



Teaching Practices in Teacher Education Departments as a Factor of Professional Development of Teacher Candidates: A Proposed Project

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The Teaching Practice (TP) of teacher candidates is a key factor in their professional development. On this basis, this paper seeks to highlight the role of TP in the professional development of teacher candidates, the main characteristics of TP and the basic models of TP, which are applied internationally in Teacher Education Departments. The implementation methodology of the proposed TP project is based on the combination of the following three models: the partnership and collaborative learning model, the reflective learning model and the pedagogical content knowledge focused model. Based on these parameters, the novelty of this paper is the structuring of a proposal of a TP project for teacher candidates, which results from their direct and experiential activation in the teaching and learning process of formal education. The proposed plan includes the following four stages of implementation: i) Observation of three classroom days where the teacher candidates will teach, ii) Lesson planning in collaboration with the TP academic supervisor, iii)

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Implementation of lessons by the teacher candidates over a period of fifteen teaching days in the TP implementing schools, iv) Evaluation/reflection on campus of University after the TP in the TP implementing schools.

Keywords: Teaching practice; teacher candidates; teacher education departments; professional development; teaching practice project.

1. INTRODUCTION

In the context of teacher candidates' studies, the Teaching Practice (TP) seeks to enable teacher candidates to gain knowledge, experience and skills for teaching practice [1], in order to constructively achieve the functional correlation between teaching theory and teaching practice. This issue is of particular importance, given the finding, emerging from the relevant literature, regarding the disparity, which prevails between theory and practical teaching application [2-4]. On this basis, the design of training programmes for teacher candidates to acquire and develop appropriate knowledge and skills about teaching is an ongoing challenge for [3,5,6,7]. Therefore, in the curricula of teacher education departments it is also a subject of study and research at a global level [8-16].

In general, the purpose of the TP is to connect teacher candidates as much as possible with the educational and teaching process and to train them in the management of teaching and the classroom as a dynamic social entity [17-21].

In particular, "TP" can be defined as any planned and methodical educational activity that aims to link pedagogical and teaching theory with teaching practice, to introduce the teacher candidate to the processes of analysis, planning and conducting teaching and pedagogical practice, as well as to familiarize the teacher candidate with the teaching project in all its dimensions and manifestations [13,22].

According to this definition, TP fulfils a special function in the education of teacher candidates, since at its core is the issue of linking theory to practice and its main aim is to minimise the so-called 'practice shock' or the so-called 'transition shock' [23-25]. Therefore, the term " TP " refers to the whole spectrum of training of teacher candidates, which involves the systematic transformation of pedagogical and teaching theories into various and alternative manipulations for the achievement of effective teaching processes [25-28]: a) the familiarization of teacher candidates with the conditions that prevail during the practice of teaching, b) the

awareness of the teaching role, in terms of managing the dynamic relationships that develop between the participants of the teaching process, c) the utilization of theoretical knowledge to achieve more effective teaching and d) the critical integration of teacher candidates in the teaching practice [28].

TP is an important learning context for teacher candidates, because [29]: a) it offers teaching experience in real-life teaching situations, aiming at the acquisition and expansion of the teaching skills of teacher candidates. b) it supports communication with experienced teachers, from whom teacher candidates can gain valuable teaching experience. (c) It enables the implementation of new teaching approaches by enhancing the interest of teacher candidates, but also by motivating them to deepen and study further both traditional and modern and/or innovative teaching approaches in order to achieve more effective learning.

In combination with the above, it is noted that the teaching development of teacher candidates involves different stages. TP is part of the first stage, which has been described as the 'survival stage', since in this phase the teacher candidate tries to define his/her teaching role and to adapt to the school reality [29]. In this context, TP is [30]: a) The process, place and time where the teacher candidate is called upon to use his/her knowledge, plan, implement, evaluate and improve his/her work. b) The context for reflecting, experimenting, learning and developing his/her own theories about teaching practice and teaching applications.

Based on the above data, this paper aims to highlight the role of TP for the professional development of teacher candidates, while at the same time providing a TP proposal for teacher candidates.

2. TEACHING PRACTICE FOR THE PROFESSIONAL DEVELOPMENT OF TEACHER CANDIDATES

A key feature of TP is its association with "Teaching Methodology" [31]. Through the use of

theoretical knowledge and its critical integration into the teaching process, TP enables teacher candidates to become familiar with the conditions prevailing in teaching and to reflect on them. Teacher candidates gradually form their own perception of the teaching and learning process as it may be shaped in the course of teaching, as they are called upon to manage a grid of realistic teaching situations [28].

In essence, what is sought is the transition from declarative to procedural knowledge, which presupposes the didactic transformation of cognitive constructs through the making and evaluation of concrete decisions [28,32]. This transition is achieved through the understanding of the specific teaching conditions that prevail in the field of implementation of systematic teaching, which is the classroom [33].

The participation of teacher candidates in the systematically organized TP of their Curriculum contributes to the improvement of both their teaching skills (content identification, teaching methodology, communication skills) and their professional skills through the process of reflection [29,34-36].

On the basis of the above references, it is evident that the TP as an independent educational component of the Curriculum of the basic academic education of teacher candidates is distinguished by the following characteristics [10,18-21,28]:

- It is a planned and methodical educational activity, which brings the teacher candidate into direct contact with the teaching practice.
- It aims to link teaching practice with pedagogical and teaching theory, to familiarise the teacher candidate with the field of his/her teaching activity, and to help him/her understand the conditions and prerequisites for the exercise of teaching work.
- It contributes to the acquisition by teacher candidates of a range of practical teaching skills, knowledge and applications.
- It enables teacher-candidates to develop their ability to take a critical stance on topical teaching issues.
- It refers to all the experiences acquired by the teacher candidate.
- It stresses the importance of the functional transformation of theoretical methodological choices into concrete

teaching actions and practices for the organisation and implementation of the educational and teaching process.

The TP of teacher candidates is a complex and particularly meaningful and important dimension of their course for the construction of their teaching profile [37], providing the opportunity for feedback, personal reflection and the adoption of their personal teaching style [10,38-44].

3. BASIC MODELS OF TEACHING PRACTICE FOR TEACHER CANDIDATES

In the relevant literature, the following four models of TP are listed as the main models of teacher candidates' TP [14,28,45-49]:

a) **The partnership and collaborative learning:** In this model of TP, partnerships between experienced teachers, teacher candidates and the academic supervisors of the teacher candidates are envisaged. The benefits of this cross-collaboration are strong guarantees of the acquisition of adequate teaching experience by teacher candidates [45,49].

b) **The reflective learning model:** This model focuses on the development of teaching skills by teacher candidates based on reflection on the teaching task. On the basis of this model, the TP highlights, but also utilizes acquired teaching experiences of teacher candidates, which are created through teaching processes of reflective approaches [49,50]. By applying this model, the aim is to provide teacher candidates with theoretical knowledge and practical applications, which will enable teacher candidates to analyse and interpret their teaching work themselves [51]. Teaching Practice Programmes drawn up using the reflection model seek to prepare teacher candidates to be able to draw conclusions about the 'how' and 'what' of teaching and to reach findings that, continuously, they will evaluate by redefining their practicality [46,48]. In this model, teacher candidates design, implement and evaluate their teaching programmes in order to reconfigure them in order to achieve the desired outcome [46]. This model is based on feedback [46,49].

c) **The clinical model:** According to this model, teaching is seen as a process of solving difficult teaching situations and making decisions. This model requires extensive contact of teacher candidates with formal schools so that when

faced with pedagogical and teaching difficulties they are able to make appropriate decisions. The goal of extended TP is to allow time for teacher candidates to analyze and evaluate their current teaching situation, as well as to develop more individualized approaches to teaching and intervening in student learning. However, it is worth mentioning that there is not much research data on this model [46,49].

d) **The pedagogical content knowledge focused model:** This model is based on teaching, which is developed with a good knowledge of pedagogical and teaching theories and the subject matter of teaching. On the basis of this model, teaching knowledge covers a wide range of interrelated dimensions. In this model, sufficient knowledge of the content of pedagogy, knowledge of the theory of the analytical curriculum, knowledge of the developmental stages of students, as well as knowledge of the goals and objectives of the social institution of education are projected [49,52]. The TP programs of this approach focus on learning how to organize their subject matter, how to approach it and how to present teaching.

The above models of Practical Exercises - based on the literature review - are used in various countries at international level either autonomously in the Curricula for the training of teacher candidates or in combination, depending on the profile of a teacher candidate, which is sought to be formed through each Curriculum [49].

4. METHODOLOGY FOR THE IMPLEMENTATION OF THE PROPOSED TEACHER TEACHING PRACTICE PROJECT

In this paper, the proposed plan of the TP is structured in the combination of the following three models, mentioned above:

- The partnership and collaborative learning model
- The reflective learning model
- The pedagogical content knowledge focused model

Through specific stages, which are presented below, the main objective is to bring teacher candidates into contact with experiential experiences in the teaching and learning process.

5. THE FRAMEWORK FOR THE IMPLEMENTATION OF THE PROPOSED TEACHING PRACTICE PROJECT

In this paper, a proposal for the implementation of a TP project for prospective teachers through their direct and experiential participation in the teaching and learning process is presented.

In this proposal, it is suggested that teacher candidates during their TP utilize differentiated teaching data in a range of teaching applications and possibilities, taking into account that the mathematical potential in contemporary formal education schools is composed of students with diverse socio-cultural characteristics, students with learning abilities, needs and interests [53-64].

In this context, the effort of the candidate teachers, during the implementation of their TP involves the differentiation of three factors according to the readiness, interests and learning characteristics of the students. These factors are [62,65-68]: a) The content of teaching. b) The type of organization of the teaching process. c) The quality of the learning outcome. The utilization of these three factors contributes so that each student can actively participate, continuously learn and reach her/his full potential [66,67,69,70], combined with the appropriate involvement of the teacher candidates as practitioners of controlled teaching work.

In continuation of the above, the proposed, in the present paper, draft of the TP aims to [1,18,19,58,59] teacher candidates to:

- Get in touch with the data and requirements of the pedagogical and teaching process, as a dynamic communicative phenomenon.
- Utilize, accordingly adapted teaching methods and teaching techniques.
- Achieve effective teacher-student and student-student interaction.
- Practise the planning, organisation and implementation of teaching.

Prior to the start of the TP in the field of their teaching activity, which is the school of formal education, the teacher candidates are systematically informed by the academic supervisor of the TP, in collaboration with the teacher of the classroom where they will implement the TP, about the cognitive,

methodological and teaching level of the students [1,18-21,50,58,71,72].

The following steps are then followed, which constitute the stages of the proposed, in the present paper, model of TP:

I. Observation of three days of the classroom where the teacher candidates will teach:

In this stage of observation, the teacher candidates will take the following actions:

- Record the students' learning functioning, classroom climate, teacher-student and student-student relationships, and the teaching methodology used by the teacher of the reference classroom.
- Recording the students' learning profile through discussion with the reference classroom teacher, by completing a questionnaire to record the students' learning functioning and psychosocial adjustment in the reference classroom.
- administering to the pupils, with the cooperation and approval of the reference class teacher, an informal diagnostic test to assess their skills in the Language Course and in any other subject area required, based on the syllabus of the reference class.

II. Planning of lessons in collaboration with the academic supervisor of the TP:

In this phase, which follows the three - day observation in the reference classes, the teacher candidates collaborate with the academic supervisor for TP. Specifically, a feedback discussion is held between teacher candidates and the academic supervisor to identify the learning needs of students in the reference classes where TP will be implemented. In order to achieve this, "microteaching sessions" are implemented at the University by the teacher candidates, from which, in collaboration with the academic supervisor of TP, the basic teaching principles that will be used in the design of the lessons that will be carried out in the classrooms where the project of Teaching Practices will be implemented.

The planning of the lessons by the teacher candidates includes the following:

- Design by the teacher candidates of instructional plans referring to the learning

level, interests and learning profile of the students as captured by the observation carried out by the teacher candidates.

- Recording of the teaching objectives of the teaching, as well as the activities, methods and teaching materials to be used in the teaching.
- Process of adapting the learning environment to the needs of the students.
- Methods of feedback of teaching plans as predictable processes on the unforeseen situations that may occur in live teaching.
- Existence of adjusted teaching plans by the teacher candidates for cases when the initial teaching preparation does not correspond to the data of the reference class.

III. Implementation of teaching sessions by the teacher candidates over a period of fifteen teaching days in the schools implementing the TP:

In this stage, teacher candidates implement lessons in the reference schools, based on the principles on which the lesson plans were structured.

At the same time, the classroom space with mixed ability pupils is appropriately designed to implement specific techniques and strategies for differentiating the teaching process. In this context, the following can be used: Teaching in small working groups, the organization of "learning corners", the use of the project method and the interdisciplinary approach to knowledge, the development of creative collaboration between students with different levels of knowledge and skills in different areas [68,73-75].

IV. Evaluation/reflection on the University site after the TP in the TP implementing schools:

After the completion of the TP in the reference schools, the teacher candidates, in collaboration with the academic supervisor of the TP, undertake an evaluation/reflection on the lessons implemented, based on the following procedure:

- Initial discussion of the academic supervisor for TP with the teacher candidates.
- Identification of the positive and negative challenges, which emerged, during the implementation of the teachings in the reference schools and submission of possible revision proposals.

- Reflection on the data of the implemented lessons [12,76].
- Evaluation of the TP by the participating TP teacher candidates themselves through questionnaires or individual interviews, in order for the TP academic supervisor to ascertain the degree of response of the TP teacher candidates to the data and requirements of the TP [77].

6. CONCLUSIONS

The present project aims to propose an effective professional development programme for teacher candidates, which attempts to directly link theory with teaching practice, to contribute to the teaching transformation and to prepare teacher candidates for the performance of teaching work in the field of implementation of the teaching practice, which is the school of formal education [28,51,78,79].

At the same time, it is noted that the implementation of TP is not a "closed" process, in which theoretical models are applied with the authority of axioms in teacher education [33]. On the contrary, it is necessary to strive for the continuous upgrading of the quality of TP, through the continuous exploration and evaluation of the different components of the pedagogical and teaching work.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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