

IMPLEMENTATION OF THE INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH (ICF) IN THE PORTUGUESE EDUCATIONAL SYSTEM: ATTITUDES AND TRAINING NEEDS OF SPECIAL EDUCATION TEACHERS'

Maria José Saragoça¹, Adelinda Araújo Candeias² & Ana Cristina Rosário³

¹ Research Centre in Education and Psychology, PhD Student in Science of Education (University of Evora, Portugal), mjsaragoca@gmail.com

² Research Centre in Education and Psychology, Department of Psychology (University of Evora, Portugal), aac@uevora.pt

³ Research Centre in Education and Psychology, Department of Psychology (University of Evora, Portugal), anacristinarosario@hotmail.com

Abstract

Since 2008, the International Classification of Functioning, Disability and Health - ICF (WHO, 2001) is the framework of reference in the assessment and intervention process with students with SEN, in the Portuguese educational system. As a consequence special education teachers' training needs emerged from it. In this study, we characterize the received training and the special education teachers' attitudes and training needs towards ICF. The sample consisted of 913 Portuguese special education teachers who responded to Attitudes Towards Training Questionnaire in ICF - ATTQ-ICF.

This study demonstrates that teachers' training on the use of the ICF should occur as soon as possible in their training and it should be extended to other experts involved in the educational process of the student. The need for more knowledge about the tools and methods to assess functioning, the knowledge about the eligibility criteria for special education and the definition of qualifiers based on the ICF classification system also emerged. Finally the discussion of case studies is also considered crucial in the training process.

In summary, a training model is needed that has a sufficient number of training hours; that includes training modalities which support teaching practice in a continuous way; that fosters discussion of the barriers to practical implementation of the ICF and finally, that includes a concrete case discussion.

Key-words: ICF, SEN, Attitudes, Teachers' Training, Special Education.

Introduction

In 1994, one of the focuses of the UNESCO Salamanca Statements on Inclusive Education was about the recruitment and training of educational personnel, stating that "appropriate preparation of all educational personnel stands out as a key factor in promoting progress towards inclusive schools." (p. 27)

In a 2007 report, the European Agency for Development in Special Needs Education (EADSNE) states that (initial, continuous and specialized) training constitutes itself as a fundamental way to give teachers the appropriate knowledge and skills, for example, on the positive attitudes towards difference, the information and tools to support the assessment and the consequent development of the IEP, among others (Watkins, 2007). Candeias (2009) also gives the teacher education a key role in the effectiveness of pedagogical work with students with Special Educational Needs (SEN), in particular regarding to specialized techniques of inclusive intervention and assessment. Similarly, the European Agency for Development in Special Needs Education (2011) provides some recommendations for the training of teachers and policy makers. It advocates the need to investigate the most suitable models regarding the content, the pedagogy and the assessment that will enable teachers towards inclusive practices (EADSNE, 2011, p. 75). Regarding policies, it incites to a comprehensive reform that would lead to the increase of inclusive schools and the sustainment of teachers' training for inclusion rise (EADSNE, 2011, p.79).

In the most recent recommendation on training for kindergarten, Primary and Secondary Education Teachers, the National Education Council (Conselho Nacional de Educação [NEC]) argues that this should focus on the various dimensions of professional development and that the influence of the training in the career progression should be diminished. It sustains too, that teachers who are waiting for a place to work or with precarious employment bonds should also be able to attend training (Recommendation. ° 4/2013).

In Portugal, with the Decree-Law No. 3/2008 of 7 January, the International Classification of Functioning, Disability and Health (ICF) has become the reference document on the assessment and intervention on pupils with SEN.

This fact has generated training needs in special education teachers and other teachers, in order to know the assessment and intervention model inherent to the ICF, as well as its operation in the educational system.

The ICF model and the underlying assessment and intervention

ICF is a document from the World Health Organization (WHO) which was approved in 2001 and whose official version in Portuguese dates from 2003.

Since it makes a biopsychosocial approach to the individual, trying to “provide a coherent view of different perspectives of health from a biological, individual and social perspective” (WHO, 2001, p. 20), this classification was chosen by the Ministry of Education (ME) as a framework reference in the process of assessment and intervention for students with SEN.

The assessment will be supported by the ICF (and the version for children and youth, ICF-CY) and it will examine the child or young person according to different points of view: components of functioning and disability and contextual factors, as well as the interactions established between them (General Directorate for Innovation and Curricular Development [Direção-Geral de Inovação e de Desenvolvimento Curricular, DGIDC], 2008). In order to do so, the contributions of several stakeholders, such as the classroom teacher/director of the class, special education teacher, career, social worker, therapist, psychologist, health services, operational assistants, and others to consider are essential to act as a multidisciplinary team. This team will be responsible to develop the whole process regarding the assessment of the student; they will have to determine the responsibilities and the educational measures to be applied and decide on what will be the basis for preparing the Individual Educational Program (IEP) to be approved by the Pedagogical Council and ratified by the Director of the School.

Teachers’ training for the implementation of the ICF in an educational context

Portuguese Studies

Given the new legal framework regarding specialized supports to students with SEN, the Ministry of Education promoted some briefings and direct monitoring in schools, as well as a Training Course in Special Education at national level, in collaboration with twenty five universities and polytechnics, covering all the country. This Training Course, which included only 2700 teachers (of about 5300), with and without specialized training, working on special education, lasted for 50 hours (GDICD, 2009).

Still, these actions seem not to have enabled teachers with the knowledge and skills required by recent legislation. A study commissioned by the Ministry of Education (External Evaluation of the Implementation of Decree-Law no. 3/2008 Project) revealed advantages and constraints on the use of the ICF in schools. The critics against it were related to the lack of “understanding of the reasons for its use in the assessment and

eligibility [of students with SEN]", "lack of professionals to assess and describe the body functions and structures" and "lack of training and assessment tools." (Simeonsson et al. 2010, p. 332). The constraints presented by the educational community in this study (lack of documents using ICF language, scarce collaboration of health professionals, few appropriate assessment tools, training needs) are consistent with the results of other studies (Candeias et al., 2009; Candeias, Rosário and Saragoça, 2013) and have pointed out the need to: (i) training in assessment – functioning domains and components that specify and deepen the ICF criteria, (ii) develop assessment tools and compile the existing ones and (iii) invest in teachers' training and other experts training regarding teamwork and time management areas. Another study, conducted with special education teachers from Alentejo region (N = 110), demonstrated that about 41% of teachers received training before starting to use the ICF and about 52% after they start using the ICF. The received training had an average duration of 25 hours (minimum of 5 hours and a maximum of 46 hours). However, teachers wanted the training had an average duration of 30 hours. 65% of the teachers expressed the need for more training in the ICF (Candeias, Saragoça & Gato, 2010).

International studies

Training in the use of the ICF has sparked interest in other countries besides Portugal. A quasi-experimental study, developed with 113 professionals from habilitation services, investigated the effects of training on the knowledge, understanding and using the ICF (Pless et al., 2009). After the conclusions, Pless et al. recommend that training in the use of the ICF should be adapted to different professional groups, depending on their level of knowledge of its instruments.

Italian studies developed by the Disability Italian Network (Leonardi et al., 2005), attest the usefulness of training in the ICF to clarify doubts on the correct way to apply the document.

In Japan, studies on the training materials and the use of the ICF in the field of special educational needs concluded that it is urgent to develop training materials for the use of that classification in practice with students with SEN. They also emphasize the need to develop different types of training (of a more expository character, such as workshops, online training, or others), using contents that suit the needs of the trainees (Tokunaga & Tanaka, 2009).

Given all the controversy surrounding the introduction of the ICF and the provided training, we considered of great relevance and timeliness to characterize the training needs, at national level, of the special education teachers towards the use of the ICF framework in the process of assessment and intervention with children and youth with SEN.

Aims of the study

The main goal of our study is to characterize the attitudes and the training needs of Portuguese special education teachers towards the use of ICF framework in the assessment and intervention process with children/youth with SEN.

Specific Aims

1 –To characterize the training received and the attitudes towards the training received by special education teachers in what it concerns the use of the ICF framework in the assessment and intervention process with children and young people with SEN;

2 – To understand the relationship between the characteristics of the received training, the attitudes towards the training (in terms of satisfaction with the training, training needs and the coverage of the training), in special education teachers and the personal, professional and institutional attributes of the participants (age, employment status, years of experience in special education, total number of students in the group of schools, number of students with SEN and the amount of hours of the received training).

Methodology

Sample

The target population for this study was the special education teachers who work in public education schools/groups of schools in Portugal. GDICD data (2009, p. 43) indicates the existence of 4,779 special education teachers in service and over 500 in service in Early Intervention, in total 5279 teachers.

The sample was taken randomly because it was used a process of gathering "which ensures that every element of the population has a calculable probability other than zero of being chosen for the sample." (Vicente, Reis & Ferreira, cit. by D 'Oliveira, 2002, p. 59). This type of sample has two considerable advantages: (i) the possibility to demonstrate the

representativeness of the sample and (ii) the ability to statistically estimate the level of confidence the results of the sample apply to the Universe (Hill & Hill 2009).

Characterization of the respondents

Participants (N=913) in this study range from 23 to 63 years; 24% are between 45 and 49 years; 17.3% are between 40 and 44 years and 17.1% among the 50 and 54. In the lower extremes we find teachers from 23 to 29 years old (9%) and 55 to 63 years old (5.3%).

As for the job situation, the vast majority of teachers who participated in the study already belong to a Group of Schools (58.6% of teachers have an effective link and continuity with the respective school and 28.6% are hired).

Regarding professional experience in special education, 37.8% of teachers who responded to the questionnaire have between 0 and five years of experience in that area while 21.6% have 6-10 years of experience in special education. 16.3% have 11 to 15 years of experience in special education. The percentages decrease in teachers who have 21-25 years of service (7.3%), 26-30 (3.4%) and 31-33 years (0.8%) of teaching in special education.

In what concerns the total number of students of the Group of Schools teachers participating in the study, the highest percentage (24.5%) teaches in groups of schools with over 1500 students, compared to fewer teachers working in Groups of Schools with less than 300 students (3.3%).

The vast majority of the respondents to the questionnaire (49.2%) teach in Groups of Schools with more than 45 pupils with permanent SEN. In Groups of Schools with 31 to 45 students with special education, 26.7% of the participants work in this study. the percentage of staff working in groups of schools with 15 to 30 students is lower (18.4%), and the percentage of teachers working in schools with less than 15 students supported by special education is even less.

Procedures

We started by asking permission to the monitoring system of surveys in school, of GDICD (in accordance to the Order number 15847/2007, DR 2nd series, number 140 of 23rd July), to apply the questionnaires among special education teachers, teaching in public schools in Portugal. The permission was granted.

Then we requested the help of the Regional Bureau of Education of Alentejo (Direcção Regional de Educação do Alentejo, a service of the Ministry of Education) and the other four Regional Bureaus of Education (Algarve, Lisbon and Tejo Valley, Central and North). After these collaborations have been accepted, each School and Group of Schools disseminated the questionnaire among their special education teachers who responded and sent back the document to an e-mail specifically created for this purpose.

The letters were sent in May 2011 and the deadline to send back the questionnaires was 10 June 2011.

The next step was data analysis with software for data processing SPSS - Statistics Data and Document and AMOS 21.

Care was taken to ensure confidentiality of the participant's responses and their anonymity.

Although arriving by e-mail, questionnaires were printed (without any reference to the author) and properly numbered.

Instrument

The instrument of this study was the Attitudes Towards Training Questionnaire - ICF - ATTQ-ICF (Saragoça, 2012). This questionnaire is about opinions, attitudes and perceptions of the respondents (subjective measures), which are presented as objective statements or items. The ATTQ-ICF consists of 38 items. The participant answers on a 4 points Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). This set of items is intended to: (i) know the limitations and potentials of the received training on the use of the ICF framework in the process of assessment and intervention with children and young people with SEN, (ii) know the training needs of special education teachers towards the use of the ICF framework in the process of assessment and intervention with children and youth with SEN.

This questionnaire has three dimensions: (1) Training needs - it includes 21 items that express needs for training on the ICF, the ICF contents to deepen and the working methods needed for its implementation, (2) satisfaction concerning the training received – it includes 8 items that express thoughts and feelings of empowerment and satisfaction, as well as expectations about the training on the ICF applicability, (3) the coverage of the training - includes 9 items on the modalities of training and its coverage in what concerns the target population. These dimensions explain 47.8% of the variance. The first dimension explains 30.8% of the variance. The second explains 9.5% and the third

explains 7.5%. This test gives us good evidence of internal consistency, with a Cronbach's alpha of 0.873, for the full scale and .0.946 for the first dimension, 0.715 for the second dimension and 0.740 for the third dimension.

The ATTQ-ICF was applied with a survey that had two parts: (i) 5 questions about the personal, professional and school characteristics of the participants, (ii) 30 questions about the characteristics of the training received in the use of ICF as a reference in the assessment and intervention process with children and youth with SEN.

Analysis and description of results

The characterization studies foreseen in the goals were made based on descriptive statistics, using the software for data processing SPSS - Statistics Data Document and AMOS 21.

Table 1 - Study of the relationship between personal, professional and institutional variables and the dimensions of Attitudes Towards ICF Questionnaire (ATTQ-ICF)

	Training Needs	Satisfaction with Training	Training Coverage
Age	-.047	-.032	.039
Professional Status	.063	.028	-.047
Number of years of Experience in Special Education Teaching	-.080*	-.005	.032
Number of Students of the Group of Schools	.042	.011	-.008
Number of Students with SEN	.014	-.029	-.036
Hours of Training	-.115**	.210**	.104**

In what concerns the connection between personal, professional and institutional variables (age, professional status, number of years of experience in Special Education Teaching, number of students of the Group of Schools where he/she teaches, number of students with SEN and number of hours of the received training) and the attitudes towards training in the ICF. It is worth to highlight the existence of a negative correlation between training needs and teachers professional experience, which indicates that more years of experience in special education teachers have, smaller training needs they demonstrate.

Table 2 - Study of the connection between the received training and institutional variables and the dimensions of Attitudes Towards ICF Questionnaire (ATTQ-ICF)

	Training Needs	Satisfaction with Training	Training Coverage
Initial Training	.019	.002	.024
Specialized Training	.032	-.156**	-.029
In Service Training	.166**	-.152**	-.036
Workshop	.150**	-.049	-.109**
Self-training	.076*	.039	-.108**
Training Organized by a School Team	.079	-.083	.007
Training Organized by the Regional Bureau of the Ministry of Education	.036	.083	-.072
Training Organized by the Ministry of Education	.102*	-.001	-.169**
Training Organized by Teachers' Training Centre	.030	-.081*	-.087*
Training Organized by Higher Education Schools	-.004	-.128**	-.072
Training involved Special Education Teachers	-.027	.051	-.065
Training involved Regular Education Teachers	-.008	-.068	-.115**
Training involved Operational Assistants	.003	-.119**	-.067
Training involved some experts	.034	-.046	-.079
Training involved Psychologists	.085*	.022	-.051
Training involved School Management	.023	.020	-.018
Training Accredited by the Council of Scientific and Pedagogical in-Service Training (CCPFC)	.067	-.167**	-.079*
Contents: Legal Framework	-.002	-.092*	-.112**
Contents: Basic Principles	.053	-.051	-.055
Contents: Structure of the ICF	.038	-.106**	-.054
Contents: Components of Functioning and Disability	.059	-.172**	-.098**
Contents: Components of Contextual Factors	.114**	-.202**	-.089*
Contents: Teamwork	.153**	-.231**	-.126**
Contents: Selection of the codes to be used	.135**	-.250**	-.090*
Contents: Qualifiers assignment	.122**	-.275**	-.083*
Assessment instruments provided	.138**	-.296**	-.004
Case Studies presented	.081*	-.192**	-.084*
Preparing Individual exercises	.130**	-.182**	-.072
Preparing Group Work	.084*	-.228**	-.041
Training focused on the Expository Nature	-.097*	.174**	.073

Concerning the satisfaction with the training received, there are negative and significant connections between some types of training. It includes the one that was provided by Teachers' Training Centres, by Higher Education Schools and accredited by the Council of Scientific and Pedagogical in-Service Training (CCPFC). The dissatisfaction may be related to the contents taught in training, since there is a negative correlation with almost all items related to them. Regarding the coverage of the training,

there is a positive correlation with the amount of hours of received training, indicating that the more hours of training teachers had, greater coverage and higher value they found in the training.

Table 3 - Study of the connection between the received training and the personal, professional and institutional variables

	Age	Professional Status	Number of years of Experience in Special Education Teaching	Number of Students of the Group of Schools	Number of Students with SEN
Initial Training	-.077*	.023	-.093*	.049	.050
Specialized Training	.409**	-.491**	.425**	.076*	.149**
In Service Training	-.237**	.285**	-.285**	-.059	-.068
Workshop	-.120**	.180**	-.215**	.061	-.025
Self-training	-.140**	.191**	-.180**	-.047	.004
Training Organized by a School Team	-.102*	.089*	-.119**	-.086	-.100*
Training Organized by the Regional Bureau of the Ministry of Education	-.212**	.320**	-.272**	.080	.010
Training Organized by the Ministry of Education	-.269**	.289**	-.314**	.115**	.061
Training Organized by Teachers' Training Centre.	-.189**	.202**	-.200**	-.107*	-.070
Training Organized by Higher Education Schools	.192**	-.222**	.191**	-.005	.052
Training involved Special Education Teachers	-.011	.049	-.022	-.013	.032
Training involved Regular Education Teachers	-.011	-.035	.013	.012	.099*
Training involved Operational Assistants	.017	-.034	.023	.033	.132**
Training involved some experts	-.018	-.004	-.024	.056	.085*
Training involved Psychologists	-.061	.074	-.077	.010	.140**
Training involved School Management	-.102*	.085	-.047	-.046	.005
Training Accredited by the Council of Scientific and Pedagogical in-Service Training (CCPFC)	-.184**	.237**	-.168**	-.047	-.040
Contents: Legal Framework	-.008	.015	.000	.071	.009
Contents: Basic Principles	.003	.040	-.012	.020	.013
Contents: Structure of the ICF	.011	.031	.010	.006	-.001
Contents: Components of Functioning and Disability	.022	.016	-.001	.032	.064
Contents: Components of Contextual Factors	-.001	.040	-.037	.016	.054
Contents: Teamwork	-.010	.057	-.050	-.030	.059
Contents: Selection of the codes to be used	-.100**	.079*	-.098**	-.072	-.004
Contents: Qualifiers assignment	-.060	.039	-.069	-.019	.029
Assessment instruments provided	.001	-.073	.051	.009	.053
Case Studies presented	-.064	.075*	-.060	-.102**	-.055
Preparing Individual exercises	-.068	.105**	-.087*	-.011	-.016

Preparing Group Work	-.073	.086*	-.122**	-.050	-.012
Training focused on the Expository Nature	.077	-.080*	.081*	.093*	.035

In what concerns the connection between the training received and the personal, professional and institutional variables, we highlight the significant and negative correlations between the independent variables such as age and number of years of professional experience and the type of training performed. The older and the more years of professional experience subjects teachers have, the less training they received either in their initial training either in in-service training, workshops or self-training they had. The same is true regarding the organizers of the training, that is, the older and more experienced in teaching in special education, the fewer teachers attended training organized either by the School teams, either by Regional Bureau of the Ministry of Education, the Ministry of Education or Teacher' Training Centres.

Likewise, we emphasize that the older and more experienced teachers are those who had fewer training accredited by CSPST. These teachers were trained on ICF particularly within their specialist training delivered by a higher education institution. It also seems to have been those who were trained using a more expository nature (as it can be seen by the existing positive correlations).

The professional status of teachers has also a strong positive and significant connection with the type of attended training (in-service training, workshops, self-training), the organizers of this training, as well as some of the core contents in such training contexts (selection of the codes to be used, case studies and individual and group exercises).

Finally, it is important to point out that the intensity of the presence of students with permanent SEN in the group of schools in which the teacher practices his professional activity, seems to be associated with the intensity of training hours in the specialization of teachers and a wider range of professionals involved in training, such as regular education teachers, operational assistants, speech therapists, physiotherapists and psychologists.

In order to understand if one could speak in predictive effects of the independent variables related to attitudes towards the received training, we sought to determine the possible effects of personal, professional and institutional variables over the attitudes towards training on ICF. To this end, we studied the significance of the effect of the independent variables (age, professional status, number of years of experience in special

education, number of students of the group of schools, number of students with SEN and hours of received training) on the results ATTQ-ICF through a multiple linear regression with parameters estimation by the maximum likelihood method implemented in AMOS 21.

Figure 1 shows the graphical output of the fitted model, with the standardized coefficients. In this model, the higher regression coefficient is between the number of hours of received training and the dimension "satisfaction" of ATTQ-ICF (.21). The adjusted model explains only 2% of the variability of the "need for training", 5% of the "satisfaction" and 1% of the "coverage".

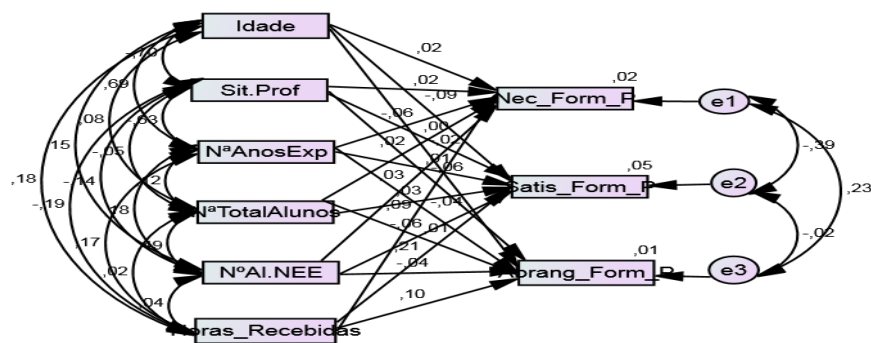


Figure 1. Bivariate multiple linear regression model between attitudes towards training on ICF expressed in terms of training needs (Nec_Form_P), satisfaction with training (Satis_Form_P), and scope and usefulness of training (Abrang_Form_P), depending on age (Idade), professional status (Sit. Prof.), number of years of experience in special education (N.º Anos Exp.), number of students of the group of schools (N.º Total Alunos), number of students with SEN (N.º Al. NEE) and hours of received training (Horas_Recebidas). Only the trajectory satisfaction with training←hours of received training (Satis_Form_P←Horas_Recebidas) is statistically significant ($p < 0.001$).

Consulting the output "Estimates", we found that only the path between "hours of received training" (Horas_Recebidas) and "satisfaction" (Satis_Form_P) has a non-standardized coefficient that is statistically significant, for the usual levels of significance ($p < .001$). By contrast, the trajectories' coefficients of the remaining independent variables and the results of ATTQ-ICF are not statistically significant for the usual levels of significance.

We also tested the existence of multi-collinearity. No predictor presents VIF (Variance Inflation Factor) values greater than 5, thus confirming the absence of multi-collinearity between the independent variables in the model.

These results enlighten the importance teachers give to training and the satisfaction deriving from it, including the applicability of learnt contents in the teaching activity: the ability to describe the functioning profile of the student, or to develop an IEP, or the usefulness of the provided instruments.

In summary, from the analysis of the correlations, we find that teachers showing less training needs are those with greater experience in special education. The dissatisfaction expressed by teachers towards training seems to be due to the content discussed over there. The variables age and experience in special education appear related to the type of received training, and the older and more experienced teachers are, less training (in service or accredited) they received from CSPST.

There is a predictive effect of the amount of hours on received training and the satisfaction, sense of competence and usefulness of such training. It stresses the importance of continuous training, in continuity and focused on content, instrumentation and its practical applicability.

Discussion

With this study, it was possible to characterize the training already received, the satisfaction attitudes, the need and the scope towards ICF training by the Portuguese Special Education teachers. On the first level of analysis, it was highlighted that the emergence of training needs in this area should occur on the initial teacher training on one hand, and should be extended to other professionals such as psychologists, regular teachers and others, on the other hand. It was also highlighted the need for more knowledge in terms of assessment instruments and methods, differentiation between eligible and non-eligible students for special education, allocation of qualifiers and discussion of case studies.

On a second level of analysis, a model of satisfaction emerges with the training which highlights the power of the hours of training. It stresses the importance of in-service training and coaching, as we now explain.

We assume in this work that the study of attitudes and needs in teacher training is a prerequisite for proper intervention, i.e., to provide to those teachers the training in types, forms, contents and activities best suited to the quality of their practice. It is important to match the "supply" to the "demand" of training, trying to adjust the given training to the desired training (Rodrigues & Esteves, 1993).

This perspective of needs analysis conducts and evaluates the action, upon which it is possible to plan. It also enables greater involvement of the trainees since their expectations, their interests and their difficulties are being taken into account. On the other hand, a perspective of "lifelong learning" emphasizes that the academic education and the initial vocational training do not enable teachers with all the knowledge and skills they will need throughout their career (CCE, 2007). So in addition to initial training, all teachers have to conduct periodic training.

This training can be of various forms or formats and should focus on content and practices. In the case of the Special Education teachers studied here, it seems to be urgent a training in continuity that allows further abilities on the applicability of the assessment model focused on functioning in teaching activities, as well as training skills in the description of the functioning profile of the student, the preparation of IEP and the use of assessment tools that complement the use of the ICF.

Hence it appears that teachers' satisfaction with the training and their needs for more training time is due to the development of instrumental skills involving the practical modalities and reflexive training.

In short, this study demonstrates that Portuguese special education teachers still evidence some resistance in the use of the ICF as a frame of reference in the assessment and intervention with students with SEN. This may occur, largely, because of the small number of hours of received training as well as the contents of the training and the training implementation methods. A model of satisfaction emerges with the training that states that the more hours teachers have of training on the ICF and the bio-psycho-social model that sustains it, the more they tend to express greater satisfaction about the use and usefulness of students' for special education referral attitudes through the ICF.

Consistent with studies in other countries, this study also showed that the emerging training needs are indicative of expectations of deepening the content and development of practical skills such as discussion of practical cases, knowledge of assessment tools and assessment methods that help to characterize the functioning profile of the students, in line with the bio-psycho-social model proposed by the ICF.

Finally, we need to emphasize the limitations associated to the use of the method of gathering data via questionnaire. On one hand it allows us to collect information from a large group of teachers (913, about 20% of the 5279 special education teachers), revealing major lines of interpretation of attitudes, satisfaction and the needs of teachers, but on the other hand it does not allow to interpret in depth the collected information.

It is in this sense that in future studies we propose to select a small group from the participants in this larger study and to interview them about their attitudes towards the implementation of the ICF framework in education.

We intend to follow that same group of teachers through a development-oriented skills training, demonstrating the potential of the document when the training is appropriate, and seeking to understand the changeability of teachers' attitudes during this in-service training process.

We expect to achieve more elaborate, complex and assertive ways of using the ICF, which are essential to underpin the assessment and the intervention planning of students with SEN.

To this end, training based on a coaching model may be an appropriate response once it is "a systematic process of learning, focusing on the present situation and change-oriented (...)." (Pérez, 2009, p. 17). Recent studies have also demonstrated the usefulness and advantages of this training model in education and amongst the respective educational agents (Schraepen, 2011; Bright & Crockett, 2012; Knight & van Nieuwerburgh, 2012).

So, there is a need to provide special education teachers, with regular education teachers and others involved in the process of assessment and intervention with students with SEN with training activities adjusted to their interests and needs, which take on a continued basis and in continuity, encouraging greater knowledge and practices in a reflective way and the professional and personal development.

References

- European Agency for Development in Special Needs Education [EADSNE]. (2011). *Teacher Education for Inclusion across Europe – Challenges and Opportunities*. Odense, Denmark: EADSNE
- Bright, D. e Crockett A. (2012). Training combined with coaching can make a significant difference in job performance and satisfaction. *Coaching: an International Journal of Theory, Research and Practice*, 5:1, 4-21.
- Candeias, A. A. (2009). Avaliação inclusiva - Uma avaliação centrada na compreensão do potencial de desenvolvimento [Inclusive assessment – An assessment focused on the understanding of the development potential]. In A. A. Candeias (Coord.), *Educação inclusiva: concepções e práticas [Inclusive Education: conceptions and practices]* (pp. 21-37). Évora: CIEP - Centro de Investigação em Educação e Psicologia – Universidade de Évora.

- Candeias, A. A., Rosário, A. C., Saragoça, M. J., Rebocho, M., Pastor, G., Coincas, J., e Rocha, O. (2009, Maio). Challenges to educational assessment and intervention: Reflections on the experience of implementation of ICF in Portugal. Paper presented at the International Conference - Changing Practices in Inclusive Schools, Universidade de Évora, Évora - Portugal. Abstract retrieved from http://www.irisconference.uevora.pt/doc/Livro_Resumos.pdf
- Candeias, A. A., Saragoça, M. J. & Gato, A. (2010, September). Attitudes à l'égard de la CIF dans les équipes de l'enseignement spécial au Portugal. [Attitudes towards ICF within special education teams in Portugal]. Document présenté au Symposium International: Handicap et classifications: concepts, applications et pratiques professionnelles. Lausanne, Suisse.
- Candeias, A. A., Rosário, A. C. e Saragoça, M. J. (2013). La mise en place de la CIF dans le système éducatif portugais: sa pertinence selon le point de vue de professionnels de l'éducation [ICF operationalization in the Portuguese education system: its relevance from education professionals point of view]. *ALTER - European Journal of Disability Research/Revue Européenne de Recherche sur le Handicap*, 7, 32-45.
- Comissão das Comunidades Europeias (2007). *Melhorar a qualidade da formação académica e profissional dos docentes*. Comunicação da Comissão ao Conselho e ao Parlamento Europeu [Improving the quality of teacher education. Communication from the Commission to the Council and the European Parliament], Brussels, 3 August. Retrieved from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0392:FIN:PT:PDF>
- Decreto-Lei n.º 3/2008, de 7 de Janeiro [Decree-Law No. 3/2008 of 7th January]. *Diário da República. 1ª Série. N.º 4*. Ministério da Educação. Lisboa.
- D' Oliveira, T. (2002). *Teses e dissertações: Recomendações para a elaboração e estruturação de trabalhos científicos* [Thesis and dissertations: Recommendations for the development and structuring of scientific studies]. Lisboa: RH Editora.
- Direcção-Geral de Inovação e de Desenvolvimento Curricular [DGIDC]. (2008). *Educação Especial, manual de apoio à prática* [Special Education, practice support guide]. Lisboa: Ministério da Educação.
- Direcção-Geral de Inovação e de Desenvolvimento Curricular [DGIDC]. (2009). *Desenvolvimento da educação inclusiva: Da retórica à prática. Resultados do plano de acção 2005-2009* [Development of inclusive education: From rhetoric to practice. Results of the 2005-2009 action plan]. Estoril: Autor.

- Foddy, W. (1996). *Como perguntar: Teoria e prática da construção de perguntas em entrevistas e questionários* [Constructing questions for interviews and questionnaires: theory and practice in social research]. Oeiras: Celta Editora.
- Freixo, M. J. V. (2010). *Metodologia científica - Fundamentos, métodos e técnicas* [Scientific methodology - Fundamentals, methods and techniques] (2ª ed.). Lisboa: Instituto Piaget.
- Hill, M. M., & Hill, A. (2009). *Investigação por questionário* [Research by a questionnaire] (2ª ed.). Lisboa: Edições Sílabo.
- Knight, J. e van Nieuwerburgh, C. (2012). Instructional coaching: a focus on practice. *Coaching: an International Journal of Theory, Research and Practice*, 5:2, 100-112.
- Leonardi, M., Bickenbach, J., Raggi, A., Sala, M., Guzzon, P., Valsecchi, M. R., Martinuzzi, A. (2005). Training on the International Classification of Functioning, Disability and Health (ICF): The ICF-DIN basic and the ICF-DIN advanced course developed by the Disability Italian Network. *The Journal of Headache and Pain*, 6, 159-164.
- Pérez, J. F. B. (2009). *Coaching para docentes. Motivar para o sucesso* [Coaching for teachers. Motivating for success]. Porto: Porto Editora.
- Pless, M., Ibragimova, N., Adolfsson, M., Björck-Akesson, E., e Granlund, M. (2009). Evaluation of in-service training in using the ICF and ICF version for children and youth. *Journal of Rehabilitation Medicine*, 41, 451-458.
- Quivy, R., e Campenhoudt, L.V. (1998). *Manual de investigação em ciências sociais* [Research guide in social sciences]. (2ª ed.). Lisboa: Gradiva.
- Recomendação n.º 4/2013, de 17 de maio de 2013 [Recommendation n.º 4/2013, 17th May 2013] . *Diário da República. 2.ª Série. N.º 95*. Conselho Nacional de Educação. Lisboa.
- Rodrigues, A., e Esteves, M. (1993). *A análise de necessidades na formação de professores* [Needs analysis in teachers training]. Porto: Porto Editora.
- Saragoça, M. J. (2012). *Estudo da caracterização das necessidades de formação dos docentes de educação especial face à utilização do referencial CIF-CJ no âmbito do processo de avaliação e intervenção em crianças/jovens com NEE* [Characterization Study of Special Education Teachers' Training Needs Towards the Use of ICF-CY Framework in the Assessment and Intervention Process With Children and Youth With SEN] (Dissertação de Mestrado não publicada [Master's Thesis not published]). Universidade de Évora, Évora.

- Schraepen, B. (2011). Constructing inclusive coaching, in: Lebeer, J., Candeias, A.A., &Grácio, L. *With a different glance. Dynamic Assessment and Functioning of Children Oriented at Development & Inclusive Learning*. Antwerpen/Apeldoorn: Garant, pp. 153-164.
- Simeonsson, R. J., Ferreira, M. S., Maia, M., Pinheiro, S., Tavares, A. e Alves, S. (2010). *Projecto da Avaliação Externa da Implementação do Decreto-Lei n.º 3/2008. Relatório final [External Evaluation of the Implementation of Decree-Law no. 3/2008 Project. Final report]*. Retrieved from:
<http://www.dgidec.min-edu.pt/educacaoespecial/index.php?s=directorio&pid=6>
- Tokunaga, A. e Tanaka, K. (2009). *Implementation of Development Training Materials to Utilize ICF-CY for Special Needs Education (SNE) in Japan*. Paper presented at Meeting of the WHO collaborating centres for the family of international classifications. 10-16 October. Seoul, Republic of Korea. Consultado em:
http://www.who.int/classifications/network/WHOFIC2009_D035p_Tokunaga.pdf
- Tuckman, B. W. (2000). *Manual de investigação em educação [Conducting Educational Research]*. Lisboa: Fundação Calouste Gulbenkian.
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (1994). *The Salamanca Statement and Framework for action on Special Needs Education. World conference on Special Needs Education: access and quality*. Salamanca, Spain.
- Watkins, A. (Ed.). (2007). *Assessment in Inclusive Settings: Key Issues for Policy and Practice*. Odense, Denmark: European Agency for Development in Special Needs Education.
- World Health Organization [WHO]. (2001). *ICF - International Classification of Functioning, Disability and Health*. Geneva: World Health Organization.