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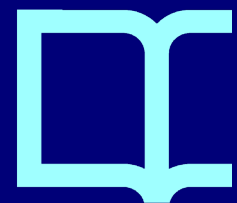
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3 **Three teacher identities in two school education systems: Catalonia and Peru**
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ABSTRACT

This paper provides empirical evidence about the close relationship between two education systems' orientations and priorities and teacher identities. Based on the Dialogical-Self Theory (DST), it identifies different schoolteacher identities and shows that these teacher identities are non-uniformly distributed across two education systems. Forty Catalan and forty Peruvian schoolteachers (eighty in total) provided information about their positions and I-positions concerning teaching via a written survey. The data were analysed using qualitative and quantitative procedures. The findings show three types of teacher identities: an *educator and a learning guide*, an *instructor teaching*, and a *collaborative innovator*. The results further demonstrate that most of the Peruvian schoolteachers assumed the teacher identity *as an instructor teaching*. In contrast, the Catalan schoolteachers assumed two teacher identities: *an educator and a learning guide*, and a *collaborative innovator*. We conclude by suggesting some implications for educational policy, teacher education and school organisation.

KEYWORDS

Education system; teacher education; teacher identity; teaching in schools.

Introduction

Nowadays, the theoretical concept of teacher identity is one of the most relevant research topics regarding teachers and teaching (Beijaard and Meijer 2017). Although the number of studies interrelating teacher identity with the individual dimension and personal components is constantly growing (Hanna, Oostdam, Severiens and Zijlstra 2020), little is known about the potential relationship between teacher identity and specific characteristics of education systems.

Our contribution focuses on identifying and describing types of teacher identities and how these teachers with a similar professional identity are distributed throughout two different school education systems. Our initial research hypothesis is that Peruvian and Catalan education systems would influence the emergence of different types of teacher identities due to having different strategic aims and education policies nowadays. Whereas the Peruvian education system is concerned with having highly professional teachers and reaching a high level of quality education (Consejo Nacional de Educación 2021), teachers in the Catalan education system are concerned with issues such as pedagogic innovation movements, inclusion in education, and teaching to develop basic skills (Departament d'Educació 2021).

We approach the study of teacher identity using the emerging psychological Dialogical-Self Theory (DST) created by Hermans (2015). Teacher identity is composed of and expressed in multiple and interrelated I-positions (Akkerman and Meijer 2011), all of which are held together in the unity of the self and are maintained over time through self-dialogue (Assen et al. 2018). Every kind of teacher identity reflects what a group of these teachers think about teaching and how they carry out their practice and face educational challenges in the classroom and school.

This article is organised into the following structure. In the theoretical section, we review what is known from existing research about criteria and categories to describe schoolteacher identity. Next, we propose an alternative way to characterise teacher identity based on the DST, going beyond these existing perspectives. In the method section, we describe the design of the qualitative-quantitative empirical study based on the notion of *teacher I-position*, which comes from the DST, and present the findings. Finally, we discuss the conclusions and implications for educational policy, teacher education and school organisation.

Theoretical framework

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3 The first theoretical section reviews the current approaches and criteria used to describe
4 schoolteacher identity in the existing studies in this area. We identify the potential
5 strengths and weaknesses of such perspectives. Next, we introduce an alternative and
6 relatively new way to describe a teacher's identity based on the DST. Finally, we evaluate
7 both contributions to the method adopted in this study.
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13 **Approaches and criteria to describe schoolteacher identity**

14 The literature review yielded research evidence concerning three approaches to describe
15 schoolteacher identity. The three criteria used to describe teacher identity are:
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- 18 1. The teachers' characteristics regarding teaching and classroom issues.
- 19 2. The ways teachers see themselves and their role regarding teaching.
- 20 3. The teachers' psychological constructs or individual domains regarding teaching.

21 For the first criterion, we identified three examples of studies. Vulliamy, Kimonen,
22 Nevalainen and Webb (1997) describe primary school teacher identity in three aspects of
23 the teacher's teaching: teacher values about teaching, curriculum and classroom
24 organisation patterns, and curriculum planning process. Madden and Wiebe (2015) give
25 a detailed description of the distinct identity of three elementary science teachers and their
26 relationship with their science teaching practice. The analytical framework consists of
27 four identity markers initially used by Gee (2000): the nature of teachers (viewed as
28 science teaching styles), the institutional identity (the organisational position as a science
29 teacher), the educational discourse in the classroom about science, and the affinity
30 identity (feelings about science and science teaching). Finally, the Badia and Iglesias
31 (2019) describe secondary school science teacher identities according to their conceptions
32 of teaching and learning, their conceptions of the nature of science, their feelings about
33 technology, their competence in using technology, and the frequency of classroom
34 technology use.
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48 Five studies exemplify the second criterion to describe schoolteacher identity. The first
49 two use a two-axis criterion to identify types of teacher identities. Welmond (2002)
50 mapped schoolteacher identity according to two axes: teaching as being versus doing and
51 teaching for the state versus the community. Four resulting kinds of teacher identities
52 emerged: (a) teacher as a *beacon*, a vessel of specialised knowledge available to the
53 community and students; (b) teacher as a *civil servant*, a member of an exclusive club
54 with privileged access to state and community resources; (c) teacher as a *dedicated*
55 *teacher*, a self-sacrificing, decent person and valuable member of the local community;
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3 and (d) teacher as an *efficient teacher*, focused on ensuring that students pass their school
4 exams. Barret (2008) also describes primary schoolteacher identity based on the two-
5 dimensional categories used initially by Bernstein (2000): views of teaching practice
6 (with two categories: relational versus instrumental) and views of professionalism (also
7 with two categories: covenant-based versus contract-based). Three types of identities
8 emerged: *relaters*, characterised by their relational professionalism and a combination of
9 relational and instrumental practice; *self-improvers*, positioned according to their
10 instrumental professionalism and, like the relaters, their variety of both types of practice,
11 instrumental and relational; and *vocational teachers*, characterised by specific
12 characteristics in all dimensions and categories.

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The next three studies use the teachers' self-understanding about the central role or
position that characterises their identity. Avraamidou (2016) describes how three
candidates for teaching posts viewed themselves as future science teachers by identifying:
their self-understanding as science teachers, their feelings about science as a subject
matter, their view of science teaching methods, and their identity trajectories and current
situation. The first teacher emphasised inquiry-based science, the second was drawn to
the affective domain of science learning, and the third was interested in science outside
the classroom. Meo and Tarabini (2020) identify three teachers' professional identities in
second-chance schools in two different countries. The first position revealed was ethics
of care, consisting of the teacher's moral sentiments and the emotions involved in
interpersonal relationships and special obligations. The second was the personalisation of
teaching, referring to teaching as a personalised matter and students as unique individuals.
The third position was the teacher's understanding of the practice of teaching as a
collective endeavour. Finally, Beijaard, Verloop and Vermunt (2000) examine secondary
school teachers' perceptions of their professional identity from a personal knowledge
perspective, using three categories: *subject matter*, *didactics*, and *pedagogy*. The findings
reveal five groups of teacher professional identities related to expertise in subject matter,
didactics, pedagogy, a combination of two aspects, and balanced.

The last type of study used teachers' psychological constructs or individual domains to
describe teacher identity. We identified three examples of such research. On the one hand,
Lamote and Engels (2010) analyse secondary student-teacher perceptions of four domains
of their professional identity: professional orientation, task orientation, self-efficacy, and
commitment. First, professional orientation consists of two dimensions: in-service
learning and inter-colleague cooperation. Second, task orientation includes three

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3 dimensions: task orientation to educational goals, task orientation to pedagogical relations
4 and task orientation to instruction. Third, self-efficacy involves two dimensions: efficacy
5 in class management and efficacy in teaching skills. The fourth and final domain,
6 commitment to teaching, is one-dimensional. On the other hand, Canrinus,
7 Helms-Lorenz, Beijaard, Buitink and Hofman (2011, 2012) profile three distinct
8 professional identities of secondary teachers, based on four indicators: job satisfaction,
9 self-efficacy, occupational commitment and change in motivation level. Findings reveal
10 three teacher identity profiles: unsatisfied and demotivated teacher, motivated and
11 affectively committed teacher, and doubting competence teacher. Finally, Hanna,
12 Oostdam, Severiens and Zijlstra (2020) designed a scale for measuring primary student-
13 teacher identity which encompasses four domains: motivation, self-image, self-efficacy,
14 and task perception.

15
16 Overall, all the studies provide a rich and detailed description of different ways to
17 characterise teacher identity. Thus, they significantly expand our knowledge and deepen
18 our understanding of this area of research. In this non-exhaustive research map, we lack
19 an alternative research perspective that characterises teacher identity in another way: a)
20 collecting data in the teachers' real voices which reflect their real day-to-day work; b)
21 using a unit of analysis that integrates both individual assets and characteristics, and
22 prototypical situated activities in the institution; and c) analysing data using categories
23 which retain the meaning teachers themselves attribute to their professional activities. We
24 are convinced that the DST can be a valuable and alternative research perspective because
25 it allows us to collect and analyse data about teacher identity according to the three
26 requirements mentioned above.

27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 **An alternative way to describe schoolteacher identity: teacher positions and I-** 46 **positions**

47
48 A decade ago, Akkerman and Meijer (2011) provided a convincing definition of teacher
49 identity grounded in the psychological DST, initially outlined by Hermans, Kempen and
50 Van Loon (1992). In this theory, a teacher's *I-position* is a crucial element of defining
51 teacher identity. According to Akkerman and Meijer (2011), teacher identity consists of
52 a teacher's dialogical self-understanding, 'composed of multiple I-positions in the
53 landscape of the human mind' (p. 311). According to this definition, teacher identity may
54 be seen as single and multiple, individual and social, continuous and discontinuous. In
55 this way, the notion of the teacher's I-position encompasses both the teacher's inner world
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3 (the intra-psychological dimension of the individual mind) and the teacher's external
4 world (society).

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6 A teacher's I-position may be considered an ongoing self-positioning process that pursues
7 an explicit education-related purpose or aim, whereby the teacher expresses their
8 professional identity through an intentional and subjective way of thinking and
9 conducting a current professional teaching activity (Badia and Liesa 2020). In the
10 generation of a teacher's I-position, two constitutive elements converge: the 'I' and the
11 'position'. The 'I' is the first-person perspective, which may include the teacher's
12 intentions, knowledge, beliefs, attitudes, agency, ownership, and sense-making processes,
13 among other aspects (Badia, Liesa, Becerril, and Mayoral 2020). The 'I' is continually
14 trying to influence both the process of the teacher's positioning as well as the final shape
15 of the developed I-position.
16

17
18 Each teacher's I-position is developed within the framework of an *institutional position*,
19 defined as an organisational-level function that can be performed by teachers in real
20 school settings at a given time. In developing their teacher status, teachers assume a set
21 of institutional positions. Defined as status functions by Searle (2010), *school positions*
22 are personally understood and socially shared among the teachers at a particular school
23 institution. The school positions of a particular school may not necessarily always
24 correspond to the teacher functions previously established by the educational
25 administration of a given region or country.
26

27
28 A teacher's professional identity is defined here as a specific configuration of multiple
29 teachers' core *I-positions* and interrelated *school positions*. These I-positions do not
30 operate in isolation. A teacher's core I-positions consist of the dominant group of
31 cooperative I-positions which occupy the central space of that teacher's identity. How a
32 teacher's core I-positions combine determines how they express their professional
33 identity in the context of real and concrete schools (Akkerman and Meijer 2011).
34

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36 Few studies on teacher identity have focused on identifying and describing I-positions in
37 teachers, and those that do exist have been conducted mainly during the last five years.
38 For example, in the case of student teachers, several contributions (Maaranen and
39 Stenberg 2020; Stenberg, Karlsson, Pitkaniemi and Maaranen 2014; Stenberg and
40 Maaranen 2020) have identified four student-teacher positions: (1) the *values position*
41 relating to basic teaching matters and issues such as fairness, impartiality and equality, as
42 well as highlighting the role of the teacher as an educator; (2) the *practice position* relating
43 to the voices of three interrelated teaching practice positions: *pedagogical interaction*,
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3 *didactics* and *content*; (3) the *teacher position* relating to the voices of teachers
4 themselves, for example, the teacher's own personal qualities; and (4) the *context position*
5 relating to ideas about the teacher's working environment.
6
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8 Regarding practising teachers, Assen, Koops, Meijers, Otting and Poell (2018) describe
9 in detail the I-positions of four teachers using a narrative approach in the context of a
10 course on Problem-Based Learning. Several examples of teachers' I-positions are
11 described according to the type of tutor style, whether directive and teacher-orientated,
12 or supportive and learner-orientated, such as 'I as a demanding tutor', 'I as a subject-
13 matter expert', 'I as a provider of knowledge', 'I as an experimenter', 'I as a process
14 organiser', 'I as an authoritarian teacher', 'I as a content activator', 'I as a facilitator of
15 the collaborative learning', 'I as an energiser', 'I as a protector', and 'I as an evaluator'.
16 Recent studies on experienced teachers' identity limited to the Catalan context (Badia and
17 Liesa 2020) provide a description of nine types of positions (named: to educate children,
18 to plan instruction, to support and assess learning, to promote a positive learning
19 environment, to improve educational practice, to collaborate with colleagues, to build a
20 relationship with families, to manage the school, and to collaborate with external
21 professionals) as well as thirty types of I-positions. Additionally, four types of teacher
22 identities are named, according to predominant I-positions: *instruction and school*
23 *management*, *instruction and improvement of educational practice*, *education of children*
24 *and teaching students* and *education of children and improvement of educational*
25 *practice*.
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39 In sum, the empirical part of this research adopts the theoretical construct of teacher I-
40 position, which comes from the DST, to describe teacher identities and label the data.
41 Previous research on this topic that adopted this approach proved to be a complementary,
42 but suitable alternative to existing research approaches reviewed in the first part of the
43 theoretical section. Accordingly, this study addresses the following two questions:
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48 *Research Question 1:* Are there differences among the schoolteachers' identities
49 according to their I-positions?

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51 *Research Question 2:* Are there differences among the schoolteachers' identities
52 according to their socio-professional characteristics and geographical origins?
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56 **Method**

57 ***Context of the study***

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3 The data derives from two different groups of schoolteachers. The Catalan teachers work
4 at schools located in a non-metropolitan central area of Catalonia in Spain. The Peruvian
5 teachers work at schools located in the metropolitan area of Lima, Peru. The following
6 table shows the functions attributed to schoolteachers in each country.
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11 [Insert table 1]
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15 Table 1 shows that every education system demands a differentiated set of schoolteacher
16 functions (Catalan teachers) or standards (Peruvian teachers) to work as teachers in each
17 country. Initially, these differences may be due to variations in the orientation and
18 priorities of every education system. On the one hand, the Peruvian Ministry of National
19 Education wishes to have adequately qualified teachers who teach professionally to
20 achieve quality learning outcomes in students (Consejo Nacional de Educación 2021). On
21 the other hand, the Catalan Ministry of Education (Departament d'Educació 2021) seeks
22 competent and engaged teachers to transform and improve their practice, promote active
23 learners, and educate future generations as critical citizens in a democratic society.
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32 ***Participants***

33 Table 2 summarises the general characteristics of the participants, presenting data for
34 both contexts, Perú and Catalonia.
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39 [Insert table 2]
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43 Globally, we consider that both sets of teachers are comparable according to socio-
44 professional data. The participants were 80 schoolteachers working in pre-school (ages
45 3–5) and primary (ages 6–12) education, 40 in Catalonia, Spain, and 40 in Lima, Peru.
46 Most participants were female (83.8%), 30 years of age (96.2%), had more than ten years
47 of teaching experience (85%) and had received at least 300 hours of in-service training
48 courses (83%). Most of the teachers worked in the public education system (81%).
49 Nevertheless, when comparing Catalan and Peruvian participants, there are more female
50 teachers (n=37) with a master's degree (n=21) and with 1-9 years of experience (n=10)
51 in the Peruvian group.
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Data collection

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3 The procedure to collect data, based on an opportunistic selection of participants, included
4 two steps. First, with the help of two university teachers (one in Barcelona and the other
5 in Lima), we drew up two lists of possible participants from among the pool of
6 schoolteachers enrolled in a delimited number of in-service training university courses.
7
8 Second, the participants were informed in advance of the general aim of the research, its
9 duration, and the procedure to collect, store and analyse the information provided by
10 them, and they read and signed an informed consent form. Following this notification,
11 participants freely decided to answer the online survey. The collected data have been
12 stored and managed in accordance with the law on data protection and the right to the
13 confidentiality of both countries.
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16
17 Data were collected using a semi-structured, open-ended, written survey that had already
18 been used in previous studies (Badia and Liesa 2020), and which consisted of two
19 sections. The first section included items that gathered personal information and data on
20 the participants' academic background and professional experience. The second section
21 was prefaced with an explicit definition of the term 'teacher I-position', as follows: 'a
22 specific function carried out by a teacher at his or her school, defined by a teaching
23 objective'. Next, we asked participants to describe in their own words seven (minimum)
24 to ten (maximum) teacher I-positions they adopt at their school. They were asked to
25 provide three types of information for each I-position: (a) name of the I-position; (b) the
26 associated purpose of the function, that is, what the teacher wishes to achieve by assuming
27 this position; and (c) a typical teaching task linked to this position that illustrates how this
28 teacher acts to achieve their purpose. Participants were required to use a minimum of 50
29 words each to answer items (b) and (c).
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33 The data collection procedure was conducted via email in two time periods: May–June
34 2017 for the Catalan participants, and September–December 2019 for the Peruvian
35 participants. The email included a link to access the survey, which was designed using
36 Google Forms and stored on Google Drive. The entire process of completing the survey
37 usually required 45–60 minutes. Participants were given two weeks to answer and return
38 the survey. At the end of the two weeks, two reminder emails were sent to participants
39 who had not yet responded to the survey. Once informed of the aims of the study and
40 invited to participate, 61% of the total possible participants responded positively.
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43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 ***Data analysis*** 59 60

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3 An inductive-dominant qualitative content analysis (Armat, Assarroudi, Rad, Sharifi and
4 Heydari 2018) was conducted using MAXQDA 2018 software for the data analysis and
5 categorisation process. The unit of analysis was the thematic unit, thus maintaining the
6 meaning of each written textual fragment used to describe every I-position.
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10 The iterative process of categorising data consisted of two steps. First, we categorised
11 each thematic unit considering the three pieces of information by assigning a name that
12 described a specific participant's school position. Second, we constructed a second-order
13 categorisation by adding a name related to how the participant performed the school
14 position. The combination of these two labels was used to name each I-position.
15
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17 In labelling the data on teachers' positions, I-positions and clusters, we initially took
18 inspiration from the existing coding scheme used in previous research (Badia and Liesa
19 2020). Nevertheless, because an inductive-dominant qualitative content analysis was used
20 in this work, most of the labels of the initial categories were changed, mainly to adjust to
21 meaningful cultural differences in understanding some aspects of the school education.
22
23

24 For purposes of exemplification, below is a text extract from a thematic unit voiced by
25 Peruvian participant three and additional information about the codes:
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30 "a) The learning assessment.

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32 b) The purpose of the formative assessment is to collect information on the
33 learners' achievement of the expected learning, provide relevant feedback, and
34 overcome the difficulties detected during the learning process and thus ensure the
35 achievement of the learning [...].
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39 c) To assess learning achievement in learners, we must consider the selected
40 indicator or indicators of learning achievement. Accordingly, the most appropriate
41 technique and the instrument must be selected [...]."
42
43

44 This thematic unit was classified as: "(3) To promote and evaluate classroom learning
45 (7) By using formative assessment."
46
47

48 The categorisation of each thematic unit matched a single I-position on most occasions
49 (over 95%). To accurately reflect the meanings of each thematic unit voiced by teachers,
50 we split a thematic unit into two different I-positions in only a limited number of cases.
51 When we identified two redundant thematic units voiced by a single participant, we
52 counted only one I-position.
53
54

55 Table 3 summarises the entire categorisation. A total of 761 teachers' thematic units were
56 identified, with an average of 9.51 per participant. The length of the written text for each
57 I-position ranged from 60 to 140 words. Two independent analysts reviewed a random
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3 sample of 20% of all thematic units directly extracted from the data to assess the degree
4 of interrater agreement. They used the authors' categories of positions and I-positions
5 (shown in Table 3) to categorise these thematic units. Interrater agreement was acceptable
6 for all scores, with Cohen's kappa values of 0.83 and 0.85.
7
8

9
10 The approach to analysing data consisted of two phases. First, we made a descriptive
11 statistical analysis of the frequencies (n) and percentages (%) of the prevalence of the
12 positions and I-positions. (Table 3). Next, we grouped cases using the R software
13 environment and multiple correspondence analysis tests. The categorical variables used
14 for this analysis were all the types of I-positions (0 = teacher did not mention the I-
15 position; 1 = teacher mentioned the I-position). The final number of teacher clusters was
16 selected based on the mean of a silhouette plot (see Fig. 1, using the distance point 0.04,
17 located on the vertical axis, as a reference), the predictive validity of the clustering
18 variables, and the interpretability of the cluster solutions.
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27 [Insert Figure 1]
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31 Second, to answer the first research question, we compared each position and I-position
32 among those clusters of cases using Pearson's chi-square tests and, where necessary,
33 Fisher's exact tests. To answer the second research question, we conducted a statistical
34 analysis on the same tests to compare several participants' socio-professional data and
35 the teachers' geographical origin among the three clusters of teachers. The statistical
36 significance of the data was calculated, considering the percentage of teachers that
37 appears in each data cell in Table 3 and Table 4. We compared the expected and observed
38 data, considering the teacher percentage to be statistically significant when the adjusted
39 standardised residual was higher or lower than 1.96.
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48 Findings

49 *Three clusters of schoolteachers in terms of their predominant I-positions*

50
51 There were significant differences among the schoolteachers' identities in terms of their
52 I-positions. This three-cluster solution distributed participants into three groups, with 37
53 teachers in cluster 1, 20 teachers in cluster 2, and 23 teachers in cluster 3. The similarities
54 and differences among the four clusters are shown in Table 3.
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[Insert table 3]

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5 Almost all the teachers in the three teacher identity profiles assumed one or more I-
6 positions in three institutional positions: to plan instruction (92.5%), to support and
7 evaluate classroom learning (100%), and to establish a good relationship with families
8 (86.3%).
9

10
11 The dominant feature of teacher identity for cluster #1 is thinking and acting *as an*
12 *instructor teaching*. The most populated teacher positions and I-positions are:
13

- 14 (1) to plan instruction (100%) by producing learning plans (64.9%);
- 15 (2) to support and evaluate classroom learning (100%) by organising learning tasks
16 (54.1%), supporting students with learning difficulties (43.2%) and grading
17 students (37.8%);
18
- 19 (3) to promote learning at the school level (73%) by organising special educational
20 events (51.4%) and implementing specific educational projects (35.1%).
21

22 The dominant aspect of teacher identity for cluster #2 consists of thinking and acting *as*
23 *a collaborative innovator*. The most populated teacher positions and I-positions are:
24

- 25 (1) to improve educational practice (80%) by learning through self-reflection (65%)
26 and attending training courses (65%);
27
- 28 (2) to build a shared vision of instruction (85%) by collaborating with a team of
29 teachers (80%) and other teaching staff (65%);
30
- 31 (3) to collaborate with external professionals (50%) by establishing shared actions
32 (35%) and taking advantage of external educational resources (25%);
33
- 34 (4) to ensure effective school function (40%) by managing school issues (30%).
35

36 The dominant feature of teacher identity for cluster #3 is thinking and acting *as an*
37 *educator and a learning guide*. The most populated teacher positions and I-positions are:
38

- 39 (1) to educate children (82.6%) by listening to and helping them (69.6%);
40
 - 41 (2) to promote and evaluate classroom learning (100%) by guiding the learning
42 process (82.6%), motivating and encouraging learners (60.9%) and personalising
43 learning (56.5%);
44
 - 45 (3) to promote a positive social learning environment (43.5%) by creating a
46 favourable climate in the classroom (39.1%) and solving student disputes
47 (30.4%);
48
 - 49 (4) to improve their educational practice (65.2%) by attending training courses
50 (65.2%).
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3 The appearance of three distinct schoolteacher identities can be interpreted as the result
4 of two non-related factors. On the one hand, the existence among schoolteachers of two
5 opposing views on whether the ultimate purpose of schooling should be to educate or
6 instruct children (Biesta and Miedema 2002). On the other hand, there is an increasing
7 number of teachers in the local area of Catalonia who adopt pedagogical innovation as a
8 distinctive feature of their practice (Badia, Liesa, Becerril, and Mayoral 2020).

9
10 The teacher *as an instructor teaching* describes a kind of teacher identity that previous
11 research has already labelled using individual psychological constructs. For example,
12 Hermans, van Braak and Van Keer (2008) use the term *teachers' transmissive beliefs* to
13 refer to a type of knowledge associated with the idea that education serves curricular goals
14 and should be orientated towards learning outcomes. This type of teacher identity is
15 representative of almost all Peruvian teachers. This may be because, since the year 2000,
16 there has been a growing interest in this country in having teachers with proper
17 professional suitability and ideal professional development as a key factor in achieving a
18 high level of education quality (Del Mastro 2020).

19
20 The teacher *as a collaborative innovator* strongly resembles the pedagogical identity
21 based on education research described by Alvunger and Wahlström (2018). The growing
22 presence of this kind of teacher identity, mainly among the Catalan teachers (see Table
23 4), can be interpreted as the result of the crisis of traditional instructional pedagogies in
24 Catalan schools and the reinforcement of existing pedagogic innovation movements in
25 this geographical area (Díaz-Gibson, Civís, Fontanet, López and Prats 2019). Two key
26 characteristics of this pedagogical movement are that teachers' self-reflection
27 accompanies the innovation processes and that both headteachers and management teams
28 lead the processes of education innovation in their schools.

29
30 The teacher *as an educator and a learning guide* is appropriate for a type of teacher
31 identity that previous research (Hermans, van Braak and Van Keer 2008) labels using the
32 term *teachers' developmental beliefs*, defined as a teaching approach towards the broader
33 individual development of children. This teaching approach includes *pedagogical*
34 *tasks* to develop the whole person in the sense of learner identity (Biesta and Miedema
35 2002).

36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 ***Differences in socio-demographic data and geographical origins between the three*** 58 ***teacher clusters*** 59 60

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3 Two significant differences emerged among the three teacher clusters, according to socio-
4 professional characteristics and geographical origin. Table 4 shows these differences.
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8 [Insert table 4]
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11 Table 4 shows two additional differences between the three clusters. Cluster 1 presents a
12 percentage age distribution significantly different to that of Cluster 2. Furthermore, and
13 more importantly, the distribution of teachers in the clusters is significantly different
14 according to their geographical origin. Whereas most teachers in Cluster 1 are Peruvian
15 (97.3% of total), the other two clusters mainly consist of Catalan teachers (95% in Cluster
16 2 and 87% in Cluster 3).
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23 **Conclusion**

24 Overall, the findings provide empirical evidence regarding the link between the education
25 systems' orientations and priorities for teachers, and the teacher identities that can
26 populate each education system. The three types of teacher identities identified have much
27 in common, but also show significant differences in some distinctive ways of being and
28 acting as a teacher. The three types of teacher identities were distributed differently across
29 the two education systems. Three further conclusions are presented below to indicate the
30 significance of these findings for using the DST in the study of teacher identity in
31 comparative studies in education.
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39 First, in comparing the information provided in Table 1 and Table 3, we see that, in both
40 countries, the real professional activities of the teachers (revealed through their teacher I-
41 positions) who participated in this study were distinct from the official functions and
42 standards of teachers as the respective education administrations define them. The
43 resulting categorisation of the teachers' identities shows a high degree of interpretative
44 validity (Maxwell 1992) because it brings together teachers' voices about who they are
45 and what they do (Akkerman and Meijer 2011).
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51 Second, in line with previous studies (Badia and Liesa 2020), the findings demonstrate
52 that the notion of *teacher identity*, defined according to the DST and characterised by a
53 particular set of teacher I-positions, is a robust theoretical and methodological construct
54 (Assen et al. 2018), even to use in comparative studies in education. This way of
55 describing teacher identity is sufficiently sensitive to compare among types of teacher
56 identities from different geographical origins. Nevertheless, findings also indicate that we
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3 must be cautious in conducting an inter-country comparative analysis of several relevant
4 themes, such as teacher identity or teacher practice, because we do not assume the internal
5 homogeneity within each country without discussion.
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8 The present study has three main limitations. The first of these is the opportunistic
9 selection of potential participants of Catalan and Peruvian origin, given that the
10 characteristics of both groups of teachers undoubtedly affect the results. Second, the data
11 were collected from a single source – the teachers’ written discourse – and with a single
12 instrument, which may not be sufficiently sensitive in some cases to reflect the complex
13 meanings that the teachers may have given to their written words. Finally, we are aware
14 that it is not possible to generalise our findings, since neither group of teachers can be
15 considered wholly representative of the teacher population of Catalonia or Peru.
16
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18 To conclude, findings demonstrate that teachers show a different teaching identity in real
19 settings than expected, considering the functions or standards defined by the respective
20 educational administrations. In addition, they also reveal that different groups of teachers
21 with different identities populate every education system. Both pieces of evidence should
22 have relevant implications for educational policies, teacher education and school
23 organisation. On the one hand, education administrators should realise that other factors
24 than educational policies established by a particular educational administration may
25 greatly influence what teachers think, and how they act and prioritise actions in real
26 classrooms and schools.
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29 On the other hand, two initiatives would help to better align a given teacher role
30 description established by an educational administration and the actual teacher activity in
31 schools. First, initial, and continuous teacher education in each education system should
32 consider providing direct support for teachers to develop each of the teacher I-positions
33 identified here in the context of a broader development of their teacher identity (Badia
34 and Liesa 2020). Second, the school organisation should include a set of teachers’
35 institutional positions coherent with the official responsibilities or standards established
36 by every educational administration.
37
38

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42
43

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2
3 The authors have no competing interests to declare.
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5

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7
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9
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12 This research paper was developed according to the ethical standards of the American
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14 confidentiality.
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Tables

Table 1. Comparative list of teachers' responsibilities (in Catalonia) and standards (in Peru) according to education legislation.

	Catalonia (1)	Peru (2)
1 To have adequate educational knowledge to teach		0
2 To teach ethical and democratic values		0
3 To plan and implement educational practice	0	0
4 To create a friendly classroom learning environment		0
5 To manage discipline in the classroom and the school	0	
6 To evaluate learning outcomes	0	0
7 To instruct students	0	
8 To align their practice with the school's educational project	0	0
9 To establish a proper relationship with families of pupils	0	0
10 To engage in inter-colleague collaboration	0	
11 To participate in extracurricular activities	0	
12 To help students with learning difficulties	0	
13 To learn from their practice through reflection		0
14 To manage the school (as necessary)	0	
15 To collaborate with research and innovation projects (as necessary)	0	
16 To mentor student teachers (as necessary)	0	

(1) According to Order 39/2014, of 25 March 2014, of the Government of Catalonia.

(2) According to Ministerial Resolution No. 0547-2012-ED of the Government of Peru.

Table 2. Teachers' socio-professional characteristics (n=80)

		Catalonia n=40	Perú n=40	Total n (%)
Age (years)	20-29	0	3	3 (3.8)
	30-39	14	13	27 (33.8)
	40-49	20	14	34 (42.4)
	Over 50	6	10	16 (20.0)
Gender	Female	30	37	67 (83.8)
	Male	10	3	13 (16.2)
Education	Bachelor's degree	27	19	46 (57.5)
	Master's degree	13	21	34 (42.5)
Teacher experience (years)	1-9	2	10	12 (15)
	10-19	26	16	42 (52.5)
	20-39	12	14	26 (32.5)
Educational level taught	Early childhood education	11	10	21 (26.2)
	Primary education	29	30	59 (73.8)
In-service training (hours) over a professional career	From 0 to 300	7	7	14 (17)
	From 301 to 400	10	3	13 (16.5)
	Over 400	23	30	53 (66.5)

Table 3. Descriptive data of the number and percentage of teachers who assume at least one I-position in each position, and the number and percentage of teachers who assume each I-position. Comparison of the three clusters of participants (n=80)

Positions I-positions	Participants (n=80) n (%)	Cluster 1 (n=37) n (%)	Cluster 2 (n=20) n (%)	Cluster 3 (n=23) n (%)	(1)
1 To educate children	43 (53.75)	15 (40.5)	9 (45)	19 (82.6)	10.918 ^b
11 By taking them under their wing	15 (34.9)	5 (13.5)	4 (20)	6 (26.1)	1.603
12 By listening to and helping them	26 (60.5)	6 (16.2)	4 (20)	16 (69.6)	20.300 ^c
13 By acting as a role model	8 (18.6)	1 (2.7)	3 (15)	4 (17.4)	4.483
14 By supporting their development	14 (32.6)	5 (13.5)	4 (20)	5 (21.7)	0.945
2 To plan instruction	74 (92.5)	37 (100)	18 (90)	19 (82.6)	6.671 ^a
21 By producing learning plans	31 (41.9)	24 (64.9)	5 (25)	2 (8.7)	20.978 ^c

22	By creating lesson plans	65 (87.8)	31 (83.8)	18 (90)	16 (69.6)	2.958
23	By designing the learning environment	25 (33.8)	14 (37.8)	2 (10)	9 (39.1)	5.616
24	By creating instructional materials	40 (54.1)	22 (59.5)	8 (40)	10 (43.5)	2.516
3	To promote and evaluate classroom learning	80 (100)	37 (100)	20 (100)	23 (100)	---
31	By conducting an initial assessment	16 (20)	7 (18.9)	8 (40)	1 (4.3)	8.242^a
32	By organising learning tasks	26 (32.5)	20 (54.1)	5 (25)	1 (4.3)	16.658^c
33	By guiding the learning process	48 (60)	18 (48.6)	11 (55)	19 (82.6)	7.093^a
34	By motivating and encouraging learners	23 (28.8)	5 (13.5)	4 (20)	14 (60.9)	16.524^c
35	By supporting students with learning difficulties	19 (23.8)	16 (43.2)	1 (5)	2 (8.7)	13.955^b
36	By implementing personalised learning	22 (27.5)	4 (10.8)	5 (25)	13 (56.5)	14.948^b
37	By using formative assessment	41 (51.3)	13 (35.1)	13 (65)	15 (65.2)	7.155^a
38	By grading students	22 (27.5)	14 (37.8)	7 (35)	1 (4.3)	8.731^a
4	To promote a positive social learning environment	16 (20)	3 (8.1)	3 (15)	10 (43.5)	10.402^b
41	By creating a favourable climate in the classroom	13 (81.3)	2 (5.4)	2 (10)	9 (39.1)	10.997^b
42	By solving student disputes	9 (56.3)	1 (2.7)	1 (5)	7 (30.4)	9.879^b
5	To improve educational practice	46 (57.5)	15 (40.5)	16 (80)	15 (65.2)	9.059^a
51	By learning through self-reflection	23 (50)	5 (13.5)	13 (65)	5 (21.7)	17.575^c
52	By attending training courses	32 (69.6)	4 (10.8)	13 (65)	15 (65.2)	24.438^c
53	By learning from colleagues	11 (23.9)	8 (21.6)	1 (5)	2 (8.7)	3.193
6	To build a shared vision of teaching	42 (52.5)	13 (35.1)	17 (85)	12 (52.2)	12.946^b
61	By collaborating with a team of teachers	32 (76.2)	11 (29.7)	16 (80)	5 (21.7)	18.155^c
62	By collaborating with other teaching staff	26 (61.9)	4 (10.8)	13 (65)	9 (39.1)	18.025^c
7	To establish a good relationship with families	69 (86.3)	32 (86.5)	18 (90)	19 (82.6)	0.547
71	By providing information	29 (42)	20 (54.1)	7 (35)	2 (8.7)	12.645^b
72	By establishing communication and collaboration	49 (71)	22 (59.5)	13 (65)	14 (60.9)	0.170
73	By involving families in the school community	8 (11.6)	3 (8.1)	1 (5)	4 (17.4)	1.875
8	To promote learning at the school level	40 (50)	27 (73)	8 (40)	5 (21.7)	15.959^c
81	By implementing the school's educational project	9 (22.5)	2 (5.4)	4 (20)	3 (13)	2.979
82	By implementing specific educational projects	14 (35)	13 (35.1)	1 (5)	0 (0)	14.755^b
83	By organising special educational events	24 (60)	19 (51.4)	3 (15)	2 (8.7)	15.146^b
9	To collaborate with external professionals	19 (23.7)	3 (8.1)	10 (50)	6 (26.1)	12.356^b
91	By establishing shared actions	14 (73.7)	1 (2.7)	7 (35)	6 (26.1)	11.951^b
92	By taking advantage of external educational resources	7 (36.8)	2 (5.4)	5 (25)	0 (0)	7.477^a
10	To ensure effective school function	19 (23.7)	7 (18.9)	8 (40)	4 (17.4)	3.610
101	By managing school issues	6 (31.6)	0 (0)	6 (30)	0 (0)	14.212^c
102	By establishing positive working relationships	5 (26.3)	0 (0)	1 (5)	4 (17.4)	6.460^a
103	By managing classroom issues	9 (14.4)	7 (18.9)	2 (10)	0 (0)	5.123

(1) Pearson's chi-square test // Fisher's exact test

^a p < 0.05; ^b p < 0.01; ^c p < 0.001

Table 4. Differences among the three clusters according to teachers' socio-demographic data and geographical origin (n=80)

		Cluster 1 (n=37) n (%)	Cluster 2 (n=20) n (%)	Cluster 3 (n=23) n (%)	(1)
Age	20–39	14 (37.8)	8 (40)	8 (34.8)	
	40–49	15 (40.6)	8 (40)	11 (47.8)	
	Over 50	8 (21.6)	4 (20)	4 (17.4)	0.642
Gender	Female	34 (91.9)	16 (80)	17 (73.9)	
	Male	3 (8.1)	4 (20)	6 (26.1)	3.789
Education	Bachelor's	18 (48.6)	12 (60)	16 (69.6)	
	Master's	19 (51.4)	8 (40)	7 (30.4)	2.607
Teacher experience (years)	1–9	9 (24.3)	0 (0)	3 (13)	
	10–19	15 (40.5)	16 (80)	11 (47.8)	
	20–39	13 (35.1)	4 (20)	9 (39.1)	10.416^a
Educational level taught	Early childhood education	8 (22.2)	7 (35)	6 (26.1)	
	Primary education	28 (77.8)	13 (65)	17 (73.9)	1.080
In-service training	From 0 to 300	8 (21.6)	4 (20)	2 (8.7)	
	From 301 to 400	3 (8.1)	5 (25)	5 (21.7)	
	Over 400	26 (70.3)	11 (55)	16 (69.6)	5.080
Teacher country	Catalan teachers	1 (2.7)	19 (95)	20 (87)	
	Peruvian teachers	36 (97.3)	1 (5)	3 (13)	61.873^c

(1) Pearson's chi-square test // Fisher's exact test

^a p < 0.05; ^b p < 0.01; ^c p < 0.001

Figures

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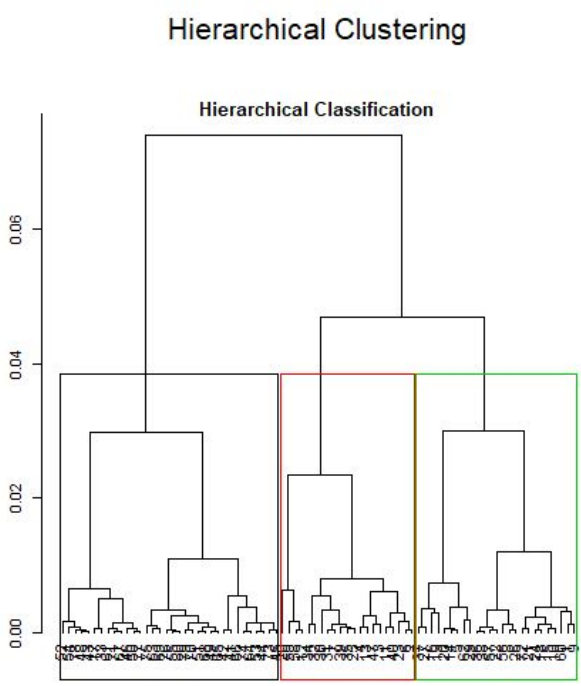


Figure 1. Hierarchical cluster analysis of cases