&P is determined by national and related regional knowledge and innovation agendas in the educational and human capital development domain. The UAS PD L&P domain aims to synthesise outputs, outcomes and impacts of PD journeys in relation to these agendas. The accumulation of this actionable knowledge is a cyclical process in which the current state of the art is a starting point for new PD journeys.

The challenges in these agendas cover a broad variety of settings such as primary and secondary education, (higher) vocational education, training on the job including up- and re-skilling of employees and training elementary skills for citizens in general. Yet, they share similar issues regarding organised learning and professional development practices. The issues relate to creating learning practices that enhance the development of competences, that is knowledge, skills, and attitudes, that people need to participate and contribute to society, including dealing with (altering) demands in the work environment. Creating such learning practices varies from for example (1) altering learning practices at school, to (2) developing innovative teaching approaches, (3) affordability in the workplace, (4) learning environments, learning communities and other settings in which work, and learning are connected. In each setting (Ceelen, et al., 2021; Harteis, et al., 2022; Kyndt, et al., 2016; Kyndt, et al., 2021; Poell & Kessels, 2021; Schipper, et al., 2021), questions focus on how to encourage self-directed learning, the agency of learners, the repertoire and role of educators (teacher, supervisor, instructor), how to embed social interaction (for example in learning communities), the use of (technological) innovations (for example augmented reality or mixed realities), and questions on organising and facilitating learning (for example flexibilisation or microlearning). To adequately address such questions and develop challenging and supportive learning environments a close interaction between three processes is required: i) the pedagogical-educational process of designing and implementing learning practices, ii) the organisational-change process of developing and embedding practices within the structures of institutions and professional practice, and iii) the critical-analytical process of evaluation and research. These processes are not sequential but coincide and constantly influence each other.

The complexity of practices in which the PD candidate learns to intervene, is characterised by its multi-/inter-/transdisciplinary approach to issues, frames of references, knowledge domains, professional practices, interests (stakeholders) and contextual characteristics. Specifically, the PD candidates will have to: 1) address learning and development issues by developing reasoned and innovative solutions; 2) adopt a systemic approach that contributes to sustainable practices; 3) work interdisciplinary by adopting, synthesising and further developing knowledge from various domains; 4) act across boundaries, for example between key actors in school and its environment, between education and practice, or at the interface of different organisational layers, arenas (e.g. policy, practice, research) or (professional) practices.

Table 1. *Example of challenges in knowledge and innovation agendas relevant to the UAS PD L&P.*

1. Education and equal opportunities:

- a) Improving the quality of education (in a broad perspective) relating to:
 - a) The structure and organisation of the educational system and qualifications.
 - b) Adequate development of skills, abilities and knowledge that equip people to deal with transitions in society and industry. The development of knowledge and skills encompass a broad spectrum relating to general basic skills, citizenship, well-being, and sustainability, as well as to contextualised knowledge and skills for a specific industry or profession.
 - c) Professional development and continuous education of teachers, educators and trainers in terms of capacity development and quality development.
 - d) Educational and developmental challenges resulting from the impact of technological and digital developments on (changes in) work and society (digital skills and ethics).
 - e) Developing technological and digital tools that are supportive to the learning and competence development of people.
- Creating equal opportunities to develop everyone’s talent. The education system can (unintendedly and undesirably) augment differences in opportunities thereby negatively impacting social cohesion and participation in the (future) labour market.

[The State of Education](#)
[Strategische Kennisagenda OCW 2019-2024](#)
[Gelijke Kansen Alliantie](#)
[Agenda OCW: Opgaven voor 2021-2025](#)

2. Socio-economic challenges for learning and professional development

Learning and professional development as means to strengthen the agility and resilience of our economy and to stimulate growth in broad welfare. Continuous development (life-long development) is considered key to equip people with the necessary knowledge, skills, and abilities to be able to deal with major transitions in society and work. Specific challenges are:

- ...“lacks an infrastructure that ensures that people continue to develop throughout their lives [...] to create a better match between supply and demand in the labour market.” (SER, 2021, p. 3). An improved infrastructure is characterised by integration (less barriers and fragmentation), actively promoting development, and fostering quality of work;
- making equal opportunities a reality to develop everyone’s talents (starting as early as possible), i.e., providing additional support to those in need and broadening access to educational options and developmental activities for everyone;
- quality improvement in basic education to address decreasing educational performance and insufficient basic skills (among children and adults).

[SER Socio-economic policy 2021-2025 \(2021\)](#)
[Action agenda for lifelong development, socio-economic council \(SER\)](#)
[Dossier de veranderende wereld van werk \(2021\)](#)

3. Facilitate and promote (access to) continuous learning:

- Promote and provide access to (continuous) learning and development activities (taking important stakeholders into account such as employers and social partners).

- Support and stimulate individuals to engage in learning and developmental activities by providing guidance and resolving (financial) obstacles. Particularly for those who are less inclined or unable to engage in developmental activities.
- Development of an infrastructure for responsive and flexible learning activities (i.e. what an educational system offers) to match the (future) developmental needs of workers and job seekers (demands).

[The Parliamentary letter on Route map Learning and Development Subsidies for Lifelong Development, Ministry of Social Affairs and Employment Policy initiatives for a diverse and inclusive society, e.g., in education and the labour market Debate The labour market after corona: pushing for lifelong development, 9 November 2021, Nieuwspoor, The Hague](#)

4. Development of learning practices where innovation, work and learning come together

The 'Topsectoren' invest in human capital as key mechanism to reach societal and economic goals. Learning communities, where innovation, work and learning comes together are positioned as main vehicle. Challenges concern the development of knowledge on how learning communities can operate effectively as well as reflection on the implications for practice (workplace), learning (including educational systems) and policy. Furthermore, in relation to Learning en Professional development one can also think of more specific issues such as:

- Closer organisation of innovation, working and learning in learning communities may require a new role for teachers, educators and trainers and might ask for specific contextual competences, requirements, or infrastructure.
- Innovation in the educational system and organised learning practices by development of for example digital tools that are supportive to an effective and inclusive learning environment and that are supportive to knowledge sharing within and across learning communities.
- Increasing impact by fostering and accelerating the adoption of (innovative) learning practices.

[Roadmap Human Capital top sectors 2020-2023](#)

A practice-based research approach

To generate effective interventions, a practice-based research approach fulfils a critical part at both the individual level (practitioner's concepts and behaviour) and the collective level (organisation, region and/or society). Practice-based research is supportive to the development of sustainable learning practices by:

- focusing on interdisciplinary work with the use of, synthesis and further development of various types of (domain) knowledge of constructing learning environments and professional development practices;
- working in transdisciplinary learning and professional development practices, for example in-between school and work environment, training and practice, or at the intersection of different organisational layers (e.g., policy, practice, research, etc.) or (professional) practices;
- mapping and evaluating processes for developing transdisciplinary learning and professional development practices, leading to a profound understanding of change processes, on the boundary of school and work environments, training, and practice, or at the interface of various organisational layers (for example policy, practice, research, etc) or (professional) practices.

During the programme PD candidates learn to intervene in practices with the aim of generating and validating new and generic knowledge, methods, or products². The practice-based research focus is primarily on 'how to' questions regarding the development and innovation of organised learning and professional development practices, from a pedagogical-educational perspective and/or an organisational-change perspective. PD candidates (co-)create and improve learning and development practices that challenge and support the development of new competencies (knowledge, skills, and attitudes) of individuals, teams, or communities of practice. To intervene effectively, the PD candidates need in-depth knowledge of existing learning practices, learning environments and learning systems as well as having rich experience and knowledge with the design, application, sustainment, and evaluation of (new) learning practices in various contexts and with various stakeholders (inside and outside their own organisation). PD candidates will therefore need to integrate four roles, namely (practice-based) researcher, innovator, advisor, and practitioner (Barry et al., 2020; Open Universiteit, 2022).

Target group for the UAS PD L&P³

The target group for the UAS PD L&P (i.e., the PD candidates) are educational and HRD professionals, e.g., teachers, supervisors, instructors, trainers, workplace mentors, job coaches, managers, educational staff, consultants or HRD specialist, *who work on the strategy, design, enactment and improvement of organised learning and professional development practices.*

2.2 Aims and added value

The UAS PD L&P programme addresses the professionals' needs of those who are concerned with the strategy, design, and impact of learning and professional development practices, for deepening and broadening their competence from an interdisciplinary and interprofessional perspective. It furthers the development of actionable knowledge that is meaningful to construct learning and professional development practices in contemporary settings. The UAS PD L&P programme thus focuses on the realisation of new learning and development practices and on improving the sustainability and responsiveness of existing learning and development practices to deal with complex change issues in society or industry.

The PD journey combines four different and interrelated aims:

1. *Professional development of the PD candidate as a practitioner.* The PD journey aims to support the development of the PD candidate towards EQF (European Qualifications Framework for lifelong learning) level 8.
2. *Improve learning and professional development practices.* The focus of a PD journey is to realise a grounded intervention to develop or improve learning and professional

² "An intervention is considered a set of acts, a process, a method, an approach, practical knowledge, a product or a prototype (demonstrator, simulation models, dashboards, software, (treatment) protocols, etc.), developed by the candidate to contribute to the issue that is central to the PD programme." (Vereniging Hogescholen, p. 10).

³ During the first cohort of the pilot, PD candidates can formulate a PD proposal that fits within the drawn framework (as described in the current programme profile) and the proposition paper of the domain (Propositie Cluster Onderwijs: Leren en Professionaliseren, 2021) and the scope of this programme proposal. For the second cohort, the UAS professors in the Graduate Committee may wish to add more focus on a further specified issue within this framework based on experiences from the first cohort and based on identified needs in the field. The UAS professors reflect and calibrate periodically during the pilot and elaborate on implications for the (future) agenda of the L&P domain.

development practices in a specific context. The PD journey thereby addresses the articulated issues of learning and professional development in this context, aiming at relevant and sustainable ways of working. Hence, the intervention(s) is/are meaningful to and useful for practice.

3. *Actionable knowledge development*. The interventions generated by the PD candidate supports the development of actionable knowledge (insights and repertoire) on how to address an issue in a specific context. In addition, the developed actionable knowledge will be explicated in relation to the existing body of knowledge and as such adding to the state-of-the-art knowledge.
4. *Development of the field*: the developed interventions and related actionable knowledge will also contribute to development of priorities and dynamics of the L&P field in general. What did the PD journey bring in terms of (re)formulating issues and priorities for the L&P field?

These four aims are interrelated, since:

- *Professional development* is related to the PD candidates' deeper understanding of a complex practice in the L&P field. Practice-based research is a critical component of the learning-pathway;
- *Practice development* and *knowledge development* both focus on content and context of a specific L&P problem and its solution, as part of an ongoing *process* of change. Interventions are embedded in the dynamics of practice and aim for sustainable change;
- The use of practice-based research is contributing to both *professional* and *practice development*, as a starting point for further knowledge development.

The PD candidate contributes to sustainable innovations and major transitions by seeking answers to complex issues at the intersection of educational sciences, pedagogics, (educational) sociology, (social, educational, and labour) psychology, Human Resource Development (HRD) and Management (HRM). The intervention of the PD candidate meets the growing need for rapidly changing professional practices in education and the dynamic labour market for short-cycle, coherent and sustainable, evidence informed innovations in learning and professional development. Finally, actionable knowledge developed during the PD programme could be reflected upon from the perspective of the national knowledge and development agendas. Insights and interventions generated in the L&P domain could inform the strategy development and articulation of knowledge and development agendas. For example, findings may inform on mechanisms in learning communities and thereby, indirectly, add value to further development.

2.3 Comparison to MA, MSc and PhD

The UAS PD L&P distinguishes itself from MA and MSc professionals in the following ways⁴:

- PD candidates work on and across the boundaries of (for example) educational and pedagogical sciences, change management, occupational psychology, and Human Resource Development disciplines.
- PD candidates link new and existing (well-founded) organised learning and professional development practices to organisational and soci(et)al changes and actively (co-)intervene in organisations and contribute to sustainable change.

⁴ See also the generic standard as defined in *University of Applied Sciences Professional Doctorate* (Vereniging Hogescholen, 2021).

- PD candidates act as quadruple role professionals while intervening in complex practices by synthesising perspectives from research, change agent, consultant, and practitioner. In their knowledge brokering role they reflect on and act in changing practice from this synthesised and thus helicopter view.
- PD candidates contribute both to the body of actionable knowledge of the interdisciplinary L&P domain and to the development of this occupational field by identifying priorities and relevant actions of the domain.

The PD distinguishes itself from PhD in scope, approach, and outcome. Whereas the PhD contributes to the state of the art of the discipline focusing on generic understanding, the PD adds to actionable knowledge, characterised by its interdisciplinary character. Actionable knowledge (Bereiter, 2013) (contextual understanding and repertoires) is situated and reveals mechanisms and principles that can be used for contextualisation in other situations. In particular, the repertoire (how to) part of the actionable knowledge of the PD distinguishes its competence profile from a PhD. The PD is an expert in changing practice and therefore adding to defining priorities, urgencies and setting agendas for the occupational field, whereas the PhD is an expert in doing research and is therefore adding to the state of the art of a discipline by identifying (new) evidence.

After successful completion of the UAS PD L&P programme, UAS PD L&P graduates can independently combine and integrate four different roles in their professional practice at EQF level 8, namely researcher, innovator, advisor and (educational) professional. We elaborate on these four roles in section 2.6 when defining learning outcomes and associated quality characteristics.

Comparison PhD-PD: level of qualification

The PD L&P does not differ from a PhD as far as the required level of qualification is concerned. Both the PD and the PhD programme aim for the same qualification level 8 of the European Qualifications Framework for lifelong learning (EQF). A PD L&P mainly differs from the PhD in its 1) research orientation: practice-based versus knowledge-oriented, in 2) the fact that the PD candidate is embedded in practice and in 3) its multi- or transdisciplinary approach to generating practice-oriented knowledge.

The PD programme aims to contribute to evidence-informed practice. Candidates are trained to become professionals who learn to intervene innovatively and co-creatively in complex learning and development practices based on a practical question from society or the professional field of learning and professional development. Contributions to the state of the art of an academic discipline is seen as a side effect; the focus is on what works in practice. For the L&P domain, the focus is on developing and validating new L&P practices applicable to the learning and professional development community, organisations, and society.

2.4 Programme level

Entry requirements

Candidates can be admitted to the UAS PD L&P programme when they have:

- 1) completed a relevant and acknowledged master's degree (at a University or a University of Applied Sciences);
- 2) have demonstrable and relevant work experience in the L&P domain for at least five years;

- 3) have access to a suitable work context in which the interventions and practice-based research can take place.

The relevance of the master's degree and the work experience partly depends on the issue that will be central to the PD journey. The Graduate Committee (GC, see Attachment)⁵ approves the start of the PD journey. More about this can be found in section 3.2.

Qualification descriptors

After completion of the UAS PD L&P programme, PD graduates meet the following qualification descriptors (based on a combination and synthesis of the Dublin Descriptors and the European Qualifications Framework for lifelong learning, level 8):

1. *Knowledge*: A systematic understanding of the international state of the art concerning education, learning and professional development and the implementation of organised learning and professional development practices in (specific) contexts.
2. *Problem solving*: Making use of state-of-the-art skills and techniques for solving critical problems and generating interventions in organised learning and development practices, including the capacity to analyse, evaluate and synthesise new and complex ideas on implementing innovative, organised learning and professional development practices.
3. *Research*: Conceiving, designing, implementing, and adapting a substantial process of practice-based research according to the international state of the art.
4. *Attitude*: Sustained commitment to and substantial autonomy, integrity and authority in the development and international acknowledgement of innovative, organised learning and professional development practices for the purpose of societal impact and individual, organisational, and economic growth.
5. *Communication*: Communicating locally, nationally, and worldwide with peers, the larger scholarly community and society about their areas of expertise, especially promoting meaningful and effective advancements in organised learning and professional development practices in schools, organisations, and society.

In sum, PD graduates demonstrate the highest level of understanding, analysing, creating, acting out and communicating, based on investigative, innovative, and co-creative capacities.

2.5 Programme characterisation

All PD journeys in the domain of Learning & Professional development are generally typified by six characteristics. PD L&P candidates: (1) work on high complex questions of (2) practical, social, and academic relevance, in (3) continuous dialogue with stakeholders and (4) collaborative approach with (peer) groups, that are (5) embedded in the field (L&P practices), in which they (6) perform high levels of professional conduct and behaviour.

1. Working on complexity

PD candidates work on complex questions, wicked problems, or challenges in organising learning and professional development practices. Ultimately, the interventions contribute to changes in terms of raised awareness, insights and/or behaviour, and/or ways of working in the

⁵ The Graduate Committee is the executive board of the Graduate Network.

context of for example schools, training programs, learning communities and workplaces. During their PD journey, the PD candidates:

- address issues of learning and professional development by developing knowledge and evidence-informed interventions (products and/or processes) to contribute to improvements or innovations in sustainable learning and development practices;
- use an approach that enables sustainable transition processes instead of superficial quick fixes for the short term;
- work in a transdisciplinary and boundary crossing way by (a) using, synthesising, and further developing different kinds of (domain-specific) knowledge, and by (b) working with stakeholders with different perspectives and backgrounds (such as learning and development professionals, management, students, clients, professional experts, scientists, PD advisors, collaborating organisations, government officials);
- work in cross-boundary practices, either within a single school or organisation; across a school or organisation and its environment; education and practice; or on the boundary of multiple organisations, organisational layers, arenas (e.g., policy, practice, research, etc.) or (professional) practices.

2. *Generating wider practical, societal, and academic relevance:*

- Whereas the challenge may stem from a specific context or may be developed for one or more specific contexts, PD candidates are expected to work towards a broader validity or applicability of their contribution than the case(s) at hand. PD candidates are not only working towards an isolated “stand-alone” solution, but at the same time contribute to a growing, sustainable, and transferable/generic knowledge base, to theory development, and to conceptualisation, with the purpose of offering resources for addressing similar or comparable issues and elicit the active mechanisms that play a role. This transferability is achieved by systematically, grounding, and jointly documenting and evaluating interventions/changes and their effects.
- PD journeys aim to contribute to challenges that society faces as addressed in national knowledge and innovation agendas (see Table 1), as well as to use insights to shape future national innovation. Within specific contexts, knowledge is developed which aims to contribute to solutions for challenges related to learning and development.
- PD journeys aim to lead to new insights and knowledge in the field of learning and professional development. During and after the journey, this knowledge is made available through various channels and shared with students, professionals, researchers, etc. The contribution to new ideas thus encompasses a broader validity than the case at hand.

3. *Continuous dialogue*

PD journeys are designed so that PD candidates are in constant dialogue with professional partners, UAS professors and researchers, and other stakeholders, as they map out and frame the problem or challenge at hand and define the nature of the intervention they want to help realise. PD candidates set realistic and achievable goals, for what could be realised within the time frame of the PD journey. Furthermore, PD candidates develop a realistic proposal, including a plan of action describing both (cycles of) activities and procedures to set up the intended intervention, and the development of possible products and/or processes. They do so to support the innovating process and to create knowledge that is based on careful evaluation and monitoring of both the progress and the outcomes of the intervention.

4. *Embedded in the field*

While working on the specific problem or challenge PD candidates discuss with- and present their work to other L&P professionals during conferences or regular meetings as part of the traditions of the field.

5. *Collaborative approach*

Questions, problems, or challenges are articulated in and with practice and focused on supporting the learning and professional development of people. PD journeys can be initiated by representatives from the field (e.g., a specific organisation, associations, or network) or by the PD candidate. While the intervention or the knowledge to be developed throughout the PD journey may be relevant for the whole domain, the specific issue to be tackled can be situated in just one or multiple organisations and workplaces.

6. *High level of professional conduct and behaviour*

The challenges for PD journeys are characterised by a high level of professional conduct and behaviour, which lies in:

- Working in an ethical and responsible way with the people involved (for example teachers, students, leaders, clients, subsidisers, and advisors).
- Work in an ethical and responsible way in shaping the intervention and the related practice-based research activities, managing complex processes of collaboration, carrying out professional tasks, planning and generating the intervention, and evaluating and reflecting on (intermediate) results.
- Being able to adapt and change the project goals and project activities to changing circumstances, in collaboration with the stakeholders involved.
- Managing four roles (i.e., researcher, innovator, advisor and professional) in relation to stakeholders and interests.

2.6 Learning outcomes

The UAS PD L&P programme aims to achieve five learning outcomes, each associated with specific quality characteristics.

Learning outcome 1: problem definition

The PD candidate *articulates and conceptualises* a complex issue or challenge in organising learning and professional development practices that *require an inter- or transdisciplinary* approach. The issue at hand is of societal relevance and aims to *contribute to improvements in sustainable organised learning and development practices*.

Quality characteristics of learning outcome 1 are:

- The PD candidate articulates and conceptualises the issue in close collaboration with a representation of stakeholders and clarifies the inter- or transdisciplinary aspects of the problem or challenge.
- The PD candidate engages professionals and relevant stakeholders in the articulation and conceptualisation of the organised learning and professional development practice leading to a research question that is demonstrably developed with and in (professionals working in) this practice.

Learning outcome 2: practice-based approach

The PD candidate intervenes in complex professional practices with the aim to improve or develop sustainable practices in the domain of organised learning and professional development. Through *practice-based research* the candidate *develops and validates* (in practice) *interventions in a well-substantiated way* thereby addressing the issue that has been articulated.

Quality characteristics of learning outcome 2 are:

- Interventions rely on state-of-the-art knowledge of recent theories, and on empirical data from practice-based research regarding the problem or challenge and the (change) processes in practice.
- The PD candidate engages both professionals and relevant stakeholders in the development and validation of evidence-informed interventions (in practice). These processes co-occur and constantly influence each other.
- Both the development and validation of interventions (in practice) are supported by empirical data collection and analyses using state-of-the-art scientific research techniques.
- The experiences during the process of development, validation and collected data lead to actionable knowledge and theoretical insights to improve sustainable learning and professional development.

Learning outcome 3: integrated roles

The PD candidate integrates his or her roles as (practice-based) *researcher, innovator, advisor and practitioner* in a context-sensitive manner. In doing so, the PD candidate adopts a *transdisciplinary* perspective and takes interests of relevant *stakeholders* into account. The PD candidate acts in an *ethically* sound manner in line with the Dutch Code of Conduct on Academic Integrity.

Quality characteristics of learning outcome 3 are:

- The PD candidate develops knowledge or insights in the areas of organised learning and professional development, generates evidence-informed interventions and can act on a strategic level in complex (change) processes;
- The PD candidate is able to work with and to relate to stakeholders with different perspectives and backgrounds (cross-boundary);
- PD candidate is aware of the possible ethical, legal, political, and social effects and implications of intended goals and interventions. The candidate addresses possible fields of tension (conflict of interest) in an ethically sound manner (i.e., in line with the Dutch Code of Conduct on Academic Integrity).

The nature and extent of the integration of the four roles is particularly dependent on the specific complex learning and professional development practice, context, and the specific phase of the PD process. For example, a specific role may be more prominent in one phase and more in the background in another, but in any context and in any intervention, it always concerns an integration of all roles.

Learning outcome 4: grounded interventions

The PD candidate *clarifies and reflects* on her approach throughout the PD journey to optimise the *generation, dissemination, adoption and valorisation* of knowledge and grounded-informed interventions in the domain of organised learning and professional development.

Quality characteristics of learning outcome 4 are:

- The PD candidate substantiates the extent to which results are meaningful, scientifically based, socially acceptable, sustainable, effective, and efficient.
- The PD candidate clarifies, justifies, and reflects on his/her adopted approach. Outcomes (such as success, failures, adverse effects, and setbacks) are used as sources to generate new knowledge for (future) interventions in learning and professional development.

Learning outcome 5: applied knowledge

The PD candidate's contribution *exceeds the context-specific case*. The intervention developed by the candidate is aimed to contribute to the *delivery of original, transferable knowledge* for professionals in the domain of organised learning and professional development practices. The candidate reflects and advises on possibilities for further implementation in complex practices and on the potential need for further research or development of the interventions.

Quality characteristics of learning outcome 5 are:

- The validity and limitations of the outcomes as well as the process, are discussed in relation to the context in which they have been developed.
- The PD candidate formulates perspectives regarding further sustainable implementation and future research, inspired by an enriched vision of learning and professional development in organisations and/or society based on the PD work.
- The PD candidate formulates implications for the professional preparation of professionals in organised learning and professional development (initial higher education and HR curricula).
- The practical and theoretical insights for improving learning and professional development have a broader validity or applicability than the specific context following from the issue or challenge. Insights are made available and communicated by the PD candidate to a wider audience during and after the PD journey.

3 Programme structure

3.1 Pedagogical philosophy

The design of the PD L&P journey is based on the following principles:

Learning is both an *individual and social process*. Individual in the sense that it contributes to the qualification, socialisation and personal development of the PD candidate and his/her possibilities to participate meaningfully in society, in professional working environments, and that it thrives on ownership, responsibility and agency of the candidate. The PD journey is social in the sense that interaction and co-construction of knowledge with others contributes to new insights, to a broadening of perspectives, to deeper understanding, to critical distance and to artefacts going beyond the existing ones. This implies that the PD journey is based on the premise that candidates take responsibility and ownership of both their own learning path as well as that of others in the process of (social) innovation.

- Learning is a *cumulative process* that builds on previously acquired knowledge and expertise, but that also questions and adjusts it, opening up new perspectives and insights. Therefore, the PD journey requires a tailor-made and personalised learning path that focuses on the zone of proximal development, taking into account the individual background of each candidate.
- Learning is a *linguistic process* in which the acquisition of new concepts will contribute to the development of a new language that opens new perspectives and offers new possibilities for action (in the given context as well as transcending the specific context).
- Learning is a *boundary-crossing process* as the assignments or projects candidates are working on during the PD journey are interdisciplinary and interprofessional which causes frictions and calls for developing mutual understanding. Boundaries between practices (disciplines, occupations) have learning potential and important mechanism of learning during boundary-crossing are identification, coordination, perspective making and taking and transformation.
- Learning is a *mental, emotional, and practical process* that requires connection between head, heart and hands. Learning is a process of "acting", trying out existing and new ideas in interaction with practice and others from which new insights, solutions, knowledge emerge.

3.2 Content of the programme, support and supervision

Based on the above principles, the PD journey is facilitated by a *learning environment* that includes the following elements:

- *Personal learning plan*: Starting point of the PD journey and the tailor-made support is a learning plan which is made at the beginning of the PD journey and, given the learning outcomes (section 2.6), includes a description of:
 - The expertise, characteristics and needs of the PD candidate;
 - The focus of intervention that is central during the PD journey;
 - The context of the workplace where the intervention will take place;
 - The needs for supervision and support; and
 - A schedule of relevant and just in time courses, conferences or other educational facilities to support the development of the candidate in relation to his/her

competence and needs. These supportive educational activities are an equivalent of at the minimum 30 EC and maximum 60 EC.

The necessary learning and support activities can only be determined to a limited specific extent in advance and will depend strongly on the complex challenge on which the candidate is working during the PD journey and his or her actual need for support. The learning plan must therefore be evaluated and adjusted regularly during the PD journey (at least once a year).

- *Supervision plan:* Each PD candidate is supported by a UAS professor (general supervisor) and a senior researcher⁶ (daily supervisor) who have specific expertise on the topic of the complex challenge and provide guidance throughout the entire PD journey. The supervising team is extended with two experts from the professional field and workplace of the PD candidate, both have an advisory role. Since a PD journey is organised around an intervention in complex practice, this research-practice partnership in the support team is crucial. The supervision plan (nature, structure, frequency) is tailor-made addressing the personal learning plan of the candidate.
- *Learning at the workplace:* During the PD journey the PD candidate aims to establish a grounded intervention to change learning and professional development practice in a specific context. This activity is the backbone of the PD journey and the specific context is his/her work practice. As such, the PD candidate learns on-the-job. The workplace facilitates the potential and effort of the intervention by shaping necessary conditions for success such as team learning, supportive policies and work conditions.
- *PD community:* Each PD candidate is member of a (national) PD cohort community in which collaborative learning is supported by peer learning and peer feedback (section 3.4).
- *Supportive educational activities (30-60 EC):* PD candidates differ in expertise and needs in relation to the desired learning goals, nature of the intervention they aim to accomplish and work context in which they are embedded. Therefore, a tailor-made, just in time programme of supportive educational activities aims to enhance the development of the PD candidate. The supportive educational activities might focus at the following aspects:
 - *Content:* knowledge of the L&P domain whether more fundamental referring to for instance educational or organisational sciences, psychology, human resource sciences, or actionable knowledge from the field.
 - *Roles:* in particular, the combination of roles for instance how to design research alongside an intervention process; how to manage or organise both roles; or how to be researcher, advisor or innovator and professional at the same time, how to be a dual role professional or knowledge broker?
 - *Skills:* research skills, advisory skills, intervention skills.
 - *Other:* ethical norms, rules, behaviour.

Universities, knowledge centres in the field and companies offer a wide range of courses and training facilities for all these developmental aspects. For instance, with

⁶ Both supervisors are qualified at EQF level 8; the second supervisors who acts as daily supervisor can be a UAS professor too but that is not strictly necessary. The graduate committee appoints the supervising committee and will check qualifications, see section 3.5.

respect to knowledge, universities offer modules from master courses at contract bases. As for research skills many universities offer courses. Also, with respect to role combination in the area of practice-based educational research educational facilities are available. The same counts for the ethical aspect.

The members of the Graduate Network (that is the PD partnership of the involved Universities of Applied Science, see section 3.5 and Attachment) know where to find suitable educational facilities and often have access to them and in cooperation with the L&P field also facilities of companies can be used (for instance training facilities with respect to the advisory role). Furthermore, some courses will be developed with graduate networks of the other PD domains. During the pilot the Graduate Network will monitor the existence, relevance and quality of the educational facilities used. If lacunes are identified new facilities will be designed. The learning community of the PD candidates and supervisors plays an important role in quality assessment and identifying lacunes. The experiences with the first cohort of candidates will be used to build an overview of possible educational possibilities and this overview will be dynamic and therefore updated during the pilot as all providers change their offer regularly.

The Graduate Network develops and facilitates the learning environment in which the PD journey takes place. Also, the workplace facilitates learning on the job. The Graduate Network (GN) L&P with the Graduate Committee (GC) function as the formal board (section 3.5):

- includes UAS professors from various UAS's.
- contributes to the overview and possible provision of educational facilities as explained above.
- takes responsibility for the quality of the PD journey.

Hence, there is a *collective responsibility* for the PD programme by the various universities of applied sciences involved.

3.3 Preparing a PD journey in three stages

Before the PD journey can officially start, the PD candidate needs to complete three stages, resulting in an approved start of the PD programme by the Graduate Committee. These stages aim to create sufficient conditions to start a PD journey successfully. The three stages concern: 1) a preliminary stage in which the candidate orients and support for a PD journey is created, 2) a planning stage in which a PD proposal is drawn up using the PD proposal template, and 3) a quality assessment stage in which the PD proposal is assessed by the GC using the PD assessment template and a grant is applied for. The duration of these stages can vary but will take about 6 to 12 months. The GC ensures that the *preliminary stage* and *planning stage* are of good quality for the PD candidate to pass the *quality assessment stage*. The supervising team is responsible for the guidance. The requirements for PD candidates to enter the pre-PD stage are the formal entry requirements which are described in section 2.4.

The schedule in Table 2 depicts the pre-PD stage as part of the entire PD journey specified in activities and responsibilities of the main actors. Step 2 in the pre-PD stage is crucial in the pilot as places are limited to 15-20. During the pilot phase in 2022-2030 two cohorts will start. The first 10 PD candidates will start their PD journey after a positive advice from the GC between November 2023 February 2024; the second cohort of 5 to 10 PD candidates will start between September and December 2025. Because of the limited number of PD places candidates who

are supported by their employer and have a supervisor, formulate a one pager explicating their ideas. These one pagers serve as an inventory for the Graduate Network to decide which ideas are relevant and fit the (variety of the) L&P field most.

Table 2.

Journey PD including pre-phase & registration procedure PD candidates & assessment moments

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
<p>Pre-PD phase: preliminary stage</p> <p><i>1. Orientation and matching</i></p> <p>January - February 2023</p>	<p>Orienting three-way-talks between potential PD candidate, employer and UAS professor</p> <p>Matching process potential candidate - UAS professor</p> <p>Interesting/relevant initiative formulated in an one pager per initiative</p>	<p>The PD candidate is interested to professionalise him/herself at PD level in of improving his/her practice in the domain learning and development.</p> <p>Participating in a pre-PD programme to orient (voluntary).</p> <p>Dialogue with employer about a long term issue, innovation in learning and development.</p> <p>Searching for a supervising UAS professor (lector).</p> <p>Writing an one pager explaining the initiative in the case of a match with employer and UAS professor.</p>	<p>Dialogue with employee about a long term issue, improving learning and development practices</p> <p>In the case of a match: supporting the potential candidate in writing an one pager.</p>	<p>Explicating interest in supervising PD candidates in the field of learning and development, within the frame of the goals of the PD programme, procedures for this domain?</p> <p>Having dialogues with potential interested PD candidates.</p> <p>In the case of a match: supporting the potential candidate in writing an one pager.</p>	<p>Policy of individual UAS: (if there is) selection process within UAS</p>		

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
<p>Pre-PD phase: preliminary stage</p> <p><i>2. Theme orientation and identifying process nationally of potential relevant proposals</i></p> <p>March 2023</p>	<p>Inventory of themes nationally.</p> <p>Identifying 12 initiatives to develop into a proposal.</p> <p>(there are 10 places; with 12 potential candidates we do not outnumber the number of granted places too much and we calculate the risk of possible dropout or delay).</p>			<p>Presenting the one pagers of his/her potential candidates as participant of the Graduate Network.</p>		<p>Based on the (approved by the VACO-PD) Programme Proposal and following the number of places per UAS as decided by the UAS boards, the Graduate Network calibrates a) which 12 initiatives cover the broad area of the domain best for type of practice and 2) which 12 initiatives cover the domain best regarding issues/themes and can be seen as a first step of agenda setting.</p> <p>To stimulate collaborative learning, suggestions for second supervising senior or UAS professors are formulated.</p>	

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
<p>Pre-PD Phase: planning stage</p> <p>3. <i>Developing proposals</i></p> <p>April - August 2023</p>	<p>Writing the proposal using the template.</p> <p>Organising commitment of the employer.</p> <p>Defining and organising the conditions for a potential successful PD journey in the triangle UAS, Employer, Candidate.</p> <p>A commitment / contract and global planning three-way-talks between potential candidate, employer and UAS professor.</p> <p>Handing in the proposal to the Graduate Committee per 1 September 2023, or per 1 December 2023.</p>	<p>Writing the proposal under supervision of the UAS professor and with support of the employer.</p> <p>Identifying conditions for a successful PD journey from the perspective of the candidate.</p> <p>Dialogue with employer and UAS professor about conditions.</p> <p>Incorporating specification and agreement on necessary conditions in the proposal.</p>	<p>Dialogue with potential candidate and supervising UAS professor about necessary conditions.</p> <p>Agreement on conditions and commitment (also defined in the proposal).</p> <p>Facilitating the potential candidate to write the proposal including specifying the necessary conditions.</p> <p>Defining the representative from work practice to join the supervising committee in an advisory role.</p>	<p>Supporting the potential candidate in writing the proposal.</p> <p>Dialogue with potential candidate and supervising UAS professor about necessary conditions, also to be specified in the proposal.</p> <p>Agreement upon which second supervising senior researcher or UAS professor joins the supervising committee (for instance in role of daily supervisor).</p> <p>Agreement upon the supervising committee with an advisor from work practice.</p>		<p>Peer feedback on proposals in progress.</p> <p>Peer support in defining necessary conditions for a successful PD journey for each of the 12 potential candidates.</p>	

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
<p>Pre-PD Phase: quality assessment stage</p> <p>4. Quality assessment and improvement if necessary</p> <p>September 2023 - February 2024</p>	<p>Quality assessment using the procedures and template by the Graduate Committee (September and December 2023).</p> <p>Working on improvement if necessary</p> <p>Quality assessment of improved proposals (December 2023- February 2024)</p>						<p>Assessing the proposals in at least two rounds</p> <p><i>Round 1:</i> September 2023: assessment proposals, formulating advice and defining necessary improvements is necessary. December 2023: assessment of improved proposals.</p> <p><i>Round 2:</i> December 2023: assessment proposals, formulating advice and defining necessary improvements is necessary February 24: assessment of improved proposals</p> <p>See Programme Proposal and General Quality Assurance Rules for procedures</p>

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
5. Grant application and organising start conditions October 2023 - February 2024	SIA-grant application with a positive advice of the GC. Getting ready for the start of the PD journey, meeting all the necessary conditions including contracts and facilities	Details necessary for SIA grant application (check proposal). Organising conditions with employer and supervisor and UAS.	Organising conditions for PD candidate to start.	Organising conditions for PD candidate to start with employer, candidate and UAS.	Applying for SIA-grants for selected candidates as proposed by the GC. Organising all necessary conditions for the PD candidate and PD journey.	Exchange and peer support & learning during this phase Start event with all candidates and supervisors	Formulating advice per approved proposal, checking with SIA and handing in per UAS of the first supervisor. (Following the procedures in the Programme Proposal, SIA frame and general Quality Assurance Framework).
6. First Year November 2023 - February 2025	First year of PD journey in which the intervention approach is outlined in more detail and necessary conditions are organised as part of the intervention process. Go/No-Go after the first year.	Candidate takes steps in intervention process; shapes his/her own learnings process related to the PD learning outcomes together with the supervisors. Shows progress in task performance, his/her learning, is able to self-direct learning and working.	Facilitates.	Guides during and assesses at the end of the first year.	Facilitates.		To be defined, following general procedure, adjusting criteria to the L&P domain.
7. Year 2 - 3 - 4						Work conference	

Steps / planning	Activity	Candidate	Employer	UAS professor	UAS	Graduate Network (all members of the consortium in '22/'23)	Graduate Committee (Established December '22)
						candidates and supervisors.	
8. Assessment and graduation	General procedure adjusted to the L&P domain.			Proposal members Assessment Committee to GC.		Joint ceremonies/ conference.	GC establishes assessment committees.

Preliminary stage (step 1 and 2: orientation and matching)

The aim of the preliminary stage is orientation, explicating first ideas of the practical issue and the relevant intervention, and matching. For this, potential candidates:

1. Attend a pre-PD programme;
2. Discuss the opportunities of a PD journey with their employer and reach agreement about:
 - its participation
 - commitment of the organisation
 - preliminary focus of the PD (problem in complex practice where he/she works/is employed).

In case that the potential candidate will focus on an intervention outside the organisation where he/she works/is employed, he/she searches for an organisation that acts as a 'problem owner' and reaches agreement about commitment and focus.

3. Establish contact with an UAS professor whose research focus matches with the focus of the PD.
4. Arrange a meeting between the UAS professor and the employer to discuss and agree on the focus of the PD and agree on practical arrangements.
5. Writes a one pager outlining the practical issue, context and possible intervention.

Planning stage (step 3: developing proposal)

In the next stage the potential candidate develops a proposal using the general PD proposal template, which consists of:

- A rough description of the urgency and relevance of the practical issue.
- An explanation/rationale for the complexity of the issue
- The starting points of the proposed intervention (a co-creation process involving different stakeholders within the organisation should be part of it and grounding or supportive research should be part of it)
- Involvement, commitment, and conditions in the organisation (time, duration, etc.)
- Qualities of the candidate
- Supervising quality and structure: supervisors (UAS professors) and workplace advisor, organisation and frequency
- Learning needs and proposed learning activities of the candidate during the entire PD journey
- The expectations of employer and UAS involved are clearly communicated, agreed upon and confirmed in a written statement that is integrated in the PD proposal.

The UAS professor(s) in the role of potential supervisor(s) guides the development of the proposal, assesses the likelihood of success and gives a Go/No-Go to submit the proposal to the Graduate Committee (GC). The proposal, approved by the UAS professor and employer, will be submitted to the GC.

Quality assessment stage (step 4: assessment and selection)

The proposal of the (potential) candidate is assessed by the GC on the following criteria (following the general guidelines):

- The practical issue and first ideas for an intervention are relevant to the professional L&P field and the knowledge domain.

- The practical issue and outline for intervention have a high degree of complexity.
- The outline for intervention is methodologically grounded with respect to intervention theory and practice in the L&P field.
- The outline for intervention is evidence-informed by an supportive line of research and the aims and outline of this research is explained.
- The outline for intervention is ethically grounded and ethical issues are identified.
- Conditions at the workplace are sufficient.
- The task and proposed learning activities address the learning needs of the candidate and the learning outcomes of the PD journey (section 2.6).
- Supervising team and structure address the needs of the candidate and the learning outcomes of the PD journey (section 2.6).
- Qualifications of the candidate meet the entry requirements (section 2.4).

The advice of the GC differentiates between go, repair and no go and is motivated per criterium. When there is a go the UAS hands in a grant application at SIA. SIA does a marginal assessment, checking whether the GS took all the necessary steps.

To show the entire PD journey including the pre phase and the actual journey in Table 2, the PD journey that starts after a positive advice of the GS and SIA is depicted in three stages: a first year with a Go/No-Go after the first year assessing progress with the intervention (task) and development (learning); year 2-4; final assessment. Particularly the assessment after the first year is relevant in relation to the proposal assessment. Compared to a PhD research plan, the PD plan will be less detailed. An intervention in complex practice cannot be designed in detail at beforehand. Therefore the performance of the PD candidate in the first year of the PD journey is important to trust the PD candidate is able to meet the learning outcomes and therefore the intervention has the potential to be a rich enough learning environment for the candidate to meet the learning outcomes (Chapter 4).

The GC will evaluate their assessments after each session and calibrate as a GC but also with the GN to improve their assessment practice.

3.4 Support principles and structure

Support of PD candidates has a *facilitating* and *dialogical* character. *Facilitating* means supporting PD candidates to learn to find their way in both the scientific world and the professional domain as well as the sites in which the project takes place. Support is not just about helping candidates in becoming more skilled, it is also about growing into a professional community. *Dialogical* means systematically questioning and discussing the way in which the practice-oriented research is shaped and carried out. The support thus enables growth, bringing PD candidates further than they might manage on their own and is consistent with the pedagogical philosophy we explained in section 3.1. The support is embedded in the elements of the learning (and working) environment we outlined in section 3.2.

In this section we focus explicitly on the supervising team and the learning community of peers as we consider them to be the permanent and at the same time adaptive actors in the support structure of the PD candidate. Both the supervising team and the learning community are designed to be the potential significant others for the PD candidates during their PD journey (next to all significant others they meet and work with during their assignment and during participating in other educational facilities).

Supervising team

The supervising team consists of one UAS professor being the leading supervisor, a second UAS professor or a second senior UAS researcher with a PD or PhD qualification who is the daily supervisor and two experts from practice who have an advisory role. The supervising team formulates the guidance activities, roles and tasks and the guidance structure together with the PD candidate. This is part of the PD proposal. The guidance of the supervising team meets the personal learning plan of the candidate. Although supervising activities and structure is outlined before the actual start of the PD journey a key characteristic of the guidance of the supervising team is that it is tailor made and therefore dynamic, addressing the actual learning needs of the PD candidate in reference to the learning goals to be achieved.

The main task of the supervisors is to monitor and systematically discuss the quality of the work of the candidate with regards to the grounded innovation and to support the candidate to develop the intended learning outcomes as defined in section 2.6. The support of the supervising team takes approximately 30-40 (fulltime) days per year for the entire team. The support already starts in the pre-PD phase (section 3.2). The supervising team is formalised immediately after approval of the PD proposal by the Graduate Committee. The supervisory team will meet with the PD candidate at least once a month, discussing progress of the PD; the daily supervisor is available for ad hoc questions and support at a weekly basis. Meetings are prepared by the PD candidate who provides documents and drafts of studies and progress reports (where applicable) as basis for the discussion.

During the PD journey, the supervisors are responsible for the assessment of the PD candidate (Chapter 4).

Criteria for selection of the UAS members of the supervising team (Kwaliteitszorgkader⁷, p. 17):

- *The content of the complex practical issue: supervisors* have substantive expertise regarding the complex practical issue the PD candidate is working on.
- *Qualification:* both supervisors have a degree at EQF 8 (PhD, PD); the first supervisor is a professor with ample experience in guiding (junior) researchers and PhD/PD candidates; the second supervisor also has a track record in guiding (junior) researchers.
- (nice to have, not obliged) *Regional spread:* the two supervisors are affiliated to two different UAS that are members of the Graduate Network.

Criteria for selecting professional expert(s) as members of the supervising team (Kwaliteitszorgkader⁷, p. 17):

- The two professional experts are experts in the field and can act as critical friends;
- They have at least a master's degree (level EQF 7), or a comparable work and thinking level.

PD cohort community

Each cohort starts with the formation of a community of PD candidates. The cohort is meant to be a professional learning community in which candidates and supervisors work and learn

⁷ As agreed upon 2 December 2022, by the national Board UAS.

together and support each other. The learning community creates a context for collaborative learning, guided collegial intervision, peer feedback and methodological and design support. Additionally, the PD learning community creates new (multidisciplinary) views and insights.

The cohort community has the following characteristics:

- Each PD candidate is part of a cohort community existing of 10 PD candidates with (more or less) the same starting moment (a 'cohort') and their supervisors.
- The cohort community meets regularly, 6 days a year.
- The cohort community reflects upon the effectiveness and the quality of the supportive educational facilities (section 3.2), identifies blind spots and contributes to the overview and provision of suitable and high-quality supportive educational facilities;
- The aim of the cohort community is to enact collaborative learning by:
 - creating a community that cares, sharpens, and inspires each other and feels collective responsibility towards each other's development,
 - deepening and broadening perspectives by guest speakers and discussing literature,
 - challenge routines by unexpected, not obvious perspectives for example through exchange across domains and sectors, with the aim of preventing tunnel vision.
- The cohort community meetings include:
 - Focus on collective challenges of the members related to their research-innovation practice, e.g., regarding common themes like change management, sustainable change, relevant research designs and methodology;
 - Invited (national and international) guest speakers from various scientific, social, and philosophical domains who strengthen the transdisciplinary perspective;
 - Intensive peer feedback on each other's project;
 - Where possible linked to an (inter)national conference and/or working visit.
- In addition to the cohort meetings other cohort community activities may include:
 - Working visits / audits within each other's organisation,
 - Joint project on a broad and tough social issue (for example similar of the work of the Dutch National ThinkTank (Nationale Denktank)),
- The cohort community (both PD candidates and supervisors) is owner of the community meetings while the PD candidates in the community take the lead, both substantively and organisationally.

The PD cohort community is facilitated by the UAS organisations involved (space, facilitating guest speakers, etc.). The learning community is in the end self-organised by the PD candidates involved and prepared by the PD community on a rotating basis and as such guidance will fade during the four years. During the pilot phase there will be additional support to learning how to scaffold the learning community to be self-organised in the end.

3.5 Programme team: structure, quality and professional development

Graduate Network and Committee

The involved UAS's form a Graduate Network (GN), consisting of the participating UAS professors in the domain of learning and professional development. A Graduate Committee (GC) is appointed from this Network and two representatives of the work field. This GN is responsible for the design and development of the programme, for the quality assessment of the candidates' proposals and the quality of the programme and assessment and the evaluation of the PD programme. The precise tasks, responsibilities and procedures are

formulated in the overall Quality Assurance Framework (Dutch: Kwaliteitszorgkader) (agreed upon 2 December 2022, national Board UAS).

The GN decided to establish a GC consisting of nine members during the first two years of the pilot and to use a replacement scheme that results in a combination of experienced and new members of the GC. In December 2022 the nine members that are appointed are: one representative of each of the seven UAS of the GN, one representative of the education field (board member of an association of schools) and one representative of the HR-field.

Teachers/supervisors

As explained in section 3.2 the learning environment of the PD candidate during the PD journey consists of several elements and therefore a variety of persons act as 'significant others' to learn from and with, e.g., peers and colleagues at the workplace and in the professional field, teachers of the supportive educational facilities, peers and colleagues of the UAS research community and networks, and the supervisors and the peers in the PD learnings community. As explained in section 3.4 the supervising team and the PD learning community are the crucial actors embedded in the PD programme.

Learning community of supervisors

At least in the pilot phase of the PD programme a learning community of supervisors will be established to calibrate their role, guidance, assessment and to develop consensus about quality issues. The learning community focuses on the professional development of the PD supervisors as part of the development of the programme. As the PD programme has not yet been practiced we have to learn during enactment which guidance works, what qualities of supervisors are crucial, how to supervise tailor made, how to balance between guidance and assessment and so on.

The learning community of supervisors is the driving force in the professional development of the supervisors and the quality of guidance. Participants are UAS supervisors and workplace/field experts who have an advisory role in the supervising committee. The learning community will meet at a regular basis, at least four times a year for the UAS supervisors and once a year for the professional experts and once a year for all supervisors. The GN facilitates the learning community and is responsible for organisation.

3.6 Embedding: UAS Professorships and international networks

The PD candidates are embedded in the research group of (at least one of) the accompanying UAS professors. This means the PD research is always embedded within an existing research programme of one or more universities of applied sciences. The GN is also embedded in relevant national networks of UAS's: Network Vocational Education (Kennisnetwerk Beroepsonderwijs), SIA-platform Arbeid; Sprong network Lifelong Learning and Human Capital.

Where applicable, and of added value for the PD journey, connections can be made with other (inter)national peers and networks of the research groups involved (such as VOR, EARLI, EERA, ISATT, EAPRIL, EAWOP) or with 'doctoral networks' (such as NAFOL, EdiTE, Dutch HRM Network, ICO). This is discussed and decided between the candidate and supervisors.

3.7 Duration and study load

The PD programme is designed in such a way that a PD journey can be completed in four years four days a week (nominal) or a minimum of three days a week in five or six years. This includes working and intervening on the practical issue at the workplace, meetings with the supervising team, participation in the PD cohort community, additional courses on specific research or intervention skills. The extent and study load of courses can vary, based on the candidate's professional knowledge and skills and the design of the research plan. Agreements of courses are part of the PD proposal and will be updated and adjusted during the programme.

3.8 Procedures

Important procedures are:

- Procedures relating to selection and matching (section 3.3);
- Procedures relating to the support structure (section 3.2 and 3.4);
- Assessment procedures (Chapter 4);
- Appeal procedure in relation to decisions of Graduate Committee (GC) and assessment committees: following the general guidelines as agreed upon for the PD pilot: The VACO-PD for GC decisions, the GC for decisions of the assessment committees per PD journey and or appeal committees of the UAS involved.⁸

⁸ The appeal procedure in relation to decisions of the GC will be formulated at national level (for all domains) and decided upon in the beginning of 2023 (before the first meeting of the GC).

4 Assessment

4.1 Assessment philosophy

The assessment programme of the UAS PD L&P is based on the principles of programmatic assessment and in particular the model as developed by Van der Vleuten et al. (2012). In this assessment programme, high- and low-stake assessments are balanced, based on the various functions of assessment (decision-making, evaluating, learning). Also, a strong appeal is made on the self-direction and responsibility of the candidate (learner's agency and accountability). To achieve this, the model distinguishes between formative assessment moments (hereafter referred to as data points) and high-stake decision moments.

- Data points give specific information about the development of the PD candidate in relation to the learning outcomes (section 2.6). The set of data is composed of a mix of methods, for example, the assessment of professional products, knowledge products, reflections, and self-assessments. Depending on the data type, they are provided with feedback from multiple stakeholders such as supervisors, peers, students, experts from working practice, policymakers or clients. The data points primarily fulfil a formative function. The feedback from multiple stakeholders makes the social relevance of the research and innovations visible.
- The high-stake decisions are based on a cluster of interrelated data points that determine the extent to which one or more learning outcomes (section 2.6) have been achieved at the required level. High-stake decisions are taken by an assessment committee (established by the Graduation Committee, section 3.5) and have a summative character which means they have consequences for the progress of the PD candidate and qualification.

The PD candidate collects the data on development, outcome, and received feedback in a digital portfolio.⁹ In this way, the final assessment is built over a more extended period and the PD candidate has an important role in collecting, organising and interpretation of the data to proof the learning outcomes are met.

4.2 Assessment programme

The assessment programme covers all activities the PD candidate carried out as part of the PD journey including supporting educational activities (section 3.2) and reflection and feedback activities during participation in the learning community (section 3.4). The information on all learning achievements is provided with feedback and collected in a digital portfolio. The assessment programme consists of a development-oriented portfolio and two high-stakes assessment moments in which decisions are made about the progress of the PD candidate and, ultimately, the granting of the Professional Doctorate degree. In this way, the PD candidate's 'proof of competence' is built up over a longer period of time on the basis of several decision moments during and at the conclusion of the PD journey.

The candidate is responsible for including data points in the portfolio based on the chosen practice issue, the planning, and the learning and development process, which serve as

⁹ The digital architecture is developed at national level and will be ready in the beginning of 2023.

evidence for the mastery of the learning outcomes at EQF level 8. Saturation is considered the guiding principle for the assessment of these data points.

The PD candidate and his/her supervisors check the extent to which the evidence provided contains sufficient information to demonstrate the required level of learning outcomes. At high-stakes assessment moments, assessors will use the evidence collected to determine the extent of saturation of evidence of learning outcomes at EQF level 8.

The PD candidates are expected to have or to have developed during the first year of the PD journey (personal learning plan, section 3.2) a well-developed ability of self-assessment, which enables them to make a correct assessment of their development and performance, as well as the ability of self-regulation of learning, which enables them to adapt their activities to feedback and assessments.

4.3 Assessment tools

Assessment plan

At the start of the PD journey the candidate formulates a personal support and development plan (section 3.2) including a plan for assessment moments. This assessment plan comprises the number and type of data points that will be included in the digital portfolio, when, how and by whom feedback will be collected and the timing of the high-stake assessment moments. The assessment plan can be adjusted any time in agreement between candidate and supervising team.

Assessment format

Rubrics can be used to evaluate the achieved results in relation to the desired learning outcomes. Rubrics are derived from the learning outcomes (section 2.6) in which a description is given of for example four levels per learning outcome: beginning, developing, accomplished and exemplary. Rubrics contribute to improvement of inter-reliability agreement and therefore are important for formative and summative assessment in case of more assessors. The Graduate Network will define and evaluate the rubrics by calibration sessions on standards of performance during the pilot, before a cohort of PD candidates journeys starts standards are set and adjusted based on evaluation.

Portfolio

The assessment programme is aimed at the development of the PD candidate. Evidence is collected by the PD candidate which is used to make decisions on the progress of the PD journey and the granting of the Professional Doctorate title. A number of decision moments (at predetermined moments) take place, on the basis of which, together with the PD candidate, a reflection is made on the progress on the one hand and decisions are taken on the other hand. As a result, the portfolio has various functions related to learning, evaluating and decision-making. The (decision) moments are linked as much as possible to natural phases in the change process that is central to PD and are determined jointly. It demonstrates the fulfilment of the predetermined, transparent and shared learning outcomes (as explicated in the rubrics).

For the portfolio as a whole, the following quality criteria apply:

- there is sufficient variation of evidence (triangulation);
- these are relevant to the learning outcomes concerned;

- they are authentic and reliable;
- the realisation is sufficiently recent and up-to-date; and they are well-founded.

The candidate is given the opportunity, based on the chosen practical issue, the planning, the learning and development process, to include evidence in the portfolio that serves as proof of mastery of the learning outcomes at EQF level 8. Saturation (determined by or reflected by the candidate in consensus with supervising committee) is the guiding principle for the assessment of these data points. The final determination of the evidence to be submitted in the portfolio depends on the individual and is determined in dialogue with the PD candidate.

The portfolio is regularly submitted to the supervising team for formative feedback. Here, the timeline of the personal guidance and development plan is adhered to. Feedback from multiple stakeholders thereby enhances the intended learning effect as well as the validity of the evidence. Important points of attention in the discussion of the portfolio are the variety of data points (multiplicity of evidence), the candidate's learning and development process and the coverage of the learning outcomes at EQF level 8.

The *data points* in the portfolio are composed of the following elements:

1. Evidence
2. Process
3. Relationship to learning outcomes

Re 1: Evidence refers to various products realised by the candidate that count as evidence for the acquisition of the learning outcomes. Examples include research plans, written analyses, innovation designs, development activities, essays and research publications in peer-reviewed professional journals and/or scientific journals, reports, exhibitions, algorithms.

Re 2: The evidence is complemented by a description of and reflection on the process that led to the realisation of the product. Characteristic of the PD candidate's work is working with multiple short-cycle iterations. Each phase may give rise to a step forward and/or a step back. For example, research may lead to designing a solution (one step forward) and/or revisiting the articulation of the question (one step back). Testing may give rise to redesign or re-examination (one or two steps back), but also offer the prospect of the possibility of scaling up (one step forward), which may give rise to articulation at a more comprehensive level (several steps back, but at a higher level), etc. The evaluation of each step is the basis for determining how to proceed next (forward and/or backward) in the iterations.

Re3: The PD candidate provides substantiation of the relationship between the learning and development processes, the products, and the relevant learning outcomes at EQF level 8.

High-stake decision moments

The assessment programme includes two high-stake decision moments, including one interim decision that takes place after the first year in the PD journey and a final decision on the award of the Professional Doctorate title at the finalisation of the PD journey.

The interim high-stakes decision moment relates to the candidate's progress and admission to the next stage of the journey as well as the awarding of credits. This interim decision has both:

- a) a remedial character, i.e. if the assessment of the evidence from the portfolio leads to an unsatisfactory result, the candidate is given a compensatory assignment with which the set requirements can still be met.
- b) and a Go/No-Go character, which means that if the assessment committee concludes that the assessment performance in the portfolio has not improved and after consultation with the first supervisor there is no prospect of successful completion, it can decide to end the PD journey. If progress is satisfactory the PD journey can continue (Go).

The second high-stake decision at the completion of the PD -journey leads to the award of the Professional Doctorate title.

The high-stakes decisions are made by an assessment committee (appointed by the GC). They have an integrative character, i.e. they are based on interrelated learning outcomes on the one hand and on a set of related data points on the other. Decisions are substantiated by the committee in a careful and transparent manner.

High-stake decision moment 1

A first summative assessment takes place 12 months after the start of the PD journey. The first year will focus on the articulation of the practice issue and related intervention plan. Assessment takes place on the basis of the presented set of data points from the portfolio and the results of a subsequent criterion-based interview. This interview is conducted by the assessment committee. The assessment is based on saturation of information and leads to a decision to proceed to the next stage of the PD -journey or compensatory assignment. If the latter is the case the assessment will be repeated after half a year in order to establish a Go/No-Go. A report of the assignment and assessment is made by the PD candidate and included as an integral part of the final portfolio.

The portfolio should consist of:

- data points from practice;
- results of the supportive educational activities;
- reflection on own learning, development and work process;
- feedback and recommendations from the supervising team;
- proposal for the continuation of the construction of the portfolio.

High-stake decision moment 2

The PD journey is successfully completed when the PD candidate has met all learning outcomes and can function independently as a researcher, innovator and professional in the L&P domain at EQF 8 level. To demonstrate this, the candidate provides the following assessment achievements.

1. Portfolio.

The portfolio contains:

- reports of successful assessment of Portfolio Intermediate Assessment 1;
- the complete set of data points demonstrating mastery of learning outcomes at EQF level 8 (section 2.6);

- an integral description of the outcome of the PD pathway in which the learning outcomes are explained in their context as well as the roles (section 2.6);
- a critical analysis and reflection on the entire PD (development) process;
- a demonstration of the relevance of delivered outputs and a substantiated advice to the field of work concerned.

2. Plea and mini-conference

The PD candidate delivers a written plea which, on the one hand, demonstrates how the portfolio covers the different roles and learning outcomes at EQF level 8 (section 2.6) and, on the other hand, outlines the candidate's own vision on the possibilities of further development of and scaling up in professional practice.

Part of the PD ceremony for granting the Professional Doctorate degree is a mini-conference to which representatives of science, profession, professional practice and society are invited and where a debate is initiated by the PD candidate based on the plea with additional questions and propositions.

3. Advice supervising team

The PD candidate provides an advice from the supervising committee indicating the grounds on which the PD candidate has or has not obtained the professional doctorate.

Assessment committee

The high-stakes decision moments are carried out by an assessment committee composed for each PD journey by the GC. In the pilot phase, the members of this assessment committee consist of:

- A member of the Professional Doctorates Validation Committee (VaCo-PD), as chair.
- One member from the GN, a UAS professor.
- Three members nominated by the supervising team who reflect the composition of the supervising team: i.e. at least one UAS professor and least one professional expert.

Participants in the interim progress decisions are two members of the assessment committee. The full committee participates in the final assessment. The members of the assessment committee and supervisory committee are familiar with the principles of programmatic assessment. They are supported where necessary and desirable by on-the-job training.

4.4 Quality assurance

The quality criteria, validity, reliability and transparency, apply to the assessment programme as a whole. Validity refers to the set of interrelated aspects of the assessment of PD candidates such as the description of learning outcomes, the elaboration in rubrics, the portfolio and assessments by the assessment committee. Reliability includes inter-assessor reliability, as well as the assessment of the totality of data points at multiple points in different contexts involving different assessment methods and multiple assessors. Transparency is achieved by providing good information before and during the assessment content, criteria and assessment procedure.

Quality assurance of the assessment of the PD journey takes place in several ways. A distinction can be made between quality of assessors, assessment procedure and assessment instruments.

Assessors

The assessors from the universities of applied sciences have a senior qualification examination (SKE) certificate or equivalent qualification/experience. Professional experts involved in assessment are offered a training programme in testing and assessment. If desirable, an additional training course on portfolio assessment and formative feedback will be developed. The inter-assessor reliability of assessors will be enhanced by annual calibration sessions focusing on the assessment of sets of data points and determination of the caesura.

Assessment procedure

The assessment committee ensures the transparency and feasibility of the assessment procedure. A key focus here is the involvement of the PD candidate, and room for self, peer and co-assessment in the development of the portfolio.

There is a separation between guidance and assessment. The assessment of the PD candidate's portfolio is done by an assessment committee determined per PD journey by the Graduate Network, on the advice of the Graduate Committee. Supervisors have an advisory role towards the assessment committee. The supervising UAS professor together with the professional expert have the right to make a final assessment whether the final result of the PD journey is of sufficient quality and scope to nominate the candidate for the assessment committee.

Assessment instruments

Before the start of the PD journey, a usable digital portfolio is available in which data points can be included as well as feedback from stakeholders. The digital portfolio is accessible to the PD candidate and supervisors and meets GDPR (Dutch: AVG) requirements.

The assessment standard is developed on the basis of norm finding by experts. This involves the use of rubrics that include the caesura.

5 Pilot character

The outlined programme in the previous chapters is the framework for developing an ambitious and inspiring new pathway to a newly introduced professional doctorate in the field of Learning and Professional development. In an eight year lasting pilot this framework serves as a guide to develop new practice and will be improved and validated. Thus the framework is an intended curriculum and will be developed further by enactment in practice (the curriculum in action) and reflection upon after realisation (the achieved curriculum). The dynamics of the pilot during the stages of curriculum development will result in a more robust and validated programme PD L&P.

Throughout the chapters statements and explanations are made about the learning and development process during the pilot. In this concluding section we will summarise these and formulate some ambitions for the learning process during the pilot.

Further development and learning during the enactment of the PD programme during the pilot focuses on:

- Agenda-setting: defining the issues and themes for PD journeys through a bottom up process and calibration sessions of the GN and relevant networks and stakeholders (section 2.2 and section 3.6)
- Clearing house: developing storage, open access, transparency, availability of developed knowledge and products of the PD journeys by the GN (section 2.2)
- Supportive educational facilities: developing, transparency, quality and structuring during the pilot by the GN (section 3.2)
- Quality assessment proposals GC: procedure and criteria, calibration and monitoring in collaboration with the GN (section 3.3)
- Professionalising supervisors: leaning community on guidance (section 3.5)
- High-stake assessment: developing and evaluating rubrics for high-stake assessment by the GN (section 4.3)
- Assessment committees PD journey high-stake decisions: training and calibration sessions (section 4.4)

The monitor and evaluation process during the pilot will focus on further improvement of the PD programme and will be a collaborative process:

- At the meso-level: the Graduate Network and Graduate Committee together with colleagues from the relevant professional (UAS) masters and supporting groups like the research groups and platforms within the field and the professional bodies;
- Micro-level: the PD candidates, supervisors and employers.

During the pilot a circle of interested UAS not involved in the Graduate Network will be established to reflect upon the development of the PD L&P programme and prepare for scaling up the number of UAS's that are involved.

After eight pilot years is the ambition of the Graduate Network to have developed an ambitious PD L&P programme and a robust infrastructure in order to scale up and gain wider and formal recognition of this PD programme in the professional field and in the higher education system.

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Attachment

Members of Graduate Network and Graduate Committee

Members of the Graduate Network

- prof. dr. Elly de Bruijn, chair (HU University of Applied Sciences Utrecht)
- dr. Hella Sylva, secretary (HU University of Applied Sciences Utrecht)
- dr. Mieke Koeslag-Kreunen (HU University of Applied Sciences Utrecht)
- dr. Josje Dijkers ((HU University of Applied Sciences Utrecht)
- dr. Irene Visscher-Voerman (Saxion University of Applied Sciences)
- dr. Stephan Corporaal (Saxion University of Applied Sciences)
- dr. Jos Sanders (HAN University of Applied Sciences)
- dr. Helma Oolbekkink-Marchand (HAN University of Applied Sciences)
- dr. Anje Ros (Fontys University of Applied Sciences)
- dr. Kelly Beekman (Fontys University of Applied Sciences)
- dr. Marian Thunnissen (Fontys University of Applied Sciences)
- dr. Marco Snoek (Amsterdam University of Applied Sciences)
- dr. Daniel van Middelkoop (Amsterdam University of Applied Sciences)
- prof. dr. Frank de Jong (Aeres)
- dr. Karin Derksen (Aeres)
- dr. Arienne van Staveren (Marnix Academie)

Members of the Graduate Committee

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- dr. Anje Ros (Fontys University of Applied Sciences)
- dr. Karin Derksen (Aeres)
- dr. Yvonne Kops, representative work field (board of Directors, Ons Middelbaar Onderwijs)
- vacant, representative work field