

Supporting European Educational Development
(S.E.E.D)

**An Investigation into a
Possible Need of Support in Online Education
among
Teaching Staff Developers in Europe**

**Report for the S.E.E.D. Partners' Meeting
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1. Introduction

This report presents the results of an investigation into possible needs of support among teaching staff developers in online higher education. The investigation is an initiative of a consortium of eight universities in Europe, the UK Higher Education Academy, and the LDE Centre of Education and Learning. The universities are Universidad Carlos III de Madrid (Spain); Universidade do Porto (Portugal); University of Northampton (UK); University of Eastern (Finland); Technische Universität München (Germany); Leiden University (NL); Erasmus University Rotterdam (NL); and Delft University of Technology (NL). The consortium is working on the 'Supporting European Educational Development' project (S.E.E.D.). This project aims to support teaching staff developers in Europe who work with higher education teachers on online and/or blended education and who want to provide these teachers with pedagogical expertise and educational technologies.

The goal of the investigation was to gain knowledge of possible needs of support among teaching staff developers in the field of online education in higher education.

The web-based survey ran for 6.5 weeks from the beginning of December 2015 till the 21th of January 2016. The survey was announced via the project partners and the respondents were asked to volunteer. The way of sampling was snowball sampling. This is a form of nonprobability sampling, meaning that the results of the survey may not be used for generalizations pertaining to the whole population of teaching staff developers.

The number of filled out questionnaires is 80. The research population is estimated to include about 450 teacher staff developers (exact figures are not available). The response rate of 80 out of the 450 potential respondents is 18%. No respondent has filled out the questionnaire more than once, as far as could be checked. Taking into account the way the surveys were diffused, a response of 18% is remarkably high and satisfying for getting an indication about the need of support among teaching staff developers.

The survey consists of four parts relating to the respondent's (1) country, university, organizational position and educational activities, (2) perceptions of online education development, (3) the content of support needed, and (4) the type of support needed.

The investigation team consisted of participants in the LDE Centre of Education and Learning (CEL). Maarten van de Ven (Leiden University and CEL) conceived the questionnaire and organized the data collection. Sjouke Wieringa (Leiden University) analyzed the data. She is also responsible for the reporting, together with Manou Windhausen and Henk Dekker (CEL). Gerard Baars (Erasmus University Rotterdam and CEL) and Toine Andernach (Delft University of Technology and CEL) were the advisors.

Chapter 2 provides the results of the descriptive analyses of the respondents' backgrounds. Chapter 3 describes the respondents' perceptions regarding online educational developments in higher education. In chapter 4 the descriptive analyses' results are presented for the questions regarding the content and type of support which is needed in the field of online education. In chapter 5 the conclusions of the need investigation are provided.

2. Countries, Universities, Positions, and Activities

The first questions of the survey relate to the respondents' countries and universities, organizational positions, and educational activities. In the following subsections 2.1 until 2.3 the pie charts describe the distribution of the survey samples over the predefined and non-predefined answers on the descriptive questions related to country and university of origin (subsection 2.1), positional information (subsection 2.2), and being active in online education (subsection 2.3).

2.1 COUNTRIES AND UNVERSITIES

Respondents from 9 European countries have filled out the questionnaire (Figure 1). Most respondents are from The Netherlands (32%), Finland (20%) and the United Kingdom (18%; Figure 1).

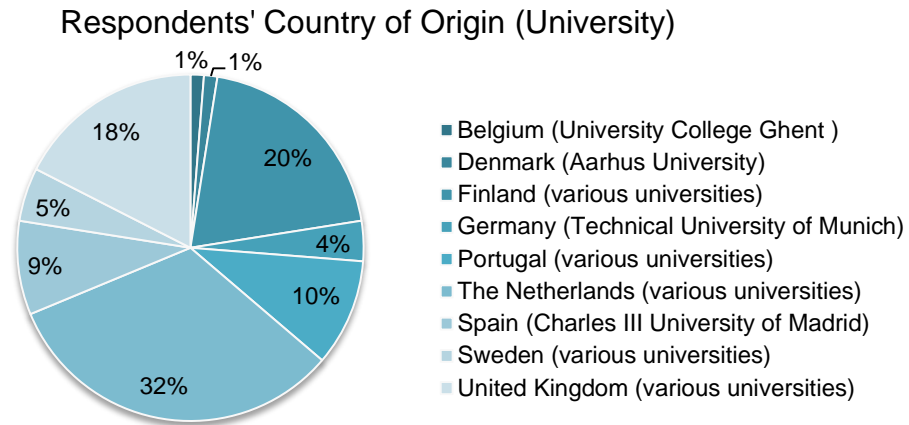


Figure 1 Respondents' country of origin (university)

Respondents come from 30 universities. The respondents in five countries – Finland, Portugal, the Netherlands, Sweden, and the United Kingdom - come from several different universities, while respondents in four countries – Belgium, Denmark, Germany, and Spain - come from one university (Figure 1).

From the 4 Swedish respondents 3 were from Lund University and 1 from Umeå University. Half of the Dutch respondents are from the University of Twente (50%) and the other half from various universities including Delft University of Technology, Eindhoven University of Technology, Open University of The Netherlands, Radboud University and the University of Tilburg (Figure 2). Most of the Finnish respondents are from Aalto University (38%) and University of Eastern Finland (38%; Figure 3). The respondents of the UK and Portugal are more equally divided over various universities (Figures 4 and 5)

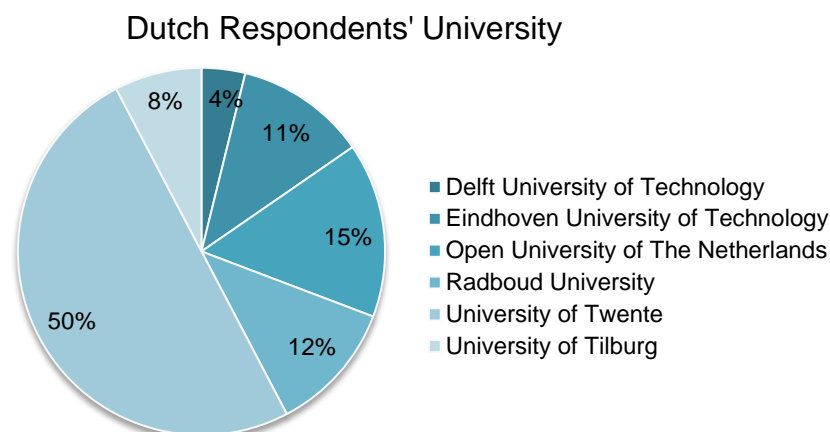


Figure 2 Dutch respondents' representing 5 different Dutch universities

Finnish Respondents' University

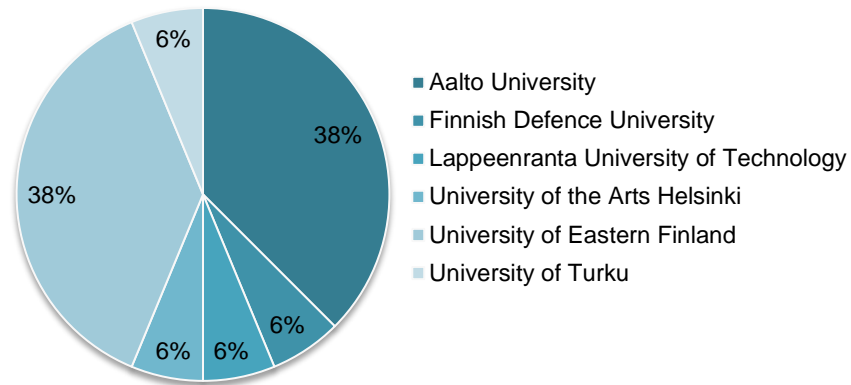


Figure 3 Finnish respondents representing 5 different universities

UK Respondents' University

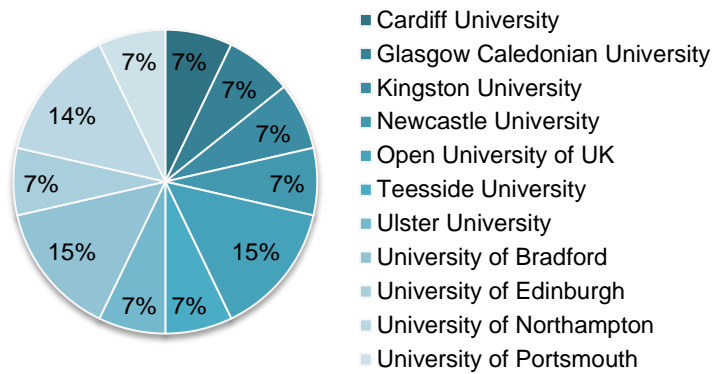


Figure 4 Respondents of the United Kingdom representing various universities

Portuguese Respondents' University

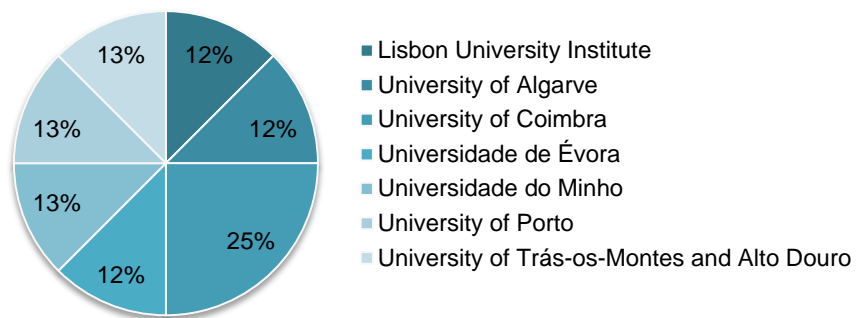


Figure 5 Portuguese respondents representing various universities

2.2 ORGANIZATIONAL POSITIONS

Almost all respondents work at an educational center of a university at university level (n = 63; 79%), faculty level (n = 13; 16%), department level (n = 10; 12.5%), and/or other level (n = 8; 10%; Figure 6). The respondents could indicate more than one organizational position relevant to their work activities.

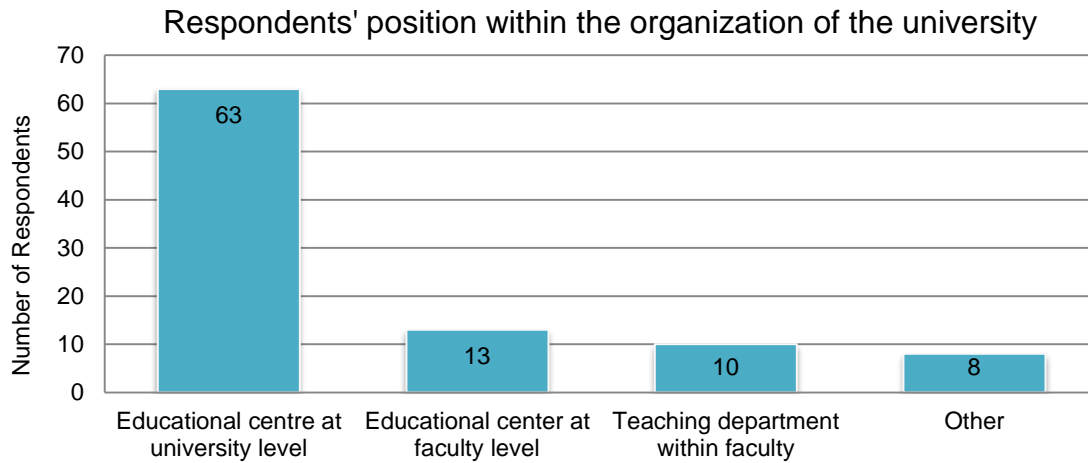


Figure 6 Respondents' position within the organization of the university

At university level, the respondents are a teacher trainer, a consultant in online and blended learning and/or educational technology, and/or an educational researcher. Almost half of the respondents did not find his or her primary occupation within the predefined answers since 46% selected 'other' (Figure 7). Considering this high percentage, it may be that the description of the answer options was too specific oriented on online work. One third of the respondents indicated to work as a consultant in online learning, blended learning and/or educational technology (33%).

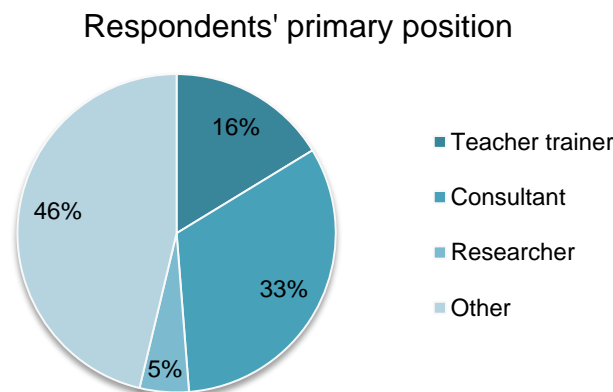


Figure 7 Respondents' primary position

A majority of the respondents indicated to belong to educational sciences (66.3%). More than one third indicated to be active in more than one discipline (38.8%; Figure 8).

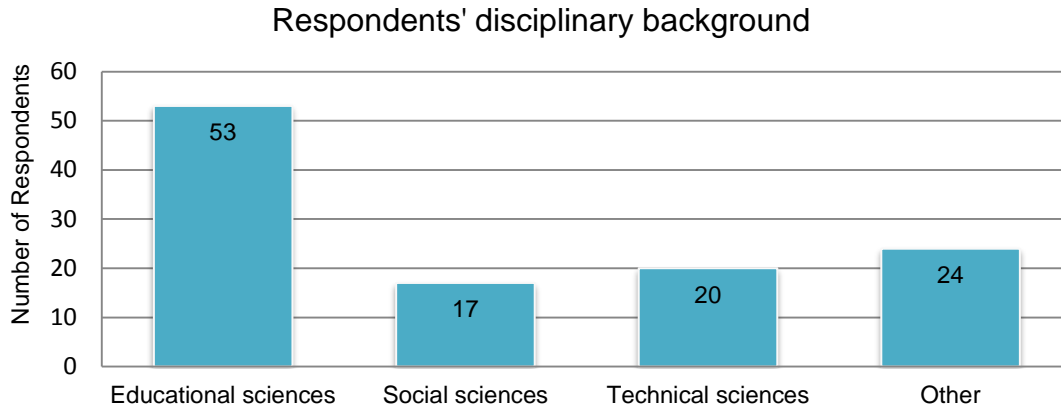


Figure 8 Respondents' positional background

2.3 ONLINE EDUCATIONAL ACTIVITIES

The activities the respondents perform within their positions could relate to certain components of online education like doing research, technical development, educational development, teacher consultancy, teacher training or to a non-predefined category. In Figure 9 the online educational activities are shown for all respondents with different positions. The activities which do not relate to online education have probably been captured by the category 'other'. Respondents could indicate more than one answer to be applicable to them. 98.8% of the respondents answered this question (n=79). The respondents perform activities in all predefined categories, but most of them in educational development (66.3%; Figure 9). The respondents indicated 32 different compositions of activities. 34.2% of the respondents are active in both teacher training, teacher consultancy and educational development in online education. About 74.7% of the respondents indicated to perform activities to two or more predefined categories. About 79.5% of the respondents indicating to be active in consultancy also indicated to be active in teacher training activities in online education.

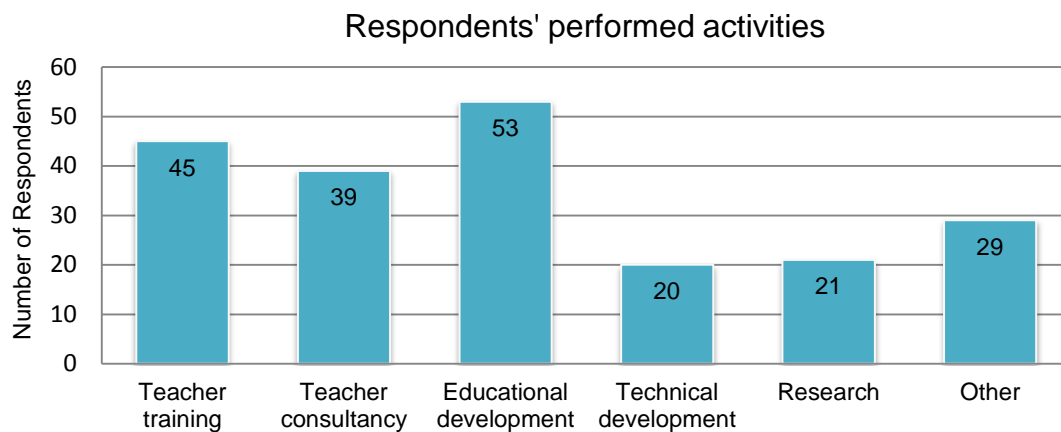


Figure 9 Respondents' performed activities in online education

3. Perceptions of Online Education

In this chapter the perceptions of teacher staff developers of the changes in online education has been rated in 5 predefined categories on a 5 point Likert-scale from strongly disagree to strongly agree. The steps in between were given a value 1 to 5 in the survey, though the following corresponding scale can be assumed: Strongly disagree – Disagree – Neutral – Agree – Strongly agree. The statement ratings are provided in percentages in bars. The bars are separated in 5 boxes each representing a point on the scale. Colors of these boxes represent the highest ratings in darkest green towards the lower ratings in lighter green. The median score is made bold. In the caption text the median and number of responses are showed.

Almost all respondents agreed with the statement that teachers at the respondent’s university need to develop new skills adapted to the formats and technologies that online education currently demands (57% strongly agreed, 34% agreed, 6% neither agreed nor disagreed, 1% disagreed and 1% strongly disagreed; Figure 10). The median score for this perceptual statement lays on ‘strongly agree’.

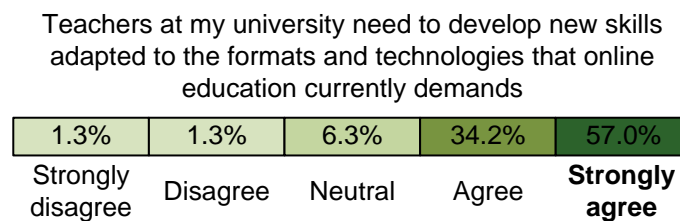


Figure 10 Ratings on statement teachers need to develop new skills, median = Strongly agree, n=79

More than eight out of ten respondents agreed with the statement that the number of teachers at the respondent’s university that need training in online education will grow in the next couple of years (40.5% strongly agreed, 43% agreed, 11% neither agreed nor disagreed, 2.5% disagreed and 2.5% strongly disagreed; Figure 11). The median score for this perceptual statement lays on ‘agree’.

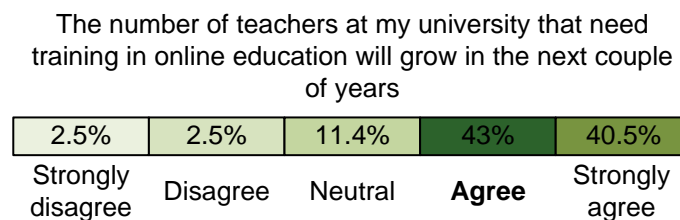


Figure 11 Ratings on statement number of teachers who need training will grow, median = agree, n=79

Six out of ten respondents agreed with the statement that the number of teaching staff developers at the respondent’s university will not be able to support all the requests for support in the development of online education (27.5% strongly agreed, 32.5% agreed, 30% neither agreed nor disagreed, 9% disagreed and 1% strongly disagreed; Figure 12). The median score is for ‘agree’.

The number of teaching staff developers at my university will not be able to support all the requests for support in the development of online education

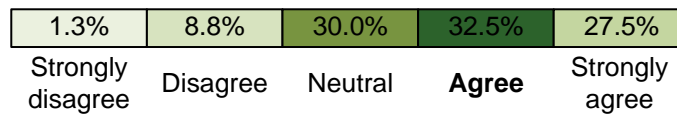


Figure 12 Ratings on statement number of teaching staff developers will not be able to support all requests for support, median = agree, n=80

More than six out of ten respondents agreed with the statement that the body of scientific knowledge about online education is growing fast (24% strongly agreed, 41% agreed, 22.5% neither agreed nor disagreed, 11% disagreed and 1% strongly disagreed; Figure 13). The median score is for 'agree'.

The body of scientific knowledge about online education is growing fast

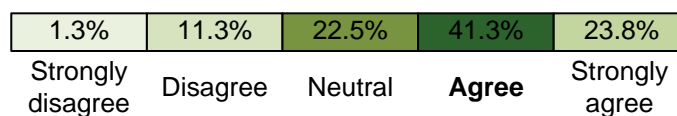


Figure 13 Ratings on statement body of knowledge is growing fast, median = agree, n=80

Almost eight out of ten respondents agreed with the statement that the teaching staff at the respondent's university need additional educational support in order to be able to support teachers in developing and using online education (34% strongly agreed, 45% agreed, 14% neither agreed nor disagreed, 5% disagreed and 2.5% strongly disagreed; Figure 14). The median score is for 'agree'.

The teaching staff developers at my university need additional educational support in order to be able to support teachers in developing and using online education

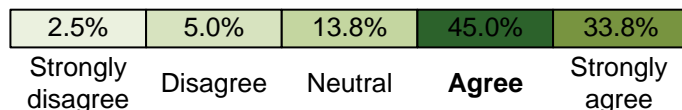


Figure 14 Ratings on statement teaching staff developers need additional educational support, median = agree, n=80

No particular response group of a single university was an outlier in the dataset considering these perceptions on online educational developments. The maximum score is 25 points when all indicators would score 5 points each for 'strongly agreed'. A total of 5 points is the minimum when all indicators would score 1 point for 'strongly disagreed'. A score of 15 points means the respondents scored on average neutral. Only 5% (n=4) of the respondents without missing one or more statements scored less than 15 points.

Conclusions. The respondents generally agreed or strongly agreed with the presented statements presenting perceptions on developments in online education and their effects on teachers and teaching staff developers:

- Teachers at my university need to develop new skills adapted to the formats and technologies that online education currently demands (91%);
- The number of teachers at my university that need training in online education will grow in the next couple of years (84%);
- The number of teaching staff developers at my university will not be able to support all the requests for support in the development of online education.(63%);
- The teaching staff developers at my university need additional educational support in order to be able to support teachers in developing and using online education (79%).
- The body of scientific knowledge about online education is growing fast (65%).

4. Need of Support; Contents and Types

This chapter elaborates on the results of the survey regarding the content and type of support needed. First the answers related to the question if there is need for support are presented in section 4.1. Thereafter, the content of support is discussed in section 4.2. At last, the type of support needed is discussed in section 4.3.

4.1 NEED OF SUPPORT

The first question was: *'As a teaching staff developer, do you need support in the area of online education?'*

More than eight out of ten respondents answered that they as a teaching staff developer need support in online education (n=79, 84.8%).

The 15.2% who did state not to be needing support in the area of online education as teaching staff developer, reacted in general positive to the statements on perceptions outlined in the previous chapter 4; none of this group answered negative to the perceptual statements. The indication is that the majority of the teaching staff developers do ask for support in the area of online education. It is notified that when looking at the results on the descriptive analysis of the perceptions of respondents, that almost all respondents positive to the perceptual statements are also positive to the request for support. Only 5% of the respondents had an on average negative attitude to the statements on perception, of which only one person belonging to this subgroup indicated not to need support.

4.2 CONTENT OF NEEDED SUPPORT

The second question was: *'What is the content of the support that you would need as a teaching staff developer?'* The answers were predefined in the following categories in this order: A. Educational tools for the development and delivery of online education, B. Case studies of practical experiences and knowledge of teachers in developing and delivering online education, C. Evidence based knowledge about developing and using online education, D. Training on how tools work, E. Examples on how to use tools, instruments and working methods in an educational setting, F. Materials like checklists, factsheets, test matrices, discussion formats and workflows, G. Knowledge on how to design online/blended education, H. Other. More than one answer was allowed and all respondents rated the options.

More than half of the respondents indicated that they as a teaching staff developer need educational tools for the development and delivery of online education (61%), case studies of practical experiences and knowledge of teachers in developing and delivering online education (60%), evidence based knowledge about developing and using online education (53%), and examples on how to use tools, instruments and working methods as teaching staff developer (54%; Figure 15).

Rating Content of Support

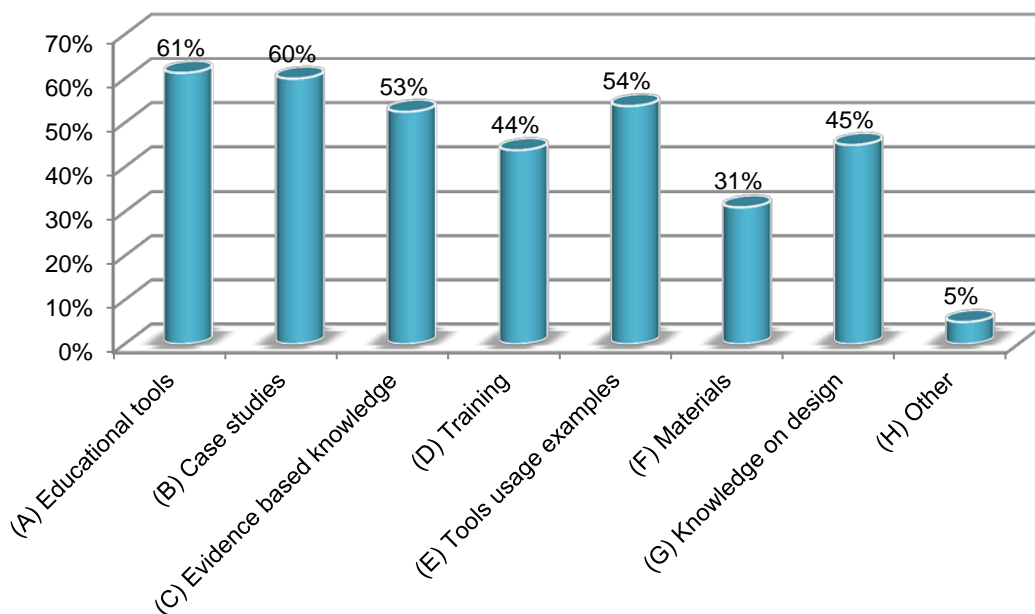


Figure 15 Histogram showing rating to contents of support, n=100

There are only minor differences among the various activity subgroups with regard to the need for a certain content of support. All activity subgroups positively rated the need for educational tools for the development and delivery of online education, case studies of practical experiences and knowledge of teachers in developing and delivering online education, and examples on how to use tools, instruments and methods in an educational setting. (See Table 1 in which the activities of the respondents are outlined against the categories of content of support referring to the letters in Figure 15, by looking at the median of the specific group of respondents. The color represents the attitude to a content of support of a subgroup of respondents performing a specific type of activity: green is positive and red is negative or in a perception of not being relevant).

Table 1 Respondent activity areas vs. content of support needed based on median results, legend: green means median = 1, red means median = 0. Letters for Content of Support corresponds to list on page 10.

Activity in online education vs Content of Support needed	A	B	C	D	E	F	I
Teacher training	Green	Green	Green	Red	Green	Red	Red
Teacher consultancy	Green	Green	Green	Red	Green	Red	Red
Educational development	Green	Green	Green	Red	Green	Red	Red
Technical development	Green	Green	Green	Red	Green	Red	Green
Research	Green	Green	Red	Red	Green	Red	Red

4.3 TYPES OF SUPPORT NEEDED

In this paragraph types of support has been rated in 5 predefined categories on a 5 point Likert-scale from strongly disagree to strongly agree. The steps in between were given a value 1 to 5 in the survey, though the following corresponding scale can be assumed: Strongly disagree – Disagree – Neutral – Agree – Strongly agree. The statement ratings are provided in percentages in bars. The bars are separated in 5 boxes each representing a point on the scale. Colors of these boxes represent the highest ratings in darkest green towards the lower ratings in lighter green. The median score is made bold. In the caption text the median and number of responses are showed.

Six out of ten respondents expressed the need of campus-based teaching labs and master classes (20% strongly agreed, 41% agreed, 27% neither agreed nor disagreed, 11% disagreed and 1% strongly disagreed; Figure 16). The median score of this need lays on 'agree'.

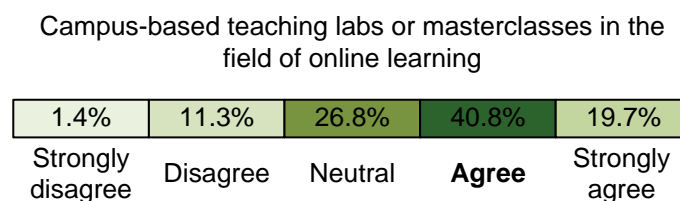


Figure 16 Ratings on need for campus-based teaching labs and master classes, median = agree, n=71

Also six out of ten respondents expressed to the need of online teaching labs or master classes (18% strongly agreed, 45% agreed, 20% neither agreed nor disagreed, 13% disagreed and 4% strongly disagreed; Figure 17). The median score lays on 'agree'.

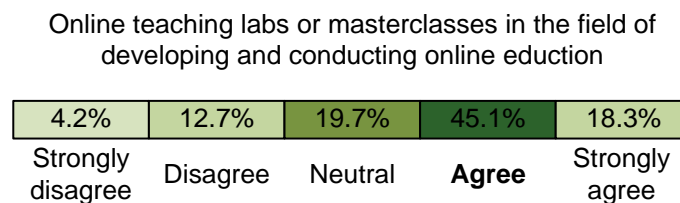


Figure 17 Ratings on need for online teaching labs or master classes, median = agree, n= 71

Four out of ten respondents expressed the need of a MOOC about developing and conducting online education (9% strongly agreed, 30% agreed, 23% neither disagreed nor agreed, 20% disagreed, 17% strongly disagreed; Figure 18). The median lays on 'neutral'.

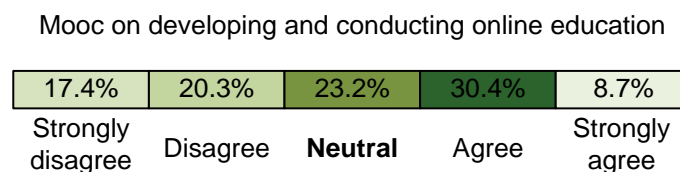


Figure 18 Ratings on need for mooc, median = neutral, n=69

Almost eight out of ten expressed the need of a community of practice including novices and experts in the field of online education (37% strongly agreed, 41% agreed, 13% neither agreed nor disagreed, 9% disagreed, 0% strongly disagreed; Figure 19). The median score lays on 'agree'.

Community of practice including novices and experts in the field of online education

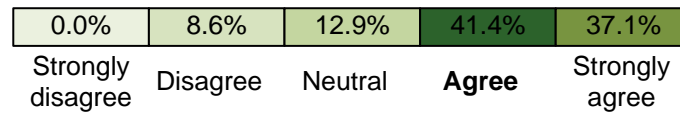


Figure 19 Ratings on need for community of practice, median = agree, n=70

Five out of ten expressed the need of an online knowledge database for developing and conducting online education (18% strongly agreed, 50% agreed, 26% neither disagreed nor agreed, 4% disagreed, and 1% strongly disagreed; Figure 20. The median score lays on 'agree'.

Online knowledge database for developing and conducting online education

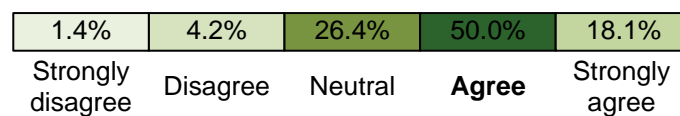


Figure 20 Ratings on need for online knowledge database, median = agree, n=72

There are no large differences between the types of support which are needed and the various activities of the respondents. All activity subgroups expressed the need for a community of practice, online teaching labs, and an online knowledge database. (See Table 2 in which the activities of the respondents are set out against the type of support needed based on the median results. The darkness of the area indicates the attitude towards the specific type of support. The darker the box is the more positive the attitude towards this type of support is for a subgroup of teaching staff developers).

Table 2 Activities of respondents vs. Type of Support needed looking at the median. Legend: darker green for larger median (4.5 is darkest green, 4 = green, 3.5 = lighter green, 3 = lightest green, < 3 not existing)

Activity in online education vs. Type of support needed	Campus-based teaching labs	Online teaching labs	Mooc	Community of practice	Online knowledge database
Teacher training	agree	agree	neutral	agree	agree
Teacher consultancy	neutral	agree	neutral	agree	agree
Educational development	agree	agree	neutral	agree	agree
Technical development	agree	agree	neutral	agree	agree
Research	slightly agree	agree	neutral	agree	agree

When analyzing negative attitude towards the statements, In general there seemed to be a particular subgroup of respondents to score the statements with a total score lower than 60% (<15 points of the 25). The maximum score is 25 points when all indicators would score 5 points each for 'strongly agreed'. A total of 5 points is the minimum when all indicators would score 1 point for 'strongly disagreed'. A score of 15 points means the respondents scored on average neutral. This measurement is only used as indicator for outliers in this survey. In total 12.5% of the respondents who rated all statements related to the type of support needed scored the statements on average below the threshold of 60%. 37.5% of this subgroup of respondents were from the University of Twente. This is equal to 33.3% of the total subgroup of respondents from the University of Twente. This may be an indication that this subgroup forms an outlier to the general conclusions.

Conclusions. More than eight out of ten respondents answered that they as a teaching staff developer need support in online education (85%). Regarding the contents of the support which they need, more than half of the respondents indicated that they as a teaching staff developer need educational tools for the development and delivery of online education (61%), case studies of practical experiences and knowledge of teachers in developing and delivering online education (60%), evidence based knowledge about developing and using online education (53%), and examples on how to use tools, instruments and working methods as teaching staff developer (54%). There is less need of knowledge on how to design online/blended education (45%), training on how tools work (44%), and materials like checklists, factsheets, test matrices, discussion formats and workflows (31%). Regarding the type of support which they need, more than half of the respondents indicated that they want campus-based teaching labs or master classes in the field of online learning (61%), online teaching labs or master classes in the field of developing and conducting online education (63%), a community of practice including novices and experts in the field of online education (79%), and an online knowledge database for developing and conducting online education (68%). There is less need of a MOOC on developing and conducting online education (39%).

5. Summary

This report presents the results of an investigation into possible needs of support among teaching staff developers in online higher education. The investigation is an initiative of a consortium of eight universities in Europe, the UK Higher Education Academy, and the LDE Centre of Education and Learning. The consortium is working on the 'Supporting European Educational Development' project (S.E.E.D.).

The goal of the investigation was to gain knowledge of possible needs of support among teaching staff developers in the field of online education in higher education. The web-based survey ran from the beginning of December 2015 till the 21th of January 2016. The survey consisted of four parts, asking for the respondent's (1) country, university, organizational position and educational activities, (2) perceptions of online education development, (3) need of support with regard to the content, and (4) need of support with regard to the type of support. The survey was announced via the project partners and the respondents were asked to volunteer. The data were collected by snowball sampling. As a consequence, the results of the survey may not be used for generalizations pertaining to the whole population of teacher staff developers. The number of filled out questionnaires is 80. The research population is estimated to include about 450 teacher staff developers (exact figures are not available). The response rate of 80 out of the 450 potential respondents is a relatively high 18%.

The sample includes respondents from 9 countries and 30 universities in Europe. Almost eight out of ten of the respondents indicated to work at an educational center at the university, faculty or department level (78.8%).

Large majorities of the respondents agreed or strongly agreed with the following two statements about university teachers: 'Teachers at my university need to develop new skills adapted to the formats and technologies that online education currently demands' (91%) and 'The number of teachers at my university that need training in online education will grow in the next couple of years' (84%). Large majorities of the respondents also agreed or strongly agreed with the following two statements about university teaching staff developers: 'The number of teaching staff developers at my university will not be able to support all the requests for support in the development of online education' (63%) and 'The teaching staff developers at my university need additional educational support in order to be able to support teachers in developing and using online education' (79%).

Almost all respondents think they themselves, as teaching staff developer, also need support in the field of online education (85%).

With respect to the content of the support, a majority of the respondents indicated to need:

- educational tools for the development and delivery of online education (61%),
- case studies of practical experiences and knowledge of teachers in developing and delivering online education (60%),
- examples on how to use tools, instruments and working methods in an educational setting (54%), and
- evidence based knowledge about developing and using online education (53%).

With respect to the type of support, a majority of the respondents indicated to need:

- a community of practice including novices and experts in the field of online education (79%),
- an online knowledge database for developing and conducting online education (68%),
- online teaching labs or master classes in the field of developing and conducting online education (63%),
- campus-based teaching labs or master classes in the field of online learning (61%).