

Centre for Learning Sciences and Technologies
Open University of the Netherlands



CELSTEC PhD Guide

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Open University of the Netherlands
Centre for Learning Sciences and Technologies (CELSTEC)
Secretariat

P.O. Box 2960

6401 DL Heerlen

The Netherlands

 +31 45 5762915

 +31 45 5762800

@ <http://celstec.org>



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Contents

1. Introduction	1
2. For whom this PhD Guide?	2
3. The Organisation	3
3.1 The Open University of the Netherlands.....	3
3.2 The Centre for Learning Sciences and Technologies	4
3.2.1 <i>The Learning and Cognition programme</i>	6
3.2.2 <i>The Learning Networks programme</i>	6
3.2.3 <i>The Learning Media Programme</i>	7
3.3 Netherlands Laboratory for Lifelong Learning (NeLLL)	8
4. PhD projects within CELSTEC	9
4.1 PhD Project Proposal Procedure	9
5. Stakeholders	11
5.1 Research Schools	11
5.2 OU Graduate School.....	11
5.3 People.....	12
6. Getting your PhD: More than writing a thesis	14
6.1 Not all programmes are the same!	15
6.1.1 <i>The Learning and Cognition programme</i>	15
6.1.2 <i>The Learning Networks Programme</i>	15
6.1.3 <i>The Learning Media Programme</i>	16
6.2 Progress: First-year evaluation and subsequent yearly evaluations.....	17
6.3 Courses and training (education)	17
6.4 The fifth day: Participation in other CELSTEC projects.....	18
6.5 Formal meetings	18
7. External PhD candidates	20
8. The final phase and the Big Day	22
9. Tips and tricks from former CELSTEC PhD candidates	23
10. Useful information sources and addresses	24

1. Introduction

Working on a PhD, and thus being a PhD candidate, is very different from being a student or most other jobs at the university. The PhD-candidacy is a comprehensive four-year exercise on one single topic in collaboration and co-operation with different people and groups. The candidate is not a full-fledged staff member or researcher in that s/he still has a lot to learn, but this same candidate is also not a student who “undergoes” courses and examinations. Although s/he has to follow several courses, there are no formal examinations for these courses; only a great big examination at the end of the PhD trajectory when the thesis is presented for approval to a committee and followed by a public defence. A PhD candidate is expected to show a good amount of independence, and s/he has to demonstrate that s/he is able to devise and perform research activities in an appropriate way.

Since a PhD candidate holds a special position at the University, the *Centre for Learning Sciences and Technologies* ([CELSTEC](#)) of the Open University of the Netherlands ([OU](#)) has produced this PhD guide for present and future PhD candidates. It is written for those who recently started working as a PhD candidate at CELSTEC and for those who want to apply for a PhD candidate position at CELSTEC. Furthermore this guide may also be useful for external PhD candidates seeking to get their PhD from CELSTEC. These candidates are not CELSTEC employees but are supervised by a CELSTEC staff member (*promotor*). As the guide provides a comprehensive overview of rules, regulations, policies and pieces of well-intended advice for PhD candidates, their (daily) supervisors may also find it useful as a reference work

This PhD guide also offers information about CELSTEC and the OU, but it mainly focuses on the issues that PhD candidates encounter during their research trajectory.

Lots of luck!!

2. For whom this PhD Guide?

This PhD guide is intended for individuals who seek to apply for a PhD candidate position at the *Centre for Learning Sciences and Technologies* (CELSTEC) or have recently started as a PhD candidate. Note that while it focuses on regular, Open University of the Netherlands employed PhD candidates it is also useful for external PhD candidates seeking to get their PhD from CELSTEC. These candidates are not CELSTEC employees but are supervised by a CELSTEC staff member (*promotor*). As the guide provides a comprehensive overview of rules, regulations, policies and pieces of well-intended advice for PhD candidates, their (daily) supervisors may also find it useful as a reference work.

Most of those applying for or beginning on their PhD thesis work are 'only' used to 'being a student'. Working on a PhD, and thus being a PhD candidate is very different from this. The PhD-candidacy is a comprehensive four-year exercise on a single topic in collaboration and co-operation with different people and groups. The candidate is not a full-fledged staff member or researcher in that s/he still has a lot to learn. But this same candidate is also not a student. There are very few 'real' courses to be followed, there are no examinations, PhD candidates are expected to show a good amount of independence, and have to demonstrate to be able to devise and perform research activities in an appropriate way.

Since a PhD candidate holds a special position at the University, the *Centre for Learning Sciences and Technologies* ([CELSTEC](#)) of the Open University of the Netherlands ([OU](#)) has produced this guide for future and present PhD candidates. It offers information about CELSTEC and the OU, but its main focus is on the issues PhD candidates will encounter during their research trajectory.

PhD candidates at CELSTEC generally have a four-year, full-time appointment, in which they primarily do the research necessary for completing their doctoral thesis. An often employed alternative variant is a five-year, 80% appointment. The word "primarily" means that maximally 20% of the work time (0.2 fte¹ for the four-year variant, 0.16 fte for those in the five-year variant) is spent on other CELSTEC activities and usually as junior instructor within the Master of Learning Sciences programme at CELSTEC.

This thesis is written in English and consists of a number of published or submitted journal articles (usually three or four) along with a theoretical framework as begin and a synthesis across the research as a conclusion/discussion. The usual format is:

- an introduction (i.e., why this research and a description of the structure of the thesis)
- a theoretical framework (often a published journal article)
- between two and three further studies (published, accepted or submitted journal articles)
- a concluding chapter (synthesis and evaluation of the work done), and
- a summary in both English and Dutch.

This set-up implies that the process of writing the dissertation starts very early in the PhD period. In principle, each year of your four year stint as PhD candidate you should publish one journal article. If your PhD project has an experimental nature, the articles that form the core of the dissertation describe the results of the experiments carried out. If it has a development character, these chapters describe the software developed, and the pilots, tests or simulations carried out with it; some of these tests resemble experiments.

However, there is more to being a PhD candidate at CELSTEC than writing a dissertation. Getting your PhD also involves taking courses, participating in other CELSTEC projects, and – last but not least – participating in a research community, not only at CELSTEC, but also on a national and international level in the form of workgroups, conferences, et cetera.

¹ Full time equivalent

3. The Organisation

3.1 The Open University of the Netherlands

The Open University of the Netherlands (OU) offers open, higher, distance education at both a Bachelor and Master degree level. It is divided into five departments - the Centre for Learning Sciences and Technologies (CELSTEC), Ruud de Moor Centre (RdMC), Netherlands Laboratory for Lifelong Learning (NeLLL), Business Services, and Support Services - and seven schools. The schools develop and provide educational materials and provide educational programmes; they are the schools of Management, Cultural Studies, Computer Sciences, Natural Sciences, Psychology, Law and Learning Sciences. The central office is located in Heerlen, and there is a network of regional Study Centres in various parts of the country as well as in Belgium and in the Dutch Antilles, where students can obtain information about OU courses, make use of OU facilities and take examinations.

The OU provides *open* higher education because it is open to anyone aged 18 or over, regardless of prior education. Students can study where and when they wish, and generally there are no compulsory classroom or tutoring sessions. This is realised by using both the Internet along with an electronic learning environment in addition to other learning materials that students receive at home or can consult in the Study Centres: textbooks, workbooks, audio and video materials, CD-ROM, DVD. Each student has his or her own digital 'workspace' in the electronic environment and most courses have discussion groups that can be accessed via this environment. Most of the instruction is based on the principle of guided independent study, most study materials are 'self-instructing' to enable students to study without help from a teacher or mentor. If necessary, though, students can contact a mentor via telephone or e-mail. Students may enrol at any time and can generally decide for themselves when they are ready to take an examination. In addition to this 'free' system, in several cases students may choose to enrol in more strictly paced programmes. Exams are taken at the Study Centres (which is where occasional face-to-face meetings are held as well). The modular system of instruction means that students can enrol either for full-length degree programmes or for separate courses. Students can combine their course credits to obtain a diploma or degree if they so choose.

The mission of the OU consists not only of 1) offering students an alternative form of higher education, but also of 2) encouraging and supporting innovation in higher education, and 3) contributing to the reduction of the shortage of teachers in primary and secondary education. The expertise required for innovating higher education is channelled through CELSTEC.

A good overview of the organisation including its mission, facts and figures, study methods, and objectives can be found in the brochure '[We've got to be open](#)'.

3.2 The Centre for Learning Sciences and Technologies

CELSTEC is a Centre of Excellence in the fields of Learning Sciences and Technology Enhanced Learning. It aims to carry out research on, to develop and to provide sustainable and evidence-based solutions for advancing learning at work, at school, at home and on the move (i.e., formal learning, non-formal learning, informal learning). This is accomplished by combining state-of-the-art research in the Learning Sciences with the innovative powers of Technologies such as new media, mobile devices and the Internet.

CELSTEC's activities are concentrated in three Programmes and an Institute for Education & Training.

- The **Learning and Cognition programme** aims to improve education & training at schools, universities and in-company by providing efficient educational arrangements based on research in the learning sciences (cognitive science, neuroscience, psychology, education and social science).
- The **Learning Networks programme** aims to improve the continuous development of professionals in companies, sectors, countries and regions based on research in the learning sciences and technology enhanced learning.
- The **Learning Media programme** aims to improve the learning experiences at home, at work and on the move, using new learning media and devices.
- In the **Institute for Education and Training**, the knowledge gained in all our activities is transferred in various courses, workshops and training and a Scientific Master Programme in the Learning Sciences.

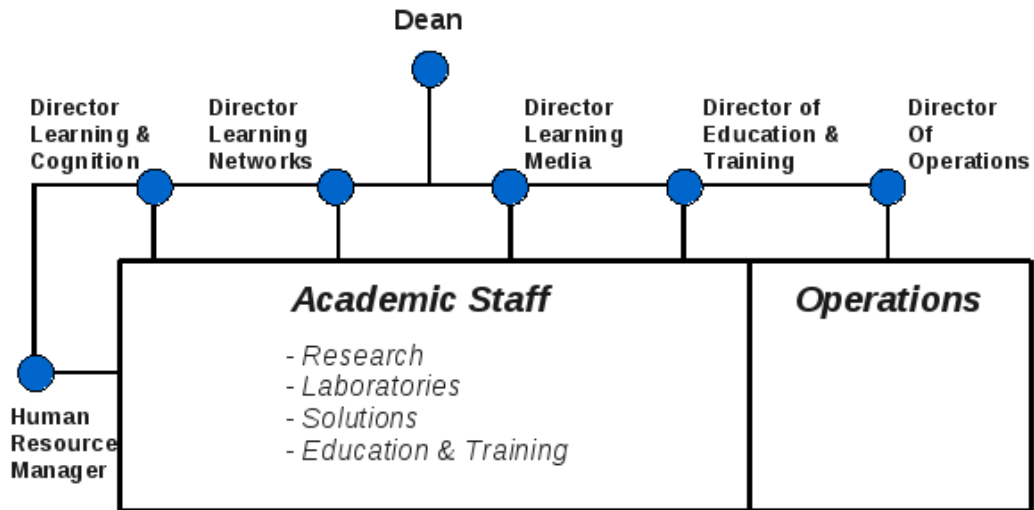
Each of the three programmes contains a combination of *research projects*, *open laboratory projects*, training activities and the provision of *solutions* to the market and to the Open University of the Netherlands. The tight integration of research, practice, experimentation and training in collaboration with partners establishes a process of open innovation in the field of learning and professional development.

- The aim of **Research** is to promote formal, lifelong, individual and group learning (i.e., expertise development) through uncovering the underlying processes, developing detailed and comprehensive theories of learning, instructional design, learning networks and media usage that can be used to innovate and facilitate learning.
- The general aim of CELSTEC **Laboratories** is to act successfully as a main driver for innovation in the fields of improved education & training, improved (continuing) professional development and improved learning experiences. The Laboratories work according to an open innovation model in which CELSTEC staff, OU Faculty Staff and Partners in the private and public sector work together to explore, co-develop and test innovations.
- CELSTEC **Solutions** helps her partners to create sustainable and evidence-based solutions to improve education, training, professional development and learning experiences at work, at school, at home or on the move. CELSTEC generates solutions that are customized (i.e., specific problem is leading), based on scientifically proven theories and state-of-the-art instructional design methodologies, using a systems approach, considering multiple problem sources.

CELSTEC employs more than one hundred fte professionals – scientific staff (full, associate, and assistant professors), employed PhD candidates, research assistants, media specialists and technical programmers - from nearly 20 different countries. It collaborates actively with scores of different professionals at universities and schools, at commercial, non-commercial and mixed companies and in governmental and private agencies around the world.

The Management of CELSTEC consists of the Dean, the Director of Operations, and the Human Resource Manager. The different activities in CELTEC are organised by the Programme Directors, a Director of the Education & Training Institute, the Research coordinator, the Lab co-ordinator and the co-ordinator of ICT development.

Organisation Diagram CELSTEC



CELSTEC works in a project-based manner, which also holds for PhD activities. PhD projects are positioned within one of the three programmes, and will have a typical duration of four years. After the first year a formal evaluation takes place, which results in a go/no-go decision for the rest of the PhD trajectory (see under 'progress: first-year evaluation and subsequent yearly evaluations'). This schedule and the examples in this guide are based upon a full time appointment (1 fte).

Assigned time for an internal PhD project will be 4 days a week (80% of the full time appointment) while an external PhD candidate will generally work two days a week (minimum) on her/his research, often combining it with her/his regular paid work. Internal PhD candidates work their 'fifth day' (or for a part-time appointment, 20% of their time) on other non-research tasks within CELSTEC assigned to them by the management, for instance in one of the other programmes, or in the Education and Training Institute. Generally speaking, CELSTEC has its PhDs work in the Master of Learning Sciences programme so that they acquire teaching experience. During this period they also take part in a BKO training programme so that they can acquire a Basic Qualification for Instruction when they end their PhD tenure. Finally, they may. Alternatively, they may take part in project related work so that they can experience other facets of scientific work such as project acquisition and management.

All time spent is logged systematically using the OU's [OUpas](#) system. This is a matter of importance as it allows CELSTEC to bill hours spent in externally funded projects from that project's funds.

The three programmes will now be discussed in some detail. For the latest information on them, as well as the organisation and management of CELSTEC (see celstec.org).

3.2.1 The Learning and Cognition programme

The objective of the programme is to study effective and efficient arrangements of education and training from the learning and cognition perspective (i.e., how does the way that information is programmed, presented, perceived, and processed affect what and how it is learned) with the goal of advancing theories of learning and cognition and devising learning interventions based upon these theories. Research of the Learning and Cognition programme aims at promoting lifelong learners and groups of learners to learn, acquire complex cognitive domain-specific skills and attitudes, and then transfer these skills, knowledge, and attitudes to a variety of settings and to regulate and maintain their own further learning. This is realised by uncovering the cognitive processes underlying learning and using the resulting knowledge on cognitive processes combined with knowledge on the learner's cognitive system to develop theory and grounding principles to inform the design of effective and efficient learning tasks, learning environments, and learning assessments.

The programme is based on the assumption that learning situations always consist of domain-specific learning tasks, carried out in a learning environment consisting of some form of explicitly planned arrangement for an individual or group of persons, and of some form of organized assessment of the processes and products. The Learning and Cognition programme contains four themes in which its projects are executed:

- Theme 1. Creating flexible environments for acquiring complex cognitive skills: Flexible learning environments - that are not necessarily computer-based - follow learners during the learning process and monitor their progress in the acquisition of knowledge and/or skills in order to adapt the learning content or instruction to their current needs.
- Theme 2. Solving complex information problems: This theme deals with research on the processes that take place when students solve information-based problems c.q. carry out different types of information-based tasks as well as on instructional support within the learning environment to foster acquisition of information problem solving – IPS - skills (e.g., information literacy).
- Theme 3. Development of domain-specific expertise: The development of domain-specific, vocational and professional expertise extends from school – often rooted in and affected by pre- or non-school learning – far into adulthood and - depending on the learner - reaching very high levels of performance often never reached within the school. Research is carried out in close cooperation with the domains, recognizing that domain and workplace characteristics influence learning, at the same time searching for principles that can be generalised across domains. Examples are: the development of knowledge structures, the design of learning tasks, principles of deliberate practice, principles of learning in workplaces and workplace simulations, the changing role of the teacher with increasing levels of expertise, or ways to improve transitions from school to work.
- Theme 4. Brain, learning and cognition: This theme centres on bridging the gap between educational practice, neuroscience, and educational science respectively through the investigation of the psychobiological determinants of lifelong learning and cognition. This is, in turn, translated into for the general public relevant advice and interventions. Specific neuropsychological topics in this theme concern aging effects, sleep, vitality and fatigue influences, a diverse range of nutritional concepts, motivation, stress, exercise, and self-regulation.

The full text of the programme is available at celstec.org.

3.2.2 The Learning Networks programme

The current Learning Networks (LN) programme Learning Networks for Professional Learning (2008-2014) is the successor to another programme on [Learning Networks](#) (2003-2008). The present Programme predominantly focuses on the needs of professional learners, adults who have completed their initial education and in the course of their professional lives need to keep their skills and knowledge up to date or even expand or reorient them. It assumes that non-formal modes of learning are particularly well suited for this. The programme therefore attempts to provide tools and guidelines to the educational establishment, as well as newcomers, which should help them to devise ways of teaching

and learning in non-formal ways. Key to this is the notion of a Learning Network, an online environment that, through its tooling and design, embodies the insights acquired into what it takes to realise non-formal modes of teaching and learning.

The programme organises its activities in three themes.

- The *competence building* theme researches how the notion of competences, competence maps, competence-based learning activities, etc. can best support lifelong and professional learning.
- The *learner support* theme investigates the specific support needs that students have in the context of a learning network. This is largely uncharted territory as in a learning network one may not assume upfront that professional tutors and teachers are readily available.
- The *community building* theme looks into the ways in which the inhabitants of a learning network may be helped to self-organise in communities, groups of people who mutually share a (social) responsibility for each others' success as a learner and professional.

All themes develop tools (technologies) and guidelines that embody the insights acquired through research, although particularly the learner support theme will focus on tools and the two others on guidelines. Moreover, the tools and guidelines are tested in ever more realistic situations, in close collaboration with candidate users. This aim to valorise the research and development products points to the ambition ultimately to empower such candidate users in sustainable ways.

The full text of the programme is available at celstec.org.

3.2.3 The Learning Media Programme

The Learning Media Programme is a new programme within CELSTEC, which started September 2008. The programme's goal is to establish innovative, challenging and pervasive ways of learning and teaching that exploit the opportunities of emerging digital media, media technologies and devices, which include wide band internet and mobile network technologies as well as user-generated content and a variety of new portable communication devices. It thus addresses the changing patterns of human functioning and communication as a result of these new media technologies and, more in general, the associated changing demands for learning and education in the knowledge society. The Learning Media Programme expresses the Open University of the Netherlands' ambition to be a frontrunner in technology-enhanced learning, to enable rich media distance learning and to transform into an internet-based university, which core competence is electronic delivery of content and services to learners.

Because of its media nature, the Programme will adopt a content and communication perspective. The Programme addresses the meso-level and micro-level of the arrangement, the creation and delivery of learning content and the content-related transactions and communications between educational system components, learners, teachers and other actors. The Programme themes are 1) Immersion Media, 2) Social Media and 3) Mobile Media, which all hint strongly at rich media experiential learning and directly relate to the unmistakable trends of rich virtualisations of life, user-generated content as reinforced by web 2.0 approaches, and new portable devices serving user mobility and contextualised learning, respectively. The Immersion Media theme covers challenging, immersive and greatly involving environments, which mimic and mostly simplify real world complexity for learning purposes. The Social Media theme covers emerging modes of social media production, content sharing and content tagging according to Web-2.0 approaches. They enable learners to aggregate, monitor, combine, tag and annotate information streams from various sources and use these for new ways of learning and reflection. The Mobile Media theme addresses new learning opportunities invoked by handheld, networked devices. Mobile media for learning cover two fields of application: 1) the ubiquitous and cross media access to learning resources on the one hand, and 2) the contextualisation and personalisation of learning media on the other hand using context parameters as location, time, task, environment, or user information to adapt media for best learning support of the individual.

The full text of the programme is available at celstec.org.

3.3 Netherlands Laboratory for Lifelong Learning (NeLLL)

A PhD project may also be adopted or funded by the *Netherlands Laboratory for Lifelong Learning (NeLLL)*, an institute within the OU launched in 2007 with the aim of furthering Lifelong Learning research. Its mission is:

NeLLL provides a fertile context for starting and conducting high-quality research contributing to the development of theories, concepts, models, instruments and tools that help to understand, facilitate, and realize lifelong learning.

NeLLL has two related aims, namely to create:

- **focus** within the OU on research in and on lifelong learning linked to the various disciplines
- **mass** in the research on lifelong learning both in terms of capacity and a broad but coherent scope.

NeLLL adopts a focus-and-mass approach to complement the OU's reputation of being a high quality teaching/education institution with a profile of being both a key actor and an indispensable partner to cooperate with in the national and international research field of lifelong learning in the knowledge-based society.

To fulfil its mission, NeLLL coordinates research on lifelong learning in its broadest sense (i.e., formal, non-formal, informal learning) across the lifespan. This provides opportunities to conduct interdisciplinary and transdisciplinary research, building on the expertise of the different schools and expertise centres of the OU.

NeLLL has six program lines representing six different perspectives on lifelong learning:

- Cognitive-educational perspective
- Learning-technologies perspective
- Professional and Personal learning perspective
- Learning communities and learning regions perspective
- The teacher as lifelong learner perspective
- Digital media perspective

The seven schools of the OU, the Ruud de Moor Centrum and CELSTEC participate in the programmes of NeLLL. The programmes have a strong interdisciplinary character and will result in applicable knowledge for the field of education, the professional world and governmental organisations.

4. PhD projects within CELSTEC

CELSTEC PhD projects are financed in one of three ways, corresponding to the way in which in the Netherlands research grants are provided. Some are paid for by the OU itself; this corresponds to the *eerste geldstroom* (direct university funding; first budget flow). Others are paid for by a public grant organisation for scientific research in the Netherlands (e.g., the national science foundation: Netherlands Organization for Scientific Research ([NWO](#)); [Kennisnet](#), [SURF](#), European Science Foundation ([ESF](#)), etc.) which provide grants through a variety of programmes. These are the *tweede geldstroom* (second budget flow; government grants). Finally, projects may be financed from a variety of other sources, most notably EU funds: *derde geldstroom* (third budget flow; public/private grants). In such cases, the grant includes contract research activities and reporting can also be part of the PhD candidate's work (of course under supervision of the responsible team members from CELSTEC).

All full-time internal PhD candidates receive the same salary; have the same collective labour agreement (CAO) from the Association of universities in the Netherlands ([VSNU](#)); have to live up to the same standards of quality and progress, etc. However, projects financed from the first and second budget flows typically receive their approval (and money) on the basis of an elaborate, extensively reviewed PhD project proposal. This means that for such projects, there is little leeway to (re-)define them after approval. Conversely, in the third budget flow, only the project as a whole acquires its funding on the basis of an extensive proposal and review thereof. The PhD projects that are undertaken within such projects have not been defined at the time of approval of the overall project. Hence, the description and review of the project proposal for these projects is done as part of the PhD project itself. Although this has the drawback of eating time out of the total time available for the PhD research, it has the benefit that it leaves more freedom to define a project. In addition, the project proposal that has to be made goes a long way towards writing the first article. A final remark on quality: although the activities of a PhD candidate can differ depending on the type of budget and project the PhD work is positioned into, CELSTEC takes care that the quality of the PhD work is in all cases at high standards.

4.1 PhD Project Proposal Procedure

Externally funded PhD project proposals follow the guidelines and procedures for submission and review dictated by the funding body. All internally funded PhD project proposals follow the following procedure which is – for the most part - derived from the NWO procedure.

1. A proposal is always prepared after coordination with the Chair of the CELSTEC programme within which the project will be carried out. If applicable the chair consults the CELSTEC Director of Operations to assure that adequate funding is available.
2. A proposal is submitted based upon the CELSTEC PhD project proposal form available on the [CELSTEC-website](#). This proposal form requires the author (usually a professor or associate professor) to define and operationalise the following topics:
 - Title
 - Problem definition
 - Scientific framework
 - Design and methodology
 - Scientific and societal output
 - Importance
 - Originality
 - Feasibility
 - Staff and material budget
 - Relevance and importance (Scientific, Strategic, Practical, Societal)
 - Ethical review considerations²
3. The evaluation and approval procedure for university funded PhD proposals proceeds as follows:

² All studies using subjects/respondents must meet the criteria set out by an OU Ethics Review Board and must be approved by this board. This also means that respondents should fill in informed consent forms and minors need permission from their parents and/or guardians.

- The Chair of the programme carries full responsibility for the evaluation and approval process.
- Based upon the expertise necessary for a proper scientific evaluation of the proposal or with the aid of an already installed professorial proposal evaluation committee, at least two external reviewers are asked to review the proposal.
- The reviewers should be full professors, although if applicable and reasoned (e.g., specific expertise, scarcity), one associate professor may be asked to carry out the review.
- The reviews are carried out based upon the CELSTEC Assessment Form for PhD projects available on the [CELSTEC-website](#).
- To receive approval, a proposal may not receive more than one "B" review (i.e., Not suitable for funding as is, but improvable). In other words, all other reviews must be "A" reviews (i.e., Suitable for funding). Under no circumstances can a proposal which has received a "C" review (i.e., Unsuitable for funding and not improvable) be approved.
- Before the project can be carried out, the Dean must give formal permission.

5. Stakeholders

The CELSTEC programmes typically consist of a Programme chair, full professors, senior staff members (associate professors; *Universitair Hoofddocenten*), other scientific staff members with or without a PhD degree (assistant professors; *Universitair Docenten*), researchs working within specific projects and PhD candidates (regular³, staff, and external). In addition, there are several permanent staff members who are versed in the development of software (e.g., coding, interaction design, system design, etc.). These are usually referred to as ICT developers. Finally, there are staff members who are employed temporarily for the period of a project only and spend their efforts on this project (e.g., post docs). Programme chairs manage their programmes and are responsible for its quality, staffing, funding, co-ordination between projects and with other programs, etc. They also participate in research projects and in synchronisation with the promotor of a PhD can supervise PhD candidates. Senior staff members are often responsible for themes within programmes. They then manage projects within a theme. Staff members may supervise PhD candidates on a daily basis provided they are a member of a nationally recognised and accredited (by the Royal Dutch Academy of Sciences; [KNAW](#)) research school i.e., [ICO](#), [SIKS](#).

5.1 Research Schools

Research schools are network organisations accredited by the Royal Netherlands Academy of Sciences ([KNAW](#)) through which staff members of different universities host their PhD projects. A research school provides a quality control mechanism for PhD projects, a community for PhD candidates together with scientific staff, and courses to PhD candidates. Research schools set particular qualifications for admission and membership. Qualified CELSTEC staff members and the PhD candidates they supervise participate either in the Interuniversity Centre for Educational Research (Interuniversitair Centrum voor Onderwijsonderzoek – [ICO](#)) or in the Dutch research school for Information and Knowledge Systems ([SIKS](#)). The nature of the research project determines what school, with the Learning and Cognition programme tending towards ICO and the Learning Networks and the Learning Media programmes tending towards SIKS.

5.2 OU Graduate School

The OU has its own local graduate school (since October 2010), the Open University Graduate School (OUGS) which is not an Academy approved research school. It functions as an umbrella organisation over all PhD-trajectories within the OU by coordinating and facilitating the PhD process. Its mission is to significantly increase the number of successfully completed PhD trajectories by optimising support of the PhD candidates, and guaranteeing optimal quality control. Because of its 'umbrella' function, the OUGS is well suited as a platform for exchanging ideas between the partners on best practices in effective and successful PhD-programmes and PhD supervision. Initiatives of the faculties, CELSTEC and RdMC are discussed within the OUGS to determine if and how they fit with the mission of the OUGS and whether certain initiatives can be exchanged between different units (i.e., exchanging good practices and standardising) or may even be adopted and funded by the OUGS.

³ The term 'regular' refers to what is traditionally called an AiO (Assistant in Training). This is a PhD candidate whose trajectory is paid for by either the university or an external authority or body and who is, for the length of the PhD trajectory, an employee of the university.

5.3 People

In PhD projects, always the following people are involved:

The PhD supervisor

The supervisor (*promotor*) assumes responsibility for the progress and quality of the project together with the daily supervisor. PhD candidates, together with the daily supervisor, have scheduled meetings with their supervisor at agreed-upon intervals of somewhere between every three to six weeks. The candidate submits an agenda for the meeting, as well as documents (e.g., articles, experimental designs) s/he wants to discuss, and makes a short memo containing the points and future actions agreed upon. Before submitting an article or conference contribution, the supervisor is always consulted. The nominal supervision charge is one hour per week.

The daily supervisor

The daily supervisor (*dagelijks begeleider*) is the *de facto* daily project leader of the PhD project, and is responsible for both the coaching of the candidate (process) and the progress of the project (product). The daily supervisor must be a researcher with proven research quality, evident by (1) having a PhD, and (2) being a full staff member of a KNAW acknowledged research school (e.g., ICO, SIKS).

Candidates usually have scheduled meetings with their daily supervisors once every week. The scheduled meetings are a way of reserving time in the full schedules of daily supervisors, but in general, candidates can drop in on their daily supervisors at any time. These meetings too should be well prepared and a text should have been handed to the daily supervisor. Obviously, candidate and daily supervisor may decide on their own modes of working. However, the candidate is strongly advised to keep a running log of his or her activities. The nominal supervision charge is two hours per week.

The programme chair

Since the programme chair bears overall responsibility of the projects within the programme his or her formal approval of the PhD project proposal is required before it is submitted for approval to the Dean of CELSTEC. In addition, PhD students can always consult the programme chair should the need arise.

The supervisory committee

Apart from a supervisor and daily supervisor, each PhD candidate has a supervisory committee (*begeleidingscommissie*). This committee consists of the supervisor, the daily supervisor and three or more researchers with relevant expertise. They can be researchers from within the OU, but also often come from outside of the OU at sister departments in other universities. These members are usually, though not exclusively, full professors. This committee has a scheduled meeting after approximately eight months in the first year (see the next section). However, if need be, its members can be consulted during the entire period of research. Used well, they form a resonance group for the candidate's ideas and products.

Project assistants

Some members of the CELSTEC staff have specific technical or programming expertise, and can be called on to assist in PhD projects, when for example a special computer program has to be created, or when a logging tool has to be built or adjusted.

Peer Help for getting acquainted – Big brother or sister

In the first half-year of a PhD's research period, a more experienced PhD candidate is asked by the daily supervisor to assist the new candidate. This person acts as a kind of Peer-Help-Desk (PHD), helping out with all kinds of challenges a new candidate runs into, such as finding your way in the OU/CELSTEC organisation, getting a feel for the daily life of candidates, assessing the content of courses (ICO, SIKS, other ones), finding particular bits of information, dealing with supervisors, etc.

Confidant

CELSTEC also has a confidant (*vertrouwenspersoon*), to whom all employees can turn with matters they want to discuss, but cannot or do not want to discuss with others in the organisation. This may include anything: personal problems, relationships with colleagues, issues regarding work context, etc. Everything discussed with the confidant is treated confidentially.

Academic Integrity

A PhD candidate is on his or her way to become an independent academic researcher. The dissertation is the proof that one has achieved this status. It goes without saying that academics should behave 'appropriately' and that PhDs during their research should already do so too. Although there is no formal code of conduct comparable to the Hippocratic Oath of physicians, there nevertheless is a widely-held informal code. It pertains to such issues as not to falsify data, not to plagiarise work of others, and to treat experimental subjects - human or not - with respect. The VSNU - *Association of Universities in the Netherlands* - has drafted and published an explicit version of this informal code of conduct; it can be found at their [website](#). The OU has adopted this code and - at the time of writing - has the intention to make it part of the labour contract with its academic employees. Article 1 is the code's mainstay as it describes in nine points what academic misconduct amounts to. The other articles are of a procedural kind and describe how to draw attention to a possible instance of misconduct, the founding of a review board, its tasks, and the measures that are to be taken by the dean or, ultimately, the rector. A final article is about the role of the National Board for Scientific Integrity ([LOWI](#)), established by the Royal Netherlands Academy of Sciences (KNAW).

The American Educational; research Association also has a very well written [document](#) on Ethical standards. These standards include:

- Responsibilities to the Field
- Research Populations, Educational Institutions, and the Public
- Intellectual Ownership
- Editing, Reviewing, and Appraising Research
- Sponsors, Policymakers, and Other Users of Research
- Students and Student Researchers

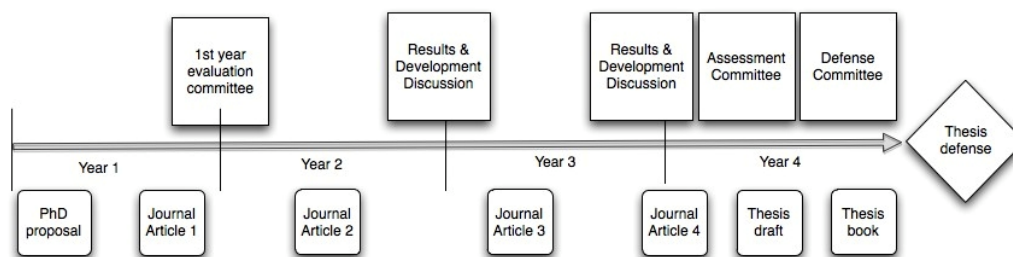
6. Getting your PhD: More than writing a thesis

PhD candidates at CELSTEC have (in general) a four-year appointment, in which their task is, among other activities, to work on a doctoral dissertation / thesis. This dissertation / thesis is written in English and consists of a number of published or submitted journal articles (usually three or four) along with a theoretical framework as begin and a synthesis across the research as a conclusion/discussion. The usual format is an introduction (i.e., why this research and a description of the structure of the thesis), a theoretical framework (often a published journal article), between two and three further studies (published, accepted or submitted journal articles), a concluding chapter (synthesis and evaluation of the work done), and a summary in both English and Dutch. This set-up implies that the process of writing the dissertation starts very early in the PhD period. In principle, each year of your four year stint as a PhD you should publish one journal article. If your PhD project has an experimental nature, the articles that form the core of the dissertation describe the results of the experiments carried out. If it has a development character, these chapters describe the software developed, and the pilots, tests or simulations carried out with it; some of these tests resemble experiments.

However, there is more to being a PhD candidate at CELSTEC than writing a dissertation. Getting your PhD also involves taking courses, participating in other CELSTEC projects, and – last but not least – participating in a research community, not only at CELSTEC, but also on a national and international level.

PhD candidates spend most of their time working on their own research projects. This work is based upon a project plan, which contains a detailed research proposal and provides the candidates with a clear goal. This project plan may be available in its entirety at the outset, or may have to be written as part of the project itself. See under the programme-specific sections for more details.

At CELSTEC, it is customary that publications in internationally acknowledged journals form the basis of the dissertation. A dissertation usually consists of an introductory and a concluding chapter, which sandwich the three to five (usually at least four) chapters that form the bread and butter of the thesis. These chapters in the middle are also published as articles. The dissertation is concluded with summaries in English and Dutch (and another language of choice if the candidate so wishes), and –optionally- some biographical notes. Research schools may have specific further demands, such as a list of all dissertations published so far by the school. Note that not every chapter in the dissertation has to be accepted for publication by international journals before one is admitted to the thesis defence. Although a candidate should strive for this, it often is a practical impossibility. As a rule, at least two chapters will have to have been either accepted for publication or published, whilst for the remaining one or two having submitted them suffices.



Although a PhD-project is above all a research project, PhD candidates are urged to publish articles about their work in non-scientific, professional journals or give presentations to non-scientific audiences. This will help their integration within the Dutch learning sciences and learning technologies community, but it will also help CELSTEC fulfil its valorisation duties. An example of a relevant journal would be for example *OnderwijsInnovatie* (which is published by the OU). A relevant conference would be for example the *Surf Onderwijsdagen*.

6.1 Not all programmes are the same!

Though, in general, getting your PhD at CELSTEC is a coherent process, there are differences between the programmes. In the following the specifics of each of the programmes is presented.

6.1.1 The Learning and Cognition programme

PhD projects in the Learning and Cognition programme are funded from the first, mostly, the second, and for a very small part from the third budget flow. This implies that a detailed project proposal is available, which has been reviewed and approved by external experts in the field. However, a candidate of course still has to acquaint him/herself with the research topic. To that end, usually a literature study is carried out first, which may lead to some adjustments to the original research proposal and often leads to a detailed theoretical research framework and article. This initial period is followed by a series of experiments to test the main research questions that were outlined in the research proposal and the theoretical framework that evolved from the literature study. If it fits the project plan, especially financially, it is possible to carry out one or more experiments, if need be, in a foreign country.

The results of the literature study and the experiments are reported in research articles that have to be submitted to international journals for publication. Primarily, journals that are registered in the Social Science Citation Index (SSCI: preferably with an impact higher than 1) are considered to be proper outlets for the articles, although journals additionally accepted by research school (ICO) are also acceptable (but not preferred). Information on journal impact can be obtained from Thompson ISI for journals listed there, or one may determine relative impact in the Google Scholar arena via a simple piece of software - *Publish or Perish* - which may be downloaded at the [Harzing site](#).

In addition to publication in international journals there is another important outlet for a candidate's work, namely conferences. During the research period, a PhD candidate attends both national and international conferences. As a rule, a PhD candidate should present at one research conference a year, excluding contributions to local and national conferences and meetings. However, PhD Candidates may only visit a conference if their contribution is accepted and presented. Important conferences in the educational field are the annual Educational Research Days (Onderwijs Research Dagen – ORD) held in the Netherlands or Belgium, the bi-annual [EARLI](#) (European Association of Research on Learning and Instruction) Conference held in Europe and the annual [AERA](#) (American Educational Research Association) Conference held in the USA. For more information with regard to the publication and communication policy, see "[Publication and Communication Policy 2009-2014](#)".

Valorisation activities are also important output, for example, contributing to activities of the Master Programme Learning Sciences, or giving workshops to practitioners based on the PhD project work are valued.

6.1.2 The Learning Networks Programme

Most of the PhD projects in the Learning Networks programme are funded from the third budget flow, in particular EU funding, mostly in the context of the EU's Framework Programmes. This means that a detailed plan for the overall project is available, which has been reviewed and approved by external experts. However, the plan (description of work) is broken up in work packages, not in PhD project-like chunks. Also, not all work that needs to be carried out in the course of a work package qualifies as research. Therefore, a PhD in the Learning Networks programme needs to write a proposal first. This is done in close collaboration with the daily supervisor and, to a lesser extent, supervisor on the basis of a scoped idea prepared by the daily supervisor. This idea should constrain the plan to be written in such a way that it leads to research that i) contributes to the fund-providing project, ii) is not mission critical for this project, iii) describes research options that can realistically be realised in the context of a PhD project. Ideally, formulation of such a plan is completed after 6 months, however it may take longer. After its completion, it will be submitted for review to 2 to 3 external reviewers (see the description of the process in

section 4.1). Note that, in any event, the plan needs to have been completed and reviewed in advance of the evaluation that takes place after the first year (see below). Once the revised plan is in hand, it will be submitted to the relevant research school, usually SIKS, together with a plan for education.

Results from the PhD work are reported in research articles submitted to international journals for publication. The field of Advanced Learning Technologies or Technology Enhanced Learning as it is called in Europe is growing rapidly. Many researchers from different disciplines (computer science, cognitive science, psychology, educational sciences) are working in this field and consequently there are many journals available that publish their work. However, it is currently not easy to select the best journal to publish your work. To help scholars, especially PhD candidates, to make adequate choices about the journals in which to publish, the TENCompetence Project has published a list of [journals](#) which are the most important ones in the field. However, ultimately it is up to the supervisor, daily supervisor and candidate to decide on a suitable outlet. Impact of a journal is one of the considerations that enter such a decision. This information can be obtained from Thompson ISI for journals listed there, or one may determine relative impact in the Google Scholar arena via a simple piece of software - *Publish or Perish* - which may be downloaded at the [Harzing site](#).

Conference publications are also an important outlet for the Learning Networks programme. Indeed, in the world of computer science, peer-reviewed conference proceedings - such as the Springer *Lecture Notes in Computer Science* - are deemed at least as valuable as regular journal publications. An example of a suitable conference is the yearly IEEE International Conference on Advanced Learning Technologies (ICALT). However several other ones, often more specific in their choice of topics than ICALT, exist. Again, the supervisor, daily supervisor and candidate should decide on a suitable conference. As a rule, a PhD candidate should present at one research conference a year, excluding contributions to local and national conferences and meetings.

6.1.3 The Learning Media Programme

Most of the PhD projects in the Learning Media programme are funded from the third budget flow, in particular EU funding, mostly in the context of the EU's Framework Programmes. This means that a detailed plan for the overall project is available, but it does not provide a separate description of PhD work. Therefore, usually a PhD student in the Learning Media programme needs to develop a proposal first. This is done in close collaboration with the daily supervisor and, to a lesser extent, supervisor. Ideally, the formulation of such a plan is completed after 6 months from the start; it then will be submitted for review to 2 to 3 external reviewers (see the description of the process in section 4.1). Their assessment may result in a rejection of the plan, although usually an adjustment according to their comments and suggestions suffices. Once the revised plan is in hand, it will be submitted to the relevant research school, usually SIKS (see below).

Results from the PhD work are reported in research articles submitted to international, peer-reviewed journals for publication. The field of Advanced Learning Technologies or Technology Enhanced Learning as it is called in Europe is growing rapidly. To help scholars, especially PhD candidates, to make adequate choices about the journals in which to publish, the TENCompetence Project has published a list of [journals](#) which are the most important ones in the field. However, ultimately it is up to the supervisor, daily supervisor and candidate to decide on a suitable outlet. Impact of a journal is one of the considerations that enter such a decision. This information can be obtained from Thompson ISI for journals listed there, or one may determine relative impact in the Google Scholar arena via a simple piece of software - *Publish or Perish* - which may be downloaded at the [Harzing site](#).

Conference publications are also an important outlet for the Learning Media programme. Suitable conferences are listed in the programme document. Again, the supervisor, daily supervisor and candidate should decide on a suitable conference. As a rule, a PhD candidate should present at one research conference each year, excluding contributions to local and national conferences and meetings.

Along with its research, the Learning Media programme emphasises valorisation as an important outlet. PhD students are invited to use their fifth day for contributing to the arrangement of the CELSTEC Laboratory which is an important carrier of valorisation.

6.2 Progress: First-year evaluation and subsequent yearly evaluations

In many ways, the first year is especially important in any PhD research period. It has for instance been shown that projects that fail do so because no proper foundations were laid in the first year. Therefore, before the end of this year a formal decision is made on whether to continue the project or abandon it. After about 8 months, a (virtual) progress meeting is held with the candidate and her/his Supervisory Committee to evaluate whether the project is on schedule, whether the quality is acceptable and whether any changes need to be made in the project. If necessary, problems or bottlenecks can be tackled. The commission is asked to answer the following questions:

- What is your opinion on the scientific quality and clarity of the articles and proposal (whichever is appropriate) that have been delivered thus far?
- What is your opinion on the feasibility of the planning for the remaining period?
- What is your opinion on the quality of the plan made for the remaining period? (As the case may be, this refers to such things as the experimental design, the methods of analysis, the software development strategy and methods, etc.).
- Has there been enough progress in the first year of the project to be confident about its completion within the next three years?
- Do you have any suggestions and/or comments that can help the candidate, daily supervisor or supervisor in the future execution of this project?

The documents that are sent to the committee in advance by the supervisor should enable the members to answer these questions. They are:

- A covering letter (written by supervisor) inviting the members
- An agenda (written by supervisor) specifying the project, committee members, structure of the meeting, and evaluative questions
- An optional reflective report (written by candidate)
- The project proposal
- The Course (education) and Supervision plan
- A (draft of the) theoretical framework/article and/or other products thus far delivered

Based on this first-year evaluation a decision is made as to whether the candidate is allowed to continue his/her PhD project. Of course, this is also the moment that candidates themselves can decide whether *they* want to continue the project.

If indeed it has been decided to continue the project, yearly evaluations (*RenO-gesprek; R&O*) are added which are held with the daily supervisor. In special cases the supervisor may sit in on these meetings. In these evaluation meetings the progress of the project, the supervision, the courses, and the participation in secondary projects are discussed. More information on the yearly evaluations is found on the [OU website](#).

6.3 Courses and training (education)

Education and supervision plan

With the completion of the detailed research proposal, thus either at the beginning of the research project or sometime during its first year, an *Education and Supervision Plan* is drafted. Over the course of the four-year appointment, 1200 hours (150 days) are available for further education and training. These hours may be used to delve more deeply into particular topics and/or to broaden the PhD candidate's expertise. Obviously, courses should be relevant to the PhD project. PhD candidates are also encouraged to enrol in courses for the basic university teaching certificate. How exactly these hours are filled in is specified in the form of a course programme (i.e., curriculum). It also contains an agreement on the intensity (number of hours) and frequency (times per month) of the supervision. In accordance with the NWO-norm, the time allotted for project supervision and management in PhD projects is nominally two hours per week for the daily supervisors and one hour per week for the PhD supervisors. Once the plan has been completed, it is submitted to the programme chair of the relevant programme for approval. When approved, it is signed by the PhD candidate, the daily supervisor, and the supervisor. If necessary this plan can be revised, usually based upon the results of the yearly evaluations.

Research school ICO

As mentioned earlier, CELSTEC participates in the *Interuniversity Centre for Educational Research* (Interuniversitair Centrum voor Onderwijsonderzoek –ICO). ICO was established in 1988 and is acknowledged by the Royal Netherlands Academy of Sciences (KNAW). ICO offers high-quality courses spanning the main ICO themes for PhD candidates to educate them to be ICO-certified researchers. As a standard at CELSTEC, 600 hours of education are filled in by courses of ICO, in the following way: an introductory course (200 hours), three master classes, covering methodological and content subjects (100 hours each) and an international residential school (100 hours – one week). Exemption from ICO courses is possible, dependent on the initial qualifications and research experience, in case the PhD candidate has already participated in other courses of similar stature. Exemption is granted by the ICO director of education, based on a written request by the PhD candidate, in consultation with the course co-ordinator and the supervisor of the PhD candidate's research project. The other 600 hours can be invested elsewhere (this is a right, not an obligation), for example for specific training (e.g., Scientific writing in English, Scientific presentation in English, Writing a funding proposal) or courses at the OU, at other universities, or through other research schools such as SIKS, EPOS, or NICI. For up-to-date information about the ICO courses and requirements, see <http://www.ou.nl/ico/>.

Research School SIKS

As mentioned already, CELSTEC participates in a *Netherlands Research School for Information and Knowledge Systems* (SIKS). It was established in 1996 and is accredited by the Royal Netherlands Academy of Sciences. In 2008 a very favourable, mid-term review was carried out. SIKS is a network institute in which over 400 research fellows and PhD candidates from 11 different universities collaborate. SIKS wants to perform high-level fundamental and applied [research](#) in the field of information and computing science, more particularly in the field of information and knowledge systems. It also organises a high-quality four-year [educational programme](#) for its PhD students, employed at 11 different Universities in the Netherlands or at leading companies in the field of ICT. Finally, SIKS facilitates and stimulates co-operation and communication between the [members](#) (PhD students, research fellows, senior research fellows and associated members) and between the School and its stakeholders, including leading (industrial) companies in the field of ICT.

The SIKS' course programme consists of a basic course programme and advanced components. The basic courses *Research methods and methodology for IKS* is organised each year and obligatory for all candidates. The other courses, ranging from for instance *Knowledge Modelling via Agent Technology* and *Learning and Reasoning to Information Retrieval* are organised every other year; each year four courses are offered. Candidates are expected to follow a total of six courses in the basic programme. In addition to this, *Advanced Courses* and *Advanced Component Activities* are offered. These cover specialised subjects, which may or may be relevant. Of the 168 weeks that SIKS PhD candidates are expected to have available in total over the four years of their project, they are expected to spend 25 weeks on course work (1000 hours). Consult the SIKS website for details.

6.4 The fifth day: Participation in other CELSTEC projects

Since the OU provides distance education the ordinary teaching obligations of PhD candidates are filled in differently than at other universities. PhD candidates at other universities are obliged to teach undergraduate students for a maximum of 20% of their time. CELSTEC PhD candidates can do the same in the context of the Master Programme Learning Sciences, or instead, participate in valorisation projects in one of the CELSTEC programmes, such as in European projects.

6.5 Formal meetings

At CELSTEC, various meetings are held regularly in which PhD candidates are expected to participate. These meetings are additional to the weekly meetings with the daily supervisor and the regular meetings with the supervisor. First, every 6 weeks a plenary CELSTEC plenary meeting (*CELSTEC plenair*) is arranged, chaired by the Dean (Dutch: *hoogleraar-directeur*) of CELSTEC. In this meeting general information regarding the department is communicated. News about each programme, the Master or the OU is communicated and

discussed. Second, meetings of the programme in which the candidate works are held on a regular basis. They serve the same function as the CELSTEC plenary meetings, but now confined to topics that are of more specific interest to the programme. Third, project or theme meetings may be held in which the candidate is supposed to participate. If a candidate participates in a European project, his or her presence in such meetings may be required. Fourth, a CELSTEC-wide PhD candidate meeting, for candidates in each programme, is held twice per year. Fifth and finally, once or twice per month a colloquium is organised. Colloquia are open to all CELSTEC staff as well as to invitees from the rest of the OU. Since colloquia have the function of providing a forum to present research findings to both OU staff and guests, PhD candidates are expected to attend, as well as present their work in progress here. Suitable occasions would include being about to finalise an (adjusted) research proposal or to submit a paper to a conference or journal. The atmosphere at such meetings should be supportive and constructive, yet critical.

7. External PhD candidates

An External PhD Candidate (*buitenpromovendus*) at CELSTEC is a doctoral candidate not employed by the Open University of the Netherlands. In most cases an external PhD candidate is affiliated with another institution (often educational or in an allied sector), which agrees to support the candidate to invest in upgrading his/her career. However, it is also possible that an external PhD candidate chooses to carry out his/her PhD project independently, for example during a sabbatical leave or through the acquisition of a scholarship, and so forth.

Requirements

In order to become an external PhD candidate at CELSTEC, you should have:

- a Master's degree in the domain of the educational sciences and/or educational technology or an allied field such as cognitive psychology, human computer interaction, media studies, et cetera;
- mastery of the English language to the extent that the candidate can fluently read and write in English, since English is the Lingua Franca within the educational research community;
- room to invest on average between 16 and 24 hours a week to carry out the research;
- access to a research context (i.e., an environment where you experiments can be conducted)
- a good background in methodology and statistics;
- an approved research proposal.

This research proposal should be approved by the PhD supervisor, the director of the CELSTEC research programme in which it will be carried out and an external expert commission as described in section 4.2. The actual PhD trajectory begins only after formal approval. This trajectory is not without obligations on both sides. Therefore the candidate and CELSTEC draft an individual Education and Supervision Plan and a PhD contract that both will sign. If applicable the employer and daily supervisor will also sign this contract.

What can the candidate expect from CELSTEC?

A PhD trajectory usually takes about four years. In these four years the candidate can expect:

- to be admitted to / participate in the research group and the research meetings of CELSTEC (the candidate can become a member of the research team);
- expert scientific supervision by the PhD supervisor - a professor at CELSTEC;
- collaboration with a daily supervisor, a co-PhD supervisor, whose expertise is close to the research topic; preferably this person will come from the candidate's own working environment;
- admittance to / participation in courses and workshops on specific academic research skills that CELSTEC or the Open University of the Netherlands organises for their PhDs; as agreed upon beforehand in the individual Education and Supervision Plan;
- participation in courses of the interuniversity research schools ICO and/or SIKS; as agreed beforehand in the individual Education and Supervision Plan;
- admittance to digital/online library facilities; and
- other possible facilities such as: an OU internet account, admittance to the OU campus/study centres, some form of support by the printing of your thesis, etc. All these facilities are agreed upon beforehand and are included in the PhD contract.

Before the start of the PhD trajectory, the mutual expectations (of the candidate and of the supervisor) are made explicit and recorded in an individual Education and Supervision Plan and the PhD contract.

PhD contract

The contract can contain agreements on for example:

- goals of the research, the PhD supervisor (s), the duration of the trajectory, the milestones, and the moments and method of midterm evaluation;

- amount of time that you, as external PhD, will invest in your research project in the coming years;
- amount of time your supervisors will invest in your guidance and supervision in the coming years;
- facilities that the Open University of the Netherlands will make available to you;
- obligations of the Open University of the Netherlands, the PhD candidate and if relevant his/her employer;
- fee the PhD candidate has to pay for the (obligatory) courses, workshops etc;
- agreements on intellectual property;
- agreements on confidentiality;
- et cetera.

The contract will be signed by the external PhD candidate, the PhD supervisor and the Board of the Open University of the Netherlands or a representative thereof. If relevant the candidate's employer will be asked to co-sign the contract. This is relevant, for example, if the candidate wishes or plans to carry out the research (partly) at the workplace, or if the employer allows carrying out the research (partly) during working hours. This way the candidate and CELSTEC will have a guarantee that the research can be carried out and completed.

8. The final phase and the Big Day

About a year before the project ends, a final, detailed planning has to be made for 'the big day' of the thesis defence. Usually, the defence date is planned ten months in advance, and fairly close to the date that the project is due to end. During the final phase several administrative steps have to be taken involving several forms and committees. When planning the defence date, it has to be taken into account that the evaluating committee – the committee that judges whether the dissertation is defensible (*beoordelingscommissie*) – needs at least four weeks to read and judge the dissertation. In addition, the printer usually needs about 20 workdays to print the manuscript, and three weeks before the thesis defence, thirty copies of the dissertation have to be sent to the Board of the University for academic distribution. To plan the defence date, the candidate has to contact the registrar (*pedel*) who can provide more information on which dates are still available for the thesis defence and can help with filling out the different forms.

These forms can be found on the [intranet](#). *Form 1* is the official registration as a doctoral degree candidate. This form is signed after a date for the defence can be planned through the promoter and daily supervisor. After this form has been sent to the secretariat of the Doctorate Board the procedure officially starts. With *form 2* the candidate can apply for a defence date. With *form 3* the promoter accepts officially the thesis draft. The same does the daily supervisor with *form 3a*. With *form 4* the official evaluation committee is appointed. This committee consists of at least four members. A further requirement for composing the evaluating committee is that three members are professors (*hoogleraren*) of which at least two are not from the Open University of the Netherlands. This evaluation committee uses *form 5* to judge about whether the thesis can be the basis for a public defence and doctoral degree. Finally the doctoral degree committee is appointed with *form 6*. Finally the thesis defence takes place on a Friday at 1:30 PM or 4:00 PM. More information about the promotion regulations can also be found [here](#).

For planning the final phase of the PhD project some milestones are important. The dissertation has to be finished in draft form (the manuscript) at least four months before the defence date. This draft is sent to the supervisor and daily supervisor for their approval. Three months before the day of the thesis defence - at the latest – the manuscript has to be sent to the evaluating committee. The evaluating committee needs at least four weeks to read the dissertation and arrive at a judgement. The only question that they are asked to answer is: Will the candidate be allowed to defend this thesis? In these four weeks, the Ph.D. candidate has time to design the cover, make an appointment with the printer, write the statements that accompany the thesis (*stellingen*), which have to be approved by the supervisor as well, but not by the committee), and choose the 'seconds' (*paranimfen* – two persons who accompany and assist the candidate at the defence). If and when the committee gives its approval, the dissertation has to be printed. A camera-ready version of the thesis has to be delivered to the printer approximately two months before the date of the defence (printing takes approximately a month and you want to distribute copies *about* a month in advance). Some printers (e.g., [Datawyse](#)) give workshops in which the candidate is taught how to transform the manuscript in a camera-ready version. This workshop might save the candidate a lot of time when preparing the final version of the dissertation. A to-do-list that can be used when finalizing the dissertation and working towards the Big Day can be found [here](#).

Additionally, the research schools may have wishes with respect to the numbers to be printed, the incorporation of boiler-plate sentences, the incorporation of a list of previous dissertations, etc. Please consult their website for these regulations.

9. Tips and tricks from former CELSTEC PhD candidates

- Make choices; don't try to study everything.
- Don't compare your progress and products with other PhD candidates; every PhD trajectory is unique.
- Make your expectations towards your supervisors explicit.
- Find out what your supervisors expect from you.
- Do not wait too long before carrying out your first experiment. An experiment often gives you insight and direction.
- Do not despair when your participants don't show up. It happens all the time and persistence does pay off.
- Do not work all alone but discuss your research with colleagues. This keeps you from thinking in circles.
- Use the Internet to find relevant statistical methods to analyse your data.
- Remember, no significant results are also results.
- Make use of the strengths of your supervisors and do not get annoyed at their weaknesses (they're only human).
- Take up some additional functions but do not forget that the dissertation has to be ready in four years. This is your main goal.
- Make a detailed 'to do' list about a year before your thesis defence.
- Make use of the experience of former PhD candidates to help you through the last year.
- Plan the thesis defence date with the *College of Promotions* about a year before the PhD contract ends.
- Keep track of the formal processes with regard to the thesis defence. Make sure that every form reaches its destination and verify every formal step with the secretary of the *College of Promotions*.
- Rehearse your thesis defence with colleagues. Formulate possible questions and answers.
- You may not realise it yet, but despite difficulties you may encounter, as a PhD candidate you've got a great job with many degrees of freedom, which is quite unique, so enjoy your position!

10. Useful information sources and addresses

- Open University of the Netherlands <http://www.ou.nl/>
- Centre for Learning Sciences and Educational Technologies (CELSTEC):
<http://celstec.org>
<http://dspace.ou.nl>
(literature, software, specifications produced by the programme)
- ICO research school <http://www.ou.nl/ico/>
- SIKS research school <http://www.siks.nl>
- Association of Universities in the Netherlands (Vereniging van Samenwerkende Nederlandse Universiteiten – VSNU) <http://www.vsnu.nl>
- Interuniversity Centre for Educational Research (Interuniversitair Centrum voor Onderwijsonderzoek – ICO) <http://projects.edte.utwente.nl/ico/>
- Netherlands Educational Research Association (NERA; Vereniging voor OnderwijsResearch – VOR) <http://www.vorsite.nl>
- NERA SIG for PhD candidates (VOR Promovendi Overleg – VPO) http://www.vorsite.nl/nl/vor_promovendi_overleg/
- PhD network Netherland (Promovendi Netwerk Nederland – PNN) <http://www.hetpnn.nl/>
- Netherlands Organisation for Scientific Research (Nederlandse Organisatie voor Wetenschappelijk Onderwijs -NWO): <http://www.nwo.nl/nwohome.nsf/pages/index>
- European Association for Research on Learning and Instruction (EARLI) <http://www.earli.org/welcome>
- Junior Researchers of EARLI (JURE) <http://www.earli.org/jure/>
- American Educational Research Association (AERA) <http://www.aera.net>
- Association for Educational Communications and Technology (AECT) <http://www.aect.org>
- OU catalogue (part of the larger Maastricht University) <http://ou.ub.unimaas.nl/home.asp>
- Picarta <http://www.pica.nl/publiekwijzer/picarta.html>