**Design and development of a professional development project for university staff
Target objective:**

*Tutoring oriented Professional Training and Development Program
on Higher Education Didactics*

STRUCTURE

Introducing the key aim of the professional development project:
Interpretation of "tutoring" in the context of Ghent University

In the literature, research and practice, "tutoring" is a container concept that overs a large variety of approaches in higher education. In the Ghent University context, we adopt a perspective that does not consider the teacher as a tutor, but the student as the key stakeholder. The student becomes a tutor and takes the lead. In figure 1, tutoring depicted as a key structural element in courses. This implies that – next to a teacher centered course design that could be set up via lecturing, workshops, … – there is a consistent part of the study time devoted to peer tutoring. In view of this tutoring activity, teachers decide on what goals are to be tackled with this instructional approach; this is translated in key tutoring activities; e.g., developing active research competences, developing communication competences, developing critical thinking competences, … .

Tutoring is set up in tutoring groups; group size varies according to the level of the student: larger groups at undergraduate level, smaller groups at graduate level. The tutor role is a temporary position, in reciprocal peer tutoring tutees and tutors switch role after a certain time. The tutors are trained and supervised by the teacher. This also allows for regular intervision to keep track of the tutoring activity at course level. Intervision allows tutors to share experiences, and concerns, to deepen tutoring skills. Tutors work on a regular base with tutees (e.g., once or twice a week). The activities are structure with tutor cards that push the group collaboration and can result in self and peer assessment and feedback development.
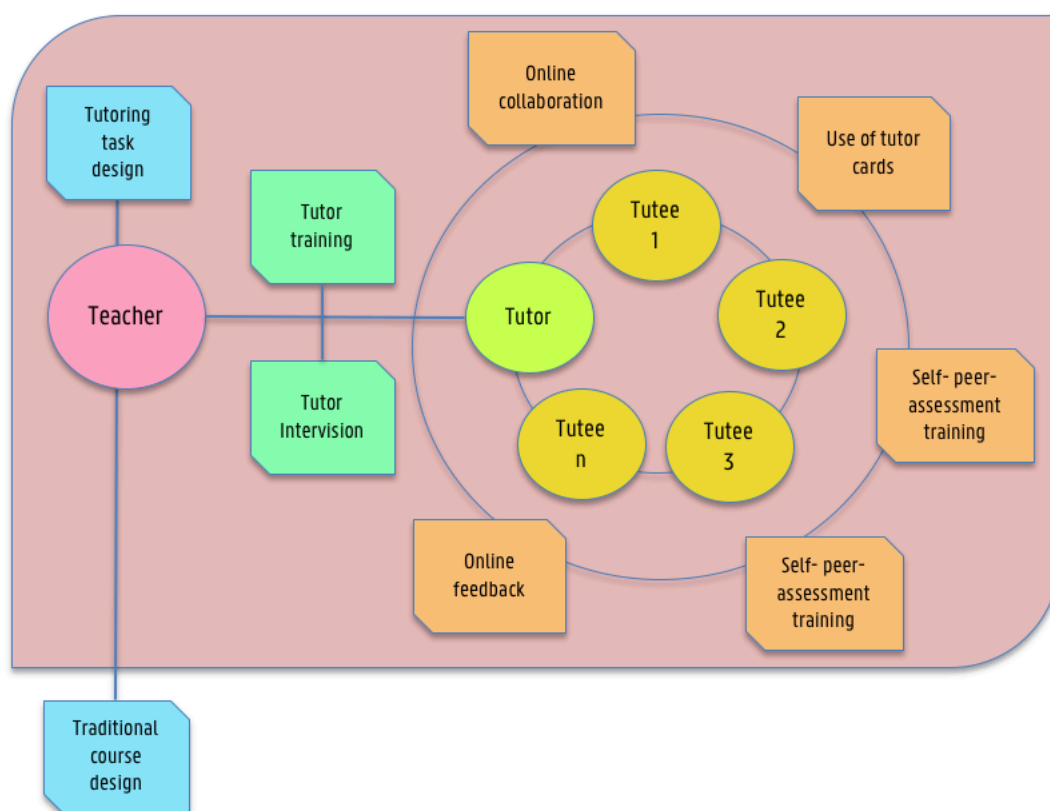

Figure 1. Projection of tutoring from the Ghent University perspective.

The tutoring approach is a fundamental part of a course design and translates in a formal part of the evaluation, considering the tutor role evaluation, and the individual and/or peer group processes and products.

This Ghent University approach has influenced numerous curricula in the local university and beyond. For instance, in local honors programs top students take the tutor role in running anatomy classes in the anatomical dissection lab. In the pharmacy sciences program, online groups are tutored to tackle cases during the five-month internship at the end of the master's degree. Students in a teacher training program tackle online clinical simulations and give each other feedback. All these examples have been set up in a research-based format and have resulted in research evidence to guide future practice.

Approach towards developing a professional development program for the universities

Building on our experiences and our research in the field of professional development, our team has developed a model to map the effects of professional development initiatives. This model integrates all processes and variables in specific stakeholders that are related to the outcomes of professional development. In other words, what we know from the research literature about "what works" has been incorporated in a set of interrelated clusters that cover steps in the design and implementation and evaluation of a Professional Development (PD) initiative (see Merchie, Tuytens, Devos & Vanderlinde, 2018). Figure 2 depicts the structural features in the framework.

FEATURES OF THE INTERVENTION	TEACHER QUALITY	TEACHING BEHAVIOR	STUDENT RESULTS
Intervention *Core features* - content focus - pedagogical knowledge - coherent and evidence-based - ownership *Structural features* - duration - collective or collaborative participation - school- or site based - active learning **Trainer** - trainer quality	*Cognitive goals (knowledge)* - pedagogical knowledge (PK) - pedagogical content knowledge (PCK): students/teaching *Skills* *Affective goals (attitudes/beliefs)* - teachers beliefs about learning and teaching - teachers beliefs about themselves	*Instructional strategies/practices* *Interaction patterns* - teachers-students - among teachers - among students	*Domain-specific knowledge and skills* - mathematics - science - literacy/language - history *Domain general knowledge and skills* - socio-emotional - self-regulated learning

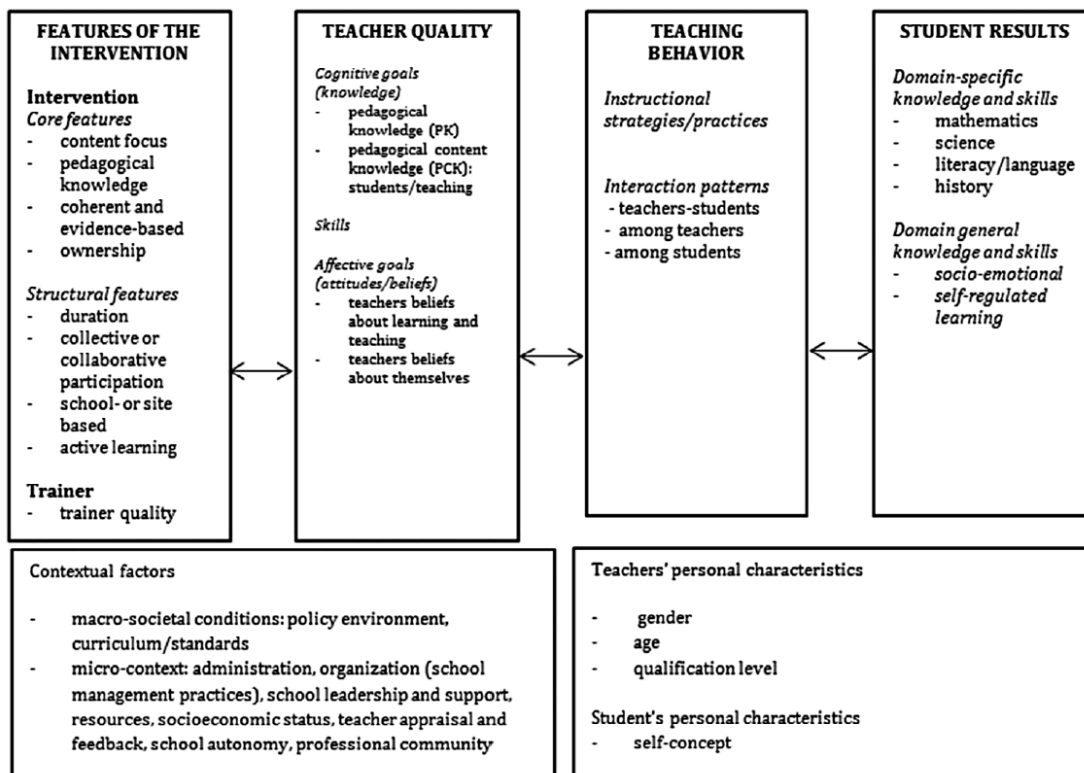| Contextual factors	Teachers' personal characteristics
- macro-societal conditions: policy environment, curriculum/standards - micro-context: administration, organization (school management practices), school leadership and support, resources, socioeconomic status, teacher appraisal and feedback, school autonomy, professional community	- gender - age - qualification level Student's personal characteristics - self-concept

Figure 2. Framework integrating processes and variables that are related to the outcomes of professional development.

We list below the key elements of this framework and how this guides the current PD-project. In this way we aim at increasing the fidelity of the professional development design:

Features of the intervention

Core features

- The content of the PD will be specific and take into account the content domain of the target group. In other words, though a generic PD initiative will be developed, subsequent versions should consider the nature of the knowledge domain of the target group; e.g., a version for health sciences, a version for social sciences, etc.
- The pedagogical knowledge should be delineated. This is why we focus on a specific interpretation of tutoring that mainly puts the student at the center of the tutoring activity.
- The content will be evidence-based. All input for the PD will be based on evidence developed in the local setting or in collaboration with international partners (see our publication track record in this domain).
- The content will be developed initially by Ghent University, but in the plan, we foresee a gradual shift to the adoption of local examples, local ideas, local pictures, local video input. This increases ownership.

Structural features

- The duration of professional development is crucial. Single shot, one-shot training has proven not to be sustainable, effective and satisfactory. This brings us to a three-phase design that starts with
    - (a) a study visit based training at Ghent University (5 days x 8 hours = 40 hours), continue with
    - (b) an online booster session with feedback and online peer tutoring among a local group of teachers (20 hours) and followed up by
    - (c) a local good practice session where teachers meet one another and exchange real life practices (4 days x 8 hours = 32 hours + 8 hours preparatory work). The aim is to share hands-on practices, ideas, and to explore actively each other's materials. By preference video-based materials will enrich the demos and explorations to see teachers and students at work.
  The total cycle of one course takes (A) 40 hours + (b) 20 hours + (c) 40 hours = 100 hours. This training cycle is – for each cohort of a teacher team - set up during a one-semester period to guarantee a more continuous involvement and resulting in a more sustainable impact. In the project proposal, we will refer explicitly to these three phases or components in the "course".
- In terms of collective/collaborative participation, we opt for team-based participation at the level of a university and/or faculty cluster. This implies that we prefer working with people who also meet on a daily base or could at least get in touch in a local setting. The latter is critical for all phases in the training as described earlier. We propose that groups of 4 to 5 staff members of a local entity participate in the workshop.
- School- or site based: The initial training starts at Ghent University. This allows for an intensive immersion in the new ideas and to share a first implementation orientation with

colleagues. But from the next phase on (b en c), all activities or set up, in the local university context. Moreover, we will strengthen the local university setting by developing a capacity building expertise center. This means that for each group of participants, a local point of contact will be approached by the Ghent University team to take up a local support role. The choice for this person/unit has to be made with the local partners. A specific strand of activities will be set up towards this person/unit in view of strengthening the local school- or site-based nature of the innovation. Extra resources, monitoring materials, monitoring activities, etc. will be set up through this person/unit. The focus on developing a local capacity building center can also be linked to the importance attached in the framework to "Contextual factors".

Lastly, this characteristic also implies that the activities will be linked to the local school/site. What is being developed or designed by teachers or teams will be specific for the local setting.

- In terms of "active training", this professional development initiative will reflect a hands-on approach; Every unit in the workshop will be activity based, will result in tools, products, … that will be added to a personal portfolio or a group portfolio.

Trainer quality

- This is a factor of paramount importance. Therefore, we propose involving post-doc researchers as trainers, that are experienced in setting up training, ecological valid interventions and have an established track record in approaching practice-questions from a flexible and contextualized angle.
- In addition, the project will be carried out with a supervisory team in the background. Above we introduced shortly the academic professors that are experienced in this field and that under scribe a active involvement in the project.
- Moreover, building on our experiences and the nature of the "peer tutoring" approach, we will also involve the participants as "experts" in the training. They will be required to take up tutoring roles for their group.

Teacher quality

The framework emphasizes that teachers should be developed in a multidimensional way. This implies that we introduce the teachers to

- Relevant pedagogical knowledge related to collaborative learning (including group size, group composition, scripting, structuring), to assessment (levels in assessment, assessing tools, self and peer assessment, training for assessment, portfolio assessment), tutoring (types of peer assisted learning, peer tutoring (cross age and same age), student tutoring), feedback (types of feedback), online learning (groups, wiki's, online assessment). In addition, student tutoring fits approaches linked to flipped classrooms and blended learning. This knowledge base can be adapted considering local demands after the needs analysis session.
- Relevant skills. This refers to hands-on activities linked to implementing the above ideas in face-to-face and online settings. Take care, some of the skills will also be linked to

administrative and logistic features of tutoring; often neglected in professional development.

- Affective goals sound difficult to attain. But, motivation, self-efficacy, beliefs, can be boosted when teachers feel they are competent, autonomous and belong to a group. The team-based training approach in which we also share responsibilities and roles with participants has an established value in the research literature to become safe spaces where teachers are willing to experiment, to share to discuss success and failure.

- **Teaching behavior**
    - This section reiterates the focus on teacher "quality" but emphasizes now the actual monitoring of what changes in teacher behavior. A variety of instruments will be used to help teachers monitoring their own teaching behavior. This will partly be set up as part of the evaluative strand of the project. But, building on the present framework, we also transfer part of the responsibility for the monitoring and evaluation of the teachers themselves. Data will be collected to study together the quality in the changes in instructional strategies, as reflected in the recently implemented tutoring approaches. Typical (self-observational checklists that can be used are based on Van de Grift (2007).
    - In addition, we will also monitor change variables and how teacher react to the design of this specific professional development project.

- **Student results**
    - In the present project, we don't focus immediately on student outcomes. But, in the monitoring phase of the project, also students will be involved in a qualitative and quantitative study to monitor the impact on their self-efficacy, autonomous motivation and learning performance. In this way, we respect the focus on domain specific knowledge and skills and also ion socio-emotional and regulation features of their learning process as affected by the tutoring approach.

In the model, next to contextual factors also personal characteristics are stated as key conditions:

- **Contextual factors**
    - It is wise if teachers can refer to policy documents that already refer to educational innovations that are aligned with the current course content and orientation.
    - If the university already has established a professional development center and/or initiative, it is recommended this is linked up to the course involvement.
- **Personal characteristics teachers**
    - Key is that the participating teachers master English at a C1 level; this crucial to benefit from the oral and textual communication.
    - We expect teachers to have at least three years of teaching experience in their domain.

Structure of the training offer

The project takes into account the following demands from the university:

1. *Creation of training programme for tutors*
2. *Conduct of trainings for tutors (number of courses/number of participants)*
   - *Number of the conducted courses under the project*
   - *Number of hours within framework of the courses*
   - *Proposed date and method of implementation of courses*
   - *Place of conducting intramural classes (address/es)*
   - *Place and number of proposed study visits*
3. *Participation in creation of the model/models of use of the tutoring method (initial and final version)*
4. *Support of the partner consisting in consultations/mentoring during the stage of testing and implementing the solution reached"*

In view of developing a professional development offer that meets these demands, we developed an extensive plan that we will – at the end of this document – collapse the tables projecting the implementation over time.

WP1 Design and development of the "Tutoring oriented Professional Training and Development Program on Higher Education Didactics"

Aim: To underpin the content, structure and design of the professional development offer.
Timeline: September-December 2018

Activities and estimated number of days	Days
2018	
1.1 developing an online repository of materials to guide and document the design for the course offer. Collecting comprehensive workshop materials in view of designing the "Tutoring Professional Training and Development" course	4
1.2 Validation of assumptions as to feasibility of tutoring approaches in the HE context.	2
1.3 Developing a scenario for course component (a) full time training week; Estimated duration 5 working days; each half a day focuses on a specific topic; see appendix 1 for the content listing	12
1.4 Developing a scenario for course component (b) online course to foster implementation in local university settings	12
1.5 Developing for course component (c) Local hands-on workshop in the local university setting	12
1.6 Developing format for monitoring activities during implementation of participants (phase b)	10
1.7 Developing formats for local capacity center in the participating universityies.	10
1.8 Designing instruments, administration protocols and analysis guidelines in view of evaluating the course in target group.	3
1.9 Delivery of version 1.0 of the "Tutoring Professional Training and Development" course (component a)	15
1.10 Delivery of version 1.0 of the online course (component b)	15
1.11 Administrative and logistic work in view of implementing the "Tutoring Professional Training and Development" course (component a)	4
1.12 Working visit to other universities to discuss implementation phase in 2019	4
TOTAL	103 days

Additional costs:

Office materials (laptop (N 1), copies, storage, server usage, communication costs, copy costs	2000
Flight 2 trainers Brussels – xxxx (120 return flight)	240
Local hotel costs 2 trainers x 2 nights x 150/night	600
Per diem 2 trainers x 2 days x 84 Euro	336
Local travel cost 2 trainers x 100 Euro	200
TOTAL	3376

WP2 Implementation of the "Tutoring oriented Professional Training and Development Program on Higher Education Didactics"

Aim:
2019-2021: To implement course (component a, b and c) for 7 cohorts per year. In 2021 only 4 cohorts will be involved in the courses.
Timeline: January-December 2019 and January-August 2020

The assumption is that each cohort of teachers consists of minimum 20 and maximum 25 teachers; teams of 4 to 5 teachers of one university. This brings the annual total of teachers following courses per year minimum 7 x 20 = 140 teachers.

Activities and estimated number of days	Days
2019	
2.1 Organizing logistics of one study visit 2 days x 7 cohorts	14
2.2 Running 7 study visits (15 working days per course)	95
2.3 Running 7 monitoring cycles (15 working days per course); this includes enhancing the component with local examples of participants	95
2.4 Running 7 hands-on workshops in the other universities (8 working days per course)	56
2.5 Evaluation of teachers: collecting data, follow-up, processing, feedback (140 x 0,5 day)	70
2.6 Integration evaluative data (wave 2019)	5
2.7 Integrating local examples in component a and b	7
2020	
2.7 Organizing logistics of one study visit 2 days x 7 cohorts	14
2.8 Running 7 study visits (15 working days per course)	95
2.9 Running 7 monitoring cycles (15 working days per course); this includes enhancing the component with local examples	95
2.10 Running 7 hands-on workshops in the local university context (8 working days per course)	56
2.11 Evaluation of teachers: collecting data, follow-up, processing, feedback (140 x 0,5 day)	70
2.12 Integration evaluative data (wave 2019-2020)	5
2021	
2.13 Organizing logistics of one study visit 2 days x 4 cohorts	8
2.14 Running 4 study visits (15 working days per course)	60
2.15 Running 4 monitoring cycles (15 working days per course); this includes enhancing the component with local examples and content	60
2.16 Running 4 local hands-on workshops (8 working days per course)	32
2.17 Evaluation of teachers: collecting data, follow-up, processing, feedback (80 x 0,5 day)	40
2.18 Integration evaluative data (wave 2019-2021)	5

	TOTAL	875 days

The planning includes an evaluation component. This implies explicit data collections (paper, survey, video-based), monitoring activities and related reporting As to the planning, a strict planning is followed during which the first semester four cohorts follow the three components of the course and in the second semester three cohorts. At the end of each semester - June-July and December – a large workshop is set up at a local university bringing together all teachers of the specific cohort involved in component a and b of that specific semester (see planning).

Figure 3. Planning overview to implement the Tutoring Professional Training and Development".

Additional costs

2019	
Component a	
All costs related to travel from the local university Belgium are covered by the partner (local travel costs in Belgium, plan tickets, hotel costs, per diem)	
Local logistics and administration cost to organize the workshop: copies of docs and learning materials, coffee, lunch (bread/sandwich) cleaning up, administrative follow up: 20 Euro/day x 5 days local workshop x 7 cohorts x 20 teachers	14000
Component c	
Flight 2 trainers Brussels – xxx (120 return flight) x 2 local workshops in the partner university	480
Local hotel costs 2 trainers x 5 nights x 150/night x 2 local workshops in the partner university	3000
Per diem 2 trainers x 4 days x 84 Euro x 2 local workshops in the partner university	1344

Local costs related to teacher participation to attend the local workshops in the partner university (local travel, hotel, per diem)	
2020	
Component a	
All costs related to travel from xxx to Belgium are covered by the partner (local travel costs in Belgium and xxx, plan tickets, hotel costs, per diem)	
Local logistics and administration cost to organize the workshop: copies of docs and learning materials, coffee, cleaning up, administrative follow up: 20 Euro/day x 5 days local workshop x 7 cohorts x 20 teachers	14000
Component c	
Flight 2 trainers Brussels – xxx (120 return flight) x 2 local workshops in the partner university	480
Local hotel costs 2 trainers x 5 nights x 150/night x 2 local workshops in the partner university	3000
Per diem 2 trainers x 4 days x 84 Euro x 2 local workshops in the partner university	1344
Local costs related to teacher participation to attend the local workshops in the partner university are covered by the partner universities (local travel, hotel, per diem)	
2021	
Component a	
All costs related to travel from xxx to Belgium are covered by the partner universities (local travel costs in Belgium and xxx, plan tickets, hotel costs, per diem)	
Local logistics and administration cost to organize the workshop: copies of docs and learning materials, coffee, cleaning up, administrative follow up: 20 Euro/day x 5 days local workshop x 4 cohorts x 20 teachers	8000
Component c	
Flight 2 trainers Brussels – xxx (120 return flight) x 1 local university workshop	240
Local hotel costs 2 trainers x 5 nights x 150/night x 1 loc al university workshop	1500
Per diem 2 trainers x 4 days x 84 Euro x 1 local workshops in the partner university	672
Local costs related to teacher participation to attend the local workshops in the partner university are covered by the local partner (local travel, hotel, per diem)	
TOTAL	**48060**

WP3 Creation of a tutoring model in cooperation with partner university experts

This WP builds on the specific requirements of the partner universities who brings together the different international stakeholders putting forward a course offer and each develop the training on the base of their experiences and conceptions of tutoring in higher education. In developing the plan, we will actively build on the initiative of the local partners to deliver ideas, discussions, cases, … helping to make explicit a shared understanding of tutoring in the local university context.

Aim:
To develop a shared higher education model for tutoring.
Timeline: January 2019 - December 2020

Activities and estimated number of days	Days
2019	
3.1 Developing a first version of the integrated model	10
2020	
3.2 Working towards a final version of the model	10
TOTAL	20

Additional costs:

2019	
Flight 2 trainers Brussels – xxx (120 return flight)	240
Local hotel costs 2 trainers x 2 nights x 150/night	600
Per diem 2 trainers x 2 days x 84 Euro	336
Local travel cost 2 trainers x 100 Euro	200
2020	
Flight 2 trainers Brussels – xxx (120 return flight)	240
Local hotel costs 2 trainers x 2 nights x 150/night	600
Per diem 2 trainers x 2 days x 84 Euro	336
Local travel cost 2 trainers x 100 Euro	200
TOTAL	2752

WP4 Support of the partner consisting in consultations/mentoring during the stage of testing and implementing the solution reached

Aim:
Transfer of the experience to the local partners
Timeline: January 2019 - December 2020

Activities and estimated number of days	Days
2020	
3.1 Consultation and mentoring session start-up phase	10
2021	
3.2 Consultation and mentoring session transfer phase	20
TOTAL	30

Additional costs

2019	
Flight 2 trainers Brussels – xxx (120 return flight)	240
Local hotel costs 2 trainers x 2 nights x 150/night	600
Per diem 2 trainers x 2 days x 84 Euro	336
Local travel cost 2 trainers x 100 Euro	200
2020	
Flight 2 trainers Brussels – xxx (120 return flight)	240
Local hotel costs 2 trainers x 2 nights x 150/night	600
Per diem 2 trainers x 2 days x 84 Euro	336
Local travel cost 2 trainers x 100 Euro	200
TOTAL	2752

Summarizing the Ghent University offer:

- In view of reading tables in the next sections, we build on the following calculation: One year = 1558 hours = 205 days. The average all-in wage for a junior post-doc is 90.000 Euro (all-in cost and costs related to finishing contract; period September 2018-August 2021). This is about 57,89 Euro/hour. This 440 Euro/day (7,6 hours/day).
- A return flight Brussel – xxx is about 100/120 Euro
- Extra local transport expenses airport-locality course = 100 Euro
- Hotel cost 150/Euro
- Per diem (extra costs for food and subsistence) is 84 Euro

2018	Days	fte cost x 440 Euro/day	Additional costs	TOTAL	Total / teachers

WP1 Design and development of the "Tutoring Professional Training and Development"	103,00	45320,00	3376,00	48696,00	152,00
WP2 Implementation of the "Tutoring Professional Training and Development"					
2019	335,00	147400,00	18824,00		
2020	335,00	147400,00	18824,00		
2021	205,00	90200,00	10412,00		
TOTAL	875,00	385000,00	48060,00	433060,00	1353,00
WP3 Creation of a tutoring model in cooperation with local partners					
2019	10,00	4400,00	1376,00		
2020	10,00	4400,00	1376,00		
TOTAL	20,00	8800,00	2752,00	11552,00	36,00
WP4 Support of the partner consisting in consultations/mentoring during the stage of testing and implementing the solution reached					
2019	10,00	4400,00	1376,00		
2020	20,00	8800,00	1376,00		
TOTAL	30,00	13200,00	2752,00	15952,00	49,00
TOTAL		452320,00	56940,00	509260,00	1590,00
Overhead cost 20%		90464,00	11388,00	101852,00	318,00
		542784,00	68328,00		1908,00
GRAND TOTAL				**611112,00**	

The current planning runs from September 2018 till August 2021. This is the shortest possible "run" of the project. A key assumption is that it will be possible to involve as sufficient number of cohorts for each semester. The costs developed in the present stay the same; even if the number of participants is lower per training cohort, or even when there are no participants for a specific cohort.

References

Merchie, E., Tuytens, M., Devos, G., & Vanderlinde, R. (2018). Evaluating teachers' professional development initiatives: towards an extended evaluative framework. Research Papers in Education, 33(2), 143-168.

Van de Grift, W. (2007). Quality of teaching in four European countries: a review of the literature and application of an assessment instrument. Educational research, 49(2), 127-152.

Appendix 1

Course content overview

- This course content is the backbone for the content of the 5-day study visit at Ghent University
- The course content aims at developing the relevant pedagogical knowledge and to link this to the personal content knowledge base.
- On average two topics will be covered during one half a day.
- Instructional strategies: guided lecture, individual work, group work, peer tutoring, peer assisted learning, team teaching, prototype development, observation, classroom visits, discussions with Ghent University staff and local students.

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1. Nature of peer tutoring: concepts, types, key concepts, advantages, failures, key authors, review studies,
2. Characteristics of cooperative groups in peer tutoring: group composition, group dynamics, same age and cross age, evolving roles, role switching
3. Developing a tutor session format: scripts formats
4. Developing tutor activities in line with specific course content domain
5. The need for structuring group work: tutor cards
6. Designing a tutor training
7. Designing an intervision session, self-reflection activities
8. Feedback as a key dynamic element for learning: types of feedback, eliciting feedback,
9. How to train students for self and peer assessment
10. Designing rubrics and other assessment instrument (e.g., video-based)
11. How to measure the impact of peer tutoring
12. How to give feedback to tutors, tutees and groups
13. How to develop a supportive context for peer tutoring: flipped classrooms, blended learning
14. What kind of learning objectives are central in a peer tutoring context

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