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ORIGINAL

TEACHER'S COMPETENCIES IN PHYSICAL ACTIVITY AND SPORTS SCIENCES

PERCEPCIÓN DE LAS COMPETENCIAS DOCENTES EN CIENCIAS DE LA ACTIVIDAD FÍSICA Y EL DEPORTE

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ABSTRACT

The aim is to analyse significant improvements in the perception of teaching competences in Physical Education. An intervention was carried out based on the Model of Teacher Self-efficacy by Bandura (1986) and the statute of the co-subject by Not (1987), in the subject of Teaching-Learning Processes in the 2018-2019 academic year (Degree in Physical Activity and Sports Sciences, UCLM). A descriptive, quantitative, correlational and cross-sectional method was used, involving 104 students (74 men and 30 women). Expectations of achievement, without distinction of gender, were found in the performance of the following teaching competences: creative potential with institutional support, mastery of teaching techniques and active personality with metacognitive teaching capacity. The conclusion is reached that it is possible to modify expectations of action in teaching giving priority to the personal and professional evolution of the future teachers, regardless of gender and the role played by society. A new line of research which needs to be studied in greater depth.

KEY WORDS: Self-efficacy, reciprocity, Physical Education, gender equality.

RESUMEN

Se pretende analizar las mejoras significativas en la percepción de las competencias docentes en Educación Física. Se lleva a cabo una intervención basada en el Modelo de Autoeficacia docente de Bandura (1986) y el estatuto del co-sujeto Not (1987), en la asignatura de Procesos de Enseñanza-Aprendizaje curso 2018-2019 (Grado de Ciencias de la Actividad Física y del Deporte, UCLM). Se utiliza un método descriptivo, cuantitativo, correlacional y de carácter transversal, participan 104 estudiantes (74 chicos y 30 chicas). Se hallan expectativas de logro, sin distinción de sexo, en el desempeño de las competencias docentes: *potencial creativo con apoyo institucional, dominio técnico didáctico y personalidad activa con capacidad didáctica metacognitiva*. Se llega a la conclusión de que es posible modificar las perspectivas de actuación en la acción docente dando prioridad a la evolución personal y profesional de los futuros docentes, independientemente del sexo y del rol que ejerce la sociedad. Línea pionera de investigación en la que se necesita profundizar.

PALABRAS CLAVE: Autoeficacia docente, reciprocidad, Educación Física, igualdad de género.

1. INTRODUCTION

The dilemma facing education in the university nowadays is to find the indicators of quality education, where there is a consensus on the professional competences needed by teachers to be able to tackle, in the near future, all the vertiginous changes that society is experiencing. Thus, the necessity to investigate which aspects explain the teaching competences built up by the students of the subject of Teaching-Learning Processes in the Physical Activity and Sports Sciences degree at the UCLM, and what aspects catch their attention, with the intention of finding indexes for future application. It should also be borne in mind that in this degree there is a higher number of men students (75-85%) than women students (25-15%), a tendency which has been stable throughout its history.

With this background, the socio-cognitive theory of Bandura (1986), Bandura, Azzi and Polydoros (2008), proposes that the components for achieving self-efficacy, applicable to the teaching environment, are fomented by: personal determinants, behaviour and the context surrounding it; taking into account the dialectic value in the interaction of these components and underlining that key elements of perceived self-efficacy are the judgements that each individual develops on their capacity, on the basis of which they organise and execute their actions to achieve the desired result. From this perspective we find the following lines of research: 1.- Providing planned learning environments, with emotional balance (Bandura, 1997; Klassen, Bong, Usher, Chong, Huan, Wong & Georgiou, 2009; Tschannen-Moran & Woolfolk, 2002; Woolfolk & Burke-Spero, 2005). 2.- Improving teaching strategies through the self-evaluation of the teaching staff (Gibson & Dembo,

1984; Guskey & Passaro 1994; Ross, 1998). 3.- Striving to achieve teaching objectives (Deemer, 2004; Woolfolk & Burke-Spero, 2005). 4.- Analysing teaching competences (Baena-Extremera, Granero-Gallegos & Martínez-Molina, 2015; Del Valle, De la Vega & Rodríguez, 2015; Ferrández-Berrueco & Sánchez-Tarazaga, 2014; Hernández, Velázquez, Aguado, Álvarez, del Campo, Cid & Moya, 2010; Rodríguez, Del Valle & De la Vega, 2018; Sanz, Hernando & Mula, 2015; Valdivieso, Carbonero & Martín-Antón, 2013; Villafuerte, Pérez, Delgado, 2019). 5.- Involvement and interest in tasks with a high degree of metacognitive development (Bandura, 1999; Cañadas, Santos-Pastor, & Castejón, 2018; De la Vega, Ruiz, Batista, Ortín & Giesenow, 2012; Diaz del Cueto, 2009; Klassen, Usher, Chong, Huan, Wong & Georgiouet, 2009; Nisbett & Wilson, 1997; Ortín, De la Vega & Gosálvez, 2013; Pajares, 1996; Ryan & Deci, 2013; Swartz, Costa, Beyer, Reagan & Kallick, 2013). However, the studies do not present indexes of congruent analyses, so that it appears essential that the construction of the models of teaching self-efficacy should start from the figure of the teacher and their practical perceptions.

In this line of thought, the present study focuses on assessing the perception of self-efficacy in the professional competences that the students of Physical Activity and Sports Sciences construct, after taking the subject of Teaching-Learning Processes, to provide answers in the educational context on the teaching of competences. The teaching-learning model regarding teaching self-efficacy, which is the basis of the subject, is supported by the LOE-LOMCE Education Law, emphasising the figure of the excellent and effective teacher who combines two fundamental aspects: attitude and aptitude which with work become ability, according to Bandura (1986) and in line with "statute of the co-subject" (Not, 1987). From which it follows that the competences of the excellent and effective teacher are to be capable of combining all the attitudes and aptitudes that with work become the abilities of a talented person. That is, the aim is to develop a passion for effective quality work, for innovation, for adventure, for a challenge... and compassion to put oneself in the place of the other and act accordingly, to look from the student's point of view to basically influence improved results in the students' performance (implementation of the aptitudes and abilities of the teacher thanks to their mastery of the contents, their mastery of teaching techniques, their use of the metacognitive capacity to regulate learning, and to act as a leader who can transform society); thus stimulating the student to augment their needs and increase their level of confidence (Del Valle & Rodríguez, 2017). This scenario involves the importance of the gender perspective and its influence both on the training of the future teachers and their subsequent interaction with their pupils. The aim is not to distinguish between genders and to be independent of the roles that may bias society or the dominant culture (Parra, 2009).

Thus, if we analyse the characteristics of the teaching-learning model on which the subject is based, we find a general model that does not make a distinction between genders, although there are roles that are particular to the female gender, as the professional duties demand specific competences, for example: compassion as a moral value. Women have traditionally played a role in society which has been linked to the understanding of suffering, and care and concern for others. This social stereotype attributes to women greater emotional sensitivity, a

greater concern for interaction and the feelings of others and a greater tendency to support the weakest and the most in need (Baston, Fultz & Schoenrade 1987). Women tend to put themselves in the place of the other whereas men tend to carry out instrumental actions (Hoffman 1987). Successive investigations have shown that women score higher than men on empathy and compassion (Davis 1980; Mestre, Frías & Samper, 2004; Retuerto 2004); aspects which should be independent of gender, similar to the necessary aptitudes of the teacher which, with learning will become abilities, as specified in the validated model of self-efficacy of the teacher's professional competences (Rodríguez, 2017). Here we find: a) reciprocal leadership: this defines teachers in any of the areas of knowledge that include Physical Education, who are responsible and committed to improving their knowledge of the content of their subject (Coladarci, 1992; Ruiz & Sánchez, 1997; Yeo et al., 2008), who show in their behaviour an interest in keeping up to date, as well as complying with the ethical duties of their profession (Díaz-Carrera, 2010). They should be empathetic (Del Villar, 1993; Spears, 2000; Tschannen-Moran et al., 1998), with the capacity to put themselves in the place of the students in order to get to know and understand them and help them to develop the best of themselves. They should play the role of a guide, constant mediator, advisor and trainer with a great spirit of service (Bolman & Deal, 1994; Day et al., 2009; García & Ruiz, 2001; Katzenmeyer & Moller, 2001; Hart, 1995; Heck, 1996; Leithwood et al., 2006; Majó, 2000; Robinson et al., 2009; Tedesco, 1998), and high emotional stability (Allinder, 1994; Arregui, 2004; Bandura, 1997; Chacón, 2006; Erdem & Demirel, 2007; Fernández, 2008; Papaioannou, 1990; Ross, 1998; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk, 2002; Yeo et al., 2008). Leadership and its relation with gender has been studied extensively. Coronel, Moreno and Pacilla (2001) underline that the leadership developed by women has its own characteristics which prioritise collaborative and shared not competitive aspects. In the educational context Estebaranz & Mingorance (2005) point out that women's leadership seeks to transform the hierarchical structures which oppose real change in schools; a leadership that is opposed to that of men and which according to the authors has differentiated characteristics. From a feminist point of view, they prefer alternative approaches that make space for personal experiences, a non-aggressive and sensitive leadership that is aware of needs and is committed to the development of the individual (Saravia 2003). Rodríguez (2017) indicates that the possible significant differences in favour of women in the reciprocal leadership factor may be due to women's personality characteristics in general terms, which coincide with the features that according to Gento (2002) and Giuliani (2002), highlight kindness, closeness, sociability, knowing how to interact and work in a team, and optimism. b) creative potential with institutional support: this refers to the institutional support which is necessary to foment the creativity of the teacher, with the aim of improving the quality of learning. The studies on gender differences and creativity show differences in creative actions in which women achieve a greater variety and quantity of production (Guilford, 1950; Chiecher, Analía-Claudia, Romina-Cecilia Elisondo, Paola-Verónica Paoloni & Danilo-Silvio Donolo, 2018). It has been observed that women achieve higher scores in arts and design, physical expression and enterprise and business (Kaufman 2006; Aranguren e Irazábal 2012; Elisondo 2013) and in the total on the Creative Actions Questionnaire (CAC) (Elisondo & Donolo 2016). Rodríguez (2017) did not find differences with regard to

gender when analysing creative potential with institutional support. c) mastery of teaching techniques: mastery that the teacher should possess with regard to the method used to effectively perform their technical pedagogical intervention (Blázquez & Sebastiani, 2009; Delgado Noguera, 1991; Del Valle & García, 2007; Santos et al., 2014). Rodríguez (2017) shows that women are different from men when developing good management, classroom control and effective teaching practice, in line with Tschannen-Moran et al. (1998). d) an active personality with metacognitive teaching capacity: describes an active and reflective teacher (Del Valle & De la Vega, 2008; Swartz et al., 2013). Studies on gender in this aspect are scarce. Only Rodríguez (2017) found no significant differences between genders in this factor.

Within this explanatory framework, the aim of this study was to analyse from the gender perspective, the dimensions or competences of the future teacher that are considered the most important from the point of view of the students, to optimise their own resources and achieve the greatest level of self-efficacy in teaching. Specifically, we were interested in ascertaining how an intervention with a general model of teaching self-efficacy (Bandura, 1986 and Not 1987), can be independent of the role that society or culture assigns to the different genders, even more so when the study sample had a higher proportion of men than women participants.

2. MATERIAL AND METHOD

This is a descriptive, quantitative correlational and transversal study (Montero & León, 2007). One hundred and four students (73.2% of the population) with an average age of 20.30 ± 2.85 years, participated from a total of 142 students taking the subject of Teaching-Learning Processes in the Physical Activity and Sports Degree during the 2018-2019 academic year. Seventy-one point two of the participants were men ($N=74$) with an average age of $= 20.72 \pm 3.17$ years, and 28.8% were women ($N=30$) with an average age of 19.27 ± 1.43 years. The students were asked to give their voluntary informed consent and anonymity was guaranteed. The Declaration of Helsinki was followed in all its terms (World Medical Association, 2013). Participants were administered the Perceived Self-Efficacy Questionnaire regarding teachers' professional competences (CACPD) (Rodríguez, 2017), comprising 59 items divided into 4 dimensions (reciprocal leadership with 16 items, creative potential with institutional support with 11 items, mastery of teaching techniques with 17 items, and active personality with metacognitive teaching capacity with 15 items); constructed following the triadic reciprocity model by Bandura (1986) and Not's statute of the "co-subject" (1987). The questionnaire has a reliability of $\alpha=.93$ and responds to a four-factor model with a second order factor ($5174, 70 (1648) p<.001$, with a Likert-type scale of 1 to 4, with 1: totally disagree; 2: disagree; 3: agree, 4: totally agree. The questionnaire was administered twice: at the beginning of the year in the pre-test, on the first day of class in September 2018, and at the end of the semester in December 2018, on the last day of class in the post-test. It was filled in on line in the class. The students filled it in individually, having previously voluntarily signed their informed consent to participate, being informed at the beginning of the questionnaire about the objectives of the study, and how the confidentiality of the results was

guaranteed. The study was approved by the University of Castilla-La Mancha and carried out according to the Declaration of Helsinki.

3. ANALYSIS AND RESULTS

The statistical analysis was performed with SPSS V.23.0. The K-S test was used to determine if the dependent variables were parametric and fulfilled the test of normality. The Levene test confirmed the equality of variances. A descriptive analysis was carried out and a Student's t test for related measures was used to compare intra-group pre-post values with regard to the intervention regarding each of the factors in the questionnaire and a Student's t test for independent samples to analyse the possible differences between men and women. A repeated measures ANOVA was performed for the inter-group analysis.

Results: the sample was not matched with regard to gender ($\chi^2=18.61$ and $p\text{-value}=.000$) (Men $N=74$ and Women $N=30$). In the analysis of the trend in the whole group ($N=104$), and comparing the pre and post-tests in the 4 factors of the questionnaire with Student's t test for dependent samples (Table 1), significant differences were observed in three of the four factors (creative potential with institutional support, mastery of teaching techniques, and active personality with metacognitive teaching capacity). In the three cases the value obtained in the post-test was significantly higher than that of the pre-test, which suggests that taking the sample as a whole, there was a possible improvement in perceived teaching self-efficacy between the start and the end of the intervention in each of the three competences studied, independently of gender. No significant differences were found in the reciprocal leadership factor.

Table 1. Differences in pre post means in each of the factors in the whole group (Student's t test for related samples).

	N	M	DT	t	gl	p
Pre: Reciprocal leadership	104	3.25	.49	-	103	.071
Post: Reciprocal leadership		3.35	.37	1.82		
Pre: Creative potential with institutional support	104	2.74	.55	-	103	.003
Post: Creative potential with institutional support		2.91	.49	3.00		
Pre: Mastery of teaching techniques	104	3.08	.43	-	103	.000
Post: Mastery of teaching techniques		3.35	.40	5.04		
Pre: Active personality	104	2.99	.50	-	103	.000
Post: Active personality		3.20	.40	3.59		

Student's t test for related samples was performed to analyse the trend as a function of gender (Table 2). The intra-group analysis of the women showed significant differences in mastery of teaching techniques ($p\text{-value}=.000$) and personality with metacognitive teaching capacity ($p\text{-value}=.001$), but no significant differences were observed in reciprocal leadership ($p\text{-value}=.145$) and creative potential with institutional support ($p\text{-value}=.65$). In the two factors the women significantly increased their score between the pre-test and the post-test. The intra-group analysis in the men's group, revealed significant differences between

the pre-test and the post-test in three of the four factors analysed. Specifically, in creative potential with institutional support (p -value=.023), mastery of teaching techniques (p -value=.001) and active personality with metacognitive teaching capacity (p -value=.038).

Table 2. Differences in pre post means in each factor (Student's t test for related samples)

	WOMEN (N=30)					MEN (n=74)				
	M	DT	t	gl	p	M	DT	t	gl	p
Pre: Reciprocal leadership	3.27	0.62	-1.49	29	.145	3.24	0.43	-1.16	73	.246
Post: Reciprocal leadership	3.44	0.39				3.32	0.36			
Pre: Creative potential with institutional support	2.75	0.67	-1.91	29	.065	2.74	0.49	-2.32	73	.023
Post: Creative potential with institutional support	2.95	0.54				2.89	0.48			
Pre: Mastery of teaching techniques	3.10	0.504	-4.17	29	.000	3.08	0.40	-3.50	73	.001
Post: Mastery of teaching techniques	4.46	0.394				3.31	0.41			
Pre: Active personality	2.96	0.601	-3.69	29	.001	3.00	0.45	-2.11	73	.038
Post: Active personality	3.31	0.370				3.15	0.40			

In the inter-group analysis (repeated measures ANOVA) it was observed that there were no significant differences in the pre- post-tests, or as a function of gender or in the intersection in the reciprocal leadership factor. However, in the factors of creative potential, mastery of teaching techniques and active personality with metacognitive teaching capacity, there were differences between the pre- and post-tests and in the intersection of the time point (pre post and gender), but not significant differences regarding gender.

4. DISCUSSION AND CONCLUSIONS

The analysis of perceived self-efficacy in the professional competences of students of Sports Sciences (Rodríguez, 2017), constructed following the triadic reciprocity model of Bandura (1986) and the statute of the "co-subject" by Not (1987), reveals that in relation to the mastery of teaching techniques factor, both the men (p -value=.001) and the women (p -value=.000), showed significant differences. This leads us to think that both genders have a greater perception of their ease in managing and controlling the classroom, together with good teaching practices, which favour communication with the student and the implementation of teaching. A result which opens up a new path for research as it appears that this management is more prevalent in women (Tschannen-Moran et al., 1998 and Rodríguez, 2017). Making decisions in the mastery of teaching techniques domain should not be influenced by society and the dominant culture, so that it should not condition the personal and professional development of the future Physical Education teacher (Parra 2009). If we analyse the factor of active personality with metacognitive teaching capacity we find the same trend as before, both the men (p -value=.038) and the women (p -value=.001), seem to show expectations

regarding understanding the importance of interdisciplinary teaching to generate significant learning in the students; the need to innovate and investigate; to start from the needs of the students so that they are involved in the learning that is of use in everyday life; to anticipate events and visualise scenarios for formulating objectives for improvement; to be conscious that the students need to learn with precise objectives in an organised manner, relating new learning with prior ideas (Rodríguez, 2017). However, we found that in the factor of creative potential with institutional support, the men showed significant differences ($p\text{-value}=0.023$), but not the women ($p\text{-value}=0.65$). Men seemed to give greater importance to the school where they are going to have the opportunity to use their abilities and creative capacities to improve the quality of learning in the students, and the opportunity to participate in working teams to improve the quality of learning in the students among other aspects, perhaps because the men have perceived the importance of collaborating in team work, aspects that are closer to the women's role (Aranguren & Irazábal 2012). With regard to the reciprocal leadership factor no significant differences were observed between genders, perhaps due to the fact that both started from a high score in the pre-test.

In conclusion it could be thought that the intervention in the subject of Teaching-Learning Processes, following the triadic reciprocity model of Bandura (1986) and the statute of the "co-subject" by Not (1987), has generated expectations of teaching efficacy – including gender equality – in Physical Education. It was observed that the men and women prioritise their involvement in teaching the subject; assessing the teaching methodology establishing a reciprocal relationship with the student, managing the conflicts that arise in class with good manners and affection trying to empathise with the other, seeking the responsibility of each one and the possible compensations depending on the circumstances; in maintaining a stimulating environment for learning and socialisation in the classroom, generating a culture based on conversation, knowledge, connectedness and collaboration, a tendency which weakens and eliminates gender differences and stereotypes in the future teachers in line with Saravia (2003); not coinciding with the studies by Gento (2002), Giuliani (2002) and Rodríguez (2017), who found a predominance of women over men when the teaching required putting oneself in the place of the other (Davis 1980; Mestre et al., 2001; Mestre et al., 2002; Mestre et al., 2004; Retuerto 2004; Estebaranz & Mingorance, 2005).

It has therefore been possible to show how the intervention based on the general model of teaching self-efficacy (Bandura, 1986), together with the statute of the "co-subject" (Not, 1987), prioritise the development of teaching competences, independently of the role bias that society or the dominant culture can exert, a factor which is very necessary in educational intervention nowadays.

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**Anexo I. Cuestionario validado de percepción de autoeficacia de las competencias profesionales del docente (CACPD) (Rodríguez, 2017)/
Annex I. Validated questionnaire on perceived self-efficacy regarding the professional competences of the teacher.**

RECIPROCAL LEADERSHIP:
1. I understand that as a 21st century professional my employability necessarily involves my capacity to offer a service with high added value in the domain of the subject that I teach.
2. I involve myself as much as I can in teaching my subject.
3. I assess whether I establish a relationship of reciprocity with the student in my teaching method.

4. I manage the conflicts that arise in the classroom with good manners and affection, trying to empathise with the other, seeking the responsibility of each one and the possible compensations depending on the circumstances.
5. I use a moderate tone of voice that helps all the students to listen to me, without losing my calm and always controlling the situation and stress.
6. I am receptive to what my students, companions, managers, and parents tell me.
7. I create and maintain a stimulating environment for learning and socialisation in the classroom, generating a culture based on conversation, knowledge, connectedness, and collaboration.
8. I accept the performance of my students, whether it is high, medium or low and try to improve it as far as I am able and with the collaboration of the students themselves.
9. I carry out tutorial work which turns me into a teacher, guide, adviser and trainer of people. My commitment as a tutor for the student is an obligation.
10. I have an ability in the school environment to persuade and influence people and situations, to obtain a positive attitude without exerting pressure.
11. I awaken the passion for learning in the students, doing my own job effectively and with conviction.
12. I see teaching as a unique experience that improves my life as a person and that of my students.
13. I work on an attitude of empathy with the students, with a view to understanding each one's personality.
14. I comply with the ethical duties of the profession, loyalty, and integrity in the different functions I assume in the school.
15. I leave my mark on the students for the construction of a democratic and fair society.
16. I possess talent and abilities to do my work as a teacher well.
CREATIVE POTENTIAL WITH INSTITUTIONAL SUPPORT:
1. In the school I have the opportunity to use my abilities and creative capacities to improve the students' quality of learning.
2. In the school I am invited to propose ideas to improve the students' quality of learning.
3. I have the opportunity to participate in working groups to improve the students' quality of learning.
4. In the school my creative capacities are taken full advantage of.
5. In the school the creative work that I do is recognised.
6. My school judges creative ideas fairly because they improve the students' quality of learning.
7. In my school people are encouraged to solve the problems that arise inside and outside the classroom creatively.
8. My school has good mechanisms for promoting and developing creative ideas inside and outside the classroom.
9. My school encourages teachers to take on risks to improve the students' learning.
10. My school rewards innovative and creative ideas that improve the students' learning.
11. I frequently meet up with my colleagues, to get to know the basic foundations of the contents that each one teaches in their subject, that are applicable to life.
MASTERY OF TEACHING TECHNIQUES:
1. When I organise the contents of the subjects I teach, I use the criteria of assessment according to the learning results.
2. I programme the competences in the year according to the existing official curriculum.
3. I design learning objectives and contents according to the assessment criteria and the assessable standards of learning, relating them with the competences.
4. I design a schedule of contents by teaching unit, with a number of sessions that allows the student competent learning.

5. I explain the objective of the teaching at the beginning of the session, I monitor the time in each learning task and at the end of the session I make a synthesis of what has been learned detecting the level of achievement of the proposed objective.
6. I clearly and specifically communicate the criteria of assessment and evaluation tools before beginning the teaching unit.
7. I apply the assessment criteria and the assessable learning standards.
8. I anticipate errors in the students' learning, I go back to their origin, I investigate their cause and I offer concrete and effective strategies.
9. I check whether the teaching tasks are adequate to organise the ideas with a precise aim on the part of the students, to achieve the learning objective.
10. I assess whether I have been able to get the students to effectively learn the basic foundations of teaching, in the least time possible.
11. I assess the efficacy of the learning objectives, contents, assessment criteria and assessable learning standards in the teaching by competences, bearing in mind the learning level of the students.
12. While I teach the contents of the session, I am internally assessing the degree of achievement of the objectives in the students.
13. I check whether I have effectively used the assessment instruments according to the assessment criteria.
14. I assess whether I have used tasks that generate reflective processes that fulfil the proposed objective, without forgetting the personal training of the students.
15. I clearly present to the students and parents the training objectives of the teaching, the assessment criteria, and the assessment standards.
16. I plan the programming, objectives of the sessions and learning result I expect beforehand.
17. I overcome the resistance to the legislative changes and value them positively so that I constantly reinvent myself as a teacher.
ACTIVE PERSONALITY WITH METACOGNITIVE TEACHING CAPACITY:
1. To improve my mastery of the subject I teach, I have mastered information and communication technologies.
2. I bear in mind interdisciplinary teaching to generate meaningful learning in the students.
3. In the programming I present some teaching innovations that will be useful for the students' lives.
4. In the programming I present some teaching research that will be useful for the students' lives.
5. I frequently propose learning activities in the form of problems, that are applicable to daily life.
6. I use ICTs to solve the tasks in the form of problems, according to the proposed objective.
7. I start from needs and interests to stimulate and motivate the students, so that they get involved in the learning that relates to daily life.
8. In the resolution of problems, the students learn with a precise objective in an organised fashion. They relate these learnings with prior ideas and create alternative proposals for use in daily life.
9. I organise the work by groups monitoring the development of the objective and establishing a co-assessment to determine progress, generating democratic attitudes and mutual respect.
10. I encourage interdisciplinary projects with other curricular areas for applying in daily life.
11. I act in an autonomous and proactive manner implementing actions on my own as a project of innovation and investigation.
12. I encourage a culture of participation in the students outside the classroom.

13. I anticipate events and visualise scenarios to formulate improvement objectives.
14. I believe I am competent generating innovative ideas to improve the students' quality of learning.
15. I do research obtaining evidence and communicating the results on what occurs in the students' learning process.

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