Development of a broad and approachable format for didactic professionalization in a multicampus context

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INTRODUCTION

Over the last decade the need for didactic professionalization at universities has increased. Since the early 2000s, an increasing number of workshops, seminars and conventions have been organized to enhance the teaching skills of lecturers and faculty members of the faculties of Bioscience Engineering, Engineering Science and Science. These professionalization activities consisted of different formats, and were supported by both university broad and discipline specific educational services within the university.

In 2007 the three abovementioned faculties started to collaborate, as a fair amount of professionalization demands were identical within the different faculties. However, a need for a more tailored and approachable format was felt. This need was urged by the establishment of the new Faculty of Engineering Technology, causing a geographical expansion from one to seven campuses.

This paper elaborates on the development and benefits of an alternative peer-to-peer format, including the implementation of video-conferencing technology and adjustments to anticipate new trends in educational development or organizational preconditions. An analysis of the current format was conducted, taking into account participation rates, opinions and findings of participants. Finally, possible improvements and future plans are discussed.

1   DEVELOPMENT OF A NEW FORMAT

1.1 The initial concept

In the early 2000s, disciplinary educational developers struggled to develop an appropriate and approachable discipline specific format for professionalizing teaching academics. This format needed to be complementary to the university broad professionalization initiatives, mainly focussing on newly appointed faculty and emphasising on major didactic and pedagogical principles. Evaluation and analysis of several different professionalization activities and initiatives revealed the following needs: exchanging experiences and collegial thoughts; inspiring good practices as well as discussing less successful attempts to solve some teaching issues; major didactical themes as well as more common daily problems in the classroom. On top of that teachers indicated that, although the university broad initiatives were necessary, they equally felt a need for more discipline specific initiatives.

Educational developers therefore started organizing lunch sessions where teachers could share and discuss experiences or good practices with their colleagues. They believed in the need and power of (informal) teacher co-learning and reflection. Avalos (2011) confirmed this view in her review on teacher professional development, even concluding that informal exchanges of experiences are a necessary starting point for moving to more sophisticated professionalization as for example learning by observation, peer feedback, etc. or even collaboration on joint

projects. Regarding the latter the organisers believed the networking aspect to be important as well.

Table 1. Example of a scenario

Flipped Teaching vs traditional lecture (May 6th, 2014)	
Timing	**Section**
12.00 – 12.20 h	Informal lunch and networking opportunity
12.20 – 12.45 h	Flipped teaching for bachelor students: a case study Prof. Tinne De Laet
12.45 – 13.00 h	Discussion and questions
13.00 – 13.25 h	Bio-Engineering in perspective: back to traditional lecturing Prof. Erik Smolders
13.25 – 13.40 h	Discussion and questions
13.40 – 14.00 h	Informal moment

1.2 Evolution of the format

Over the years, the developed professionalization format gained support and became well-known among the faculty members. However, in order to maintain the content of the programme up to date, a yearly theme was chosen, and all sessions were related with this main theme. Examples of these themes are: 'Coping with diversity and increasing heterogeneity', 'Millennials', 'Teaching formats', 'Evaluation and assessment'. As a result, the sessions became more attractive as they were perceived as necessary and contemporary by the audience. This also augmented the scope of the professionalization programme as it allowed a more profound analysis within a broader theme. Simultaneously, this made the professionalization programme more identifiable than a complexly formulated title of an isolated topic.

Another adaptation to the original concept, was the invitation of two speakers from two faculties instead of only one speaker, stimulating presenters to discuss a similar subject from different viewpoints or from a different disciplinary context. This increased interaction between presenters was also reflected within the audience as the simultaneous analysis was often an interesting starting point for an interactive dialogue, one of the main goals of the professionalization programme.

In 2013, the new faculty of Engineering Technology joined the professionalization programme. Not only did this cause a broadening of the audience from three to four faculties and an incorporation of new disciplinary fields, but it also caused a geographical expansion from one to seven campuses. From that moment on, the professionalization needed to be adapted to a multicampus context.

This multicampus adaptation required an approach completely different from earlier adaptations and represented the dual challenge of a geographic expansion while safeguarding the interaction between speaker and audience. As this is an important aspect that characterizes the original concept of the professionalization programme, it was important to be preserved during the adaptations.

1.3 Adaptation to a multicampus context

The geographic expansion was supported by the implementation of video-conferencing technology and a chat-interface for written communication between locations. All presentations were organized in Leuven, and all campuses were able to follow the contributions through a live-stream of the combined image of the speaker

and the slideshow. The live-stream was suitable for two kinds of audiences: multiple on-campus groups or sole individuals behind their own computer. Each campus provided a videoconferencing-room for participants to join in the original concept of the programme, the combination of professionalization and lunch. Individual participants were also able to follow presentations behind their own computer, enjoying the access to information that would otherwise have been difficult to obtain due to the distance. However, they experienced less interaction.

The technical support for the presentation in Leuven consisted of video-support through a mobile webcam and audio-support through additional microphones to capture the dialogue and interactions in the audience, so that all distant audience received a complete live-experience of the presentation. A chat-interface maintained continuous support in case of technical problems and also allowed for sending questions to the speaker. All gathered questions by chat were presented to the speaker and answered through the live-stream. All presentations were recorded, edited and published on the website, together with the presentation slides.

To support the technical issues of broadcasting the presentations, specialized miniguides have been developed for the distant audiences in order to support the use of the video-streaming software. Speakers were informed by the educational developers about specific requirements for their presentation that are inherent to the live-stream and distance-audience. Two types of software have been tested so far: Adobe Connect®, and Microsoft Lync® 2013.

The implementation in the multicampus context has been spread over two years. In the first year, the main focus was to promote the concept within the new faculty in order to stimulate participation. The programme was presented to the main advisory organs of the Faculty of Engineering Technology, it was documented in detail in broad email communications to all faculty members, it was included in internal newsflashes and it was published on the faculty website. During this first year, the educational developer of the Faculty conducted regular informal evaluations on the different campuses and stimulated all distant participants to report feedback on their personal experiences. Based on this feedback, the implementation was swiftly fine-tuned for an enhanced experience each next session. In the second year, after a positive evaluation of the first year participation, the Faculty increased participation by presenting their own speaker.

2   EVALUATION

Registration records have been kept since September 2010. A total of 636 participations have been registered, with 244 unique participants distributed over four different faculties (Table 2). The participation-rate per session has an average of 26.2 participants.

Table 2. Participation rate of the different faculties

Faculty	Bioscience Engineering	Science	Engineering Science	Engineering Technology*	Other
Participation	134	195	203	79	25

participation since 2013-2014, among the 79 participants 59 attended the sessions virtually
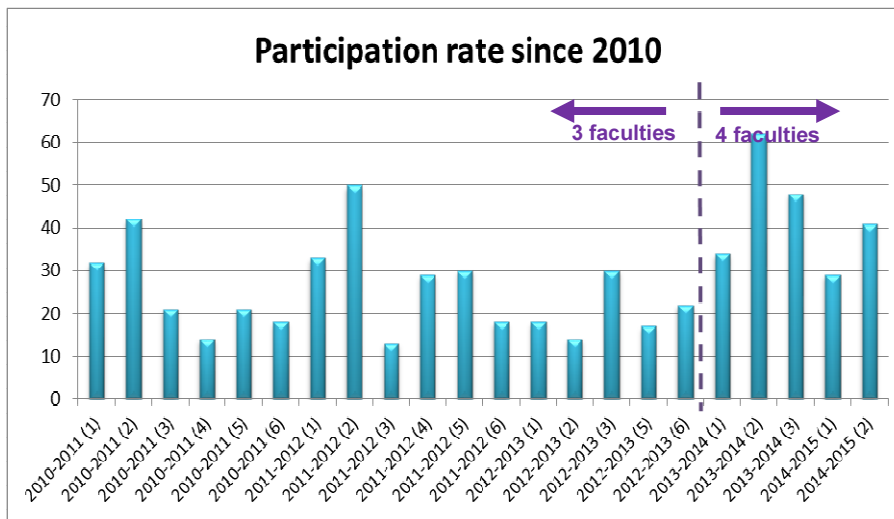
Fig. 1. Participation rate

At the beginning of 2015, a survey was conducted in order to evaluate the current format and the latest innovations. 76 of the 260 notified participants completed the survey.

The evaluation of the current format was positive: 60 respondents (96.8%) considered the format appealing and appropriate. Also, the frequency of the sessions was considered sufficient.

The most likely motivations for participants to attend the sessions were 'inspiration' 87.1% (54) and 'educational interest' 72.6% (45) (Table 2). Networking and the support of a colleague was not considered a direct motivator; only 12.9% (8) of the respondents marked 'networking' as a reason to attend the sessions. However, half of the participants 51.6% (32) stated to have made an interesting contact during the sessions, suggesting the format is an indirect facilitator of networking among faculty members.

All respondents (100%) found the topics interesting and 87.1% (54) of them acknowledged to think differently about their teaching methods after attending one or more sessions. 71% (44) of the participants indicated to be inspired to actually try something new while teaching.

These results confirm that the main goal of the format has been reached, namely to make teachers reflect on their own teaching practice and to inspire each other. This is in line with Tanner (2014) stating that in teaching "*perhaps the end goal, really is not to define the 'best way to teach' and 'what works', but rather to develop instructors as reflective instructors who are analytical about their practice and who make iterative instructional decisions based on evidence from the students sitting right in front of them*". The benefits of co-learning as a mediating factor in inducing change of practices, eventually resulting in an improvement of student learning, were also seen in various other studies (Vescio et al. (2008) and Schnellert et al. (2008)).

Ideally, more teachers should be involved. The comment section of the survey showed that some of the respondents felt disappointed by the -in their opinion- rather low participation rates, claiming that teachers should be more concerned about improving their educational practice. On the other hand, the survey also indicated that teachers, in spite of their interest to learn more about teaching skills, are not

always able to combine this with their already heavily burdened schedule. The implementation of the live-streaming and the opportunity to review the session later, might represent a possible solution for faculty members who are unable to attend the live session, especially since the survey-results reveal the networking aspect less relevant to the participants as a direct motivator.

The survey-results indicate divided opinions about live-stream and digital recordings. While most of the respondents found the availability of the online recordings an added value (72.6% and 80.6%), the results nevertheless showed that 79% (49) never consulted the online material. Several respondents claimed to be unaware of the opportunity to watch the sessions online afterwards. Currently, this extra service is not sufficiently known, emphasizing the need for a more thorough communication campaign about this feature.

Most of the respondents (72.6%) consider live streaming an asset to the format, and even 14.5% (9) strongly believe in the advantages of this support. However, a group of respondents (27.4%) do not find live stream an advantage for the programme. Probably this can be explained by the fact that there is still room for improving the live streaming. At this moment technical issues (software jamming, microphone malfunctioning, etc.) often cause delays, which annoys the local audience. Also interaction with the online viewers is limited by technologic restraints. Therefore finding specialized equipment and software is a short term challenge.

Table 2. Motivation for attending the sessions*

Possible answer	Count	Percentage
Inspiration	54	87,10%
Educational interest	45	72,58%
Networking	8	12,90%
To support a colleague	9	14,52%
Other	0	0,00%

respondents could indicate multiple motivations

3   FUTURE PLANS

The survey results indicate that the chosen approach towards multicampus adaptation is compatible with the main goals of the initial professionalization programme. However, several challenges remain to be addressed by the faculty educational developers for further optimization of the process.

The implementation of technology while maintaining interactivity between local and distant audiences is probably one of the most urgent technical challenges to be addressed in the near future. The success of the programme depends on the short term solution for several difficulties that have been experienced during the first years of implementation. As such, the search for specialized software as well as the improvement of the video and audio equipment of the host presentation room in Leuven remain an important task. It is essential that the local audience or speakers are not restricted by recording and audio quality technicalities. Also speakers should be able to use their preferred presentation software and presentation style without restrictions caused by the specificity of the software. The ultimate goal of the multicampus adaptation would be the possibility to combine a live presentation with the simultaneous support of a webinar-type event.
The logistical and technical support of the multicampus adaptations was taken up by the educational developers in collaboration with local co-workers on each campus.

As the organisational workload for each session was significantly augmented when technical imperfections occurred, it is important to improve the before mentioned software and hardware equipment. However, the process of a multicampus professionalization programme will always require superior organizational and coordination skills of the involved educational developers. Short-term improvements of the logistics would be the writing of a detailed scenario for each educational developer involved in order to secure the continuity of the support, the streamlining of the online subscription system, and the inclusion of a digital, instantly available evaluation form after each session.

It has been noted that the implementation of this new professionalization format requires the distribution of a substantial quantity of information to a large number of people and several target groups. Taking this into account, it is important to initiate a broad communication campaign to inform all potential participants of the newly adapted format and its possibilities.

On the long run, a strategy should be developed for optimizing the further possibilities of the recordings. They constitute an important source of information that can be made useful for future applications, similar to a traditional library. One possibility is the development of a recordings library to promote professionalization within the Group Science and Technology of the KU Leuven, sharing the knowledge with a broader audience, both inside and outside the university community.

4   CONCLUSIONS

After seven years, the initial motives for developing a broad and approachable professionalization format are still topical. A survey revealed that the main goals of the concept, i.e. creating an opportunity for teachers to exchange experiences, share good practices and inspire each other, have been achieved. A fair amount of participants even confirmed to have actually tried a new teaching approach in the classroom.

Besides some minor adjustments over the years, the most profound change has been the recent adaptation to a multi-campus context through the introduction of video-conferencing technology. This technology provides real time streaming of the sessions as well as digital recordings for online consulting afterwards. The live-streaming makes it possible to reach more teachers on several campuses at once, while the recordings are a possible solution for teachers who prefer to attend more sessions, but are limited by their burdened schedules. Simultaneously, the implementation of new technologies in a professionalization programme directly inspires teachers to adopt them in their own teaching activities.

Enhancing interactivity between local and distant audiences is probably one of the most urgent technical challenges to be addressed. Specifically the diminished distance between speakers and their audience must be carefully monitored during all adaptations so that technology does not create an unwanted new barrier between peers.

Another challenge exists in a large communication campaign to inform all potential participants of the newly adapted format and its possibilities. In the long run, a plan must be developed where the usability of the recordings is optimized. For example, the development of a recordings library to promote professionalization within the Group SET of the KU Leuven.

Finally, it is clear that the process of a multicampus professionalization programme will always require superior organizational and coordination skills of the involved educational developers. Short-term improvements of the logistics will augment the streamlining of the process, but the future success of the programme depends also on the improvement of the software and hardware support for broadcasting and recording.

5   ACKNOWLEDGMENTS

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