

## Portfolios as an Assessment Tool of Learning and Competences from Students with SEN<sup>1</sup>

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The new paradigm for education with its focus on knowledge and competences requires adequate methodologies of evaluation from the acquisition of knowledge and the development of personal, social and technical competences. The portfolios are systematic collections of work done by students with guidance and support from their teachers and may serve as a basis to analyze the continuity of the learning process in terms of effort and performance improvement. Through reflections on the learning process, students with SEN and teachers may understand the motivations, abilities, needs and competences developed in the course of learning.

This study was developed in the context of the identification of good practices of assessment that improves the inclusion of students with SEN. The aim of the present study was to investigate how portfolio could be a useful tool of assessment and intervention in continuity, as a way to improve a continuous comprehension from student's needs and strength, in order to organize more specific and efficient interventions based in dynamic, functional and continuous assessment.

This study presents a case study based in the analysis of the scholar portfolio from a student with SEN. Content analysis shows the importance of the portfolio as an assessment tool that improves more efficient intervention with SEN students. Portfolios' dynamic, functional, continuous and descriptive characteristics allow a more profound understanding from learning process and competences development, facilitate instructional decision making and contribute to better understand the teacher's role on the assessment-intervention-assessment approach.

**Keywords:** Assessment; Portfolios, Learning process, Competences, Special Educational Needs

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## Definition and Objectives of Portfolio

The portfolios are systematic collections of work done by students with guidance and support from their teachers and may serve as a basis to analyze the continuity of the learning process in terms of effort and performance improvement.

In this work we adopt a definition of portfolios as a compendium of materials documenting and demonstrating a person's accomplishments and career readiness. As a consequence, this tool is a collection of works used to document, monitor and evaluate performances. In this sense, "portfolios embody an organized, purposeful, longitudinal collection of student work that tell a story of the student's efforts, progress, or achievement in a given area. They may also assess the achievement of program objectives" (Swigonsky, Ward, Mama, Rodgers, Belicose, 2006, p. 813). So, these longitudinal characteristics of the portfolios bring the possibility to follow the process of learning and development, step by step, with learning disabilities students.

Thus, on the one hand portfolios represent a collection of student work done over time. On the other hand, portfolios are flexible tools to support inclusive assessment and intervention because they could be used as nonselective or selective tools, as Swigonski et al. (2006, pp. 815-816) proposes:

i) "Nonselective portfolios collect all of the student's work in a given course, chronologically dated and clearly labelled". So they provide assess to a complete perspective of the student's work and progress and students have the opportunity to look at and reflect on everything they have been doing.

ii) Selective Portfolios include "materials chosen from a more comprehensive collection of student materials". Thus this type of tool contains work samples that represent student growth over time, or representational portfolios which contain examples of best work without the inclusion of successive drafts."

Specifically, in special education, the portfolio acts as a tool that can be done by the student, throughout their teaching-learning (Student Portfolio) or by the teacher, as part of his speech or educational training and/or professional development (Teacher Portfolio).

The objectives of the Portfolio's use and the key concepts of assessment that should be taken into account are described in Figure 1. There, we may also find some theoretical constructs that underpin the development process of the Portfolio as a tool for assessment and training and its relationship with formative and summative purposes (Klenowski, Askew & Carnell 2006).

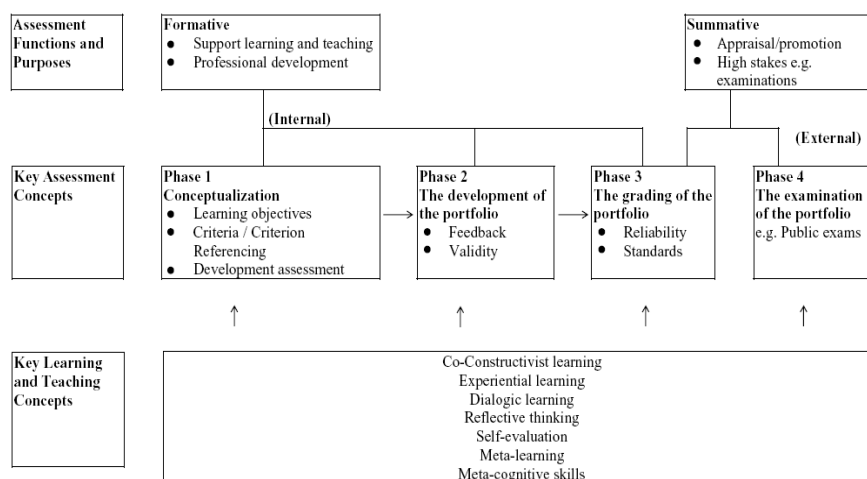


Figure 1. A framework for using portfolios for learning and assessment

Source: Klenowski, Askew & Carnell, (2006, p 268)

In fact, the objectives of the student's portfolio may be multiple. One of these objectives relates to the metacognitive abilities, which can be achieved by asking students to evaluate themselves, watching their progress reflected in their achievements, assessing and becoming aware of their strengths and weaknesses and commenting on their strategies. Another objective is to increase students' motivation, involving them in their own training by choosing some evidence of their learning, reflecting on their successes, which can be viewed by others. The Portfolio is also used for the evaluation of students, with the advantage of not being assessed in a given time (static), but a formative assessment, continuous and dynamic, designed to measure student progress throughout the learning phase and allowing the teacher to adjust pedagogical interventions along this route. However, the use of Portfolios to support the development of teaching and learning skills and dynamic, requires the presence of 'mentors' to help the understanding of some key concepts in this process, for instance, the relationship between learning objectives and success criteria (Klenowski, 2002a; Black & Wiliam, 2003; apud by Klenowski et al., 2006). If the learning portfolio is being increasingly used in the evaluation process, there must be an explicit and ongoing discussion with users about the reasons for their use and models of learning and skills development in that focus. We will discuss this interrelation further on.

### **The Use of Portfolios with Students that Experience Barriers to their Development**

In which concerns Special Education, some educators advocate portfolio assessment and instruction as useful. For Salend (apud by Salvia et al, 2007) portfolios help teachers taking decisions and recommendations on instructional and educational programs and mastery of IEP goals.

We may say that portfolios have two general purposes: instruction and assessment, as Swingonski (2006, pp. 814-815) proposes:

1. "Instructional benefits come from students' close examination of their work, from comparison of changes and growth over time, from their identification of personal strengths and weaknesses through the application of criteria defining quality, as well as goal setting, and identifying the best or favourite works" and also encourages personal reflection, one of the most important purposes.
2. "Assessment benefits come from the collection of multiple samples of student work over time. This collection provides a broader, more in-depth look at what students know and can do; bases assessment on more authentic work; provides a supplement to report cards and standardized tests; and provides a better way to communicate student progress.

On the whole, several authors (e.g., Salvia et al., 2007, pp. 252-253) who defend portfolios' assessment point out six important elements:

- 1 - "Targets valued outcomes for assessment – include those that require higher levels of understanding (analysis, synthesis and evaluation); those that require applying specific processes or strategies to reach answers and those that are

complex and challenging;”

2 - “Uses tasks that mirror work in the real world – authentic assessments require students to solve the types of problems found in the real world;”

3 - “Encourages cooperation among learners and between teacher and student – outcomes to be assessed should include products or performances created by groups of students, as well as by individual students;”

4 - “Uses multiple dimensions to evaluate student work” – teachers should evaluate not only content knowledge but also content-specific strategies, methods of inquiry and work processes that are essential components of student learning;

5 - “Encourages student reflection – students should think critically about what they and their peers have created or accomplished and they should strive to improve their products. Teachers should encourage them to revise and polish their work;”

6 - Integrates assessment and instruction – assessment should do more than provide accurate information about student performance on a continuous basis. It should also motivate students and facilitate teaching.”

As we have already said, one of the main purposes of portfolio’s assessment is to encourage personal reflection and also instruction and assessment.

Swigonski et al., (2006, p. 815) have identified various ways in which portfolios can be used to support those items:

1 - “To provide students with an opportunity to reflect on their performance;

2 - To help students develop their consciousness of the constructive role that various modes of writing play in their own psychological-intellectual development;

3 - To encourage students to choose for themselves what is or is not important in their performance;

4 - To help students see connections across learning experiences and courses;

5 - To provide a concrete basis for open, learner-centered discussions between students and their teachers and advisors, to explore what is being learned;

6 - To help students recognize that learning is a cumulative process;

7 - To identify areas of strength and weakness in students’ performance and to plan ways to optimize strengths and eliminate weaknesses;

8 - To provide students with a concrete, conscious sense of their accomplishments and growth;

9 - To help advisors and students to identify gaps or problems in students’ preparation.”

Thus, as we have seen, portfolios may include two types of data, as Jensen and Saylor (1994, p. 345) propose:

- Instructionally focused product data (the collection of student materials);

- Assessment-focused evaluation data (student and instructor assessments of those materials; progress, growth and development they represent).

Included on those types of data are: artefacts (records of student activities, projects and papers that showed evidence of student accomplishment), journal

entries (non-reflective descriptions of student activities throughout the course), course evaluations (comments made by students in the portfolios, which assessed the value of learning experiences that were part of the course).

### **The Present Study**

The aim of the present study was to investigate how portfolio could be a useful tool of assessment and intervention in continuity, i.e., to assessment-intervention-assessment, as a way to improve a continuous comprehension from student's needs and strenght, in order to organize more specific and efficient interventions based in dynamic, functional and continuous assessment.

### **METHOD**

This study presents a case study based in the analysis of the scholar portfolio from a student with SEN. A case study should be used when attempting to observe and describe, on a detailed and deeply way, a particular phenomenon (Yin, 2003). According to Tesch (Bill, 2000), our analysis is interpretive, since it aims to analyze in detail all the data, in order to organize them and classify into categories that can explore and explain the phenomenon under study, i.e. the product concerned. In all case studies, it is essential to collect enough information, as well as ensuring that this information comes from multiple sources of information. We describe the stages of this case study.

#### *Participant*

A 12 year-old student with Special Educational Needs. He was characterized by having *reading, writing and spatial orientation problems, classified as Dislexya and Disorthography, using DSM IV-TR* (American Psychological Association, 2002).

#### *Procedures*

Our "case" refers to the portfolio analysis of a student with SEN. This way, according to Yin (2003), the case study is constructed on three phases, which should guide the work of investigators:

*Step 1 - Selection of the case and development of protocol for data collection.*

We developed a protocol, which contains the procedures, instruments and general rules to be adopted in the study.

In this phase, we have done the prior contact by phone with school and family. Then we organized a meeting to outline the ethical standards and ethics on which it would hold a consultation with the student's portfolio. After receiving the permission, we drawn up the guidelines for collecting the information in the documents that would make up the portfolio of the student. After a consultation of the student's portfolio, it was found that data should be collected at school evaluation reports (evaluation reports with school classifications at the end of each academic year), plans and programs of educational intervention, psychological reports, medical reports and records of observations and meetings with the student parents. In order to organize the collection of data and their analysis, we prepared a script with two categories *i)*

School history and ii) Current situation. Each one of these dimensions was structured into three sub-categories Assessment, Intervention, Assessment.

*Step 2 - Collecting and analyzing data*

We went on collecting the information through the analysis of documents that make up the portfolio of the student. We preferred to analyze all school, psychological and medical reports available. The use of these instruments is a way of obtaining data from different types, which provide the possibility of cross-checking. The analysis of the reports was done by three researchers from the team who carried out individually the written record of selected information.

*Step 3 - Data analysis and interpretation of results*

It seeks to make the categorization and classification of data, considering the initial propositions of the study in order to develop the conclusions, the recommendations and the implications based on the results. In what regards our study, we proceeded to the analysis and discussion of results, more precisely, through the analysis of the report written by three researchers. The content analysis was conducted in a joint registration narrative only as a function of the pre-established script content analysis, i.e., with two categories: 1 - School history and 2 - Current situation. Each category was structured into three sub-categories: Assessment, Intervention, Assessment.

*Data Analysis and Content Analysis*

*1. Scholar history*

*i) Assessment*

*Luís was evaluated for the first time when he was 8 years old. The evaluation used the Wechsler Intelligence Scale and several tests for reading, writing and calculations. The results showed that Luís had a high intellectual ability (I.Q >120). However, he showed serious disorders in handwriting, orthography and spatial orientation. His social and emotional behaviour shows difficulties in interacting with his peers, as well as showing his feelings. He rejects friendship as a feeling. Luís shows a strong interest and investment on Math and has an excellent performance in activities that use oral expression and logical- mathematical thinking.*

*ii) Intervention*

*Even with a high cognitive ability and an excellent logical-mathematical thinking, teachers choose to focus their intervention in the student's reading and writing problems. Luís had even worn glasses with prismatic lenses, special insoles to support his feet and special equipments (table, chair, etc.) to support spatial problems. For 3 years, Luís attended an intensive programmer to correct his problems related with reading, writing and spatial orientation.*

*iii) Assessment*

*During this period, his social and emotional behaviour became progressively more unadjusted. He lost his interest in school, and his ability of attention and concentration dropped every day. He had slow progresses in writing. There was a strong involvement of time from teachers, parents and extra sessions of*

*work played for the parents outside school. However, his behaviour was getting worst. Teachers and psychologist thought he was hyperactive and had a lack of attention disorder. His parents had done “everything”: Luís difficulties led to questioning about his ability both at math and at other areas, and his behaviour compromised his learning and success.*

## *2. Present situation*

### *i) Assessment*

*When Luís was 12 years old, Special Educational Team from his school was changed and Special Educational Teacher began to questioning the situation from Luís: What should we do? How should we go against the ‘installed’ trend, in order to understand the particularly difficult areas of this student? How can we help him to overcome them?*

### *ii) Intervention*

*Special Educational Teacher started to establish dialogues with this student on those areas we knew it would fascinate him very much: the universe and everything inherent. They recorded the conversations and let him write about all he had talked about.*

*Luís was in his world, the world of those who treated him seriously and supported him in discovering and learning what he appreciated most. He was very interested in science and the environment. The talks went through politics, religion, sports, nature, among other topics of his interest.*

*Writing became a regular exercise. Writing about everything and filling the gaps in writing, namely handwriting and spelling. His handwriting improved so fast we assumed that, with some attention, the student could write correctly and with less incorrect spelling.*

*What was missing? Team work among Special Educational teacher, regular class teachers, tutor, family and Luís, to improve the whole perspective on the needs and strengths from the boy.*

*The teacher of Special Education shared with class tutor and parents her concern about this student's situation, particularly in terms of writing and behaviour. From then on, class teachers, especially the science teacher, also got involved. The feedback from some teachers about the student's behaviour was necessary, highlighting points of difficulty; easy points and the family. The parents went on monitoring the process through telephone conversations and meetings with the teachers directly involved in the project. At first these talks occurred weekly. Later they became quarterly.*

*The Head of the Class, the Science and the Special Education teachers decided, together with the student, to establish a more challenging task – making him organize a study outing for his class:*

- The student established contacts to the destination, arranged the schedules, informed his colleagues and prepared the information for parents and their consent;*
- He drew up the leaflet, with timing and relevant information about the trip;*
- He was evaluated in the outing itself by his colleagues (criterion level of satisfaction and interest of the visit). His colleagues attributed him “very*

*satisfactory” and applauded at the end.*

*iii) Assessment*

*The boy grew up, but the difficulty in interacting with his peers continued. He could not look them in the eyes... Emotions were something that had got stuck.*

- *... Then we started dealing with topics like solidarity, human rights, family, the importance of friends, the pain of loss.*
- *We read literary works such as the Little Prince*
- *... and gradually Luís awoke to the others, he began to worry about pleasing some teachers and began to help his colleagues.*
- *... a teacher shared her experience and confessed “today Luís touched me: he helped his colleagues, explaining the exercises step by step and very patiently...*
- *his parents showed satisfaction with the change, stressing at home that he was different too. And they expressed how they would like him to go on with this type of follow up to complete basic education.*

*The results were generally positive, the student is integrated and he is more responsible; the others began to have a relevant role in his life. Monitoring and cooperation from the parents was an added value in the whole process.*

To conclude, the documents composing the portfolio seem to be crucial to improve assessment in continuity. Teachers could combine a retrospective view with a prospective view of needs and strengths. Intervention, based in continuous assessment, improves a holistic, dynamic and functional comprehension of the student and its potential. This profound understanding of students’ needs improves teachers’ dialogue and teamwork, as well as cooperation between teachers, family and student, which was effective and crucial for the success of the intervention.

### **Discussion and Conclusions**

This analysis shows the importance of the portfolio as an assessment tool that improves more efficient intervention with SEN students. Portfolios’ dynamic, functional, continuous and descriptive characteristics allow a more profound understanding from learning process and competences development, facilitates instructional decision making and contributes to better understand the teacher’s role on the assessment-intervention-assessment approach. Another important issue that this study points up is the possibilities that a portfolio offer to illustrate the development of thought processes and how it will gradually diminish, in order to increase student’s autonomy to recognize and consciously reflect critically on theoretical knowledge and its applications.

However, there are some concerns regarding assessment-intervention-assessment based in portfolios for students with disabilities. In fact, we do agree with Salvia et al. (2007) when they point some questions about this issue:

- How are portfolio contents related to the criterion used to decide whether a student is making satisfactory progress?
- How are portfolio contents related to the criterion used to decide whether a student should be referred to ascertain eligibility for special education?
- How can a student’s portfolio be used to take decisions about inclusion?

- How can a student's portfolio be used to determine current instructional levels?
- How can a student's portfolio be used to determine rates of acquisition and retention?

As Salvia et al. (2007, p. 262) propose, "insensitivity to change" and "infrequency of assessment" are two other important issues concerning portfolio assessment. Assessment must be sufficiently sensitive to small but important changes. However, it is difficult to show empirical evidence for the ability of portfolio scoring systems to detect important changes in student development. Thus, these difficulties shown by the portfolio scoring systems have, as a consequence, limitations on detecting important changes. Then teachers cannot gauge the effectiveness of their instruction over relatively short periods of time.

The frequency with which assessments can be conducted is also an important issue. As portfolios frequently contain extended projects, teachers may find it difficult to use them in order to adjust instruction on a daily or weekly basis. It is not possible to detect who is making progresses and who doesn't. Teachers cannot understand the progresses and the failures of their students.

Other limitations of portfolios' assessment are their efficiency about time and money and additional training needs. Due to the type of materials included, assessment based on portfolio is hard and requires a lot of the teacher's time. And time is money. Teachers also need additional training in portfolio assessment (Candeias, Silva, Rosário, Grácio, Rebocho & Saragoça, in press). Although all the presented limitations, portfolio assessment is useful in children and young students with disabilities, as Salvia et al. (2007) already proposed. This kind of assessment promotes autonomy, self-regulation and reflection. The permanent dialogue established between teacher and their students, in all the instruction and assessment process, allows to reflect on what have changed in their work; what students have learned; the reasons of choosing one or other sample from the portfolio for reflection; what could be added, deleted or changed. Traditional assessments are focused on what students are not learning. Portfolios' assessment values each one of the students and their own characteristics.

In practice, this approach to assessment and intervention improves a new look on how to make more inclusive education, for all children. New methods to assess and intervene improve the creation of inclusive classrooms and go through a change in teachers' beliefs, especially for their willingness and ability to teach children who traditionally would not be under their care and guardianship. In addition, it is also important to teach teachers how to design inclusive classrooms and to improve inclusive practices of assessment and intervention that promote the type of strategies that will increase the development of all students. The school course only makes sense as a concrete step, which serves as an instrument to promote personal and social development of all children.

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