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## ABSTRACT

This study investigated Brazilian elementary teachers' decision making processes when evaluating and grading students' written work. Teachers analyzed the written work of four students who were unknown to them, then produced reports indicating: their perception of the author's grade level and reasons for believing it was that grade level; positive and negative aspects of the written piece; and the grade they would give for the work. Results indicated that the most visible characteristics of the texts (those most closely related to teaching contents and correction) determined how consistently teachers rated the students' grade levels and the grades that they gave to the texts. There were four evaluative patterns corresponding to: teachers producing reports that favored more formal and surface elements (orthography, punctuation, and paragraphs) and those related to such factors as theme development, cohesiveness, consistency, style, and genre; identification of reports that emphasized the formal aspects of the texts rather than the more subjective aspects; prevalence of informal or subjective aspects of the text over formal ones; and teachers' claims about needing to get to know the students and the contextual factors in order to be able to produce an adequate report. (Contains 13 references.) (SM)

## HOW TEACHERS ASSESS AND ATTRIBUTE GRADES: REPORT ON A TEACHING AND LEARNING EXPERIENCE

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This work is about the classroom assessment practices involved in teachers' decision-making processes when analyzing student's writings material (dissertations). Its objective was to analyze a specific teaching activity performed by teachers in everyday classroom, that is, to assess students' work, judge its worth and attribute marks (grades).

It is related to a broader applied research project developed by researchers from the Universidade Federal de São Carlos in partnership with teachers from the initial grades of an elementary school in a medium-size town in São Paulo State, Brazil. The project axis is the investigation of teachers' professional learning and development processes.

The goals of the broader project are twofold: to build a knowledge base on teachers' learning and professional development processes and to define when, where and how the participants intervene in these processes with the objective of refining this knowledge.

A constructive-collaborative approach (Cole & Knowles, 1993) has been adopted, which presumes that the improvement in teaching quality to overcome school and student failure implies natural and voluntary participation of teachers in the discussion of alternative propositions and aims to

accomplish such goals. This approach implies, among other assumptions:

- a) the concept of teachers' professional development considered as part of a continuum that seeks to establish connections between initial and continuing teacher education;
- b) the valuing of teachers' professional development processes, of contextual and organizational aspects, directed towards change and combining individual and collective dimensions of the pedagogical activity;
- c) the construction of teaching knowledge as a result of the dialectical relation between the individual and the collective;
- d) the inquiry-reflection principle (Knowles, Cole, & Presswood, 1994), which facilitates teachers' understanding of their pedagogical practice, considers the collaborative nature of roles impersonated by their peers, acknowledges the specificity of the pedagogical practice as requiring non-standardized solutions, admits the influence of teachers' conceptions in the understanding of classroom events and their teaching practice and enables the development of personal and professional autonomy, among other aspects;
- e) *... new forms of partnership research [...] based on fundamental assumptions on the importance of mutuality in purpose, interpretation, and reporting, and on the potency of multiple perspectives. It is also implicit in this model the understanding that each partner in the inquiry process contributes particular and important expertise, and that the relationship between the classroom teacher and the university researcher, for example, is multifaceted and **not** powerfully hierarchical (Cole & Knowles, 1993:478);*
- f) the need to establish a base knowledge that makes professional development possible;

- g) the consideration of processes of pedagogical knowledge content construction in different subject matters;
- h) the perception of the school as a learning organization;
- i) the construction of teachers' professional empowerment processes;
- j) the consideration of translations and transpositions of educational public policies related to schools and classrooms.

### **1. Theoretical Orientation**

In the broader project we have adopted - as theoretical orientation to understand the teachers pedagogical practices - the literature related to teacher thinking, to 'reflection as a conceptual orientation' (Valli, 1992) and to knowledge base itself (Shulman, 1986, 1987; Schoenfeld, 1997).

Learning to teach is a complex process that involves, among other aspects, affective, cognitive, ethical, and performance-related factors (Cole & Knowles, 1993).

Studies on teachers' thinking, reflective teaching, knowledge base for teaching and tacit/practical theories etc., though based on different theoretical and methodological orientations, have pointed to the constructive dimension of professional knowledge, i.e., to the fact that this knowledge is developed during teaching, and to the personal dimension added to this constructive process.

Studies have also indicated that teachers' knowledge, beliefs, and goals are fundamental elements when determining how they act in the classroom and why they act in such way. Learning to teach is a developmental process and teachers need time and resources to modify their practice. The modifications that teachers need to accomplish to be able to contemplate new social and political demands go beyond

learning new techniques and imply conceptual revisions of educational and instructional processes and of the practice itself.

Based on these principles, part of the activities carried out along the broader project referred to the study of teachers' conceptions about a variety of aspects related to their teaching practice. The basic assumption was that teachers, upon describing, analyzing and inferring from classroom events, would create their own pedagogical principles through reflective processes.

By considering the theme "evaluation" this work presupposes that changes are frequently necessary in classroom pedagogical practices for the evaluation process to be part of a successful learning process (Shepard, 2000).

Traditionally, when talking about evaluation, we primarily refer to results obtained by students as compared to the objectives set at different school levels. Zabala (1998) believes that evaluation has been considered as a sanctioning and qualifying tool, in which the subject of evaluation is the student and the student alone, and the object of evaluation is the learning accomplished according to certain minimal objectives set to all students (p. 195).

According to Perrenoud (1999) it would be more convenient to speak of "formative observation" instead of evaluation because the latter concept is associated with measures, ratings, school reports and the idea of transmissible and codifiable information that accounts for knowledge (p.104). On the other hand, "formative observation" will allow teachers to direct and optimize ongoing learning without having to worry about rating, certifying and selecting (p.104), because what matters is their coordinating function. What counts in this type of observation is the

theoretical frame that guides teachers and governs their interpretation of that that is observable (p.105).

Perrenoud(1999) maintains that teachers, after teaching defined contents, usually carry out evaluations by means of procedures related to learning assessment and the qualitative or non-qualitative evaluation of students' performance. Later, these marks constitute profiles or averages that contribute to the decision about students' promotion or certification at the end of a study period, grade or cycle. In general, when carrying out this process teachers assess strictly individual performances from standard and closed questions. The "risk of arbitrariness" increases as they assess qualitatively different productions or more open questions (p.73). In the case of dissertations, the marks often reflect the evaluator's tastes and caprices regarding students' competencies (p.73).

Apparently, two variables seem to have a significant weight in assessment processes carried out by teachers: the student's individual process and the perception of progress along the teaching-learning process (Mead (1992)). From the conception that the mark/score is a visible feature with respect to the quality of students' productions, this author showed that this activity had special characteristics such as: it was randomic; it presented alternative systems; it demanded a set of information so as not to harm students' future learning nor arise feelings of uneasiness on the teacher's side.

Other aspects, also considered in this work, were defined by Mead (1992) as constituting the bases adopted by teachers in assessment and grading processes.

On the one hand there is the *objective counting* of correct and wrong answers. In this case teachers seem to take

into account *internal inference sources* when they count the mistakes or evaluate the cleanliness of some homework, for instance. These internal inference sources constitute a set of visible, obvious and concrete evidences that prevent strange factors from coloring the judgment and accompany the assessment process.

On the other hand there is the *qualitative count*, which involves inferring from the student's effort and understanding degree in relation to a given content. In this specific case, the student's past performance - such as his/her past school performance - or the time of the year the work assessed refers to seems to play a crucial role. Thus, if it occurs at the beginning of a given teaching-learning process, teachers seem to be more tolerant toward the type of student production. Contrarily, if students are in a more advanced phase, teachers are less tolerant toward mistakes. This qualitative count seems to derive from *external inference sources*, which may consist of more subjective and intuitive aspects that transcend existing evidences in the assessed production. In this case, for instance, the students' general behavior, personality traits and comprehension degree may be considered when carrying out a more global evaluation on students' performance.

## **2. Methodological Orientations**

### **2.1. Research question and issues under investigation**

Considering the nature of the broader project and the theoretical and methodological orientation it is supported by - which by itself implies a decision-making process -, during the project's first year of development strategies for research and intervention were constructed, which the group

named 'teaching and learning experiences'. They have been used throughout the years of this project's existence, and can be defined as:

*[...] structured situations of teaching and learning, planned by the researchers and schoolteachers, implemented by the schoolteachers, collectively discussed, originating from issues chosen by them, individually or by the group. These are experiences with a beginning, middle, and an end—and may be developed by small groups or by each teacher with his/her students. These experiences are born from practical difficulties related to different subject matters; challenges, which may arise from school daily activities; and public policies (Mizukami et al., 1998, p. 3).*

The present study is specifically about one of these teaching and learning experiences, which we have called "Assessment of the Teaching-Learning Processes". One of its primary goals is to obtain answers to the following research questions:

*What information on students' production is considered relevant by teachers of initial grades(marks) in the evaluation and grading process? What is its nature? Is the same information considered relevant by many teachers?*

## **2.2. Participants**

This teaching and learning experience involved 27 professionals from the elementary school (first four grades) *Escola Luiz Augusto de Oliveira* - its principal, pedagogical coordinator and 25 teachers. All participants were female; 6 out of the 25 schoolteachers taught first grade, 6 second grade, 6 third grade and 7 fourth grade.



### **2.3. Design and methodology**

This work focuses on investigating the teachers' responses to the task of assessing and attributing marks to the written production of four students. After careful analysis of one of the dissertations considered, each teacher handed in a written report indicating, with arguments, the grade attended by the author, the positive and negative aspects of his/her production and attributed a mark.

The dissertations evaluated were produced by students from another school, because it was believed that it would be interesting to follow how the teachers being investigated would behave toward the production of unknown students. The dissertations subjected to the teachers' scrutiny were selected by a Portuguese Language teacher from a larger set of dissertations produced by students from different school grades. There were chosen dissertations that expressed different levels of thought and reflection and that showed several patterns of orthography, punctuation, use of capital letters, structuring and consistency.

Considering the nature of the research problem, this work may be characterized as having a qualitative approach whose data (teachers' written answers to a set of questions) were given a descriptive-analytical treatment.

### **3. Assessment patterns shown by the teachers and intervening variables**

The general analysis of the data obtained indicates that the most visible characteristics of the texts, those more closely related to teaching contents and correction, seem at first to determine a greater consistency of the evaluative

tendencies verified among the teachers as to the indication of the school grades the text authors were thought to be in as well as the marks corresponding to the quality of the text.

In order to illustrate the point, we can cite the results referring to Text D as compared to those of Text C. In the latter case, the visible evidences related to internal inference sources (adequate theme development; text with beginning, middle and end; adopted logic; consistency; separation of ideas into paragraphs; correct punctuation and orthography) were more consistently pointed by the teachers. For example, with respect to the indication of the grade the authors were in, they were almost equivalently divided as being in the 3<sup>rd</sup> grade (13) or 4<sup>th</sup> grade (14). In the case the student was in the 3<sup>rd</sup> grade, 53.8% (7) of the teachers attributed A to him/her, 38.4% (5) B e one teacher C. In case he/she was in the 4<sup>th</sup> grade, 42.9% (6) of the teachers would attribute A and the same percentage B, and 14.3% (2), C.

Contrarily, in the case of Text D the attributes considered visible, but considered as mistakes, were not so obvious for the teachers to present a more precise evaluative report. In this specific case the text was ascribed as being from a 1<sup>st</sup> grade student to 29.6% (8) of the teachers, 2<sup>nd</sup> grade to 25.9% (7), 3<sup>rd</sup> grade to 22.2% (6), 4<sup>th</sup> grade to 7.4% (2), 2<sup>nd</sup> or 3<sup>rd</sup> grades to 11.1% (3) and 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> grades to 3.3% (1). The same type of divergence was observed in relation to the marks attributed. For instance, 62.5% of the teachers that indicated that the student belonged to the 1<sup>st</sup> grade attributed C to the text. One hundred percent (7) of the teachers that indicated that the author was a 2<sup>nd</sup> grade student gave him C. The teachers that believed he was a 3<sup>rd</sup> grade student (66.7% or 4) also gave him C. Differences among

the teachers' personal conceptions about the mastery of an ability at a defined level are certainly the source of such a variety of judgments.

A set of variables stood out from the answers presented by the teachers and was considered as directly corresponding to internal and external interference sources related to the material and its authors. However, a third source of variables related to the evaluator him/herself was observed.

In the case of *internal inference sources*, the identified variables corresponded to superficiality elements such as the presence of orthographic mistakes, wrong use of punctuation and capital letters by the authors of the texts. The presence of textuality elements was apparently another element considered by the teachers, despite being more subjective than the previous one. It included structuring the text into paragraphs and the development of the theme. Somehow it is possible to say that these two aspects relate directly to the teaching contents usually worked by the teachers.

In the case of *external inference sources* it was observed that the personal characteristics related to the authors of the text, such as effort, the grade they were in and time of the year when the text was produced, were mentioned as relevant aspects.

The *evaluator's positioning* as regards the material analyzed may have constituted another set of factors that influenced the evaluations. On the one hand, some reports evidenced a high degree of security as to their adequacy suggesting that the evaluators "were positively sure" about their judgments. In these cases the grade they taught also seems to be an important aspect to be considered. On the other hand, some teachers often reported "doubts" and

"dilemmas" as to the decisions they made. In this case, some teachers clearly indicated the establishment of hypotheses about characteristics related to the students with respect to the results of their evaluations.

Combinations of the variables relative to the material itself, to the authors of the texts and to the teachers, subjects of this investigation, enabled the outlining of the following evaluative patterns.

The classification below took into account the predominating pattern of each one of the teachers when evaluating the four texts, which prevents affirmations as to the existence of "pure" patterns among them.

- The first pattern corresponds to the teachers imparting reports that favored more formal and surface elements (orthography, punctuation, paragraphs) and those related to the textuality (e.g., theme development, cohesion, consistency, style, genre). Seldom did they mention any characteristics of the students. The teachers showing this pattern did not indicate they had doubts about the analyses they made. In this category T5, T8, T11, T16, T18, T20, T25, T30 and the school principal were included. An example of this pattern is one of T5's reports, about Text D.

*I believe that the student is in the 2<sup>nd</sup> grade. He/she writes consistently, without using correct punctuation. He/she wrote the whole story in just two paragraphs and made major orthographic mistakes. The mark would be C. I considered as positive the fact that the text made sense (the student was able to express him/herself). I considered as negative points the paragraph organization, punctuation, orthography, consistency with the title (the student only spoke about the games and did not speak about the birthday itself). T5, Text D.*

- The second pattern corresponded to the identification of reports that also emphasized the formal aspects of the texts as compared to the more subjective ones. However, in this case indication of the students' characteristics was observed. The analyses included the teachers' manifestation of some sort of doubt or uncertainty. Nevertheless, the expressions indicative of security as to the performed evaluation usually prevailed over those that suggested some degree of doubt or uncertainty. This pattern was observed in the analyses made by T3, T14, T22, T28, T31. For instance, see one of T31's reports below.

*He/she could be a child beginning to read and write. Second grade, maybe 3<sup>rd</sup> grade. He/she makes a lot of orthography mistakes. In spite of the fact that the text displayed some logic, structure, punctuation, it was off the theme. I would mark it C because in the beginning of the text the ideas are not explained well. It presents some definition as regards the paragraphs, but he/she did not develop the plot well. Positive point - the idea of the text. Negative point - the orthography mistakes. T31, Text B.*

- The third pattern type identified in this work is strongly characterized by the prevalence of informal or subjective aspects of the text over the formal ones. The reports usually enhance the characteristics related to the authors of the texts, such as their efforts to do it right. In some cases the teachers' dilemmas and doubts appear especially in relation to the grades the students are in. The analyses of T2, T4, T9, T12, T27 and the pedagogical coordinator are included in this category. The following examples illustrate this pattern.

*Third grade because of the organization and elaboration of the text ideas. The text also presents some important characteristics such as paragraphing, punctuation and meaning. The mark would be B, because the student still has a long*

way that will allow for greater enriching. Positive points - the student's frankness, his effort in the elaboration of a very informative text on what he/she considers to be a "A Sports Sunday". Negative point - I have nothing to add because this is a continuous process. T2, Text A.

He/she could be a 2<sup>nd</sup>, 3<sup>rd</sup> or even 4<sup>th</sup> grade student. The text is consistent, but [presents] some orthography mistakes that students from all grades can make. If the child is in the 2<sup>nd</sup> grade, I would give him/her a C, because the student only used two paragraphs, but it is possible to understand it. While if the student is in the 3<sup>rd</sup> or 4<sup>th</sup> grade the mark would be D, because the student needs a lot of improving. Positive points - it is a text the reader is able to understand, he/she employed parentheses for the explanation. Negative points - it does not have much to do with the title, he/she only talked about the games they played. T9, Text D.

- The fourth pattern is characterized by the teachers' claims related to the need of getting to know the students, authors of the texts, and the context elements so as to be able to produce an adequate report. In these cases, the analyses occasionally contain hypotheses. The reports of T1, T10, T13, T19, T24 and T32 are included in this pattern. One of T19's reports illustrates this pattern.

4<sup>th</sup> grade, because I have students at different levels that write very well and others that are still learning how to read and write. Without knowing the student it is hard to assess his/her work, because it depends on the level he/she was at the beginning of the year, whether he/she progressed or not. However, thinking of a student I have I would mark: Great! T19, Text A.

It is important to mark that some teachers did not indicate negative aspects in the texts they analyzed. The explanation for this attitude was the present educational system, in the form of cycles, the dynamics related to

assessment in the continuous progression system and the theoretical references officially adopted by the school as the base to understand the teaching-learning process, in this case *constructivism*.

The apparent emphasis on learning as a continuous process may at first be adequate, since the student's learning pace is respected. On the other hand, it may evidence the difficulties faced by the teachers when defining their role in this process. T2's report on Text D exemplifies this situation: *... I do not consider [negative points] because the student has in his/her favor the time that present education allows.* Or T32's, with respect to the same text: *... negative points - I cannot consider [that] because it is the continuous education phase and we have up to the 4<sup>th</sup> grade to try to correct these mistakes.* T28 affirms about Text A: *... negative points - it is impossible to speak about negative points when the whole system adopts the continuous progression and says that students will learn how to read and write along Cycles I and II, otherwise along their lives.*

#### **4. Some final considerations**

By trying to understand what the teachers would engage in to correct and attribute marks to the students' productions in situations outside their context - when lacking the knowledge and experiences constructed from personal interactions - it was possible to evidence that the aspects related to teaching contents constituted the assessment base of the students' performance.

When the teachers addressed teaching contents, it seems that they had in mind the topics to be taught at each level, even if it did not coincide entirely with what they thought. Different degrees of demand were evidenced among the

teachers, and they set out from these degrees to indicate the grade to which they thought the students whose work they had analyzed belonged. These degrees may be functionally related to variables identified as intervening in the assessment processes by means of this study. On the one hand, the data obtained confirmed that the assessment practice is permeated by ambiguity (Perrenoud, 1999). On the other hand, they draw the attention to the fact that teaching programs usually prescribe what should be taught, though not what should be assessed in the different phases of the learning process.

As regards the rigor in the correction of the texts of unknown children it is possible to verify a variety of degrees supported by different arguments: the highest rigor seems to be based, for most teachers, on text surface questions, regardless of the grade the student was in (which does make a difference), and the lowest rigor is repeatedly justified by the existence of the cycles and, thus, a lot of time for the children to mature (which minimizes their responsibility over promoting their students' learning). Further investigation in how these situations constitute may bring new elements to understand the "arbitrariness risk" mentioned by Perrenoud (1999).

Considering the attribution of marks on the part of the teachers being investigated, there is evidence that the marks were attributed based on a set of rationalizations, though the global assessment was the most valued parameter. However, the mark attribution should be regarded as a specific moment in the assessment process (Zabala, 1998; Perrenoud, 1999).

The proposition of non-invasive activities (Knowles, Cole & Presswood, 1994) - such as the assessment of unknown students' productions - however close to the teaching imparted by the professionals seemed to be an important



formative strategy (Schoenfeld, 1997; McDiarmid, 1995; Argyris & Schön, 1996). These activities offered some of the benefits observed in more contextual formative situations, since they also confronted deeper beliefs and escaped the censorship of the established discourse (Clandinin & Connelly, 2000).

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