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**Is assessment for learning possible in early school years?**

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Abstract

Nowadays, most countries consider assessment for learning a challenge towards a more inclusive school. Their adherence to the idea may be consensual but the practices don’t seem to express this desire yet. Many teachers have been wondering whether there is an appropriate minimum age for students to reflect upon their actions, along with their teacher, so to overcome difficulties.

This article reports a study that seeks to understand assessment practices, developed for five and eight year old students, particularly in the use of feedback in the development of portfolios and of worksheets in the classroom, as well as the contributions of those learning practices.

This study followed an interpretative approach and was carried out in Portugal with a group of kindergarten children and a group of Grade 2 children. The data was collected from classroom observations, students’ interviews and documents analyses.

The final results evidence that, regardless of age, students are capable of reflecting on their present actions and of deciding about future actions. However, while five year old students consider the feedback as part of their learning process, eight year old students are pretty much aware of what is right or wrong. School experience seems to contribute effectively to a certain idea of assessment and of more traditional forms of communication in teaching.

Thus, assessment for learning can be developed with students of any age and the sooner they start to experience it for themselves the better it will be for their learning.

*Keywords*: assessment for learning, feedback, kindergarten, primary school

1. Introduction

With society’s development, at political, economical, social and ethical level new needs and demands are made upon School. The increasingly rapid evolution of technology determines the need of lifetime learning, as well as a great capacity of adaptation, resolution of new situations, and dealing with complex circumstances, characterized

by problems, which remained undefined (Westera, 2001). It is in this framework, that assessment for learning acquires great importance. But if it is true that in the different actual documents concerning assessment this modality of assessment is appreciated, it is equally correct that the field practice are not yet able to follow the prescribed. (Black &William, 1998). Adhesion to new assessment perspectives is easier than the unification of solid assessment practices (Barreira & Pinto, 2005). Among the reasons given sometimes by teachers emerges the idea, that to make an assessment for learning, it is necessary that the students show a certain maturity. We consider that among the assessment practices for learning one should highlight feedback as a key element (Sadler, 1989). Therefore we tried to understand if assessment for learning is possible with students from early school years. Following questions were formulated in particular:

- How do preschoolers use feedback for learning?

- How do primary students use feedback for learning?

-Are there differences between preschoolers and primary students? Which reasons may explain these

differences, if they exist?

**2.** **Assessment for learning**

Assessment for learning attracts in many countries the attentions of both the educative authorities and the teachers, in order to develop another assessment culture, which represents an inclusion factor of students at school and not an exclusion one. On account of this fact, a great amount of work is to understand how assessment can really become a helping tool for the learning of every student. This concern leads to another one, which is fundamental for the one who teaches and consists of the understanding of what a student does, when he/she learns, how to support him/her in difficult moments, how and when to take actions in this direction. One of the theoretical approaches that may help us to find some useful hints for the raised issues is the Activity Theory (Engeström, 1999; Leontiev, 1978;Vygotsky, 1978). Learning is for these authors a cultural activity, socially contextualized, mediated by the use of cultural artifacts and tools. Considering this, learning cannot be taken as a simple and linear act, that leads an individual from ignorance to knowledge (Santos & Pinto, 2006), but as a social and personal construction process, in which others, particularly the teacher plays the major role. This role is however not the one of transmitting knowledge anymore, but of mediating, of a tools founder (Engeström, 1999) of a critical friend (Jorro, 2010) in this complex process of building a sense and giving a meaning to the learning objects, which enables one to act upon and understand the surrounding world. As one can understand in this conceptual framework the learning subject plays the role of a lead actor of his own learning , but this role implies, at the same time, a great ability of self knowledge in this process, knowing how to deal with ones strongest points, but also being aware of the weakest ones, in order to overcome them. The acquisition of this skill is not a spontaneous process, but learning in collaboration with someone, who already knows. Now, it is precisely at this point, that assessment for learning gets a new meaning and can be an essential tool in this whole process. According to Galpérine (1980) every single learning is based on an activity, which is essentially composed by three moments: the understanding of the situation, that requires the use of the conceptual knowledge, so that one understands what is intended or necessary, the action itself, that is what the use of knowledge, not only conceptual but also instrumental implies, and at last the achievement of the product, which is the resultant ending of this whole process.

Traditionally, assessment only dealt with one aspect of learning, the result. These practices, essentially of verification of the accordance with what was expected and what was produced, really did not help learning at all. It is by the change of this perspective that assessment may be changed and get mixed up with a learning strategy. If a student is asked about the way he/she acted, what the action is concerned and the reason for it, one is constructing a frame reflection not only about the action itself, but also about its assumptions. This practice shapes a Metacognition context (Brunner, 1996), which is fundamental for the learning itself, while considered a cultural act. According to this, assessment is in an everyday classroom, along with the learning activities, enabling learning support, when the difficulty arises. So we understand that assessment for learning is characterized by the finality of understanding and supporting the student, which takes place in everyday work done inside the classroom. There are particularly some factors that may influence learning positively, such as the cognitive complexity of the assessment tasks, the feedback, the transparencies of the assessment criteria and studentś́ involvement in the assessment process (Segers, Dochy & Cascallar, 2003). Therefore feedback is an important way to achieve assessment for learning. In this article feedback is perceived as the information that shows how apart the “performed” is from the “expected”, trying to minimize that difference (Black & Wiliam, 1998). However, giving feedback is not a learning guarantee. It is the quality of feedback and not just the quantity that deserves our attention (Sadler, 1998). The type of feedback and the way it is given can be differentially effective (Hattie & Timperley, 2007). Feedback can help improving the students´ learning performance when: (i) feedback focuses on the task and not on the individual, (ii) more detailed information is given on how to proceed; (iii) the student is given time in advance to think and work on a certain task; and (iv) the work hasn’t been subject to any rating (Santos, 2002; William, 1999). In order to make learning endure over time, Jorro (2000) refers how important it is that the students identifies their errors, correct them and reaches the correct answers, on their own. However, such conditions are not by themselves a guarantee of success. The syntactic form and the feedback’s extent, the type of student and their perceptions are factors that may influence the effectiveness of this assessment practice (Santos & Pinto, 2009). Another factor that may influence the effectiveness of feedback is studentś attitude towards assessment. There is a relationship marked by the complexity between studentś attitude towards assessment and learning and towards education (Brookhart & Bronowicz, 2003; Stobard, 2007).

**3. Methodology**

This study is based on two research studies, carried out by an interpretative research methodology. The studies were carried out over one academic year, 2009/2010, in Portugal. They were developed under the scope of project AREA[[1]](#endnote-1) and developed by two teachers, Teresa Bondoso, a preschool teacher, and Joana Lima, a primary teacher. The participants of the studies were, respectively, 24 five year old students, belonging to a preschool class, and 17 students from seven to eight years of age. All the assessment previously developed with the primary school students was done by evaluation worksheets, quoted from 0-100% with qualitative information (insufficient – very good). The written feedback they were used to, was based on symbolism, including sometimes comments, which did not provide useful information for the improvement of their written productions. It mostly included veridictive information (Jorro, 2000), a comment like ″This is all wrong. Rub it out and write it again″.

The data was gathered through classroom observation, students’ interviews (both with audio recording and its total transcription) and analyses of the documents produced by the students. In the case of the group students from the primary school, all of the students’ productions included two versions. The first version, not yet graded, had received some written feedback by the teacher. The feedback provided always aimed to be focused on the task and not on the students’ specific trends (Black & Wiliam, 1998) and to be mainly of a descriptive nature (Gipps, 1999).

The data analysis considered the following categories: the *effectiveness of feedback* and *the studentś attitude towards feedback.*

**4. Results**

***4.1* *Feedback in the context of a portfolio***

Among the different tasks performed in the classroom, we have the development of a portfolio. Once a month the teacher sits together with the child, in a special place, chosen for this purpose and they analyze together the finished works, that the child has included in the portfolio. According to certain identified needs, the teacher offers him new challenges, which find expression in a work project for about a month.

This is Bruno’s case:

Teacher: I would like to agree with you something for you to learn, how to do during next month, until we

talk again about the portfolio. Do you agree?

Bruno: Yes, I do.

Teacher: What would you like to learn?

Bruno: I would like to be a chief.

Teacher: What is necessary for you to be a good chief?

Bruno: I would need to be sure, that the children in my classroom like me.

Teacher: Well, and what can you do to be sure that they like you?

Bruno: I have to know what is inside their hearts.

Teacher: And how are you going to find that out?

Bruno: I am going to make a camera to see their hearts from the inside.

During the following week Bruno makes a project of a ″heart watching machine″, building it with his teacherś help. Afterwards he passes it to every child in the classroom to examine the heart. Being suggested by his teacher, he registers the final results on a chart. Along the development of this work, the teacher helps through feedback, the student to develop his work and at the same time to integrate the different curricular areas. Bruno works drawing, plastic expression, mathematics and writing.

What concerns André, he faces the fact that he still hits his schoolmates. He makes a deal with his teacher that he is going to ″be a friend″. During the conversation with the teacher, they agree to use a register instrument, which enables to take notice of the actions he will be performing with other children of the classroom.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| I am learning to be a friend  (a secret between us) | | | | | | | | | |
| Monday | | Tuesday | | Wednesday | | Thursday | | Friday | |
| AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| **X** |  |  |  |  | **X** |  |  |  |  |
| **X** | **X** |  |  |  |  |  |  |  |  |
|  | **X** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**X - I bit**

In other situations the teacher goes even further. Starting with what the children decide to do, other tasks considered to be important to work on their difficulties are negotiated with them. Sometimes the teacher supports this work through an individual work plan:

|  |  |  |  |
| --- | --- | --- | --- |
|  | I want to do | Teresa wants me to do | Justification |
| First  week | Draw butterfly pictures and make up stories about butterflies. | Assessment of the exercise-books. | This child showed difficulties in speaking of his own work. Therefore I suggested him the assessment of the exercise-books. |
| Second week | See books and tell stories to Sarah. | Text writing | According to the written code, I proposed him text writing. |
| Third  week | Make a book about different houses. | Use of the activity book. | To learn how to organize time better, I suggested him the making of an activity book. |

This way of working feedback, allows students to develop an assessment conception for learning, as Pedro a five year old explains to us:

Teacher: What is assessment for?

Pedro: To show people what we have learned.

Teacher: Which people?

Pedro: The ones of our classroom.

Teacher: And for you, does it make sense?

Pedro: Yes, it makes me learn.

Teacher: How do you learn, when we evaluate?

Pedro: I learn things when I correct them.

Teacher: And do you think it is important to evaluate to know, if we are right or wrong?

Pedro: Oh, this is not important.

***4.2 Accounting worksheets Feedback in the Classroom***

Feedback was given the first and the second version of a group of worksheets performed in the classroom. The teacher took the first version home, registered feedback and handed it over on the next lesson, so that the students could improve their productions. The first version was evaluated by the teacher, nevertheless this has not been communicated to the students.

One of the worksheets (worksheet A) was a fable for the students to interpret. One of the questions was based on the selection of a fitting title for the fable, considering the four options given – a) “Fatness is beautifulness”; b) “The rich are happy”; c) “There is no price for freedom”; and d) “Man’s best friend” – The written feedback was: “Dog is man’s best friend, but the fable is not about friendship, reconsider the chosen title. This type of written feedback was not considered effective, because it not only had unknown terms for the students (“reconsider”), but it also did not include detailed instructions on the way the student could actually improve his answer. So, in order to lead students to correct this answer, it was necessary to encourage them orally to re-read the fable and to ask questions, after reading, such as: Is friendship the most important value of the fable?” and “Why did the wolf not accept moving to the farm with the dog? “In other words, it was necessary to complete the written feedback with the oral one. To the students, who revealed orthographic mistakes in their answers was given the following written feedback: “Re-read and correct”. In particular cases it was written: “How do we read the “s” between vowels? ”. The majority of the students corrected all of their orthographic mistakes, being a clear evidence that the second feedback, once more explicit in the identification of the mistake, was more effective.

Another worksheet (worksheet B) explored a mathematical situation of standards. It was asked in particular, to indicate the geometric form, which would come after and its order, explaining the stream of thought. In this group of questions, it was opted whenever necessary to give only one feedback for the three questions, since they all were linked to each other and a wrong answer of the first one or a wrong interpretation of the text would mislead the students in the remaining answers. In one of the cases the local of the mistake was pointed out and following was written: “check the register of your thought. You should check question … and question …”. Next to the question ... it was written: “Check your answer”. The student corrected it. To the student that misconceived the statement, following written feedback was given: “I want to know what comes after 19”. The student corrected the three answers. This written feedback is similar to the one that would be given orally, using simple and accessible vocabulary for the student, which enabled him/her to understand, what was really asked.

It should however be pointed out, that expressions as “explain how you thought” or “explain by words” were not clear enough for the students. For example, one of the students writes the following answer to the feedback “explain how you thought”: “I used my head”. In some cases, the students requested the presence of the teacher, so that the written indications on their work could be read, similarly to what happened during the second phase of task A.

According to Table 1 it can be stated that the data show that the written feedback reflects a significant improvement of the second phase evaluation, especially what task B is concerned. All students, without exception,

improved their productions in the second version.

Table 1: Quality evolution of the students’ productions

|  |  |  |  |
| --- | --- | --- | --- |
| Task A | | Task B | |
| 1st version | 2nd version | 1st version | 2nd version |
| 70% | 90% | 49% | 79% |

Despite of the successful outcome of feedback in the improvement of students’ productions, the way it is seen by them appears to be still very marked by their former evaluative experiences. Some students` resistance of leaving the teacher’s feedback in their productions is evidence of this. They tried to erase the written comments, because they were not pleased with the fact that they appeared “scratched out”, written with a different handwriting or with questions, which they could not answer. Others associated feedback in a summative logic, repeating the signalized word a certain number of times.

**5. Conclusions**

The results evidence that, regardless of age, assessment for learning is possible, since students are capable of reflecting on their present actions and of deciding about future actions. The written and oral feedback contributed, in both groups of students for their learning, playing the role of a useful learning mediator (Engeström, 1999). In particular, they contributed to the improvement of the students’ productions and/or development of their work projects. Therefore it is necessary to have an intentional practice developed by the teacher and availability to find adequate answers to their students’ specificity (Santos & Pinto, 2006).

However, while five year old students consider the feedback as part of their learning process, eight year old students are pretty much aware of what is right or wrong. Students used to a mostly summative evaluation, tend to value written feedback to improve their mark, devaluating the advantages for their learning (Stobard, 2007). Only a continued practice of assessment for learning, allows a change of students’ attitudes towards assessment. School experience seems to contribute effectively to a certain idea of assessment and of more traditional forms of communication in teaching. These ideas may be responsible for students’ first reluctance towards a new assessment culture in the classroom. This requires from the teachers persistence in the development of these more innovative practices (Black & Wiliam, 2006). Thus, assessment for learning can be developed with students of any age and the sooner they start to experience it for themselves, the better it will be for their learning.

**References**

Barreira, C. & Pinto, J. (2005). A investigação em Portugal sobre a avaliação das aprendizagens dos alunos (1990-2005). *Investigar em Educação, 4*, 21-105.

Black, P. & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education, 5*(1), 7-74.

Black, P. & Wiliam, D. (2006). The reliability of assessments. In J. Gardner (Ed.), *Assessment and learning* (pp. 119-131). London: SAGE Publications Ltd.

Brookhart, S. & Bronowicz, D. (2003). "I don´t çike writing. It makes my fingers hurt": students talk about their classroom assessments. *Assessment in Education, 10*(2), 221-242.

Brunner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.

Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Miettinen & R. L. Punamäki (Eds.), *Perspectives on activity theory*. Cambridge, UK: . Cambridge University Press.

Galpérine, P. L. (1980) Essai sur la formation par étapes des actions et des concepts. In N. F., Talyzina, (Ed.), *De l'enseignement programmé à la programmation de la connaissance* (pp. 167-183Lille). Lille: P. U. de Lille.

Gipps, C. (1999). Socio-cultural aspects of assessment. *Review of Research in Education, 24*, 355-392.

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81-112.

Jorro, A. (2000). *L´enseignant et l´évaluation. Des gestes évaluatifs en question*. Bruxelles: De Boeck Université.

Jorro, A. (2010). *L 'évaluation des apprentissages dans une approche formative*. Conference, Lisbon, July, 2010.

Leontiev, A. N. (1978). *Activity, consciousness and personality*. Englewood Cliffs, NJ: Prentice-Hall.

Sadler, D. R. (1989). Formative assessment and the design of instructional systems. *Instructional Science, 18*, 119-144.

Santos, L. (2002). Auto-avaliação regulada: porquê, o quê e como? In P. Abrantes & F. Araújo (Orgs.), *Avaliação das Aprendizagens. Das concepções às práticas* (pp. 75-84). Lisboa: Ministério da Educação, Departamento do Ensino Básico.

Santos, L. & Pinto, L. (2009). Lights and shadows of feedback in mathematics learning. *Proceedings of the 33rd Conference of International Group for the Psychology of Mathematics Education*, 5, 49-56.

Segers, M.; Dochy, F. & Cascallar, E. (2003). The era of assessment engineering. In M. Segers, F. Dochy & E. Cascallar (Eds.), *Optimising new modes of assessment: in search of qualities and standards* (pp. 1-12). Dordrecht: Kluwer Academic Publishers.

Stobard, G. (2007). Attitudes and assessment. *Assessment in Education: Principles, Policy & Practice, 15*(1), 1-2.

Vygotsky, L. S. (1978). *Mind in society. The development of higher psychology processes*. Cambridge, MA: Havard University Press.

Westera, W. (2001). Competences in education: A confusion of tongues. *Journal Curriculum Studies, 33(1)*, 75-88.

Wiliam, D. (1999). Formative assessment in mathematics. *Equals: Mathematics and Special Educational Needs, 5*(3), 8-11.

1. The AREA project (Monitoring Assessment in Teaching and Learning) is a research project funded by the Science and Technology Foundation (number PTDC/CED/64970/2006). Its main purposes are to develop, implement and study assessment practices which can contribute for learning. Further information can be found in http://area.fc.ul [↑](#endnote-ref-1)