# Teachers and other educational agents' sentiments, attitudes and concerns about inclusion: portuguese data

Sentimenti, atteggiamenti e preoccupazioni verso l'inclusione di insegnanti e altri operatori educativi: dati portoghesi

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In the beginning of the 21st century schools are characterised as multicultural spaces and times (César, 2009). In the two last decades we observe a growing cultural diversity among students who attend Portuguese mainstream schools (César, Santos, 2006). The construction of broader inclusive educational settings is related with teachers and other educational agents' sentiments, attitudes and concerns towards inclusive education (IE) (Forlin, Loreman, Sharma, Earle, 2007; Loreman, Earle, Sharma, Forlin, 2007). This research is part of a broader project Educação Inclusiva e Processos de Formação whose main goal was to study the sentiments, attitudes and concerns presented by educational agents, before and after attending pre- and in-service teacher education which included some curricular units regarding IE. We assumed an interpretative approach and carried out a long panel survey. To collect data we used documents and the SACIE scale - Sentiments, Attitudes, Concerns about Inclusive Education scale, by Loreman, Earle, Sharma, Forlin, (2006). The SACIE scale was answered in two moments: (1) at the beginning; and (2) at the end of the selected curricular units. Data treatment and analysis was based in descriptive statistics and used the SPSS software. The main results of the study are presented and discussed in the paper, starting from the analysis of the data referred to the majority of teachers and other educational agents, who reported comfort sentiments, but only a lower number of them showed inclusive attitudes towards students who need some specialised educational support.

Keywords: inclusive education, Portugal, teachers, sentiments, attitudes, concerns

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**Aknowledgments:** Our gratitude goes to all the teachers and educational agents who participated in this research project as well as to the institutions, and high school and university teachers who collaborated with us. It also goes to Prof. Chris Forlin for inviting us to participate in a broader international research project that originated *Educação Inclusiva e Processos de Formação*. Its partial financial support was attributed by CIEFCUL – *Centro de Investigação em Educação da Faculdade de Ciências da Universidade de Lisboa* from 2006/07 until 2008/09.

Italian Journal of Special Education for Inclusion

# 1. Introduction

In Portugal mainstream schools are challenged by a growing diversity (César, 2013; Rodrigues, 2007). This is a valuable opportunity to transform schools according to the inclusive education (IE) principles (UNESCO, 1994). Some authors assume IE as a complex belief that has been interpreted through these last decades in a variety of ways by different educational agents (Ainscow, César, 2006). Some authors conceive IE as the right to an education that values the richness of all students' voices that emerge in specific times, spaces and cultures (César, 2009; César, Santos, 2006). Thus, organizations need to be engaged in the transformation process of discussing ways to use values, attitudes and power relations, contributing to the construction of further cultural resources that are adapted to all students' needs (César, 2009, 2013; D'Alessio, 2011; Slee, 2012). IE is a way of facilitating all students' participation as democratic citizens (Biggeri, Santi, 2012).

Portuguese legislation started to acknowledge the right to non-discrimination and unconditional placement of all students (ME, 1991), namely of those who need some specialized educational support (César, 2012). But it was more recently that the legislation started shifting towards inclusive education principles (ME, 2008), assuming what the Salamanca Statement suggested (UNESCO, 1994). These developments promoted diversity within Portuguese mainstream schools. But despite these changes, Portugal still faces complex barriers regarding the development of an educational system that is engaged in promoting a quality education for all (César, 2009, 2012, 2013; Rodrigues, 2007). Thus, although students have become more diverse there are still around 95.000 facing exclusion each school year because they experience school underachievement (INE, 2009). This illuminates the gap between policy documents and the practices, particularly the evaluation system. Despite the effort to develop a more inclusive legislation, inclusion is a slow in-progress process with advances but also setbacks (César, 2012). Therefore, committing towards the construction of more inclusive scenarios and learning situations must go well beyond well-intentioned speeches, as it needs more inclusive attitudes and practices (Borges, César, 2011), particularly the ones that contribute to power distribution and to develop inter- and intra-empowerment mechanisms (César, 2013).

Portuguese teacher education has also been changing its curricula towards the inclusion of curricular units addressing IE (Santos, 2008; Santos, César, 2010; Santos, Hamido, 2009). Although these changes aimed at promoting a quality education for all, non-inclusive attitudes, concerns and perceptions still exist, particularly among educational agents and teachers (Lima-Rodrigues et al., 2007). Some authors stress the relations between the construction of (more) inclusive educational settings and the sentiments, attitudes and concerns of the teachers and other educational agents towards IE, and how those may be fostered through teacher education (Forlin et al., 2009; Loreman et al., 2007). Symeonidou and Phtiaka (2009) also underline the need to know and mobilise prior knowledge and attitudes to develop more adequate teacher education on IE. Furthermore, when teacher education is consistent with the teachers and other educational agents' zone of proximal development (ZPD) (Vygotsky, 1934/1986), it is more likely to endorse visible impacts on their sentiments, attitudes and con-

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cerns. Thus, it is essential to know more about the changes promoted by teacher education on the sentiments, attitudes and concerns of teachers and other educational agents (Forlin, Earle, Loreman, Sharma, 2011; Loreman, Forlin, Sharma, 2007; Santos, César, 2010).

### Sentiments, attitudes and concerns towards IE

Several studies have presented data regarding the teachers' and other educational agents' comfort and discomfort sentiments about IE (Forlin, Cedillo, Romero-Contreras, Fletcher, Hernández, 2010; Forlin et al., 2009; Sharma, Forlin,, Loreman, 2008). These studies illustrated that a large majority of the inquired teachers and other educational agents showed comfort sentiments towards students categorised as presenting SEN (Forlin et al., 2009; Stella, Forlin, Lan, 2007). Furthermore, some of these studies reported an increasing number of participants which selected comfort, inclusive sentiments when interacting with these students, after accomplishing teacher education courses regarding IE (Forlin et al., 2009; Sharma et al., 2008).

Data has also illuminated that when teacher education presented an opportunity for those teachers and other educational agents to meet and interact with persons who were categorised as presenting SEN, one could observe an increasing number of participants that selected a more inclusive comfort positioning towards these students (Forlin, 2010; Forlin et al., 2009, 2010). Although these previous studies presented an increase in comfort sentiments after attending teacher education on IE, other studies still point out different impacts of teacher education in different countries on the comfort and discomfort sentiments presented by teachers towards these students (Sharma et al., 2008; Sharma et al., 2006). For instance, Santos (2008) observed an increasing number of teachers who showed sentiments of fear when looking at a person with a disability, after the involvement on a curricular unit regarding IE.

Some studies presented data, which suggest that only a slight majority of the inquired teachers express inclusive attitudes towards students categorised as presenting SEN (Forlin, Chambers, 2011; Forlin et al., 2009; Sharma et al., 2006). Some other studies suggested statistical relations between expressing inclusive attitudes towards these students and the following participants' characteristics: being female; having knowledge about legislation concerning the education of these students; interactions with persons in a SEN condition; training focused on the education of these students (Forlin et al., 2010; Forlin et al., 2009; Sharma et al., 2008). For instance, Sharma and his associates (2006) undertook a comparative study about the attitudes towards inclusion in Australia, Canada, Singapore and Hong Kong. These authors suggested relations between participants from countries that implemented inclusive policies for a longer time period and the emerging of a more inclusive attitude positioning. Thus, we can infer that the inclusive attitudes emerged after a longer period of interaction with students characterized as presenting SEN. These data suggest that changing towards more inclusive attitudes is a slow process (Loreman et al., 2007; Sharma et al., 2006).

Forlin and Chambers (2011), in a study about the effectiveness of teacher education to develop inclusion, presented some favorable empirical evidence. For instance, the participants expressed propitious attitudes towards those students

who often fail in their exams or who need assistance with personal care. But this study has also presented data that illustrate a tendency towards a non-inclusive direction, as they showed less inclusive attitudes concerning students who are physically aggressive. Nevertheless, other studies presented favorable data regarding teacher education impacts on the attitudes of teachers regarding IE (Forlin, Chambers, 2011; Sharma et al., 2008; Stella et al., 2007). Stella and her associates (2007) investigated the impact of a module on IE in a sample of 200 pre-service teachers in Hong Kong. Their empirical evidence supports a slight increase in the number of participants who expressed inclusive attitudes towards students whose academic achievement is below the class standard and those who cannot move without the assistance of others, thus in need of assistance with personal care. Forlin and Chambers' study (2011) also shows a small impact on the attitudes of pre-service teachers towards students who were physically aggressive. Even after completing a course, which addressed IE, these future teachers only expressed slightly more inclusive attitudes towards these students (Forlin, Chambers, 2011; Stella et al., 2007). This empirical evidence corroborates previous studies on attitude change towards inclusion that has been reported to be a challenging process (Loreman et al., 2007; Santos, César, 2010; Sharma et al., 2006).

Research has suggested that teachers and other educational agents' concerns towards inclusion are, in many ways, still high and constitute a challenging barrier to the construction of broader inclusive scenarios (Forlin et al., 2010; Lima-Rodrigues et al., 2007; Sandberg, Ottosson, 2010). For instance, Forlin and Chambers (2011) show evidences, after conducting a survey on pre-service teachers' perceptions of inclusion, that suggest the existence of a high level of concerns towards IE in the teachers that attended a teacher education unit on diversity in an Western Australian University. Further literature review illuminated high levels of concern associated with the lack of resources and staff to develop a quality education for All (Forlin, Chambers, 2011; Lima-Rodrigues et al., 2007). Sandberg and Ottosson (2010) conducted 20 interviews to pre-school teachers and other educational agents. They also suggested that the participants showed a high level of concerns towards their own lack of knowledge and skills to develop a quality education to all students. Forlin and her associates (2010), after administering the SACIE scale (Loreman et al., 2007) to 286 newly graduated teachers, suggested that these participants still show concerns towards the lack of an adequate level of acceptance of students categorized as presenting SEN by other colleagues who taught the same class.

When looking at the literature regarding the impact of teacher education on the level of concerns presented by teachers and other educational agents, some illuminate an IE unfriendly impact in the level of the expressed concerns (Forlin, Chambers, 2011; Stella et al., 2007). For instance, Forlin and Chambers (2011) state that after attending a unit of study on diversity the level of concerns towards the lack of resources/staff and capacity to ensure appropriate attention to all students, instead of decreasing and becoming more inclusive, it went in the opposite direction towards a more concerned and non-inclusive positioning. Sharma and his associates (2008) observed a decrease in both the number of participants which showed concerns towards the acceptance by other colleagues teaching the same class which included students characterized as presenting

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SEN, and towards the lack of knowledge and skills regarding the education of these students, after analysing data on the impact of teacher education on IE, from a 603 pre-service teachers sample from Australia, Canada, Hong Kong and Singapore.

# 2. Method

This research is part of a broader research project called *Educação Inclusiva e Processos de Formação* [Inclusive education and pre- and in-service teacher education]. Its main goal was to study the sentiments, attitudes and concerns presented by teachers and other educational agents, before and after attending preand in-service teacher education courses including curricular units regarding IE. Its specific goals were: (1) To translate into diverse languages and to adapt the SACIE scale to be used in different countries and cultures (Loreman et al., 2007); (2) To apply this instrument in two moments (pre- and post-teacher education units regarding IE); and (3) To confront results between the countries that participated in this study. In this paper, we focus on the second specific goal and in the Portuguese data.

The problem that originated this research was the existence of non-inclusive sentiments, attitudes and concerns expressed by teachers and other educational agents who develop their practices in Portuguese mainstream schools (Santos, 2008; Santos, César, 2010; Santos, Hamido, 2009). We considered the following research questions: (1) What sentiments, attitudes and concerns about IE do teachers and other educational agents present before attending some teacher education curricular units related to IE?; (2) What sentiments, attitudes and concerns do these teachers and other educational agents present after attending some teacher education curricular units related to IE?; and (3) What are the changes between these two moments?

To grasp this problem and questions we carried out a research assuming an interpretative approach (Denzin, 2002) and using a design based in a survey (Cohen, Manion, Morrison, 2007). We assume the exploratory nature of this survey.

# Participants

The selected professionals were mainstream teachers, future teachers and other educational agents (N=289), like educational psychologists, physical rehabilitation professionals and special education teachers. They attended higher education courses with curricular units related to IE during the 1<sup>st</sup> semester of 2007/08, i.e., between September/October 2007 and January/February 2008. They were from all sorts of higher education institutions: universities, institutes, and schools of superior studies (*Escolas Superiores de Educação*, commonly designated as ESE) and these institutions were from all over Portugal. All participants collaborated in this study on a voluntary basis and their engagement was based on an informed authorisation (Hamido, César, 2009).

# Data collecting instruments

### Documents

The selection of the curricular units was conducted through a documental analysis in which we identified the intention to explore contents related with IE and/or to the education of students who need some specialised educational support. At a first stage, this intention was identified when the curricula included words like IE, diversity or inclusion in the goals of the curricular units. In face of the small number of courses identified based in these criteria, we used in a second stage broader words also including: special education, curricular differentiation, educational intervention, and handicap.

# SACIE scale

We used a survey instrument that consisted of two parts. The 1st part had nine demographic items. These items collected personal and professional data such as gender, age, professional qualifications and key questions about teaching or interacting with student categorised as presenting SEN. The 2<sup>nd</sup> part consisted of the Sentiments, Attitudes & Concerns about Inclusive Education (SACIE) scale, by Loreman and his associates (2006). It is a brief but reliable 15-item scale (Cronbach alpha = 0.83) (Cronbach, 1951) that evaluates sentiments, attitudes and concerns towards IE (Forlin et al., 2011). The participants select their position in a fourpoint Likert-type scale. Thus, each one of the scale items was rated on a range of 1-4 points, ranked from: strongly disagree (SD); disagree (D); agree (A); and strongly agree (SA). This range was chosen to avoid neutral responses leading the participants to take an option towards a more inclusive or less inclusive position. Forlin and her associates (2011) identified three factors with the following reliabilities as measured by Cronbach alpha (Cronbach, 1951): (1) sentiments ( $\alpha$  = 0.86); (2) attitudes ( $\alpha = 0.86$ ); and (3) concerns ( $\alpha = 0.70$ ). In the first factor (sentiments), Items 1 and 2 evaluate the sentiments when interacting with people categorised as presenting a disability (e.g., Item 1: I feel comfortable around people with disabilities). In the second factor (attitudes), Items 3 to 9 regard attitudes towards including different students categorised as presenting SEN (e.g., Item 5: Students who are physically aggressive towards others should be in regular classes). In the last factor (concerns) Items 10 to 15 evaluate the concerns about IE (e.g., Item 11: I am concerned that there will be inadequate resources/staff available to support inclusion). The SACIE scale was translated and adapted to Portugal, and an experimental version is available, allowing its application in this study.

# Procedure

We started collecting documents in July, i.e., by the end of the previous school year, and ended in the beginning of September 2007. We collected documents regarding school year 2007/2008. The collected documents were: (1) lists of universities, teacher education institutes and superior schools of education; (2) curricula regarding teacher education courses; and (3) programs of the curricular units developed in teacher education courses. These documents were used in the selection of the curricular units in which students would answer to the SACIE scale (Loreman et al., 2007).

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The mentioned scale was answered in two moments: at the beginning and at the end of the selected curricular units. These two moments were part of the 1<sup>st</sup> Semester of the school year 2007/2008: September/October 2007 (first moment); and January/February 2008 (second moment). Thus, there were between three and five months between the two moments, i.e., the two answers to the SACIE scale. Single data collections at either pre- or post- units only were excluded. To treat and analyse data we used Microsoft Office Excel 2008 and the Statistical Package for the Social Sciences 18.0 (SPSS). We decided to use descriptive statistics like the relative and absolute frequencies. We did not use means because the SACIE scale uses a Likert-type scale with four points, which corresponds to an ordinal scale and not to an interval scale, from the mathematical point of view. Thus it does not make sense to use a mean, or other measures of central location, when the scale that we are using is less sophisticated than an interval scale (Pestana, Velosa, 2002).

### Results

The demographic characterisation of the participants is presented in Table 1. Almost 90% of these participants are female. Approximately three quarters were 29 years old or less (1<sup>st</sup>-75.4%; 2<sup>nd</sup>-74.4%). The remaining quarter were mainly 30 to 39 years old (1<sup>st</sup>-15.2%; 2<sup>nd</sup>-14.9%), thus only a minority of less than 10% participants was 40 or more years old (1<sup>st</sup>-9%; 2<sup>nd</sup>-9.7%). More than 60% participants revealed that the highest level of education completed was at a high school level (1<sup>st</sup>-66.1%; 2<sup>nd</sup>-60.2%). Less than a third admitted that they had completed an undergraduate degree (1<sup>st</sup>-29.8%; 2<sup>nd</sup>-32.2%). Thus only a minority accomplished a postgraduate degree (n≤13; 4.5%), or master degree (n=1; 0.3%).

Demographics (N = 289)	Groups	1 <sup>th</sup> Moment 2 <sup>nd</sup> Mom			oment
Sociodemographic variable		n	%	n	%
Gender	No answer	2	0.7	3	1.0
	Female	261	90.3	259	89.6
	Male	26	9.0	27	9.3
Age	No answer	1	0.3	3	1.0
	≤ 29 years	218	75.4	215	74.4
	30 - 39 years	44	15.2	43	14.9
	40+ years	26	9.0	28	9.7
Highest level of education completed is:	No answer	2	0.7	8	2.8
	High School	191	66.1	174	60.2
	Undergrad degree	86	29.8	93	32.2
	Postgrad degree/diploma	9	3.1	13	4.5
	Master	1	0.3	1	0.3

#### Table 1. Demographic characterisation: gender, age and schooling

The results regarding: (a) these participants' previous interactions with a person with a disability; (b) training focusing the education of students with disabilities; and (c) knowledge of the local policy related with these students, are presented in Table 2. In both moments more than half of the teachers, future teachers and other educational agents (1<sup>st</sup>-54.3%; 2<sup>nd</sup>-60.5%) admitted having

previous significant or considerable interactions with a person with a disability. When confronting the 1<sup>st</sup> and 2<sup>nd</sup> moments there is a slight increase of 6.2% participants that assumed having these interactions.

In the 1<sup>st</sup> moment 69.2% teachers, future teachers and other educational agents admitted having no training focusing the education of students with disabilities. A little more than a fifth of these participants assumed having some (21.1%), and 9.3% a high level of training. In the 2<sup>nd</sup> moment more than three quarters (75.8%) admitted either some (46.7%) or a high (29.1%) level of training. Only a minority of a little more than a fifth (21.8%) of the participants assumed having no training. If we confront the 1<sup>st</sup> and 2<sup>nd</sup> moment's data, there is a decrease of 47.4% participants that admitted having no training. There is also an increase of 25.6% participants that assumed having some level of training and of 19.8% participants that admitted having a high level of training focusing these children.

In what concerns the knowledge of local legislation and/or policy regarding children with disabilities, in the 1st moment a total of 59.5% participants assumed either a poor (43.9%), or no knowledge (15.6%) regarding this issue. A total of 40.5% participants chose an average (33.2%), good (6.6%), or very good (0.7) knowledge regarding this legislation. In the 2<sup>nd</sup> moment a majority of more than three quarters (78.8%) admitted having at least an average knowledge. Of these, 23.5% participants considered they had a good knowledge and only 1% a very good knowledge. Thus, only a little more than a fifth (20.4%) chose either a poor (19.7%) or no knowledge (0.7%). Confronting the results from the 1<sup>st</sup> and the 2<sup>nd</sup> moments there is a decrease of 14.9% participants who chose no knowledge, and a decrease of 24,2% participants who stated they had a poor knowledge regarding this local legislation. Alongside with this decrease, there is an increase of 21.1% participants that reported they had an average knowledge. There is also an increase of 16.9% participants who considered they had a good knowledge and of 0.3% who stated they had a very good knowledge of the local legislation regarding children with disabilities.

Demographics (N = 289)	Groups	1th Moment		2 <sup>nd</sup> Moment	
Sociodemographic variable		n	%	n	%
Liberry had a instificant/annidership interestions	No answer	0	0.0	6	2.1
I have had significant/considerable interactions	nteractions No	132	45.7	108	37.4
with a person with a disability:	Yes	157	54.3	175	60.6
I have had the following level of training	No answer	1	0.3	7	2.4
focusing on the education of students with	None	200	69.2	63	21.8
disabilities:	Some	61	21.1	135	46.7
	High (at least	27	9.3	84	29.1
My knowledge of the local legislation and/or	No answer	0	0.0	2	0.7
policy as it pertains to children with disabilities	None	45	15.6	2	0.7
is:	Poor	127	43.9	57	19.7
	Average	96	33.2	157	54.3
	Good	19	6.6	68	23.5
	Very good	2	0.7	3	1.0

#### Table 2. Participants' characterisation regarding IE

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### Sentiments

The majority of the teachers, future teachers and other educational agents assumed comfort sentiments regarding people with disabilities, as presented in Table 3. More than 90% of the participants either agreed (1<sup>st</sup>-61.9%; 2<sup>nd</sup>-58.8%) or strongly agreed (1<sup>st</sup>-29.8%; 2<sup>nd</sup>-34.6%), that they felt comfortable around people with disabilities. Less than 7% of the participants either disagreed (1<sup>st</sup>-6.2%; 2<sup>nd</sup>-5.5%) or strongly disagreed (1<sup>st</sup>-0.7%; 2<sup>nd</sup>-0.3%). When confronting both the 1<sup>st</sup> and the 2<sup>nd</sup> moments there is a decrease of 3.1 participants that agree, 0.7% that disagree, and 0.4% who strongly disagreed. This decrease beneficiated an overall increase of 4.8% participants who chose to strongly agree with feeling more comfortable around people with disabilities, after the three to five months that the curricular unit regarding IE had lasted.

Regarding the sentiment of fear felt when looking at a person with a disability straight in the face, a majority of more than 95% participants admitted either disagreeing (29.1%) or strongly disagreeing (1<sup>st</sup>-67.1%; 2<sup>nd</sup>-67.8%). Between the 1<sup>st</sup> and the 2<sup>nd</sup> moments, more 0.7% participants strongly disagreed. A minority of these participants assumed either agreeing (1<sup>st</sup>-3.8%; 2<sup>nd</sup>-1%) or strongly agreeing (2<sup>nd</sup>-1.7%). These results present a decrease between moments of 2.8% participants that agreed but an increase of 1.7% of the ones that assumed strongly agreeing. Thus, these results suggest a small increase of the sentiments of fear.

Sentiments (N = 289)	Level of	1th Moment		2 <sup>nd</sup> Moment	
Sentiments (N = 289)	agreement	N	%	N	%
I feel comfortable around people with disabilities.	NA	4	1.4	2	0.7
	SD	2	0.7	1	0.3
	D	18	6.2	16	5.5
	A	179	61.9	170	58.8
	SA	86	29.8	100	34.6
I am afraid to look a person with a disability	NA	0	0.0	1	0.3
straight in the face.	SD	194	67.1	196	67.8
	D	84	29.1	84	29.1
	A	11	3.8	3	1.0
	SA	0	0.0	5	1.7



### Attitudes

The results presented in Table 4 show that a large majority of teachers, future teachers and other educational agents stated they had inclusive attitudes towards students who need some specialised educational support. They also suggest a small increase of inclusive attitudes between the three to five months between the two moments in which they answered to the SACIE scale. For instance, regarding the attitudes towards students who need assistance with personal care, more than 70% of the participants chose either agreeing (1<sup>st</sup>-55.7%; 2<sup>nd</sup>-58.5%), or strongly agreeing (1<sup>st</sup>-16.6%; 2<sup>nd</sup>-21.8%) that these students should

be in regular classes. Confronting these two moments there is a small increase of 2.8% participants agreeing and 5.2% participants strongly agreeing with the presence of these students in the regular classes. A minority of less than a quarter of these participants assumed, in both moments, disagreeing ( $1^{st}-23.5\%$ ;  $2^{nd}-17.3\%$ ), and even smaller minority stated they strongly disagree ( $1^{st}-3.5\%$ ;  $2^{nd}-1.7\%$ ) with these students' presence in regular classes. The overall willingness to include these students is also visible since there is a decrease of 6.2% participants that disagreed and 1.8% that strongly disagreed.

In what regards students who are physically aggressive towards others, only a half of the participants assumed either agreeing (1<sup>st</sup>-46%; 2<sup>nd</sup>-52.9%), or strongly agreeing (1<sup>st</sup>-9.3%; 2<sup>nd</sup>-8%) with their presence in regular classes. These results show a decrease of 1.3% participants that strongly agreed and an increase of 6.9% of the ones that agreed. A minority of less than a half either chose to disagree (1<sup>st</sup>-38.3%; 2<sup>nd</sup>-33.6%), or to strongly disagree (1<sup>st</sup>-5.5%; 2<sup>nd</sup>-3.8%). This means a decrease of 4.8% participants that disagreed and 1,7% that strongly disagreed. In short: we can observe a slight movement towards a more inclusive positioning regarding the students considered physically aggressive, along with a moderation of both more extreme positions: strongly agree (SA), and strongly disagree (SD).

Around 80% of the participants either agreed (1<sup>st</sup>-62.6%; 2<sup>nd</sup>-60.6%), or strongly agreed (1<sup>st</sup>-17.3%; 2<sup>nd</sup>-23.5%) with the presence, in regular classes, of students who frequently fail their exams. There is a decrease in 2% of the participants that considered they agreed and a higher increase of 6.2% participants who strongly agreed. A minority chose either disagreeing (1<sup>st</sup>-17.6%; 2<sup>nd</sup>-11.4%) or strongly disagreeing (1<sup>st</sup>-2.1%; 2<sup>nd</sup>-1.7%). There is a decrease of 6.2% participants that chose to disagree and a small decrease of 0.4% who strongly disagreed that these students should be in regular classes. These results also suggest an increase of the number of teachers and other educational agents that expressed more inclusive attitudes, after accomplishing their curricular unit(s) regarding inclusion.

Attitudes (N = 289)	Level of	1th Moment		2 <sup>nd</sup> Moment	
Attitudes (N = 289)	agreement	N	%	N	%
Students who need assistance with personal care	NA	2	0.7	2	0.7
should be in regular classes.	SD	10	3.5	5	1.7
-	D	68	23.5	50	17.3
	A	161	55.7	169	58.5
	SA	48	16.6	63	21.8
Students who are physically aggressive towards	NA	2	0.7	5	53 21.8   5 1.7   11 3.8   97 33.6   53 52.9
others should be in regular classes.	SD	16	5.5	11	3.8
	D	111	38.4	97	33.6
	Α	133	46.0	153	52.9
	SA	27	9.3	23	8.0
Students who frequently fail exams should be in	NA	1	0.3	8	2.8
regular classes.	SD	6	2.1	5	1.7
-	D	51	17.6	33	11.4
	A	181	62.6	175	60.6
	SA	50	17.3	68	23.5

### Table 4. Attitudes

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### Concerns

The results suggest a high level of concern towards IE, as shown in Table 5. The majority of these teachers, future teachers and other educational agents show a high level of concerns towards IE by choosing agreeing ( $1^{st}-60.9\%$ ;  $2^{nd}-54\%$ ), or strongly agreeing ( $1^{st}-28.4\%$ ;  $2^{nd}-36\%$ ) that they feel concerned if there would be inadequate resources and/or staff available to support inclusion. When confronting both moments, we observe a small decrease of 6.9% participants that agreed but an increase of 7.6%, which strongly agreed. There was only a minority of 8.3% participants that disagreed in both moments. A smaller minority (less than 2.5%) strongly disagreed ( $1^{st}-2.4\%$ ;  $2^{nd}-1.7\%$ ). Thus, results show a small decrease of 0.7% participants that considered that they strongly disagree, and illuminate that there is a raise in concerns towards the lack of resources between these two moments.

The majority of these teachers, future teachers, and other educational agents chose to agree (1<sup>st</sup>-52.6%; 2<sup>nd</sup>-51.2%), or to strongly agree (1<sup>st</sup>-36.3%; 2<sup>nd</sup>-32.9%) with felling concerns about not having the knowledge and skills to teach students with disabilities. These results show a decrease of 1.4% participants that chose to agree and 3.4% that strongly agreed. There was also a minority of less than 13% who disagreed in both moments (1<sup>st</sup>-9.3%; 2<sup>nd</sup>-12.5%), and even a smaller minority of less than 3.2% that strongly disagreed (1<sup>st</sup>-1.7%; 2<sup>nd</sup>-3.1%). The empirical evidences illuminate that 3.2% more participants disagreed and 1.4% more strongly disagreed. Thus, results show a decrease in the expressed concerns towards this question between these two moments.

A majority of more than 80% of the participants was concerned with the possibility that students with disabilities would not be accepted by the rest of the class. Some decided to agree (1<sup>st</sup>-50.2%; 2<sup>nd</sup>-55.4%) and others to strongly agree (1<sup>st</sup>-34.3%; 2<sup>nd</sup>-26.6%). When confronting both moments, there is an increase of 5.2% participants that admitted agreeing and a decrease of 7.7% participants that chose to strongly agree. A minority chose to disagree (1<sup>st</sup>-13.8%; 2<sup>nd</sup>-15.2%), and an even smaller minority to strongly disagree (1<sup>st</sup>-1.7%; 2<sup>nd</sup>-2.4%). Thus, we observe a small increase of 2.6% participants that disagreed and of 0.7% participants that strongly disagreed. Results suggest a slight decrease in the concerns towards students who would not be accepted by the rest of the class.

Concerns ( $N = 289$ )	Level of	1th Moment		2 <sup>nd</sup> Moment	
Concerns (IN – 289)	agreement	Ν	%	N	%
I am concerned that there will be inadequate	NA	0	0.0	0	0.0
resources/staff available to support inclusion.	SD	7	2.4	5	1.7
	D	24	8.3	24	8.3
	A	176	60.9	156	54.0
	SA	82	28.4	104	36.0
I am concerned that I do not have knowledge and	NA	0	0.0	1	0.3
skills required to teach students with disabilities.	SD	5	1.7	9	3.1
-	D	27	9.3	36	12.5
	Α	152	52.6	148	51.2
	SA	105	36.3	95	32.9
I am concerned that students with disabilities will	NA	0	0.0	1	0.3
not be accepted by the rest of the class.	SD	5	1.7	7	2.4
	D	40	13.8	44	15.2
	A	145	50.2	160	55.4
	SA	99	34.3	77	26.6

Table 5. Concerns	Tab	le 5	. Co	once	rns
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# 3. Discussion

Participants were mainly female, which is consistent with Portuguese distribution of gender for these professions, as there are more female than male teachers and other educational agents (INE, 2009). The majority was less than 29 years old. This was expected since we also considered undergraduate students and these are usually younger. They were at point of their career in which there is still a belief that attending teacher education will be important in order to have a better position in the labour market, particularly because teachers and other educational agents were experiencing more and more difficulties finding a job (Alves, 2005). A small majority of these participants stated they had previous interactions with a person with a disability, as reported in previous studies. As these were mainly younger professionals or future professionals it is possible that they had previous interactions with colleagues categorized as presenting SEN. This is possibly due to the changes in the Portuguese education legislation as these students started to have a clear right to learn in mainstream classes (ME, 1991). Although we observe only a small increase in the number of participants who assumed having previous interactions of this type, this is consistent with this study's time frame, as there were only three to five months between data collecting moments.

A considerable number of participants changed their positioning between moments, from having no training to having training. But as the criteria to select participants included that they were attending curricular units regarding IE, this is not an astonishing result. The number of participants who admitted having knowledge of legislation also increased considerably as corroborated in other studies (Forlin et. al, 2009; Forlin, Chambers, 2011). Thus, it is possible that an appropriation of knowledge on legislation about the education of students in SEN condition took place between these two moments, i.e., that legislation was analysed and discussed in these curricular units.

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The majority of these educational agents showed inclusive sentiments as mentioned in other studies (Forlin et al., 2010; Forlin et al., 2009). As these are future or already professionals in careers that include interacting with children, these results can be interpret as a promising step in order to develop further inclusive educational settings. There was a small increase of participants that assumed comfort sentiments. Forlin (2010) has suggested that the increase of inclusive sentiments is connected with the opportunity to meet a person with diverse needs. These participants possibly had the opportunity, between these two moments, to interact with a person in this condition, as previous results shown in Table 2 suggest. Training has also been reported to be connected to the development of more comfort sentiments (Forlin et al., 2009). Thus, when looking at the data presented in Table 2, it was also predictable that more participants would show comfort sentiments. Even if the majority assumed inclusive sentiments, results also suggested a non-desired increase of sentiments of fear. This corroborates a previous study that also illuminates a slight increase of these sentiments (Santos, 2008). Thus, the overall results show ambivalence towards a clear increase in inclusive sentiments.

Results illuminate that a small majority of these teachers, future and other educational agents showed inclusive attitudes. These results are coherent with previous studies (Forlin, Chambers, 2011; Forlin et al., 2010; Stella et al., 2007). For instance, Forlin and her associates (2007) suggested that inclusive attitudes are more likely to be expressed by younger teachers who reported they had previous interactions and training regarding students in a SEN condition. Although only a small majority of these participants showed inclusive attitudes towards students who need assistance with personal care and those who often fail their exams, they were even less willing to include, in mainstream classes, students who are seen as physically aggressive. These empirical evidences also emerged in previous studies, which made visible less inclusive attitudes towards those who are often seen as physically aggressive (Forlin et al., 2010; Santos, César, 2010; Stella et al., 2007). There were slightly more participants expressing inclusive attitudes between these three to five months. These results corroborate previous studies suggesting that a change towards more inclusive attitudes is possible, but still a very slow process, as it is usually observed in almost all changes (Santos, 2008; Santos, César, 2010; Santos, Hamido, 2009; Stella et al., 2007).

The empirical evidences show that the majority of the participants had concerns towards including students in a SEN condition. These results corroborate previous studies that also illuminate the existence of concerns towards the lack of adequate resources or knowledge and skills required to teach these students (Sandberg, Ottosson, 2010), and acceptance by the rest of the class (Sharma et al., 2007). Concerns towards the lack of knowledge and skills, and the acceptance, decreased as corroborated in another study conducted by Sharma and his associates (2008). Moreover, concerns towards the lack of resources increased. Similar evidences were also mentioned in a previous study developed by Forlin, Chambers (2011). It is possible that between these three to five months some discussions about the need of more resources and specialized staff had been produced in these curricular units. Thus, they allowed these teachers, future teachers and other educational agents to become more aware of the character-

istics of those students who need some specialized educational support (César, 2012).

# 4. Final remarks

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This study highlighted an overall non-inclusive positioning towards students in a SEN condition. Even though the majority of these participants presented inclusive sentiments, they also assumed moderate attitudes and a high level of concern towards IE. At the end of these three to five months, between their two answers to the SACIE scale, there were slightly more participants expressing inclusive attitudes. But the number of participants that changed towards expressing more inclusive sentiments and concerns was ambivalent. There was a considerable increase of participants that admitted having training focusing on the education of students with a disability, and also of those who assumed having knowledge of the local policy regarding these students. This evidence illuminates that the change in skills and knowledge was by far more considerable than the change regarding the sentiments, attitudes and concerns. For instance, even if more participants reported they had training after completing a curricular unit regarding IE, a high level of concerns towards not having the knowledge and skills required to teach students with disabilities still remained. A possible interpretation for this small impact of the curricular units on the sentiments, attitudes and concerns regarding IE could be the type of practices and tasks used by higher education teachers. But in order to go further in this interpretation we would need observation data from the classes of the curricular units. However, no one accepted our presence in these higher education classes. Thus, observational data could not be collected and this prevents us from going more in-depth in our interpretations.

It is also possible that teacher education regarding IE may still be focused on learning specific characteristics of some students, thus misleading teachers and future teachers to believe that they are not able to teach these students without the specialists' assistance (Slee, 2012). As previous researches suggested, the construction of broader inclusive educational settings is related with the teachers, future teachers and other educational agents' sentiments, attitudes and concerns towards IE (Forlin et al., 2009; Loreman et al., 2007). These are referred as being as important as knowledge and skills (Forlin, 2010). These results enlighten the ethical need to adequately address sentiments, attitudes and concerns while tackling skills and knowledge about IE.

Some inferences emerge from this study. First, a need for more pre- and inservice teacher education courses on IE, as there were only a few teacher education courses in Portugal including curricular units related with IE, and many of them were only optional units, which means that many teachers begin working without any specialized education on this subject. Secondly, the need to redesign curricular units that are more adjusted to these teachers, future teachers and other educational agents, particularly focusing them in the analysis of cases, in functional diagnosis and in intervention processes, as mentioned by César (2012).

We also assume a need for more research in this domain. For instance, stud-

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ies that also use interviews and observation of classes are quite important. But they are very rare particularly when higher education is concerned. But further results could be an essential contribution to (re)design curricular units on IE in order to achieve higher impacts on teachers' sentiments, attitudes and concerns, but also on their practices. We would also like to expand this study and to extend the time between the two moments of answering to the SACIE scale. It would be interesting to confront the results from this new study with the ones reported in this paper and to realise if there were further impacts.

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