



Potential Professional Growth of English-Medium Education Teachers in a Transnational Teacher Education Program

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The internationalization of university has brought with it the need for specific teacher education programs. This study aims to analyze the impact of an online, transnational teacher training program on the professional growth of 3 participating teachers. Relying on semi-structured interviews and their thematic analysis, this qualitative research uses the interconnected model of teacher professional growth to examine these teachers' self-reported patterns of change and growth as well as the mechanisms that mediate such patterns. Findings highlight the crucial role played by critical reflection and the sharing of personal teaching experiences among colleagues for teacher education programs and teaching and professional growth models. In addition, the study also emphasizes the importance of following up teachers' change and growth as the result of their participation in continuous professional development programs.

Keywords: teacher education, continuous professional development, English-medium education, teacher training, teacher professional growth, teacher change

INTRODUCTION

As a by-product of internationalization and globalization, English has gained a privileged position as a leading language in higher education (HE) practices (Egron-Polak & Hudson, 2014). Recent studies confirm the steadily rising numbers of English-medium education (hereinafter EME) programs offered by universities across the world, especially in non-English dominant educational contexts with solidly founded higher educational systems on their home languages (cf. Tsou & Kao (2017) for EME in Asia, Wilkinson (2017) for EME in Europe, and Gacel-Ávila (2012) for EME in Latin America). Although the implementation of EME differs notably in each of these settings due to the great contextual variability (Hultgren, Jensen & Dimova, 2015), a common denominator is that the institutionalized use of English as an additional language for educational purposes brings with it a diversity of challenges. Among them is the need for teachers to accommodate their disciplinary epistemology to the new language of communication – usually English – to facilitate student learning processes (Sánchez-García, 2020). While the urgent call for the provision of specific EME teacher education programs has steadily been heeded to equip them with the necessary linguistic,

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pedagogical and intercultural strategies to navigate international classrooms, (Costa, 2015; Sánchez-García & Dafouz, 2020), the subsequent empirical assessment of the actual impact of these programs on teachers is often a pending issue. This is all the more important considering that teacher learning is not always stable after professional development as knowledge decay does take place substantially (Liu & Phelps, 2020). Consequently, monitoring teacher education programs seems to be essential to corroborate not only what teachers learn but, most importantly, the extent of this learning and whether it makes it to classroom implementation. This study addresses this research gap by analyzing teachers' self-reported professional growth as the outcome of their participation in an online EME teacher education program.

The program in question is a transnational teacher education course intended for in-service teaching staff who wish to develop their teaching skills and their intercultural awareness for teaching in English in the glocal classroom. The glocal classroom is understood as a multilingual and multicultural learning space where local and visiting (e.g. Erasmus) students and teachers navigate diverse languages, cultures and values of teaching and learning resulting from the interconnection of their varied backgrounds. The focus of this teacher education program is mainly on reflective practice. Based on their language level, teacher participants are paired in tandems with an academic working in another country and from another academic discipline. Each tandem is then assigned a facilitator to guide the learning process, which by adopting a reflective approach consists of analyzing the topics and materials proposed and sharing thoughts and topic-related classroom experiences with the rest of the participants. This teacher education program has been running for several iterations; however, although positive feedback is always received from participants at the end of each iteration, the real impact of the course in terms of teacher growth and change has never been empirically analyzed. This study is a first attempt at this and, drawing on thematic analysis (White & Marsh, 2006) and the Interconnected Model of Teacher Professional Growth (IMTPG) (Clarke & Hollingsworth, 2002), it will examine how this continuous development program impacts teacher professional growth and to what extent it is a transformative learning experience. The research question driving the study, which is broken down into three sub-questions, is the following:

Research question: How does the teacher education program impact teacher professional growth?

RQ1: To what extent is teachers' professional learning short-term and the result of momentary thought and/or one-off action?

RQ2: To what extent is teachers' professional learning a lasting change resulting in long-term meaningful and sustained growth?

RQ3: What is the mediating mechanism that facilitates teachers' professional growth?

Structurally, this paper will first explain the theoretical anchorage underpinning teacher professional growth (in EME) and will present the teacher education program whose impact is examined. It will also describe the participants, the data, and the analysis.

Then, it will discuss the findings in light of the above RQs and, finally, implications and future lines of research will be offered as concluding remarks.

Theoretical Framework

Teachers' professional growth

Professional growth is the unequivocal outcome of a continuous and effective learning process (Clarke & Hollingsworth, 2002) that brings about change. In early studies on professional growth, teachers were often conceptualized as passive recipients of change (Johnson 1996). It was widely believed that exposure to one-off training activities would equip teachers with pedagogical competence. These training measures worked upon the premise that teachers presented deficiencies in teaching knowledge and skills, and training prompted their changing. This deficit approach to teachers' professional development (Guskey, 1986; Sardabi, Biria & Golestan, 2018) fell into decline as research demonstrated the importance of agency in learning. Promptly, change was conceived as the result of teachers' on-going and active participation in their own complex learning process (Teacher Professional Growth Consortium, 1994; Johnson, 1996). This new training paradigm rested upon the claim that teachers willingly participate in professional development activities in their personal pursuit of performance improvement as educational practitioners. Thus, teachers take on the role of learners, becoming agents of their own change and growth.

Central to active learning is the notion of reflection. There is substantial literature putting forward different models of reflective practice (Kolb, 1984; Schön, 1991; Gibbs, 1998; Rodgers, 2002; Korthagen & Vasalos, 2005; Farrell, 2019), all underlining the effectiveness of reflection as conducive to learning through and from experience (Finlay, 2008) and through and from beliefs (Pajares, 1992; Kagan, 1992; Farrell & Bennis, 2013) when undertaken as a rigorous, structured, and systematic reviewing process. Although the experience on which teachers reflect may be an immutable past event, reflection may pave the way to enact such an experience (or a similar one) differently to obtain contrasting outcomes. Therefore, past actions allow for changes in potential present and future experiences. Teachers may grow as practitioners by recalling their pedagogical experiences and approaching them through a critical thinking lens that may ultimately lead to changes in their future classroom enactments. In this way, it is reflection on their teaching practices that directly contributes to teachers' learning about pedagogical practices. In a similar way, a change in classroom practices may also contribute to a change in teachers' pedagogical beliefs (Johnson & Fargo, 2010). A belief is "a proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual, and is therefore imbued with emotive commitment; further, it serves as a guide to thought and behaviour" (Borg, 2001, p. 186). Although often resistant to change (Abbitt & Klett 2007) because of their emotive and deeply rooted nature, beliefs can be revised and adapted, and more importantly, as indicated in Borg's definition (ibid), beliefs are thought to be interconnected with action and behavior (Polat, 2011; Mercer & Kostoulas, 2018). As a consequence, reflection that facilitates teachers tapping into their belief system about

teaching may inflict possible direct changes on these sets of propositions, and also indirectly transform instructional practices (Gore & Ladwig, 2006).

Further research on learning additionally emphasized the major part played by interaction and the contextualization of the learning experience. By relying on social interaction(s) with other colleagues also taking part in the learning experience, teachers become active agents of a community of practice (Lave & Wenger, 1991). In this light, learning is no longer understood exclusively as the isolated enterprise of an individual, but as a sociocultural phenomenon that is jointly accomplished through shared practice, analysis, and reflection.

In contrast to these aspects that seem to be facilitative of teacher growth, there is general concern about the nature of the impact and the durability of teacher's learning in terms of knowledge and belief changes derived from their professional development (e.g. Garet et al., 2011). Underlying this concern is the assumption that knowledge is unstable and changes over time. In fact, there is evidence that the loss of knowledge becomes particularly outstanding in the absence of use of the knowledge acquired (Kim, Ritter, & Koubek, 2013). In their attempt to discover the sustainability of gains in teachers' content knowledge for teaching mathematics, Liu & Phelps's large-scale recent study (2020) unraveled that the loss of knowledge is a reality whose decay rate is contingent upon teachers' initial knowledge level and program type and intensity. Apparently, longer duration programs that provide opportunities for immediate classroom application knowledge usually correlate with lower knowledge decay. Consequently, the provision of long durability programs that facilitate the implementation of what is learned could be an effective way to approach teacher education. Similarly, programs should aim beyond triggering one-off, short-lived changes in teachers' performances. Instead, they should aspire for learning instances that spark lasting and permanent changes in teachers' mindsets and classroom practices. All in all, the premise that knowledge gains and belief changes will not be retained indefinitely by teachers makes the examination of the extent of teachers' learning and the nature of such learning all the more relevant.

Teachers' professional growth in EME

With the exponential increase of English-medium education (EME) resulting from the internationalization of higher education, professors must, now more than ever, update and develop (new) skills and competencies. EME teachers must now adapt to teaching through an additional language, usually English, and to the needs and diversity present in their classrooms as the result of their students' heterogeneous cultural and linguistic backgrounds (Cozart et al., 2015). Despite the growing necessity for specific EME teacher education programs (Lauridsen et al., 2015), existing training initiatives tend to differ across higher education contexts (O'Dowd, 2018) and often lack systematicity and sustainability (Lauridsen, 2017). While many universities have developed measures to prepare their lecturers linguistically, offering English level accreditation systems (Ball & Lindsay, 2013), studies have also emphasized the importance of institutionalized teacher education provision including pedagogical, multimodal, and intercultural competences (Kling & Dimova, 2015; Sánchez-García, 2020; Morell, 2020).

Against this backdrop, the teacher education program under examination was launched in an attempt to offer a long-term, sustainable teacher education program that brings together all the competencies (linguistic, pedagogical and intercultural) necessary to help teachers face the challenges and opportunities of EME as multilingual and multicultural learning spaces (Valcke & Romero, 2016).

The teacher education program

The teacher education program was conceived as an online, transnational teacher education program for academic staff to enhance transnational collaboration within EME, since “[i]nternational and intercultural interaction and collaboration has the potential to develop cultural insight and exchange that is enriching and enabling for individuals and through them for local, national, and global communities” (Leask, 2015, p. 72).

Its main objective is to equip in-service university teachers with the pedagogical, intercultural, and linguistic competences necessary for teaching in the glocal classroom. It runs over seven months and is conducted via the Canvas learning platform. It entails the individual study of videos and articles based on issues related to teaching in English in multilingual and multicultural learning spaces as well as group discussions and peer feedback. Thus, the program is anchored to two main learning components: (1) individual and pair/group reflection of the theoretical implications and practical applications of key EME issues, and (2) interaction enacted through the meaningful exchange in pairs and large groups of teachers about EME beliefs and situated classroom practices. By working in online tandems and exchanging their reflections in a larger group of teachers, participants are additionally provided with a variety of opportunities to improve their oral and written communication skills.

The program’s contents are arranged around six modules: (1) Presentations and constructive alignment, (2) English as a lingua franca (ELF), (3) Cultures of teaching and learning, (4) Global engagement, (5) Managing and assessing group work, and (6) Assessment for learning. The program is conducted in English, and each module lasts around four weeks based on the following structure:

1. Pre-task: participants study the given materials (videos and articles) regarding the topic of the module, and reflect on their experiences, their beliefs and the implications of the topic on the EME teaching and learning processes.
2. Task: participants carry out online discussions about the pre-task with their tandem partner via Zoom – they are given some prompts to help them initiate their conversation.
3. Post-task: participants summarize their ideas and reflections about the topic in writing, and comment on 2 other teacher contributions to spark meaningful dialogue. Finally, they complete the module with a short text that reflects their conclusion(s) from the corresponding topic.

At the end of the program, participants are expected to use all their expertise to interview a student and present reflections.

Analytic models to evaluate teacher growth

Although there is a noticeable increase in the provision of specific institutional training for teachers in EME, there is a scarcity of empirical evaluations of outcomes. A review of the most prominent models used to analyze teacher professional development (Fullan, 1982) reveals that teacher growth is often conceptualized as a linear process that begins with a change in teacher knowledge and beliefs. In turn, this change sets off a domino effect that triggers a change in teachers' classroom practices and finally in student learning outcomes. Although later models questioned the order of these elements, postulating that the change in teacher beliefs was indeed the last step in this causal chain once the teacher finds evidence of student learning, they still (Guskey, 1986; Cobb, Wood & Yackel, 1990) retain the linear nature of teacher professional growth. By contrast, the Interconnected Model of Teacher Professional Growth (Clarke & Hollingsworth, 2002) is one of the few that breaks with this conceptualization and envisages the growth process as cyclic. Precisely because of its non-linear nature and its reliance on reflection and enactment as the mediating processes that guide teacher growth, this model provides the analytical tool for this study.

The Interconnected Model of Teacher Professional Growth (IMTPG)

The IMTPG suggests that teacher growth occurs as the iterative interplay among 4 distinct domains mediated by reflection and/or enactment and often influenced by the possible constraints and affordances of the particular changing context (see Figure 1).

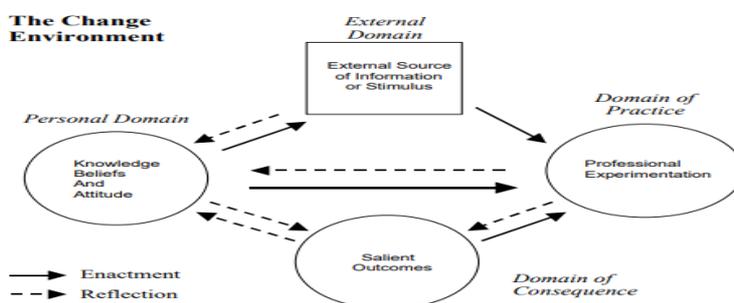


Figure 1

The interconnected model of teacher professional growth (taken from Clarke & Hollingsworth, 2002)

The model distinguishes 4 main types of domains: (1) the external domain, representing an outer source of information or stimulus, (2) the domain of practice, (3) the personal domain, and (4) the domain of consequence, these last three representing the internal constituents that shape the teacher as an individual and comprising teachers' professional actions (domain of practice), teachers' own beliefs, knowledge, and attitude toward the educational experience (personal domain), and the salient outcomes derived from teachers' actions (domain of consequence). Change can occur in any of the 4 domains, and any change in a particular domain can cause further change(s) into any other domain(s). Thus, the IMTPG "recognizes the complexity of professional growth through the identification of multiple growth pathways between domains" (Clarke &

Hollingsworth, 2002, p. 950). Reflection and enactment stand as the mechanisms that mediate any change, represented in the model with a dotted arrow (reflection) and a solid arrow (enactment).

The IMTPG makes a further distinction between *change sequence* and *growth network* in terms of the nature of changes. When change in one domain translates into change in another domain but merely as a short-lived or fleeting instance, it is considered a *change sequence*. In contrast, permanent changes are believed to contribute to teachers' professional growth and, as such, are labelled *growth network*. That is, the model differentiates between one-off actions or thoughts that do not seem to leave a permanent imprint on teachers' beliefs system or classroom practices on the one hand, and meaningful and sustained learning instances that provoke longstanding changes, on the other hand. Consequently, for teacher change to be considered growth, there should be explicit evidence of lasting change in practice and/or knowledge and beliefs.

The IMTPG has its roots in situated learning theory and is considered a refinement of previous, linear, models. Extensive literature abounds regarding the implementation of the model to explore teacher professional growth and the soundness of its empirical foundations (Hollingsworth, 1999; Clarke, 2001; Witterholt et al., 2012). Although this model envisages the interplay among domains as the trigger for growth, these domains are typically portrayed as unidirectional stimuli, that is, factors in the environment that when perceived by the teachers may impinge change. The model should instead advocate for opportunities of interaction and negotiation as reciprocal drivers of such growth. In other words, it is teachers' interactions with certain materials, sources and assumptions, and/or the meaningful negotiations between the teacher and other colleagues that bring about long-lasting change in their practices and beliefs.

METHOD

Participants

This study represents a follow-up to the 7th iteration of the teacher education program, corresponding to the academic year 2020-2021, which involved 30 university teacher participants from 10 universities in 5 different European countries. All were experts in different academic disciplines with varying experience teaching in the global classroom. The criteria for participant recruitment are entirely contingent upon each participating institution. Once participants are selected and enrolled in the program, they are asked to take an English placement test that ranks their language competence following the CEFR scale. These language levels are key to forming the tandems, usually comprising 2 teachers from different HE institutions with expertise in different disciplinary fields and with similar language competence so as to facilitate their self-confidence and mutual communication. Table 1 shows the main characteristics of the program's teacher cohort¹.

¹ The names of the teachers have been anonymized and the data are displayed in the alphabetical order of the countries each institution is based in.

Table 1
Teacher education program's participant cohort

Institution (country)	Teacher participants	Teacher disciplinary expertise	CEFR level
HOGhent (Belgium)	2	Financial markets Business administration	C1 B2
Université de Mons (Belgium)	2	Forensic psychology Particle Physics	B1 B1
Copenhagen School of Design and Technology (Denmark)	1	Fashion Management	C2
Università Cattolica del Sacro Cuore (Italy)	8	Psychology Pedagogy Global strategy management Sociology Biochemistry	A2 B1 B2 C1
Haute Ecole Léonard de Vinci (Italy)	1	Occupational therapy	C1
Universidad de Cadiz (Spain)	2	Psychology Sports and dance	C1 B1
Universidad Complutense de Madrid (Spain)	6	Finance and marketing Human resources management Finance and financial mathematics	B1 B2 C2
Universitat Politècnica de Valencia (Spain)	2	English as a second language Computing	B2 C1
Chalmers University of Technology (Sweden)	3	Geosciences Computer engineering Space, earth and environment	C1
Karolinska Institutet (Sweden)	3	Genetics Physiotherapy Survey methodology	B2 C1 C2

This study concentrates on the participating teachers from Universidad Complutense de Madrid (UCM). The motivation behind this decision was to offer an ethnographic case study as occurring in a specific educational site, thus avoiding the great contextual differences emerging from each participant's setting. Additionally, the researcher is affiliated to the same institution as the teachers under study, making the familiarity of the educational context greater as well as the ease with which to meet in person with the participants (especially in the current pandemic situation). Of the 6 UCM teachers participating in iteration, 3 volunteered to take part in the study, and the following pseudonyms have been used: Anna, Greg, and Oscar. These teachers were selected from a waiting list at UCM created to participate in this teacher education program on the basis of (1) having to teach in English in the following academic semester, (2) not having attended any EME teacher education program recently, and (3) either certifying a

C1 level of English or certifying having taught in English either at UCM² or at another university). It is important to mention that these UCM teachers are disciplinary experts who have not received any pedagogical qualification for university teaching, and whose EME teaching experience varies from 2 to 5 years.

Data collection

The purpose of this study is to analyze the impact of a particular teacher education program on the professional growth of 3 UCM teachers. For this purpose, 3 individual semi-structured interviews were carried out, one with each teacher. Teachers participated in the 2020-21 program iteration, which ran from December 2020 to June 2021, and were contacted once the first term of the following academic year 2021-22 was over. The supposition was that teachers had had enough time to assimilate what they had learned in the program and to plan for the practical application of such learning and implement it in their classes on the first academic term. Upon contact, teachers were informed about the main objective of the interview and the topics to be covered. Additionally, they were encouraged to engage in thoughtful reflection in preparation for the interview regarding their learning experience from the program, the possible opportunities to learn and grow offered by it, and particular examples that might demonstrate their growth and learning in terms of knowledge, beliefs, and classroom enactment regarding each of the topics of the program's 6 modules. It was believed that explicating the structure of the interview in advance would facilitate teachers' reflective process and their provision of a detailed account of their learning experience as well as how it translated into changes in their teaching beliefs, knowledge, and practices. Interviews took place online through Google Meet and were carried out in Spanish – the L1 of the 3 teachers – to ease the communicative process. They were recorded and subsequently transcribed by the researcher.

Data analysis

The IMTPG model was the analytical tool used for the study and it was implemented as follows: First, interviews were carefully read to become familiarized with the participant discourse. Then, for each teacher and each interview, the 4 domains in the IMTPG model were used as the main themes for a thematic analysis (White & Marsh, 2006) and, thus, teachers' comments were categorized according to (a) external domain, (b) personal domain, (c) domain of practice and (d) domain of consequence. In this respect, this study differs from the original model by Clarke & Hollingsworth (2002) in 2 main aspects: (1) the external domain was not conceptualized in terms of stimuli, but rather as teacher opportunities for engagement, which may lead to learning. The materials, topic prompts, and discussions offered in the teacher education program represent these opportunities as they are the food for thought that may trigger participants' reflection and change. (2) Likewise, the model's domain of consequence was not simply

² Further details about the UCM Plan for Curricular Internationalization can be found here: <https://www.ucm.es/data/cont/media/www/pag-75406/Plan%20para%20Internacionalizaci%C3%B3n%20Docencia%20UCM%202016%20Nuevo.pdf>

understood in terms of (salient) outcomes, but more specifically as student opportunities for engagement and, therefore, learning.

Following the categorization of teacher comments, there were two significant empirical identification processes: (1) that of the specific causal sequences forming the unique pathways leading to each teacher's personal change(s) among domain(s); and (2) that of the mechanisms that mediated the changes. The first identification clarified whether teachers' learning relied on change sequences or on growth networks, and the second identification made it possible to detect whether reflection or enactment underlined the learning event. These processes allowed us to observe the systematicity and sustainability of the changes and their real impact on the 3 teachers' professional growth. Both identification processes were illustrated in the form of comprehensive vignettes illustrating all the learning pathways for each teacher (see Figures. 2, 3 and 4, below). The causal sequences of change are numbered to indicate the order in the domains impacted and are represented by either a solid arrow, which symbolizes enactment as the mediating process of change, or a dotted arrow, which symbolizes reflective practice as conducive to the change. When reporting the results in the next section, teachers' own voices are provided throughout as illustrative and supporting examples of teachers' growth.

FINDINGS

The potential professional growth of the 3 teachers throughout the particular teacher education program is treated as a unique and personal learning experience. Therefore, this section presents the results individually and based on the growth patterns suggested by the IMTPD: change sequences and growth networks. Afterwards, a comparison of the 3 teachers' professional growth will be offered.

Anna

As illustrated in Figure 2, Anna's learning gains from the teacher education program involve a complex web of 1 change sequence and 4 growth networks. Details of these chains follow.

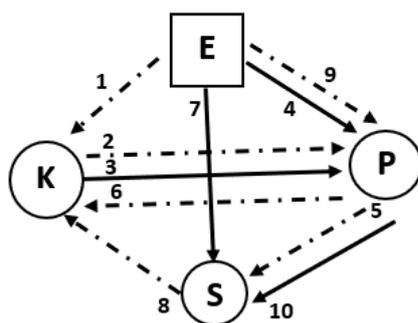


Figure 2

Anna's professional growth pathways (E = external domain, P = domain of practice, K = personal domain, S = domain of consequence)

Change sequence

a) Pathway: 1 → 2 + 9

Anna realizes that this training experience has allowed her to reflect on her own beliefs about teaching content through an L2 and the implications derived from the change of the language of classroom communication and work (arrow 2). Moreover, she highly values the quality of the materials offered, which she refers to precisely as the drivers of her reflective process (arrow 1) and her thoughtful consideration of possible classroom pedagogical modifications (arrow 9) in the first place. In her own words:

Excerpt 1. “The materials provided were very good, very clear, quite easy to understand although they presented some very deep issues and topics with a lot of substance.”³

Excerpt 2. “In the first module I reflected on the different types of [student] profiles that you can find in a class, which are not only the most apparent ones, women, men, etc., but that depend on the expectations that each student has and that many times you do not take them into account when teaching, and now I think it is key to know that. That is what particularly caught my attention.”

Growth networks

a) Pathway: 4 → 5 → 6

Anna explored a number of new teaching strategies that inspired her to implement them right away (arrow 4) while considering the impact these strategies may cause on her students’ learning process (arrow 5). As a result of that enactment, she reconsidered previous attitudes and knowledge regarding teaching methodology (arrow 6), which contributed to her establishing these new teaching strategies as a necessity in her classroom practices. As she explained:

Excerpt 3. “[The program] gave me a lot of key teaching strategies that I have been able to apply and that is what I am still working on now. So, for example, I have rephrased the learning objectives of my course by modifying the verbs because it seemed to me that of course in this way you are helping the student to understand (...) So what I had done too is force them [the students] to mix, as they tend to sit together in all the class activities (...) And I have refined the portfolio, the first year I taught I asked my students to keep a learning portfolio, but I did not do it in a methodical way. Now I am doing so and will continue to improve it for next term.”

From Anna’s testimony it follows that she is undergoing a growth process, as she is not just trying out new teaching strategies but weighing their impact on students’ learning outcomes. This encourages her to further revisit possible ways of improving her classroom enactments.

b) Pathway: 7 → 8 → 3

³ Teachers’ comments have been translated from Spanish into English by the author.

The final task required teacher participants to interview a student and inquire about their experience related to the topics covered in the program. Anna makes explicit mention of her conclusions from this task. It allowed her to unveil a Chinese student's experience and struggles in her classes (arrow 7). This discovery motivated new reflections in Anna on how to facilitate the learning and adaptation of international students in her classes (arrow 8), which in turn led to changes in her classroom practices (arrow 3). She put it as follows:

Excerpt 4. "I have many Chinese students who find it very difficult to mingle (...). It may be a cultural matter. When I taught the classes in Spanish the problem was the language of work [Spanish], but in this case it is cultural because they speak the language [English] well. In the interview, what she told me is that when it comes to making the groups, that they do two teamwork tasks and then we do a lot of activities in class, what she would like is to rotate, that is, to work with different people in the small activities in class but for the long activities she would prefer to choose her classmates and that is something that I have realized. She told me that talking to different people helps you to see other perspectives. Now I mix the students depending on the task."

c) Pathway: 4 → 10 → 8

Anna affirms that her enactment of new teaching strategies in class (arrow 4) has led to receiving an unprecedentedly high positive rating in the official anonymized student assessment of the course at the end of the term (arrow 10). This signals favorable student outcomes and becomes an added motivational source for Anna's professional growth, pushing her forward on her teaching practice reflection and improvement (arrow 8).

d) Pathway: 9 + 4 + 1 → 3 → 10

Anna's overall assessment of the training proves that the program has enabled her professional growth in many domains. Her personal account of it depicts this intricate pathway.

Excerpt 5. "It [the program] has helped me a lot in every way because I have learned aspects and things I didn't know and tools to consider and to work with, so a lot. Having this knowledge and tools gives you a confidence as a teacher that makes you a better teacher as you offer better classes."

In summary, Anna concludes that the program has given her the means to gain valuable knowledge related to her own beliefs, attitudes, and teaching declarative knowledge (arrow 1) together with new pedagogical strategies to plan (arrow 9) and enact in her classes (arrow 3 and 4); all of which impacts positively in her students' learning process (arrow 10).

Greg

As represented in Figure 3, Greg's reflection depicts his professional growth in terms of 2 change sequences and 4 growth networks that are accounted for below.

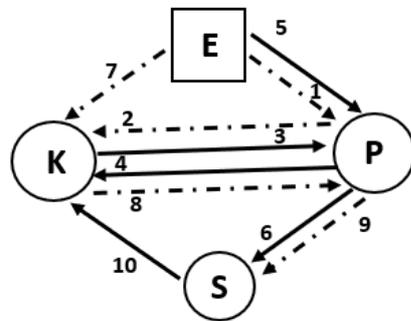


Figure 3

Greg's professional growth pathways (E = external domain, P = domain of practice, K = personal domain, S = domain of consequence)

Change sequences

a) Pathway: 7 → 3

Greg consistently emphasizes that his learning process from the program lies in the fact that he systematically and substantively reflects and challenges what he is doing as a teacher, since not having received any prior pedagogical training leads him to question his teaching self-efficacy. Therefore, the program has offered him opportunities to engage with his own beliefs, attitudes, and teaching knowledge to adjust them, consolidate them and make him a more confident practitioner. He explains it as follows:

Excerpt 6. "I think that [the program] gave me a little bit of a guide that what I was doing was correct, because everything I was doing was by intuition and with disordered ideas. What has helped me is above all to order many ideas."

This reflective process (arrow 7) paved the way for Greg to enact those recently ordered ideas in the classroom (arrow 3). Some examples of such new classroom practices include a change in dynamics and in students' active participation, which now he fosters with greater zeal:

Excerpt 7. "For example, the issue of integrating Erasmus students. I think I didn't know how to do it before because I have my limitations in English. But since the program, and it's something new that seems like a joke but it's not, now I make them stand up, introduce themselves and tell why they have chosen Complutense, why Madrid and why their degree. And I also do it in Spanish, which I didn't do before. And I think they have liked it a lot."

Moreover, having reconsidered the role of English in his teaching and having come to terms with his own linguistic competence, Greg has felt empowered to implement changes that have yielded positive results for himself and his students.

b) Pathway: 5 → 6

In a similar vein, Greg has discovered teaching strategies that he has implemented (arrow 5) and that have resulted in an immediate increase in his students' involvement and participation in class and with the subject matter (arrow 6).

Excerpt 8. "When I see that there are students from certain countries, for example, I choose news from those countries and ask them their opinion. Now I try to make the examples much more diverse. I don't notice big differences in the final grades, but what I do notice is that there is a lot more participation and a lot more talking. It's also a challenge for me to deal with such varied topics."

In fact, witnessing an immediate benefit in his students seems to reassure Greg in his classroom practices and emboldens him to keep heading in the same direction.

Growth networks

a) Pathway: 1 → 2 → 3 → 4

In addition to implementing the classroom activities or dynamics proposed by the program, Greg has also devoted time to the careful consideration of new enactments and/or to the refinement of the regular practices he delivers (arrow 1). This, in turn, has prompted a re-examination of the belief and attitude systems underlying his teaching skills (arrow 2), the by-products of which are the implementation of new classroom activities (arrow 3) and the reaffirmation of his mindset (arrow 4) based on the gains from the new practices.

Excerpt 9. "[The program] has made me realize how important it is to think about the needs of the learner. And that has changed my mental framework. I have come to tell my students that I love them, in a good way. In the sense of a teacher. Maybe it's the years, but in the classroom and in tutorials I also talk to them a lot. I tell them that maybe there are private matters that can affect their performance and that I am not a gossipy person, but I can adapt... And I do this especially with first-year students. In class I encourage them to talk and tell them that if they say something stupid that doesn't make sense, I'm not going to take it into account. I only take into account the positive, never the negative. To encourage them. Now I am sure how important it is that they feel cared for in the classroom, that it is a space of trust."

b) Pathway: 7 → 8 → 3 → 4

Greg's pondering on his teaching practices do not only originate directly from the program's materials and discussions, but also derive from questioning his beliefs, attitudes, and declarative knowledge. When Greg casts doubt on the premise that dominating classroom discourse is part of a teacher's responsibilities (arrow 7), he ventures to think about ways to test that in class (arrow 8), enacts those new dynamics (arrow 3), and finally validates his initial intuition, proving that there are other effective and valid possibilities (arrow 4).

Excerpt 10. "I wondered about student talk and that is something that with time I see more and more clearly how important it is. I mean that they talk more, and I make them learn to use the right words. For example, I consider the issue of false friends or periods

and commas in figures. I wasn't so aware of these things before, but since I've been teaching in English, I realize how important it is. We must understand the annual accounts of corporations, and three zeros more or less is not the same thing. Now I have realized that these are things that students need. I am becoming more and more aware of this.”

c) Pathway: 8 → 9 → 10 → 3

Rethinking classroom practices from his belief system (arrow 8) with the facilitation of student learning as an explicit goal (arrow 9) has also led Greg to restructure his ideas (arrow 10) and modify his classroom enactments (arrow 3). One example of this is the creation of rubrics as assessment tools that guide the students in their accomplishment of specific learning tasks.

Excerpt 11. “I used to present the criteria to be met verbally, but I have found that students find it more useful to have a document detailing the descriptors to be assessed. With these rubrics, things are now clearer to them, and I have noticed that they have fewer insecurities and are not as lost as they were before.”

d) Pathway: 7 → 3 → 6

In summary, Greg concludes that the program has given him the means to reorganize his teaching ideas and beliefs (arrow 7) and put them into practice with more reassurance and confidence (arrow 3) by adapting them to the needs of their students (arrow 6).

Oscar

As illustrated in Figure 4, Oscar’s learning displays 1 change sequence and 3 growth networks. Details of each come next.

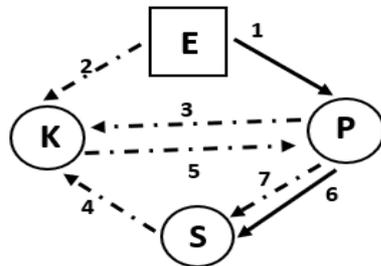


Figure 4
Oscar’s professional growth pathways (E = external domain, P = domain of practice, K = personal domain, S = domain of consequence)

Change sequence

a) Pathway: 2

Oscar’s learning gains seem to have evolved mostly around challenging his belief and attitude system. The program’s materials and discussions have caused him to rethink his convictions (arrow 2). He comments on some of these assumptions as follows,

Excerpt 12. “In general, I have to say that I have learned many things that perhaps intuitively I could have imagined, such as constructive alignment and ways of evaluating students, ways of working in groups... Everything has been very useful for me because although I have been a teacher for many years, the training as a teacher is acquired through experience. There is a bit of a mentality that you can't do anything outside the classroom to turn a bad teacher into a good teacher, that is to say everything has to be done inside the classroom. Teacher training has been somewhat relegated. And it [the program] has helped me to rationalize and systematize things that I had intuitively acquired over the years. I also took away a lot of complexes... well, the issue of being a non-native speaker of English.”

Growth networks

b) Pathway: 1 → 6 → 4

Oscar points out that he acquired several pedagogical strategies that he immediately identified as solutions to problems he had been experiencing for some time with his students (arrow 1). Upon putting them into practice, he confirmed that they alleviated some of these difficulties (arrow 6), and this success prompted him to build on and expand his pedagogical assumptions (arrow 4).

Excerpt 13. “For example, in the final modules on evaluation methods and group work, the truth is that I learned quite a lot because many times students complain “you give the same grade to all of us in the group and it is an injustice” and I say, “but what do you want me to do?” Well, now I have a list of a few methods of evaluation of group work, and I know them thanks to the program. This makes you aware that it is not a failure to have to change the teaching methodology or to adapt the contents a little bit to give an answer to the students' profiles.”

c) Pathway: 2 → 5 → 7

Oscar has also gained valuable knowledge about theoretical issues, for example ‘culture’. He has been presented with this concept, which has challenged but not changed his ways of thinking (see Excerpt 14), and which he has assimilated into his existing declarative knowledge (arrow 2). This assimilation process has driven him to consider how to transfer this new knowledge into his classroom practices (arrow 5), always keeping his students in mind in relation to the interplay between learning and culture (arrow 7). In his own words,

Excerpt 14. “I have realized that learning is closely linked to culture. We can talk about the culture itself, the culture of the subject, the local culture, the ethnic culture... so it has made me reflect on the need to adapt more to the students I have, with their cultural peculiarities. So, even though I don't think you have to have very close relationships with the students, that's my way of seeing it, I do think you have to try to get to know each one of them, their peculiarities, and adapt your class to the audience you have. So that has been very useful for me. It has also helped me to consider the motto “think globally and teach locally”.

d) Pathway: 2 → 5 → 3

Overall, Oscar summarized his conclusions from the program as opportunities to strengthen the pedagogical intuitions he already had (arrow 2), and to reflect on new ones and their possible applications in the classroom (arrow 5). These potential applications, in turn, challenged his belief system (arrow 3), causing Oscar to perceive the importance and value of continuous professional development to grow as a teacher. As he puts it,

Excerpt 15. “[The program] has made me more aware of all those things that I intuitively had contact with. Of course, all of this has made me grow and I think that if there is one thing that is clear to me from all of this, it is that, although we do not always see results in the short term, university teacher training must continue until the end of your professional career at the university.”

DISCUSSION OF FINDINGS

This section discusses the results in the light in the proposed RQs and presents further findings.

It is evident that the teacher education program has impacted each teacher differently and, therefore, as reflected in their 3 corresponding complex pathways, each has undergone a distinctive process of individual change and growth. Table 2 offers an overview of the 3 teachers’ professional pathways including the number of change sequences and growth networks experienced by each participant, as well as the number of domains affected by change in each of these two patterns. It also shows the number of reflection and enactment processes that have mediated all the changes among domains.

Table 2
Summary of teachers’ professional growth pathways

Teacher	Change sequences (# of domains changed)	Growth networks (# of domains changed)	Reflections	Enactments
Anna	1 (3)	4 (3, 3, 3, 5)	6	4
Greg	2 (2, 2)	4 (4, 4, 4, 3)	5	5
Oscar	1 (1)	3 (3, 3, 3)	5	2

The 3 teachers have experienced a greater number of growth networks than change sequences. This means that, even though teacher participants have experienced certain short-term changes based on momentary thoughts or one-off classroom enactments, most changes are not of short-lived nature but seem to involve a lasting effect conducive to long-term and meaningful growth. Teachers’ growth networks exerting change in a significant number of domains per pathway (individual differences showing a minimum of 3 and a maximum of 5 changed dimensions) may also be indicative of teachers’ growth as continuous, reflective reassessment and as sustained experimentation of their beliefs and practices.

The mechanism that most frequently mediates significant change and growth in the 3 teachers’ learning processes is reflection. In fact, it seems to be the case that, between reflection and enactment, it is the former that proves to be the main driver - initiating

change in the latter. An interesting contrast is found among the 3 teachers. Although all of them heavily rely on reflection as their main means of change, they are not equally influenced by it. While Oscar still seems to depend largely on an unfinished process of reflection that needs further unfolding prior to moving on to an eventual experimentation and implementation phase, Greg and Anna have already found ways to move ahead by translating and testing the conclusion(s) of their reflective practices into actual classroom practices. This may signal that the same materials and opportunities for reflection and discussion do not always impact teachers in similar ways. Therefore, it should not be taken for granted that teacher education programs facilitate lasting learning growth to all participants or even promote growth at all. From here follows the convenience of teacher education programs follow-ups.

In line with current literature (Walsh & Mann, 2015; Farrell, 2022), findings highlight reflection as a key transformative mechanism conducive to teacher growth. As confirmed by the study, creating the appropriate conditions and materials to encourage and support teachers' critical reflection has the potential to prompt the sustained and intentional process of challenging teachers' own teaching assumptions to the point of testing their accuracy and validity through new classroom practices. Therefore, educating teachers to engage in personal reflective practice should be a central constituent in any teacher professional development program.

The program under study has provided teachers with resources and tools to experiment with changes in classroom pedagogy. However, it has stepped beyond practical aspects by also being facilitative of growth in an area much more resistant to change: beliefs and attitudes. The program has shaken the beliefs of all 3 participants, forcing them to rethink their intuitions and teaching assumptions. Discovering that other teachers, in different HE contexts, experience similar teaching challenges and becoming familiar with research-based teaching evidence and scholarship that can support and guide their profession has also given these 3 teachers a stronger mindset and greater sense of security and self-confidence as educational practitioners.

Along similar lines, this study has also revealed the transversality of teaching strategies and practices regardless of the language of instruction since the 3 teachers extended the use of most of their newly enacted teaching practices to their Spanish-taught classes as a consequence of the positive results on students' engagement and learning in EME. This may suggest that these new teaching strategies, far from confining the teaching practice to a single language, support the current idea of multilingualism, reflected in recent studies (e.g. Kuteeva, Kaufhold & Hynninen, 2020) as a comprehensive and fluid interplay among languages. Thus, demonstrating the possibility that languages can coexist harmoniously and even empower each other.

This program's learning experience has also provided teacher participants with the chance to approach teaching through a different lens and place themselves in students' shoes. Reflections and discussions have led to insights that emphasize defining aspects of the glocal classroom that had never before been considered by these 3 teachers. One example has been rediscovering students' diversity as an added value rather than a constraint, if well managed. This appears to be in accordance with previous studies, such

as Maíz-Arévalo & Orduna-Nocito's (2021), who reported on teachers' realization that a culturally diverse classroom requires a further set of intercultural skills to navigate it.

All in all, the study highlights the importance of providing university teachers with continuous, high quality teacher education opportunities. More specifically, learning opportunities that combine conscious and critical reflection, the sharing of their own experiences and beliefs with other colleagues, and research-based evidence have proven effective cornerstones in preparing the ground for teachers to question and challenge their current practices, and to pursue their own professional development, with the ultimate goal of facilitating their students' learning.

As a counterpoint not reflected in their growth pathways, a series of difficulties have come in teachers' way when trying to implement the new learning into their classes. To start with, teachers have pointed to their particular educational context as inhibiting their professional growth. They report that the taxing and heavy combination of administrative, research and teaching duties often prevents them from investing in high-quality personal teaching reflection and innovative classroom pedagogies. Additionally, teachers also appeal to their HE institutions to facilitate the sustainability of their new academic networks resulting from the participation in the program so that they eventually translate into future productive collaboration that allow them to continue to grow professionally. These perceived challenges seem to indicate that what is advocated in training courses may not always reach the classroom due to the discontinuity rendered by institutional structures – a fact that resonates with previous studies also dealing with the Spanish HE context (Pérez-Encinas et al., 2017; Dafouz, 2021). Existing gaps among institutional levels – for instance, among teacher education management and institutional policy – often represent barriers that may slow down or even prevent the teacher growth that has been previously facilitated through high-quality training.

CONCLUSION

This study has significant implications for teacher professional development programs and the agents responsible for their provision. The ever-increasing complexity of current higher education, in part derived from its internationalization process, calls for a commensurate refinement in the design of teacher education programs, and teaching and professional growth models for teachers.

In terms of models for teacher professional development, the IMPTD has proven to be highly effective in the examination of teacher professional growth. This model considers teacher growth as a learning process and puts forward the key change domains and possible mechanisms that lead to teacher change and growth. This model can well serve to inform the effectiveness of in-service teacher programs aiming at teachers' continuous professional development. However, while it allows to tap on teachers' own professional growth experiences, unraveling positive aspects worth promoting further, it is not so straight forward in flagging issues that impinge negatively upon teachers' growth and may require closer heed. Only the absence of changes among domains is likely to be indicative of such possible constraints.

In the case at hand, the teacher education program under examination has mostly meant a meaningful learning experience for these 3 teachers. Although each of them has sustained professional growth to varying degrees and in unique and personal ways, all three acknowledged that they have experienced a remarkable improvement as practitioners. The fact that the program is based on dynamics and materials that invite individual and collective reflection and the sharing of personal educational experiences seems to be the main driver of such professional growth in terms of both teaching beliefs and practices. As a balance, issues that seem to obstruct teacher professional growth – i.e. excessive workload and lack of institutionalized collaboration-enabling mechanisms – have also been identified.

Consequently, regarding the direct implications for the agents responsible for continuous professional development programs' design and provision in HE institutions, this study highlights the dual value of the empirical evaluation of such training programs. On the one hand, it highlights the positive reasons why on-going teacher education initiatives need to be supported and further encouraged. On the other hand, it helps identify the professional areas and teachers' most immediate and urgent needs that may need specific coverage and provision as well as particular issues in existing teacher education programs that need to be improved to ensure their quality, effective refinement, sound validity and long-term sustainability. It still seems necessary to strive in bridging gaps between different institutional structures and agents to ensure and that continuous professional development initiatives are not only carried out coherently (Cavanna et al., 2021) but also do not fall on deaf ears.

The logical continuation of this study should extend the current analysis to the rest of the teacher cohort participating in the program under study to obtain a global view of its impact on all participants. Moreover, since the program is delivered at the European level, such a comprehensive analysis could shed light and allow comparisons on the different teacher education initiatives and learning realities in different European university contexts. Additionally, it would be interesting to combine participants' self-reported accounts of their professional growth in terms of classroom enactments with the direct observation and analysis of such (new or improved) classroom practices.

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