Perceptions of Linguistic and Professional Competences of Postgraduate Students in Bilingual Education

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Abstract—In the last two decades, the number of bilingual schools has increased considerably. The main objective of our research was to find out the perception of the competences acquired after Integrating Content and Language in Higher Education (ICLHE) teaching among the students of a subject of the Master’s Degree in Teacher Training¹, specialising in Physical Education (PE), at the University of Granada. The second objective was to analyse this information in order to establish improvements in the subject. To evaluate this study, 5 semi-structured interviews were conducted at the end of the course. After a first overall analysis of the interviews, the main categories that emerged were the improvement of language and teaching competences both at the macro-level in relation to the subject in general and at the micro-level in relation to their performance and to the practical PE session. The present research has already contributed to improving the organisation of the subject and improvements have been made, such as establishing the role of the PE teacher individually and restructuring the role of the organisation of the subject.

Index Terms—CLIL, ICLHE, bilingual education, bilingualism

I. INTRODUCTION

Nearly three decades have passed since the introduction of bilingual education in Europe following the White Paper on Education and Training (European Commission, 1995). However, the goal of learning at least two foreign languages in addition to one’s mother tongue is still being pursued, at least in Spain. Although the introduction of bilingual programmes was quickly adopted by the different Autonomous Communities, there is still no national legislation setting minimum learning standards. The central government delegates these competences to the different Autonomous Communities and, consequently, we could say that Spain currently has 17 different bilingual education programmes.

Content and Language Integration Learning (CLIL) methodology is presented as a unifying factor and is spreading rapidly throughout the country. CLIL can be defined as a “dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” (Marsh et al., 2010, p. 2). Thus, although the primary objective will always be linked to the learning of content, language plays an important role in learning. Throughout the scientific literature, we can observe how the application of CLIL has produced different benefits both at primary (Nieto Moreno de Diezmas & Ruiz Cordero, 2018) and secondary education level (Lancaster, 2016; Pascual Bajo, 2018; Prieto-Arranz et al., 2015). However, some authors still argue the need for quality studies showing the benefits of CLIL at all educational levels (Goris et al., 2019; Pérez-Cañado, 2012).

CLIL methodology is increasingly being used in bilingual education as the best option for second language (L2) learning in schools. Specifically, in Andalusia, according to the Strategic Plan for the Development of Languages in Andalusia. Horizon 2020, PEDLA (Junta de Andalucía, 2016), there is great importance given to teacher training in CLIL methodology.

However, we are faced with the large-scale problem of CLIL teacher training that still demands a lot of improvements. A study carried out by Fernández-Sanjuro et al. (2019) showed that those primary school students who took part in the CLIL programme obtained lower values than their peers who did not participate in the programme. According to the author, a possible explanation could be the lack of teacher training involved in the application of these methodologies, as they did not receive any. In this line, different authors also point the lack of quality training for

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bilingual teachers so that they can implement quality education for their students with the accuracy needed (Aguilar & Rodríguez, 2012; Barrios & Milla Lara, 2018; Dafouz et al., 2007; Delicado Puerto & Pavón Vázquez, 2015; Pascual Bajo, 2018; Tsuchiya & Murillo, 2015).

In this vein, we may highlight a study carried out by the Bilingual Education Association in 2021, where 851 teachers (420 primary and 431 secondary school teachers) completed a questionnaire (Gisbert da Cruz et al., 2021). Approximately 65% of the respondents considered both the amount of linguistic and methodological training to be insufficient. On the other hand, approximately 53% of the participants considered receiving an insufficient quality of both linguistic and methodological training. In addition, we observe that teacher training is mainly carried out for teachers who are already working as bilingual teachers, forgetting the initial training for pre-service teachers.

In this study, we focus on the importance of covering the demand for training in bilingual teaching. This study considers the importance of training future teachers studying the Master's Degree in Teacher Training to acquire a minimum content through activities and strategies in communicative competences in English and competences related to CLIL methodology. As these students are postgraduate students, we implement the so-called ICLHE methodology (Integrating Content and Language in Higher Education), a term used to refer to the application of CLIL adapted to the characteristics of higher education (Costa & Coleman, 2013; Méndez & Casal, 2018). The present study is part of a pilot study which analyses the perceptions after implementing a teaching-learning process using ICLHE in postgraduate students who may be future bilingual PE teachers. It is relevant to highlight this speciality since PE is a subject generally chosen to implement multilingual initiatives as CLIL in the schools (Salvador-García et al., 2019). It is important to note that Physical Education was bilingual with English as a second language in 74.03% of the total of bilingual public secondary schools in Andalusian (the autonomous community where this study takes place) in the school year 2020/2021 (Portal PID®, Junta de Andalucía). Therefore, it is needed to introduce bilingual education content in the training of future teachers.

The intervention of the current study is innovative: using the ICLHE methodology, we will teach the students how to apply CLIL in their future as teachers. It was decided to use the ICLHE methodology for two main reasons. Firstly, this methodology allows a flexible adaption to the linguistic competences of the Master's students, which are heterogeneous, ranging from B1 to C1 certification levels. Secondly, this methodology provides students with linguistic and methodological training useful for their professional future as bilingual teachers in secondary education levels, where the CLIL methodology is always used. Consequently, the students will learn concepts through their own experience to extrapolate in their future practice as teachers.

II. OBJECTIVE

The main objective of our research was to find out the perceived linguistic and professional competences acquired after applying the ICLHE approach among the students of a subject of the Master's Degree in Teacher Training, specialising in PE, at the University of Granada. The second objective was to analyse this information in order to establish improvements in the subject.

In the subject, the students participated in an intervention through several lessons where they assumed different roles that encouraged them to: a) improve communicative language competences in English (hereinafter called linguistic competences), specifically oral and written expression, oral and written comprehension and mediation, and; b) enhance their PE teaching competences (hereinafter called professional competences) included in the curriculum of the subject where teaching skills are developed.

III. METHODOLOGY

The methodology is explained focusing on the participants and context, the study design and procedure, and the description of the intervention.

A. Participants and Context

This study involved a total of 10 participants (40% women and 60% men) who were part of a group class of 33 students who participated for 3 months in the subject of Learning and Teaching Physical Education as part of the Master’s Degree in Teacher Training at the University of Granada, where the ICLHE methodology was used. Regarding the initial English level, 4 participants (40%) had a B1 level, 2 participants (20%) had a B2 level, and 4 participants (40%) had a C1 level according to the Common European Framework of Reference for Languages (CEFR).

The sample size selected for the interviews was decided according to information-power criteria (Malterud et al., 2015). Thus, the main criteria were to be adequate informants and to include representation of each of the roles, so that we could gather all perspectives. The interviews were in Spanish so students could easily express their opinions. The selection of the participants for the interview was done by the teacher, who knew the students from the subject and, could therefore, choose the best candidates to help answer our research questions and, consequently, help her to improve the subject.

B. Study Design and Procedure
The design is an action-research study with one intervention group that includes a 3-month period of a specific intervention of bilingual teaching using the ICLHE methodology. After it, interviews were carried out to delve into the students' perception about their potential improvements within their linguistic and professional competences, and secondly, to set some improvements in the subject. Prior to the study, the participants were informed about the study and signed an informed consent form regarding the processing of data in the research according to the Helsinki Declaration and the indications of the Ethics Committee of the University of Granada. In addition, at the beginning of the interview, they were reminded of the ethical precepts of qualitative research, such as the confidential treatment of their data assuring anonymity.

After finishing the intervention, all the students within the class group completed a questionnaire (that has not been included in the present article), and then, 5 semi-structured interviews were carried out with the participation of two students within each of them. The interviewers were two researchers with expertise on both qualitative research and bilingual education at university level. The interviews, performed in Spanish, offered an opportunity to delve into different topics for which the questionnaire had proved to be limiting, such as the development of their linguistic and professional competences, the motivation behind the students' answers to the questionnaire, and their experience within the subject. After each interview, the interviewers made a brief analysis to facilitate the emergence of new potential themes and areas of interest that were included as new research questions in the following interviews, in order to gather a wider range of information. The coding of the interviews was carried out using the MAXQDA22 software. The codes were analysed and grouped into themes. Subsequently, these themes were contrasted with the research questions to check if the generated information answered the research questions.

C. Description of the ICLHE Intervention

The intervention occurred for 7.5 hours/week (3 sessions/week on Monday, Wednesdays and Thursday from 16:00h to 18:30h), for 3 months, from December 2020 to February 2021, in the School of Sport Sciences at University of Granada. Theory and practical lessons were conducted using the English language as the priority communicative language within the full intervention. Nevertheless, different ICLHE strategies were implemented to accomplish the acquisition of the content and language, such as: a) the use of translanguaging2, mostly in the first theoretical lessons and in the different sessions designed by the students and; b) the use of the scaffolding language performed by both teacher and students, through visual tools like the whiteboard, images and the emphasis on key words during the course of the subject.

During the intervention the students assumed two roles: a) "Role of the PE teacher", and b) "Role of the organization of the subject". Regarding the first role, students had to carry out a practical PE session in pairs, acting as a teacher to their peers, who acted as pupils. As for the second role, the students divided into groups contributed to the dynamics of the subject by fulfilling an organisational function in the subject, thus making them active participants in the process. The different roles performed in class by the students are explained below:

a. **Teacher’s collaborators.** It is highly demanding, and it requires working closely with the teacher. Specific activities include monitoring attendance, providing feedback to their colleagues and assessing the activities carried out in class.

b. **Superintendents.** It consists of assessing the role of the physical education teacher that each student assumes during a session. Specific activities include designing an assessment tool in English for the PE teacher (usually a rubric), providing feedback and assessing the final work of the PE session.

c. **Administration staff.** It consists of managing the group's communication and sharing the resources created for the rest of the group. Specific activities include organising a communication system within the group, creating and maintaining a profile of the subject on social networks, and creating a virtual space to house all the materials produced during the subject.

d. **Language teachers.** It consists of being the English language teachers in the subject. Specific activities include making a glossary of physical education terms learned in each session throughout the course, making posts with the vocabulary learned and helping during the classes to find unknown vocabulary or expressions.

e. **Diary group.** It consists of preparing a diary that includes relevant aspects of the subject content in each PE session. Specific activities include taking note of the feedback provided by the teacher and superintendents in all PE sessions and preparing a visual diary of each PE session with this learning.

f. **Final activity.** It consists of creating a final activity as a surprise for the group in the last session. The activity is configured in exclusive consultation with the teacher, in order to maintain the surprise factor. It is an emotional activity, as a farewell that serves to end the classes of this subject and the classes of the Master's Degree in Teacher Training. Moreover, for many of them, it will also be the last class at the University and perhaps of their educational stage.

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2 Adopting Vogel and García’s (2017) meaning, we understand translanguaging here as a unitary system in which the entire linguistic repertoire of a person as a bilingual is consciously used.
IV. RESULTS

The main objective of the current study was to identify the perceptions of the students related to their linguistic and professional competences, which will be presented together in the results. Each participant was assigned a code that will appear in parentheses at the end of each transcript, e.g. (P_213), in order to preserve the anonymity of the respondents. After the analysis of the different interviews, we observed the difficulty of the students to differentiate how they independently improved each of the two competences, since both are closely interrelated. Nevertheless, this is a preliminary and positive result which is highly related to the main objective of ICLHE, where learners must feel that they have worked on both content and language together. Therefore, the results are presented below, differentiated by the roles played by the students (role of PE teacher and role of the organization of the subject), showing together both the student’s perceived linguistic and professional competences.

A. Perceptions of Linguistic and Professional Competences in the Role of the PE Teacher

The students perceived improvements in their linguistic and professional competences after performing their role as a bilingual PE teacher during the session. They perceived the experience of teaching a session (i.e., playing the role of a bilingual PE teacher), as something quite positive involving the practice of the language skills in English; actually, they perceived an improvement in the development of their linguistic competences. Additionally, the experience of being as close as possible to the reality of a PE teacher is also perceived as something positive for their future, including a perceived improvement in their professional competence. The participants P_211 and P_216 express with the following words:

“I think the fact of having to teach a PE class in English, the fact of having to attend the PE classes of the rest of your classmates because you have to [...] be aware of what they tell you, of what they explain to you, of the activities, of listening to the video that they had uploaded on Instagram so that you know the content of the session, of creating your own worksheet that you have to hand in with all the exercises, so all of that I think contributes to both, English and what a PE teacher is.” (P_211)

“In the end, I mean, seeing the experience, it makes you more aware of the reality of what you are going to find in the classroom. That's why I say that it's been the other way round, experiencing practical classes and having to present and so on. Well, look, this is what I'm going to find in a school where there are kids who, for the most part, have practically no idea of English and I had to be able to adapt and have to take forward the contents of PE over English, even though it's my working tool, so that's why I say that I liked the experience. I said at first, I didn't think about it and in the end, I liked the experience a lot.” (P_216)

Regarding the perceived improvement in language skills, we can highlight a more specific development of speaking and listening skills, but with a special emphasis on the learning of PE specific contents. Therefore, both competences are improved, as the P_213 explains to us:

“During the project we improved our bilingualism skills, especially in the specific area of PE because there was a lot of vocabulary that we were looking at that I had no idea about, maybe I would have made up any word that I could have understood but not the specific vocabulary, and those are little things that you learn or the rubrics or when it comes to giving feedback as superintendents, as they themselves were also making progress, I was just not practising it myself, but I can see that the boy is improving at the same time as he is using a certain vocabulary. You listen to different people speaking, it is not the same to listen to someone who has a C1 in English as it could be, for example, the Hulk who spoke [...], and he goes from one word to another and I don't understand him, and The Teacher starts to talk and The Teacher is like a typical Spanish person who speaks English, do you understand me?” (P_213)

It seems that conducting a bilingual PE session was a challenge for the students, especially for those with a slightly lower level of English. Consequently, some participants indicated the need to memorise and be well prepared to avoid improvisation, which is a key aspect in the development of students’ professional competences. We can highlight how P_212 and P_214 dealt with the challenge by carrying out a good planning:

“So, the fact of doing it in English is true that I was much more nervous than I would have been on a normal day, but it also helped me to realise that I could do it because I did it and nothing happened, so I realised that if I prepare it well then, I can also do it in English. It helped me a lot that day and I realised that I could do it well and that nothing would happen.” (P_212)

“I prepared the session word by word, as I am stricter, so I learnt it and let it go. Thanks to that I did well.” (P_214)

An interesting result is that some students, despite being more nervous about conducting the session in English, did not perceive that their level of English affected the quality and type of session that they could teach. However, some participants felt that their English level, lower or higher, did affect their results in the evaluation of the session, even though it was not a criterion to be assessed.

“For example, our session was better than another one and we got lower marks because, maybe, we didn't have a good English pronunciation”. (P_219)
“In fact, what caught my attention is that there is a superintendent whose level was not... (...) he was not the best and when he had to evaluate a couple who spoke super well, he told them to be careful because you speak so well that you are doing it too fast, [what you say cannot be] not understood and the one who spoke “badly” was very good because he understood you. Because it depends on the evaluator, if your level is lower than the one you are evaluating, you haven’t understood anything, but you are doing great. And when it’s the turn of one who has your level, you say it’s great because you have been understood, so that shocked me a bit, well it didn’t influence but...also you should value that the others are doing it, that you haven’t understood it, but don’t put it as a negative part of it, hey you speak so well that nobody has understood it.” (P_218)

Lastly, although the general participants’ perceptions are in agreement with the fact that both linguistic and professional competences are improved through the role of PE teacher, they felt that the experience would be more realistic if it were carried out individually rather than in pairs.

“Well, it’s a bit modified, it’s a session, it’s not the real thing that you’re going to experience later on. Firstly, because there were a lot of students, secondly because we were two teachers and thirdly because they were university students. So, it helps you to relax, but then what you find is what happened to Thor, Thor is going to tell you that the session was great and now he arrives at the high school and says this is what it is.” (P_218)

“For example, we don’t think it’s appropriate to have two people teaching a class, because of course, it’s not the same for a group to be attentive to one person, but now imagine that you’re doing an exercise and the superintendents say “change to you” (P_219 points to the partner), so now suddenly someone comes out who wasn’t the current teacher, and of course, you have to always be attentive to what they’re doing. And it’s not the same as being aware of the same group and that group being aware of you, that the person is changing and so on. I didn’t like it in that sense.” (P_219)

“It’s good to give the session, but I think it’s true that it’s better to do it individually, to do it yourself and you are the protagonist. But well, it could have been divided or it could have been done that way.” (P_2110)

**B. Perceptions of Linguistic and Professional Competences in the Role of the Organization of the Subject**

Regarding the perceptions of both linguistic and professional competence improvements within the role of organisation of the subject, we can clearly find different opinions depending on the role they were assigned. This is due to the fact that some roles required more commitment and work than others. In the case of those roles that required a higher level of involvement in the subject, we can underline that they perceived an improvement in their linguistic competences, as they were able to practise their language skills more, and in their professional competences, as they were able to carry out activities proper of a teacher, thanks to the performance of the role.

“The fact of doing many different things, of evaluating, of going to tutorials, of being in contact with people, listening to their ideas and I like that a lot and I think I have improved a lot in many aspects that before maybe I was ashamed of. The fact of speaking to the public I already speak perfectly, I mean, I get nervous normally, but I have improved a lot, the way of communicating, the fact of being clearer in what I say.” (P_211)

“In the end, I really liked the superintendent role because it makes you be attentive and empathise not only with your situation as a teacher, but also with that of all your classmates. So of course, you’re in the middle of the session, you’re not just playing a game, you’re watching from the outside what’s happening to your classmate [who is playing the role of the teacher], so you say, well, this could happen to me tomorrow, so of course you’re learning from your mistakes and their mistakes. So, of course, I think you learn more than in other roles in that sense.” (P_216)

“Being more aware of the specific words, because we actually prepared the glossary and we uploaded it, but surely not everyone checked the vocabulary, the words every day, [...] we had to prepare it, well, you know, it’s more [...] in your mind, and I think we have worked on it more. So I recognise, or I am able to recognise these words more easily, or they come to my mind, because I have worked on them, not just seen them.” (P_218)

“And then I also like the diary, I really like to be attentive in the classes, because of what you said about the teacher, because you notice the mistakes and then that helps us to improve ourselves. And if you can give a “take home message” to others and that is also useful to them, well, that’s why we chose it.” [...] “well, above all, in looking at the children, the problems they may have in terms of attention, or the lack of feedback or in placing the children in the space in that sense, how to distribute the class, that I didn’t get the technical name in that aspect.” (P_219)

However, we found that those participants who participated in a less involved role of the organization of the subject did not perceive any improvement in either their linguistic or professional competences, as indicated by P_213 on several occasions in the interview and P_212:

“So our work has not been three months like in the case of our colleagues, because maybe the superintendents or the issue of the glossary and all that stuff, they have been constantly in each session having to do work at home. [...] A week passed, another week passed, March has arrived and two weeks before it was “look, guys, you do this or this, come on, a week to organise.” (P_213)

“In terms of the role we have played, we think it has been like... the one with the least participation in the whole project in terms of English or bilingualism.” (P_213)

“We didn’t really do anything, we just talked in the group and said, man, it’s been two months and we still haven’t done anything.” (P_213)
"Then, in my role, I haven’t learnt anything about the subject because in the end, I uploaded videos, I uploaded photos which is fun but no, I think it depends on the role you have in the subject you learn more or less because it's not the same to be a Teacher Collaborator which is what she was doing than what I was doing, so it depends a lot." (P_212)

V. MAIN CONCLUSIONS

The main conclusion answers the first objective of our research, which consisted in finding out the perception of the linguistic and professional competences acquired after the intervention using ICLHE methodology. We can conclude that the students perceived high improvements in both their linguistic and professional competences after finishing the subject using the ICLHE approach.

The second objective was to analyse this information in order to establish improvements in the subject. Nowadays, we can confirm that the results obtained in the interview were provided to the teacher and she included several improvements in the subject in the following academic year. These improvements were focused on reorganizing some aspects of the subject regarding the role of PE teacher and the role of the organization of the subject.

Regarding the role of PE teacher, the students confirmed that teaching the PE session encouraged them to reflect on their own linguistic competence. In order to carry out this session in a comprehensible way, the students had to search for resources that allowed them to express themselves and be understood, regardless of their English level. The students stated that, in reality, they work individually and not in pairs, and they proposed to have the full “PE teacher” session individually. Since the role as a bilingual PE teacher is an enriching experience and highly useful for the students, as they reported, the teacher decided to implement the “PE teacher” sessions in the next academic year individually instead of in pairs.

In terms of the roles of the organization of the subject, there are, according to the results, some roles that promote a higher development of linguistic competences than others, because they have a more active involvement. This also affected the professional competence, where some roles were more encouraged to improve this competence compared to others. In addition, there are some roles that were not as relevant as expected. For these reasons, in the following academic year, some updates were implemented in the roles of the organization of the subject. The roles that required less involvement were deleted, and the number of participants in the more involved roles increased, which allowed a more equal distribution of the work among the students.

In this publication, we have focused on the results related to the teaching practice. However, this research has provided other useful information regarding the role of PE teacher, which may be used as a reflective process of his/her own practice. In the future, we would like to approach this same methodology from other perspectives asking for other research interests, and generate a multicase study that includes the results concluded from the groups in different academic years within the subject with the aim of making this project transferable to other contexts.

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