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What is a Creative Teacher and What is a Creative Pupil? Perceptions of Teachers

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Abstract

The perceptions of teachers concerning creative teachers and pupils are an essential prerequisite for research concerning creativity, its assessment and promotion in the school context. The authors of this article administered a Likert scale to 576 teachers in Portuguese schools to explore what they think about the concepts of a creative pupil and a creative teacher, how they evaluate themselves as a creative person, and how they judge the creativity of their colleagues, pupils, *curricula* and school. The responses of the teachers help to identify a need for teacher training about creativity and to raise suggestions for this work.

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Keywords: creativity; perceptions; teachers; assessment; school; creative pupil; creative teacher

1. Introduction

For half a century, authors such as Rhodes (1961) and Torrance (1963) stressed the importance and urgency for teachers to be creative. School and, in particular, the classroom has been seen as a privileged context for promoting creativity in order to enhance social and individual progress (Cropley, 2009; Runco, 2004).

In the school context teachers are a source of information but they also act as a relevant role model for their students with respect to strategies and behaviours. They have then the responsibility for transmitting declarative and procedural knowledge (Runco & Nemiro, 1994). Knowing that the *curriculum* can be an intended opportunity for fostering creativity (Park, Lee, Oliver, & Cramond, 2006), teachers should be the main mediator between it and what is practiced in the classroom, thereby being an essential element in order that the school accomplishes its goal of making students more creative (Good, 2002; Welle-Strand & Tjeldvoll, 2003).

When it comes to legislation concerning education, creativity has gained ground in Portugal, where it is a stated need to train creative citizens and where the role of the teacher is recognised in achieving this goal from kindergarten to university. However, this concern has had little impact on research in Portugal, as few empirical

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studies about it exist (e.g., Fernandes, 2004; Vieira, 2004). On the other hand, knowing the perceptions of teachers can be the first step to defining the needs and interventions about creativity at school (Beghetto & Plucker, 2006; Fryer, 1996).

2. Perceptions of Creativity in Teachers

It is known that perceptions are not reproductions of reality: they are subjective mental constructions of it (Moscovici, 2003). However, implicit theories emerge from these perceptions concerning creativity and it is important to know them (Runco & Johnson, 2002). It can be inferred that perceptions guide what we are and what we do (Romo & Alfonso, 2003) and their consequential expectations are of utmost importance for students (Rosenthal,1991). Therefore, knowing teachers' perceptions about creativity can help to understand needs, misconceptions or even prejudice ideas, and to discern positive beliefs that should be reinforced; evaluating teachers conceptions of creativity can help consequently to establish better practices to foster creativity in classroom (Fryer, 1996; Newton & Newton, 2009).

2.1 The Presence of Creativity in Academic Daily Life

To what extent is creativity present in the school with regard to *curriculum*, students and teachers? Fryer (1996) mentioned a low level of self-assessment of their creativity by teachers, whereas Aljughaiman and Mowrer-Reynolds (2005) stated that 50% of their sample of teachers believed that their students were creative and 25% even said that the majority of the students were creative. On the other hand, while Aljughaiman and Mowrer-Reynolds (2005) found that 56% of teachers think that their school emphasises the promotion of creativity in its students (though 25 % seemed confused about this issue), Diakidoy and Kanari (1999) showed that 90% of the teachers in their study saw the school as a space, where there were not many opportunities for the students to express their creativity. The classical study of Fryer (1996) also reflected this ambiguity, since 69% of teachers thought that the school promoted creativity "to some extent" but only 17% stated that it "contributes" to this goal and a further 14% said that it "contributes very little." In the study of Aljughaiman and Mowrer-Reynolds (2005) a minority of the teachers (35%) found the opportunity to involve creativity and they did this only "because the *curriculum* formally expresses that goal."

2.2 The Creative Teacher

A creative teacher is the one who encourages reasonable risks and unpredictable situations, while reinforcing creative activities. A close relationship with students and a motivating class environment should also be both in harmony with a good scientific background of the teacher and with her/his ability to be challenging at the cognitive level. To encourage the self-confidence and self-regulation of students, as well as their multiplicity of ideas and their active role in defining and redefining problematic points, is also important. Finally, the teacher should also be tolerant of ambiguities, critical of his/her practices and demonstrative of creative abilities (Fautley & Savage, 2007; Sanchez, Martinez, & Garcia, 2003).

According to teachers, the promotion of student autonomy and self-confidence seems to be the most valued aspect for defining a creative teacher. Teachers also consider other specific aspects to be important for creativity in the classroom including the opportunity for students to choose tasks or to do their own self-correction (Cheung, Tse & Tsang, 2003; Fryer, 1996). Furthermore, it is also important for teachers to stimulate students to ask questions and to use open answers in response to badly structured problems and in divergent and unusual situations (Diakidoy & Kanari, 1999; Fryer, 1996). However, one aspect remains ambiguous: the existence of clear and flexible rules in the classroom. For example, Fryer (1996) showed that roughly the same percentage of teachers think that defining clear rules inhibits (23%) student creativity, while 31% think they help it.

There seems to be agreement about what defines a creative teacher and some of the characteristics are stated by the teachers themselves but some difficulties exist when teachers try to apply the concept of creativity in their practices and sometimes they feel uncomfortable about teaching creativity because this involves risk-taking; they should be prepared to learn from their pupils an not be afraid of looking different (Joubert, 2007). In spite of the high motivation that these professionals have in order to practice creativity, difficulties emerge when they try pragmatically to be creative, due to a fear of assuming responsibility and a low self-assessment of themselves as creative people (Aljughaiman & Mowrer-Reynolds, 2005; Fryer, 1996). Fleith (2000) also mentions that teachers

may be aware of the characteristics that promote student creativity but their transfer into practice may still be intuitive, as not only declarative but also procedural knowledge is needed. This way the wishes and practices of teachers could and should become more coherent in the classroom (Cropley, 1999).

2.3 The Creative Student

There is an essential and controversial question in teacher perceptions about the creative student: whether they value or not this kind of pupil. In 1963, Torrance already affirmed that teachers – independent of their culture - did not demonstrate positive perceptions towards creative children, because they mostly valued obedient, popular and rule abiding children. This negative view of the creative student in the classroom, which is particularly related to a lack of discipline, seems to continue. Creativity in classroom can be seen as potentially disruptive or a kind of negative deviance (Beghetto, 2008; Plucker & Beghetto, 2004; Westby & Dawson, 1995) and teachers tend to dismiss unexpected and novel ideas from students (Kennedy, 2005). However, there are studies that indicate the opposite. Runco, Johnson and Bear (1993) verified that teachers and parents described the creative child favourably and the non-creative child unfavourably. According to these authors, there could be cultural differences, because different results are obtained in a variety of contexts such as India (Raina & Raina, 1971) or China (Lau & Li, 1996). Moreover, the complexity of this issue increases with the study of Runco and Johnson (2002), who analysed parents and teachers in New York and New Delhi. Both samples showed a similar pattern concerning perceptions of creative and non-creative children; the first being described with positive adjectives, as opposed to the second. Some desirable characteristics pointed out by teachers for classifying creative students are mentioned in other studies: namely, initiative, perseverance or curiosity (Fleith, 2000) or being original, risk takers, artistic, having a rich vocabulary, a sense of humour or enthusiasm (Aljughaiman & Mower-Reynolds, 2005).

As in the case of the concept of the creative teacher, some agreement on what defines a creative student can be observed in respect of characteristics pointed out by teachers and explicit theories (for example, curiosity, enthusiasm or sense of humour) but some aspects can be questionable, such as those related with artistic ability, richness in vocabulary or being original (or simply different). Explicit theories underline the excessive or unique association between arts and creativity, as a myth (Runco, 2008), and there is a consensus about originality, as a necessity, but it is not enough of an element to define creativity (Starko, 2010). On the other hand, teachers seem to have difficulties in the classroom with behaviours associated with creativity, such as unusual answers, original views, curiosity or risk taking (Kaufman & Baer, 2002; Runco & Johnson, 2002). The perception of the teacher about the creative student, therefore, is complex and in these gaps between perceptions and reality it can then be difficult to recognise creative abilities in students. So it seems obvious that there is a need for teachers to better identify the characteristics of a creative student, as well as for assessment criteria for the creative products of students.

The main goal of this research then is to analyse the perceptions of teachers about creativity a) concerning the presence of this topic in academic daily life i.e. the concept of a creative teacher and the concept of a creative pupil; and b) concerning relationships between teacher perceptions of creativity taking into account the diverse school elements evaluated. Analysing them can be a first step to understanding the eventual gaps between these perceptions and explicit theories about creativity. Consequently, it can be also a first step in order to (re)design teacher training to promote creative practices and the evaluation of student creativity.

3. Method

3.1 Participants

A total of 576 teachers of Arts (36%), Science (27%) and Humanities (37%) participated in this research. The teachers from elementary schools (41%) were responsible for teaching students in the 5th and 6th grades, while the teachers from secondary (high) schools (59%) taught from the 7th to the 12th grades. The participants were predominantly women (71, 8%) and their ages ranged from 20 to 60 years old. However, the largest group was aged between 30 and 40 years (40, 4%) and the smallest group was drawn from 50 to 60 year-olds (9,1%). The participants were all public school teachers from various geographical regions of Portugal and they constituted a haphazard sample.

3.2 Instrument

The teachers filled out a Likert scale prepared by the authors of this research. A total of 23 statements regarding self-assessment, as a creative teacher, and about the presence of creativity in their students, colleagues, the *curriculum* and school (concerning teachers and students in these latter two cases) were evaluated using a five-point scale from "strongly disagree" to "strongly agree." This five-point scale also evaluated statements about concepts of a creative teacher and a creative student. These statements were devised taking into account explicit theories concerning creativity (e.g. "the creative teacher encourages the students' autonomy," "the creative student foresees alternatives for problem solving"), as well as the myths or misconceptions often associated with those concepts (e.g. "the creative teacher doesn't impose rules in the group," "the creative student obtains success in most of the subjects").

The elaboration of the scale took into account not only the content of the research but also an initial review by two experts in the field of creativity and educational psychology in order to correlate the questions with the concepts (relevance criterion) and to guarantee the simplicity, clearness and precision criteria of each item (Pareja, 1997). To assess the clarity of the language and possible social desirability of the answers, three teachers from each academic domain were asked to review the items and some corrections were made with respect to their content and the number of items. The precautions taken by the researchers were similar to what had been done in identical studies (e.g., Aljughaiman-Mower & Reynolds, 2005; Cheung, Tse, &Tsang, 2003).

3.3 Procedure

The distribution of the evaluation scales to the sample was carried out personally by the authors of this research and - in a few cases - by mail. In all of the cases personal contact was made in order to explain the goals of the research, to emphasise the relevance of a careful completion of the evaluation scale and to assure the confidentiality of the evaluation. Almost all of the teachers contacted (94%) responded to the evaluation scale.

4. Results

First, the perceptions of teachers about the presence of creativity in their daily school life and their self-assessment of themselves as creative teachers are presented in Table 1 and in order to polarise the analysis of the answers both categories of disagreement and both categories of agreement are taken together.

Table 1 – Perceptions of Creativity Considering the Different School Elements (n=576)

Itens	Scores		
	Strongly disagree/ disagree	Neither agree nor disagree	Agree/ Strongly agree
I am a creative teacher	3%	19%	78%
Curricula Promote creativity in pupils	24%	36%	40%
Curricula Promote creativity in teachers	20%	31%	49%
Schools promote Creativity in pupils	20%	46%	34%
Schools promote Creativity in teachers	22%	40%	38%
My students are creative	12%	47%	41%
My colleagues are creative	16%	54%	30%

It appears that much of the sample considered itself creative (78%). When considering colleagues the perception of creativity is quite different, since only 30% considered their colleagues creative, whereas students are thought to be creative in 41% of cases. Considering curricula and the concept of school, in general, there is a moderate allocation of creativity to the former (40% and 49% regarding students and teachers, respectively) and lower values to the latter case (34% and 38% regarding students and teachers, respectively).

There are high levels of indecision, particularly when it comes to attributing creativity to colleagues (54%) and students (47%) and to the contribution of schools towards the creativity of students (46%) and teachers (40%). In

these cases, the number of teachers, who chose the central score of the scale ("Neither agree nor disagree"), is greater than those who affirm or deny creativity in their assessment.

In order to explore the existence of relationships between the attributions of the teachers in relation to the contribution of school towards creativity, Spearman correlations between the scores of teachers were calculated (see Table 2). All correlation values are statistically significant, however, they range between .10 ($p < 0.05$) and .75 ($p < 0.1$). Cross checking self-assessment with all other elements, the correlations are always very low and between .10 ($p < 0.05$) and .20 ($p < 0.1$). Conversely, when cross checking the promotional role of the *curriculum* for students and teachers and also the promotional role of schools in both of these elements, there are high correlations between these two elements (.75 and 0.76, $p < 0.1$).

Table 2 – Correlations between the Scores of Items about the Presence of Creativity in the Different School Elements

	I am a creative teacher	My students are creative	My colleagues are creative	Schools promote creativity in students	Schools promote creativity in teachers	Curricula promote creativity in students
I am a creative teacher						
My students are creative	.16**					
My colleagues are creative	.10*	.32**				
Schools promote creativity in students	.12**	.35*	.41**			
Schools promote creativity in teachers	.12**	.31**	.43**	0.75**		
Curricula promote creativity in students	. 20*	.24**	.26**	.41**	.40**	
Curricula promote creativity in teachers	.18**	.18**	.25**	.34**	.47**	.76**

** p<.01 * p<.05

In addition, there are average correlations between the promotional role of the school and the same role of the *curriculum* with respect to teachers and students (namely, .47 and .41, p<.01 for teachers and students, respectively). Average values also appear between the perception of school, as a promoter of creativity in students and teachers, and the recognition of the creativity of colleagues (.41 and .43, $p < 0.1$, respectively).

Now taking into account the perceived concept of a creative teacher (see Table 3), certain characteristics are emphasised such as enthusiasm during classes (91%), promotion of autonomy in students (90%), close and individual relationships (78%) and scientific competence (74%). Only 8% of the sample stated that the creative teacher "does not impose rules" which indicates a low level of indecision. The creative teacher, as a "friend of the students" (55%), appears to be the most questionable content for these teachers - 33% of whom responded with "neither agree or disagree" answers.

Table 3 – Characteristics of Creative Teachers (n=576)

Creative teacher	Scores		
	Strongly disagree/ disagree	Neither agree nor disagree	Agree/ Strongly agree
Guides classes enthusiastically	2%	7%	91%
Has individualised contact with pupils	4%	18%	78%
Has security and scientific competence	8%	18%	74%
Practices exercises and examples	3%	11%	86%
Does not impose rules	75%	17%	8%
Does not have a routine	3%	9%	88%
Is a friend of the students	12%	33%	55%
Promotes student autonomy	1%	9%	90%

With respect to the concept of the creative pupil (see Table 4), the perspectives of "uses alternatives in solving problems" (91%), the proffering of "unexpected and original ideas" (90%), "many appropriate ideas" (84%) and the "transfer of knowledge" (79%) emerge as significant beliefs. Among the less valued associations with creativity appears to be the non-acceptance of rules (only 24%). However, 48% of the sample associates creativity with "ideas and behaviours divergent from the normal class routine,"27% with "academic achievement" and 58% with "success in tasks involving reasoning."

Table 4 – Characteristics of the Creative Pupil (n=576)

Creative pupil	Scores		
	Strongly disagree/ disagree	Neither agree nor disagree	Agree/ Strongly agree
Has a lot of appropriate ideas	7%	19%	84%
Transfers knowledge	5%	16%	79%
Has ideas and behaviours divergent from the normal class routine	15%	37%	48%
Uses alternatives in problem solving	1%	8%	91%
Succeds in tasks involving reasoning	8%	34%	58%
Has unexpected and original ideas	2%	8%	90%
Does not accept previous rules	38%	38%	24%
Has academic success	25%	48%	27%

The rates of indecision concerning the concept of the creative pupil are higher than those that concern the creative teacher. In four of the items, classifications within the middle of the scale assessment (“do not agree/neither agree or disagree”) above 20% can be found, which highlights the uncertainty of an association of the creative pupil with the acceptance of rules (38%), behaviours and ideas that diverge from the normal (37%), tasks involving reasoning (34%) and mostly with academic success (48%).

5. Discussion

The teachers of this sample generally saw themselves more creative to a greater extent than the ones in the study of Fryer (1996). However, with the exception of themselves, creativity is not perceived as being very present in several areas of the school. Less than half of the sample perceives students and co-workers as creative. Also less than half of the sample sees the school and *curricula* as promoting creativity regarding students and teachers. When compared to similar studies, these results about the presence of creativity in the scholastic context are more encouraging than those of Fryer (1996) or Diakidoy and Kanari (1999) but less encouraging than Aljughaiman and Mower-Reynolds (2005) with respect to the role of the school. It seems worth highlighting that the majority of these teachers believe that creativity is poorly present in their schools.

A high level of indecision or unfamiliarity with creativity contents was noted in the answers about the presence of creativity in the diverse schools elements, particularly with regard to students, co-workers and the school. On the other hand, if one observes the correlations between the perceptions of creativity taking account of the different school elements, the scores concerning self-assessment are always lower than those of any other element. The higher correlations are between the promotional role of the school for both the student and the teacher, as well as for the *curricula*. Therefore, the ones that value the promotional role of the school for students and teachers, also value the same role for the *curriculum*. Moreover, those who believe the school to be creative also will have the tendency of seeing their colleagues as creative as well.

Why do these teachers believe themselves to be very creative, as opposed to anything or anybody else in their school? Why is there a tendency to perceive school and *curricula* in the same way concerning students and teachers? Why, in general, is the presence of creativity in school associated with that of colleagues but not with that of students or themselves? Probably teachers are using different concepts of creativity in their different assessments and these conceptual differences can indicate difficulties when they have to evaluate creativity in the school context. These hypotheses seem to be very likely also due to the high frequency of central scores in evaluation scale answers ("neither agree nor disagree"), which possibly reflects indecision or unfamiliarity with creative content. Similar studies also found that teachers experienced difficulties when assessing the creativity of their students (Baltchin, 2006; Fleith, 2000); in this study those difficulties seem to be true to other school elements as well.

With regard to the concept of the creative teacher, among this sample it is essentially associated with the enthusiasm of the teacher in the classroom, the autonomy promoted in students, a close and individual relationship with the students and scientific ability. All of these dimensions are supported by explicit theories (Cropley, 2009; Fautley & Savage, 2007) and by similar studies of teacher perceptions (Cheung, Tse, & Tsang, 2003; Diakidoy & Kanari, 1999; Fryer, 1996). Indecision levels for this concept do not seem to be very high. However, the fact that 76% of the teachers disagree or neither agree or disagree that the non-acceptance of rules is important in the creative behaviour of students, could show a certain degree of ambiguity associated with creative behaviour and disobedience. Setting rules is important to the sample either because the association between disobedience and creativity has already been demystified or because they believe that creativity (among students) could imply disobedience and there is a need to set rules? Once again, this ambiguity is frequent in literature (Fryer, 1996). It is also worth mentioning that the questionable perception of the creative teacher as the "the friend of the student", when a similar statement evaluates the creative teacher as one who has a "close and individual contact with pupils". Some confusion between the intrinsic authoritative role of the teacher and the affective distance from pupils could be behind the agreement and indecisions of the sample concerning this statement.

Finally, the creative student is above all perceived as associated with originality, flexibility and fluency, which finds an echo in literature about divergent thinking and its relationship with creativity (Guilford, 1986; Runco, 2003). The creative student is also strongly linked to the transfer of knowledge, which seems to be close to the role of the remote and analogical associations with creativity (Bristol & Viskontas, 2006). Again, ambiguity about discipline and creativity appears, when only 24% of the sample states that creative students do not accept rules and 48% states that these students have different ideas and behaviours from the rest of the class. Therefore, on the one hand, these teachers seem to have a correct perception of the creative student in some important dimensions (Fleith, 2000; Runco & Johnson, 2002). On the other, the ambiguity found regarding rules and discrepancies over high levels of indecision (the acceptance of rules and the association with academic success received more indecisive scores than affirmative or negative statements) can indicate an apprehensive and insecure perception of a creative student (Beghetto, 2008; Plucker, Beghetto, & Dow, 2004). The questionable association of creativity with

intelligence (Kaufman & Baer, 2002) can also reflect the needs of teachers for clarification about the concept of creativity.

These Portuguese teachers have shown in this exploratory study that their perceptions about the creative pupil and teacher are not very distant from concepts defined by explicit theories. However, some misconceptions and unfamiliarity regarding both concepts and regarding creativity, in general, seems to emerge too. It is known that it is possible to help teachers to apply better their correct conceptions into creative practices and to change less productive perceptions about creativity. Furthermore, there are even follow-up studies that confirm the success of this kind of intervention, which makes teachers more able to assess and to develop creativity in students (Park, Lee, Oliver, & Cramond, 2006).

What then can be suggested in order to make these teachers more potentially capable of promoting creative abilities? More opportunities should be made available for discussions with the teachers about subjects related to the concept of creativity and its evaluation, particularly topics regarding the items of the evaluation scale that potentially caused more indecision or confusion. However, this kind of training should be developed in a very practical way taking into account experiences in their schools and not only on a theoretical basis. It should be done through case studies, class observations, planning and assessment and also through the development of structurally creative tasks, which should always be applicable to their own classroom situations. These kinds of practices can also help teachers to exercise and to confirm some of the correct perceptions that they have. Discussions with colleagues would be included in these experiences too. Thus, these teachers would become more able to assess not only their own creativity but also to take in account that of their colleagues and students, in particular, and their work context, in general. They would also realise that the creativity of students is compatible with discipline, that intelligence is necessary but that it is not enough for creative tasks and that, for example, students with or without academic success can be creatively productive.

This study faced some limitations; namely, influences on perceptions that were not studied yet concerning gender, age and the curricular domain of the teachers, as well as the age of the students (Runco, Johnson, & Baer, 1993; Craft, 2005). Also the evaluation scale needs to be more carefully studied following this exploratory research. However, a lot of information has already been gathered and some practical suggestions for work with Portuguese teachers can be defined. This exploratory study listened to the voices and needs of those teachers. Now, new efforts are necessary in Portugal to continue this work, which, despite of its limitations, has been a pioneering one in the country considering its goal and the extent of the sample used.

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