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Article abstract

*This study deals with the dynamics of assessment at play in collaborative research carried out with two multidisciplinary teams of French middle-school teachers. It shows how connecting the teachers' experience with the outside frame of reference, through a reflexive, critical, but also prospective approach of assessment for learning (AfL) methodology, produces both referentialization and subjectification/intersubjectification, enabling individual and collective professional development. Collective creation of a common frame of reference through students' development and usage of criteria assessment grids brings about varied implementations and understandings among teachers when the assessment is actually conducted. Experimenting with this hybrid construct in the classroom and discussing it by confronting the activity's actual outcome with its projected result open new insights and perspectives that lead to a broader referentialization of AfL and renewed professional identity.*

# Assessment dynamics at play in a collaborative research project with middle-school teachers in France

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Mots clés : recherche collaborative, évaluation-soutien d'apprentissage (ESA), référentialisation, subjectivation-intersubjectivation, développement professionnel

*Cette recherche étudie les dynamiques évaluatives à l'œuvre dans une recherche conduite avec deux équipes pluridisciplinaires d'enseignants et d'enseignantes de collège en France. Elle montre comment, dans une démarche réflexive et critique mais aussi prospective, la mise en relation de leurs expériences et d'un référentiel externe, l'évaluation-soutien d'apprentissage (ESA), est productrice à la fois de référentialisation et de processus de subjectivation-intersubjectivation, sources de développement professionnel individuel et social. L'élaboration collective d'un référent commun autour de la conception et de l'usage de grilles critériées par les élèves rend possible une opérationnalisation de l'ESA qui se réalise et se signifie de façon différente pour chaque enseignant et enseignante. L'expérimentation en classe de ce construit évaluatif et sa mise en discussion, qui confronte l'activité réalisée à l'activité projetée, ouvrent de nouvelles compréhensions et perspectives aboutissant à un élargissement de la référentialisation de l'ESA et à des renouvellements identitaires.*

Keywords: collaborative research, assessment for learning (AfL), referentialization, subjectification-intersubjectification, professional development

*This study deals with the dynamics of assessment at play in collaborative research carried out with two multidisciplinary teams of French middle-school teachers. It shows how connecting the teachers' experience with the outside frame of reference, through a reflexive, critical, but also prospective approach of assessment for learning (AfL) methodology, produces both referentialization and subjectification/*

*intersubjectification, enabling individual and collective professional development. Collective creation of a common frame of reference through students' development and usage of criteria assessment grids brings about varied implementations and understandings among teachers when the assessment is actually conducted. Experimenting with this hybrid construct in the classroom and discussing it by confronting the activity's actual outcome with its projected result open new insights and perspectives that lead to a broader referentialization of AfL and renewed professional identity.*

*Esta investigação estuda as dinâmicas avaliativas implementadas em investigações colaborativas realizadas com duas equipas pluridisciplinares de professores e de professoras do 3.º ciclo do Ensino Básico em França. Mostra como, numa abordagem reflexiva e crítica, mas também prospetiva, a relação das suas experiências com um referencial externo, a avaliação-apoio da aprendizagem (AAA), é produtora, ao mesmo tempo, de referencialização e de processos de subjetivação-intersubjetivação, fontes de desenvolvimento profissional individual e social. A elaboração coletiva de um referente comum em torno da concepção e da utilização de grelhas baseadas em critérios pelos alunos permite uma operacionalização do AAA que se concretiza e se traduz de forma diferente para cada professor e professora. A experimentação em sala de aula deste construto avaliativo e a sua discussão, que confronta a atividade desenvolvida com a atividade projetada, abrem novas compreensões e perspetivas que conduzem a um alargamento da referencialização da AAA e das renovações identitárias.*

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# Introduction

Given the strength of assessment phenomena, which act in ways that are, at varying levels, below the surface, there is a strong epistemic challenge in any social situation to make them explicit (Vial, 2012). We tried to do this through collaborative research (CR) that aimed to transform assessment practices concerning assessment for learning (AfL) conducted over two years with two multidisciplinary teams of middle-school teachers in two colleges[1] in the Auvergne-Rhône-Alpes region.[2]

This initial research (IR) was conducted in a context where the national ministry of education endorsed classes "without grades" and "benevolent assessment" based on a bond of trust (Genelot et al., 2016). Thus, it constitutes the meta-research[3] context presented in this article. Based upon the ex-post study of the body of knowledge created, we try to pinpoint the assessment dynamics – both "implicit" and "explicit" – in the IR, as well as their role in processes of individual and collective professional development.

# Theoretical framework

### *Between referentialization and subjectification-intersubjectification*

Assessment dynamics are approached from the perspective of a theoretical framework that generates synergies between referentialization and subjectification-intersubjectification.

### *Referentialization*

Referentialization can be defined as an ongoing process of construction/deconstruction of common references that require the creation of an in situ context, in which individuals make exchanges related to determining objectives, procedures, and strategies to prioritize (Figari, 2001; Figari and Remaud, 2015). However, these objectives remain difficult to achieve, given the multireferentiality[4] of assessment in terms of practices, norms, values, and discourses, which vary according to professional and personal contexts (Mottier Lopez, 2013; Mottier Lopez and Dechamboux, 2017).

### Multireferentiality

However, this multireferentiality is embedded in two opposing cultures, which are a source of professional tensions. On the one hand, we have a culture of school assessment that is strongly polarized by summative control, in a context of intense assessment pressure, particularly in secondary school teaching (Merle, 2018). On the other hand, there is a culture of broad formative assessment (Allal and Mottier Lopez, 2005) or learning support (Allal and Laveault, 2009) in class and in training that emphasizes the creation of a more collaborative assessment dynamic with respect to the meaning, framing, objectives, and criteria of assessment and its insertion in a dynamic of personal growth. The question of the action of tensions between these different cultures leads us to consider that the process of referentialization remains to be clarified in terms of the connecting threads between subjectification and intersubjectification of assessment.

### Subjectification

Subjectification is the process by which individuals appropriate their experiences in order to transform both themselves and their relation to the world (Tisseron, 2013). According to Vanhulle (2005), "subjectification" of professional and didactical knowledge consists of regarding these discourses and their practical applications or implications from an angle that is at once personal and removed, where appropriation refers rather to "knowledge by acts."

### Intersubjectification

These transformations are not only about the individual. They bring into play complex intersubjectifying social interactions and lead us to reconsider both how to take into account and how to distance ourselves from the viewpoints of others. Thus, it is through a subjectifying and intersubjectifying dialectic that individuals construct themselves with respect to others. This dialectic, especially significant in assessment, has led to proposing the concept of subjectifying assessment (Younès et al., 2016).

### Subjectifying assessment

Subjectifying assessment takes into account at one and the same time cultural and identity dimensions, i.e. social and individual aspects and the cognitive and psychological components of the meaning ascribed to assessment, which constructs and/or deconstructs individuals and groups

as much as it does learning and professional development. In fact, assessment can be destructive when it represents a threat to learning and to identity. On the other hand, it is constructive when it is turned toward progression, in a dynamic of shoring up, encouragement, reflexivity, and col laboration that aims to generate forms of appropriation centred on individual trajectories and on the recognition of author subjects (Jorro, 2007; Vial, 2012). Hence, this subjectifying assessment participates in professional development defined as individual and collective transformation of identities and competencies (Barbier et al., 1994; Beckers, 2007; Jorro, 2013; Vanhulle, 2009).

The interprofessional mechanism created from a subjectifying-intersubjectifying perspective was put in place in 2015 at the time of the collaborative project undertaken as part of this meta-research. This initial collaborative research (IR) (Younès and Faidit, 2018, 2019) falls within the trend of collaborative research on teaching (Cole and Knowles, 1993; Desgagné, 1997, 2007), more specifically on formative assessment (Mottier Lopez et al., 2010; Morrissette, Mottier et al., 2012).

Meta-research is about reflecting on the role of assessment in a given setting that brings into play collective and individual dynamics. This meta-research adheres to a constructivist and pragmatic epistemology according to which knowledge is created through the actions of individuals in close relation to their cultural, social, physical, and technical environment. Thus, the significance of practice depends on a usage context, a social environment, and an unfolding experience. It is constructed through inquiry, the identification of discourses, and the practical effects of action[5] (Dewey, 1993). Emphasis is placed on the multifaceted nature of reality, according to the positions of each starting from diverse forms of sharing and recognition of the individual. The individual is considered not only from an epistemic perspective, but also from the perspective of their affects, goals, utterances, time scales, and unique experiences. Differences can be a source of tensions that need not be eliminated, but rather worked with in order that they become resources for individual and collective transformation (Mertens, 2017). Therefore, the role of the researcher is to think of mechanisms that will allow for the expression and visibility of differences and areas of agreement.

# Methodology

First, we present the initial collaborative research (IR) arrangement, then the methodology of the meta-research pertaining to the analysis of assessment dynamics in the IR.

## *Collaborative arrangement for the initial research*

The IR involved eight teachers in two colleges and a master's student in training of teacher trainers from the University of Clermont Auvergne, as well as two researchers, an experienced investigator (main author) and an apprentice (second author).[6] In this article, the data discussed are primarily those provided by a group from a specific college.

One teacher had 30 years of experience in the profession and had been working for 10 years at this institution (Nicole, EPS). Three had about 15 years of experience (Pascal, history-geography; Muriel, mathematics; Laure, writing), and one (Olivier, visual arts) had been teaching for only two years. Finally, a young beginning teacher-librarian soon left the group since it did not meet her expectations for her career path, which were more directly operational in terms of professional development.

In its initial phase, this collaborative research project took place over three years (six meetings during the first year, three in the second, and one in the last year[7]) and was continued by meta-research with one of the teachers in the IR[8] for two years, following a chronological timeline (see Table 1).

Experimentation in the classroom and implementation of a discursive process of questioning, reformulating, explicitation, and even theorizing around practice (Mukamurera et al., 2006) were prioritized. Teachers and researchers volunteered to take part in the research project while being aware of their participation in the construction of data that aimed to advance knowledge on assessment (epistemic goal) and to support the professional development of teachers (transformative goal). All of the actors were involved in decision making throughout the IR while attempting to respect the methodological criteria of double credibility (Dubet, 1994).

Table 1
*Chronological timeline of the IR and the meta-research*

| Year | Period | Stage |
|------|--------|-------|
| 1st year of the IR | April/May 2015 | – Creation of the CR group, emergence of the objective |
| | July 2, 2015 | – Group discussions on practice and conceptions of AfL based upon reading of an article |
| | | – Presentation of assessment practice based upon the description of a situation |
| | | – Presentation by the co-researcher of an analytical framework of assessment situations based on AfL and discussion of this framework |
| | | – Inquiry, by the teachers, about their practice in light of the analytical framework, using group discussions |
| | | – Definition of a common research objective: strengthening the role of the student in the assessment process |
| | Summer break | – Drafting by teachers of a reflective and prospective document on their practice of AfL based upon discussions and input from the conference day |
| | | – Reading of articles posted in the collaborative space by the co-researcher |
| | September 29, 2015 | – Individual reflective pieces written by the teachers, then shared, on what propels or restricts the evolution of their practice in assessment/teaching |
| | | – Cross-sectional paired analysis of documents written during the summer break |
| | | – Discussion by the teachers and researchers of the analytical framework using problems encountered under the heading 'the impossible task.' |
| | Break | – Texts written by the teachers detailing the effects of the CR |
| | | – Development by the co-researcher of an example related to her assessment practices to illustrate 'the impossible task.' |
| | December 3, 2015 | – Further discussion of the analytical framework |
| | | – Presentation by the co-researcher of an example of using the analytical framework |
| | | – Self-assessment/self-scoring of assessment practice by the teachers, a task proposed by the apprentice researcher |

| | Break | – Conception by each teacher of an AfL opportunity to try out in class |
|---|---|---|
| | March 2016 | – Presentation and discussions pertaining to testing the concept of an AfL opportunity by two teachers: Laure and Pascal |
| | Break | – First in-class test by these two teachers |
| | April 2016 | – Analysis by the two teachers of their assessment activity based on students' output |
| | | – Proposal by two other teachers of their protocol to test in class |
| **2ⁿᵈ year of the IR** | Break | – Film-making for ESEN (France's national graduate school in research and training for education) by two teachers at the institutional request of the education authority |
| | July 7, 2016 | – Adjustments and new in-class experiments by Laure and Pascal |
| | | – Crossed self-confrontations: presentation of video extracts of AfL in-class experiments, discussion, and avenues for development |
| | | – Analysis of Muriel's activity based on texts used in class and students' output |
| | February 2017 | – Presentation by the co-researcher and a teacher about progress of the CR to an assessment resource group composed of trainers Presentation by a teacher concerning the CR to heads of institutions at the ESEN |
| | 2016-2017 year | – Analysis by the teachers of data gathered in class by another teacher |
| | | – Analysis by the researchers of data gathered in the CR |
| **3ʳᵈ year of the IR** | 2017-2018 year | – Writing of a professional article by a teacher |
| | | – Presentations by the teachers with and without the co-researcher |
| **1ˢᵗ and 2ⁿᵈ year of meta-research** | 2019-2020 year | – Completion of a thesis for Master of Educational Sciences by the apprentice researcher |
| | | – Presentation (Younès and Faidit, 2019) at the ADMEE-Europe conference |
| | | – Jointly authored article on the meta-research by the researchers |

This criterion consists of reconciling the concerns of the professional community and those of the scientific community at each of the three stages of the collaborative research model: co-situation, cooperation, and co-production (Desgagné, 1997, 2007) (see Figure 1).
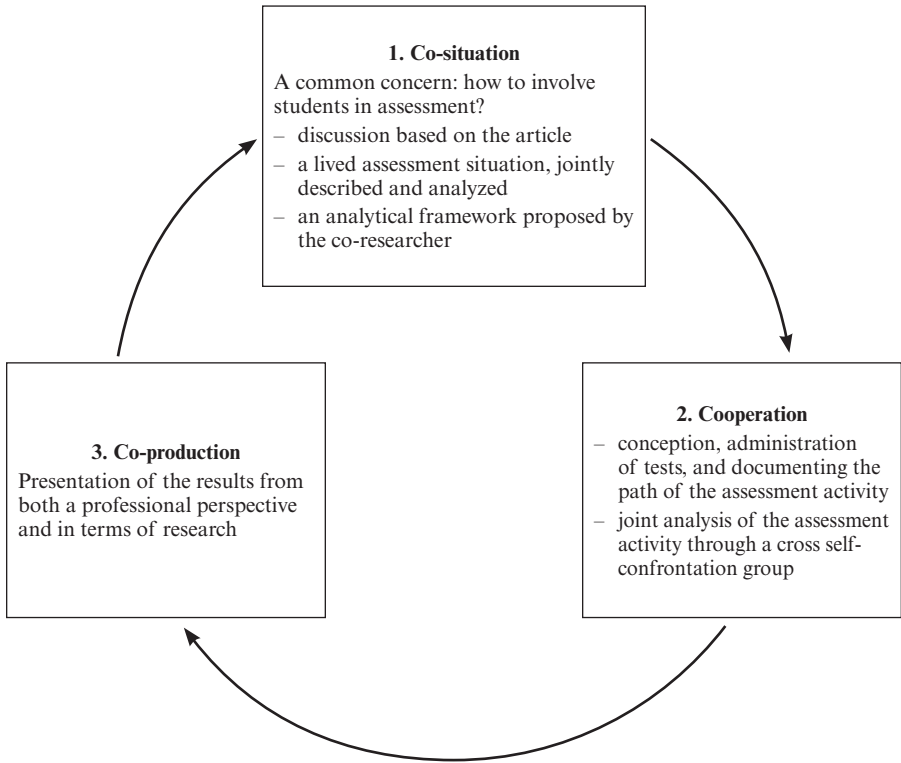
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                        │        1. Co-situation          │
                        │  A common concern: how to involve│
                        │  students in assessment?        │
                        │  – discussion based on the article│
                        │  – a lived assessment situation, jointly│
                        │    described and analyzed       │
                        │  – an analytical framework proposed by│
                        │    the co-researcher            │
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**1. Co-situation**

A common concern: how to involve students in assessment?
– discussion based on the article
– a lived assessment situation, jointly described and analyzed
– an analytical framework proposed by the co-researcher

**3. Co-production**

Presentation of the results from both a professional perspective and in terms of research

**2. Cooperation**
– conception, administration of tests, and documenting the path of the assessment activity
– joint analysis of the assessment activity through a cross self-confrontation group

*Figure 1.*  Schematic image of the three iterative stages in collaborative research according to Desgagné (1997, 2007), adapted to our IR

## *Methodology of the meta-research*

The meta-research was concerned with studying the assessment dynamics by identifying the traces of the assessment activity in the body of knowledge created by the IR.

### *Body of knowledge*

We made use of multiple data sources: researchers' notes (26 pages); regular recording of discussions (48 hours of recordings; 230 pages of transcriptions); and items submitted by teachers and researchers to an online workspace. The latter material could be directly linked to teaching (eight preparation sheets, students' output from four classes, three video clips of sessions filmed in class) or to the collaborative research under

way (analysis of students' output from the four classes, scholarly articles, synthesis pieces, 60 pages of self-assessment, and reflective texts from each school break).

### *Analysis*

The study of assessment dynamics was conducted through analysis of assessment activity at each of the three stages of the IR: co-situation, cooperation, and co-production. This activity was examined using a comprehensive and interpretive approach, applying an inductive method to the observable traces, and the meaning constructed by the stakeholders (Blais and Martineau, 2006). We analyzed the gaps and convergences in meaning (Bednarz et al., 2012) from a synchronic and diachronic perspective, by means of an analysis of the discourses and the traces of the activity generated.

In alignment with our theoretical framework, we have used as indicators for the ongoing processes of referentialization and subjectification-intersubjectification any evidence, over time, of repetitions of themes in discourses and practices on the topic of Af; the expression of discrepancies or convergences in meaning among stakeholders; and any changes in the ideas, concerns, practices, commitments, and roles of participants in the research.

Two types of triangulation were used: 1) between the different sources of data collected during the two years of the IR; and 2) between the two researchers (Denzin, 1978). These triangulations allowed us to strengthen the relevance and the validity of the analyses; to uncover multiple facets of the activity; and to better understand the assessment dynamics and their effect on the professional development of the actors in the IR. Finally, submission of a draft version of the article to the teachers involved in the IR allowed us to ensure a certain degree of shared understanding.

## Results

Analyses of the meta-research provide perspective for the findings that emerged from the three stages of the IR, with respect to the processes of referentialization and subjectification-intersubjectification of AfL.

### *Analysis of discussion at the co-situation stage: the action of tensions as a lever of referentialization for AfL*

While the IR limited itself to accounting for the emergence and confrontation among assessment models, analysis of the meta-research leads us to point out that during the co-situation stage, it is the action of tensions created by the disparity and confrontation of these different underlying models that leads to an intersubjectifying construct that allows for a first level of referentialization for AfL.

#### *The emergence of tensions revealing gaps in assessment approaches between control and development*

One of the first tasks required the teachers to prepare a report on AfL through the discussion that followed reading an article on formative assessment. Analysis of the reports highlights the different assessment approaches in the group. In particular, the student argued that formative and summative assessment were in opposition, while the teachers maintained there was porosity between these forms of assessment, pointing to their experience-based knowledge, in light of which the normative discourse around formative assessment seemed difficult to accept. By giving theoretical support for this porosity, thereby lending legitimacy to the teachers' statements, the co-researcher made it possible to establish promising conditions for a start to referentialization, which took shape gradually by settling on a common vocabulary between the researchers and teachers.

The second task asked teachers, using the vestiges of their activity, to reflect upon their own assessment techniques and those of their peers, through the lens of an analytical framework presented by the co-researcher (see Annex). This task crystalized a locus of significant tensions, noticeable owing to signs of unease, frustration, and difficulty.

#### *Unease when assessment monitoring is feared*

The co-researcher did not speak of evaluating assessment practices but of analyzing these practices with a focus on 'analytical framework' or 'examining practices.' However, the teachers saw the task as an implicit evaluation of their practices in the face of a new norm, namely AfL. This evaluation was subsequently interpreted in various ways. For some, the task was perceived and worked upon as an uncomfortable, potentially threatening, or even illegitimate activity of control and judgement, as revealed in this reflection by a teacher after the first two days of the IR:

I'm quite ill at ease with the position I must take to analyze the work of my colleagues. Luckily, we appreciate each other, we know each other, and we know the work that we perform. But this role of judge that each of us assumes in turn, that makes us go and dig around in whatever isn't going well for others, what isn't clear, or what is vague – this is not comfortable. I don't feel qualified to analyze the practices of my colleagues. I don't feel confident enough to put up with the demands from my colleagues to justify my work. I have the feeling that each of us in turn is playing at 'grilling' each other and I have to ask myself: Isn't it possible to have a discussion together in a calm way, without going through this questioning? (Laure, September 2015)

Expressed in a letter addressed to the co-researcher, these powerful feelings led to group discussions revealing that such sentiments were shared, if to a lesser or greater extent.

### Frustration when assessment monitoring is expected

In another area, some participants expressed a wish to have feedback from the co-researcher, which created another source of tension:

I expect at some time to hear back from you in order to move ahead a bit in our vision of things. Because we can try to have a detached view, but our perspective has its limits. We cannot remove ourselves completely from our frameworks and be entirely free of prejudices, of preconceived ideas, or from ideas that we make up on the go. And I have to say that I'm honestly a little frustrated in this regard. (Pascal, December 2015)

While recognizing that the discussions concerning practices were a source of growth, the exchanges between peers were seen to be insufficient to achieve more meaningful transformation.

Thus, in the early part of the IR, some teachers dreaded the analysis of practices, seen as a threatening and illegitimate form of monitoring, all the while expecting assessment and formative feedback from the co-researcher. Others were not expecting any external validation of their practices, not from the co-researcher nor from their peers. They incorporated elements of AfL to analyze their assessment activity, in order to make adjustments and to pave the way toward new methods in the short, medium, and long term:

I don't understand why some colleagues are thinking along the lines of 'this is good' or 'this is not good' when we are in a process of reflection to better understand why we do something one way, or another way. (Nicole, July 2015)

Expressed in these tensions is the confrontation between a model of standardized and controlling assessment and the implicit establishment of another form of assessment that is subjectifying, grounded in understanding, horizontality, opening up of meaning, growth, and a holistic approach to the subject (Younès et al., 2016).

### *Reluctance to engage in the task – a sign of difficulty in integrating AfL*

Using the school break to analyze one's own assessment practices with reference to the analytical framework turned out to be a difficult task that created a doubly problematic situation, the source of much questioning and doubt. During a session devoted to discussing the framework, several comments were made that touched upon problems in understanding the task at hand:

> I didn't understand the objective, and the other thing is that I understood the words, but not how they relate to each other. I felt like the student who hasn't understood the instructions. (Pascal, December 2015)

> Achievement criteria, success criteria: the distinction is not clear for me. (Pascal, December 2015)

> I agree completely with what Pascal said. In other words, I don't understand what the table is meant to explain. Or, in any case, what we are supposed to get out of it. (Nicole, December 2015)

The co-researcher, who underestimated the socio-cognitive impact of the task, also found herself in a state of embarrassment and uncertainty in terms of the position to take. Would it be better to reduce the discomfort of the teachers or let the unease continue? Was it necessary to assume the role of a trainer, thus introducing a top-down aspect in the relationship, potentially incompatible with a horizontal, collaborative project?

### *Social and cognitive controls as resources*

Examining practices with respect to AfL requires approaches and concepts that are alternatives to the habits and customs of a college sphere. They are also quite foreign to the professional universe of teachers, where the model of certification and monitoring assessment predominates, along with an 'applicationist model' of teaching directives. When aiming for a subjectification-intersubjectification of AfL, rather than an application, the co-researcher seems to have indirectly prescribed an alternative model that collides with this assessment culture, thus triggering difficulties and questioning, but also forms of redefinition of the task. The action of tensions that was expressed in the first period of the CR occurred through

two types of control that appear to be especially decisive in resolving these tensions: linguistic controls and the exemplification of the task by the co-researcher.

### – *Linguistic controls*

Linguistic mediation, based on non-directive approaches (Blanchet, 1985), is essential for the action of tensions. The co-researcher, who subscribes to this approach, at times applied the method of active listening in a non-directed interview, then laid out rules used in groups for analyzing practices, for example 'understanding without judgment;' 'everyone contributes;' and 'respect for differences and the confidentiality of what is said' (Blanchard-Laville and Fablet, 1998; Tourmen, 2014; Colognesi et al., 2017). Quite quickly, open dialogue followed, which allowed everyone to express their opinions, their doubts, and their uneasiness, to share their misconceptions, to develop their reflective capacities, and to gradually develop understanding and collective construction of meaning.

These linguistic controls, which are part of a reflexive contract in the sense used by Bednarz and collaborators (2012), appear from the meta-research to be decisive in overcoming tensions and are indicative of a referentialization and subjectification of the assessment being conducted.

### – *Exemplification of the task by the co-researcher*

Despite some hesitation, a sign of reluctance to present herself as an expert teacher, the co-researcher decided, in light of the difficulty of the task, to occasionally take on the role of the prescribed teacher by analyzing her own assessment practice using the AfL framework. Thus, she presented the assessment put into practice in her teaching in a Master of Training of Trainers program, placing emphasis on the procedure of collective construction of a criteria assessment grid. This grid articulates formative assessments and those for certification by drawing upon peer assessment and co-assessment.

The co-researcher drew attention to the limitations and specified that this presentation had no value as a model. Nonetheless, we later noticed the demonstration effect in the group. In fact, the referentialization dynamic was temporarily stabilized when a shared referent was developed collectively around the construction and usage by the students of criteria assessment grids with a formative function. This referent makes AfL and everyone's experiences resonate in a form close to the practice presented by the co-researcher.

### *Analysis of interactions at the cooperation stage: from a normative referent allowing for in-class action to a subjectification of AfL*

In the IR, the criteria grids seemed to be an instrumental reduction limiting AfL in the classroom. The meta-research underscores that this shared normative referent – in the sense that it directs the AfL in-class experimentation of all the teachers in the CR – acts as an 'obligatory step' that is operational in conceiving an in-class AfL procedure. However, this construct takes shape in different ways for each teacher. It was in the experimentation and discussion that followed that new understanding and perspectives opened up, leading to the subjectification of AfL and an expansion of its referentialization.

#### *Instrumental reduction of the AfL: criteria grids as the first shared referent*

The cooperation stage is organized around development of a criteria grid with the students and its use by the students to assess one another. At this point, several teachers expressed interest in focusing on this type of instrument "in order that students can position themselves in their learning with respect to expectations" (Pascal, December 2015). A consensus was built around this formalization, which emerges as the operational translation of a student player in AfL who understands and assimilates the assessment criteria from a perspective of progress. The grids created by the teachers reveal this first collective conceptualization, which, in a prototypical form, become a shared referent. The example provided by the co-researcher has therefore become a model for action functioning as a provisional shared referent in the group.

### *A personal hybrid construction between referent, experiences, and awareness*

The new referent takes shape differently according to the disciplinary practices, the experiences in the profession, and the training in assessment, in a double action of appropriation and distancing that demonstrates a form of subjectification of the conceptualizations of AfL. Here we set forth, based on the projects and analyses of the experiments of two teachers, the individual and differentiated constructions that take shape.

*– The case of Muriel: mathematics teacher*

Muriel provides a criteria grid where the students are put in the position of evaluators. General criteria are broken down into different contextual indicators, according to three levels of success.

Muriel's special innovation is to use work by students, such as wrong shapes, to create the grid with the students themselves. In fact, error is at the core of the issue for Muriel, who underlined right from the start in 2015 "the importance of error so that students and teachers can review certain material." By discussing mistakes in class, she infers the origin of the students' learning difficulties in order to adjust the teaching approach.

During the presentation of her experimental sequence (July 2016), Muriel rejects the proposition of the co-researcher to use tracing paper to assess the work of their classmates because "students will then just verify without analyzing the work, in other words without trying to understand where the error came from." She repeated her desire to work with the students on shapes that contain errors so that they can identify different levels of mastery of a competency (making indicators of success explicit):

> What I'd like is for them to find an answer through trial and error, exactly that. For me, this is very interesting because we often ask them to come up with the right shape. But in the end, it would be great to also say, 'what would a mistaken shape look like to you?' […] They have no reference points, so, therefore, I do a lot of work based on mistakes. (Muriel, July 2017)

Development of the experimentation appears to have allowed Muriel to clarify the criteria for creating the shape. In-class experimentation allows her to understand that the use of a grade prevents the students from committing themselves to a collaborative exercise based on mistakes:

When there's a grade, it changes students' attitudes. They focus on the passing grade. (Muriel, July 2017)

*– The case of Laure: teacher of writing*

For Laure, it is important that students are able to position themselves, that they are capable of recognizing what they know and what they do not know how to do, and that they are able to identify ways to improve their work. Mistakes are considered an important element to work on. Laure shared her earlier experiments in the area of 'grids.' She spent a lot of time creating, with colleagues, competencies grids, which turned out

to be barely operational and lacking in validity. However, in light of the practices of her peers and/or the 'model' shown by the co-researcher, she suggests testing a criteria-for-success grid once again.

As opposed to Muriel, experimentation with the criteria grid in assessment by peers proved to be a failure for Laure. Nonetheless, she says she is ready to continue along these lines, but the co-researcher has broadened the discussion:

> Laure: It would be possible, but I would have to completely rethink my way of teaching.

> Co-researcher: The objective of the CR is not to apply a method, but to find out how the AfL process is a vector for questioning. […] It's important to recognize that a collective tool/referent works for some people, and not for others. (September 2015)

The criteria grids created by the teachers run into difficulties that arise as much from their conception as from their usage. The first pitfall is owing to the nature of the criteria. More focused on the formal and generic aspects than on the specific character of the knowledge involved, the criteria as defined can lead to 'decoy effects.' For example, the students are involved in an assessment activity that masks the knowledge issues, a way of going off course already noted by Pasquini (2017). Moreover, narrowing this tool to a simple checklist could prevent it from being used for mediation in learning.

The statement by a teacher during the last meeting minimizes the impact of the form 'with or without a grid:' "What is important is making the criteria and indicators explicit and sharing them with the students" (Muriel, July 2017). This statement reveals an awareness on the part of Muriel of one of the characteristics of AfL, described by William and Thompson (2007). Following this discussion, Laure asked whether the co-researcher can find articles about the teaching of French, agreeing with Muriel about the importance of clarifying the criteria and indicators of success in terms of pedagogical approach, and dropping the idea of formalizing them in the form of a grid.

### *Variations in the conceptual and operational expansion of AfL*

In this way, a conceptual and operational expansion of AfL occurred gradually following in-class experimentation and a group debriefing (see Figure 2). The discussions led to new awareness when the constructed norms/rules of action came up against the lived experiences in class and in

the CR. The form that awareness raising took was not the same for everyone. Expansion of the conceptual construc tion of AfL does not happen in the same way or at the same pace for everyone and depends upon each person's previous knowledge and areas of involvement.
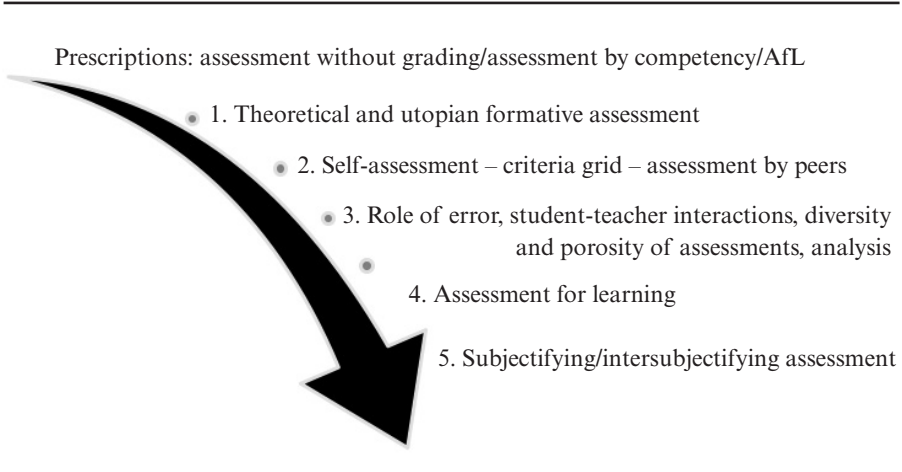
Prescriptions: assessment without grading/assessment by competency/AfL

1. Theoretical and utopian formative assessment

2. Self-assessment – criteria grid – assessment by peers

3. Role of error, student-teacher interactions, diversity and porosity of assessments, analysis

4. Assessment for learning

5. Subjectifying/intersubjectifying assessment

**Figure 2.** Development of the referentialization and the subjectification-intersubjectification of AfL over the course of the IR and the meta-research

However, in cases where teachers have not experimented with in-class AfL or in a debrief on their experience, the conceptual expansion (noticed in the CR) appears to remain more limited. Thus, Olivier stayed at the first level established in the group (the criteria grid). Two years into the CR, when a discussion calls into question the use of the grids, his reaction displays bafflement:

> I understood the establishment of the grids as a fundamental element of the group's work and, if we are now questioning this, I just don't understand. (Olivier, February 2017)

The internalization of a new referent (development of a criteria grid 'by' the students and mutual assessment) created a true collective that helped to involve participants in the transformation of their assessment practices. Yet it is only through individual experimentation, shared and deepened through collective cross self-confrontation, that awareness grows

concerning the importance of joint activity by teachers and students with respect to the effectiveness of this tool. This awareness is indicative of a deepening of the referentialization under way. In the case of Pascal, the successive transition from an instruction sheet9 to criteria grids then to reflecting on the role of error signals this process of subjectification-inter-subjectification of AfL.

Thus, a form of emancipation happens with respect to criteria grids and to peer assessment, which gradually appear as inessential aspects of incorporating one's practices in AfL. Muriel eliminated the use of a numerical grade in her formative grids, while Laure stopped using the grid in following up the work, instead focusing on collective feedback. Other teachers explore other forms and aspects of AfL related to criteria for implementation, success indicators, roadmaps, new ways of providing support, and more.

In the individual and collective processes of our CR, we observed the construction of the AfL concept in its referential, conceptual, and operational facets. The essential elements of the mechanisms tested and the theoretical framework of AfL are gradually identified, which means that teachers do not have to reduce them to their instrumental dimension. This progress reveals an expansion of the referentialization of AfL in the sense of integrating different conceptions. A referential trajectory develops from the prescribed assessment to the subjectifying assessment, which emphasizes the freedom of participants and their irreducibility. This final level of crucial referentialization of AfL is apparent in the work of the apprentice researcher, who has committed herself both to the IR and the meta-research (see Figure 2).

### *Analysis of dynamics at the co-production stage: the issue of social acknowledgement, lever, and brake in the referentialization of AfL*

While the issues of social acknowledgement outside the CR, which very quickly became significant, might have appeared to cause a halt to the process of referentialization of AfL during the IR, the meta-research tends to show that the intertwining of these issues can also support the process.

The college heads wanted the group to communicate the research results from the very outset of the project. As of the second year, the institution required involvement by the school board10 in the training of trainers; at the national level in the training of college heads; and at the college level in training for teachers. These orders had an impact on

the collective and individual dynamics of the IR by steering discussions toward these communication objectives, which quickly became the priority to the detriment of the research focus, especially in terms of the conception, implementation, and reflection on AfL in the classroom. Nonetheless, they also created a collaborative and stimulating positive dynamic for the teachers involved (e.g., production of video clips for the college heads and for teacher training, writing of professional articles, participation in teacher training sessions). This allowed for a balancing and anchoring of the knowledge constructed, an indicator of a continuing subjectification of AfL.

At the heart of the research, identity issues are just as powerful as those related to knowledge. Thus, for Olivier, new to the profession, adhering to the main requirements and gaining recognition from his peers and from the inspector are a *leitmotif*. This teacher was often absent during group meetings and contributed little about his assessment practices and their analysis. However, he is the one who communicated with the *École supérieure de l'éducation nationale, de l'enseignement supérieur et de la recherche* (ESEN, France's national graduate school in research and training for education)[11] on behalf of the CR; who was the first to join a group of assessment trainers; and who quickly committed to training for trainers through a certification program.[12] It all happened as though participation in this group was the spark that contributed to recognition on his own part and from others of his professional growth:

> Olivier: This gives us greater credibility. For myself, in any case, I know that I've spoken about this research with my inspector and it's an entirely positive factor in my career. […]
>
> Co-researcher: More credibility in your own eyes and in the eyes of your peers?
>
> Olivier: Both. For my part, I'm at a stage where it's a tool that I'm learning. I'm in the middle of developing my practices and I'm looking for reassurance. I'm feeling very uncertain […] and, actually, participating in this somehow reassures me and at the same time it makes me more credible when … Anyway, I have certain ambitions. I don't want to be just a teacher here. Look – it's an extra piece to build up my CV, I'll say that much. (February 2017)

In Pascal's case, at a certain point, deeper learning of AfL is no longer a priority and even appears to have become counterproductive. This comes at a stage when the need is for institutional recognition – achieved through 'best practices' that must be formalized and communicated. At the request

of his inspector, he will spend several months writing a professional article on assessment and will ask the CR group for their help in writing the text, which has led him to strengthen his assessment competencies.

Thus, the epistemic questions and the development of competencies are not the only issues at play in a CR. They are closely entwined with identity and institutional questions, which seem to work at one and the same time in tandem with and counter to epistemic and competency concerns. Therefore, subjectifying assessment refers not only to the subjectification of AfL on an epistemic level, but also to questions of social recognition within and outside of the collaborative research, connected to psycho-social issues as well.

## Conclusion

In this meta-research, we have attempted to understand how an examination of assessment activity, elicited explicitly and implicitly through the mechanism of collaborative research, allows us to update current professional development by studying observable processes of referentialization and subjectification-intersubjectification.

First of all, this article reveals the significance of the assessment activity in the collaborative research, in both its spontaneous and established forms. The dynamic linking of experience and an external frame of reference (AfL) occurs through a reflective and critical approach that is also prospective. The tensions that this approach creates and the perspectives it opens up produce both referentialization and subjectification-intersubjectification as a process that complements individual and social development.

Our research serves to highlight indicators of construction of a shared assessment culture, namely common referents in the AfL approach, by analyzing the process of referentialization as a referential dynamic co-composition that operates throughout its conceptualization and operationalization (Mottier Lopez and Dechamboux, 2019). The pathway moves through phases of tension, as well as diminution and expansion, of the AfL concept, through successive, individual, and collective reconceptualizations and restandardizations (Schwartz, 2000, 2020) consolidated and disrupted by the experience and by its being shared in the collective sphere.

It appears that processes of referentialization and subjectification-intersubjectification are inter-related. Collective reflection and shared experimentation and discussion allows everyone to situate themselves and to construct a frame of reference that is both personal and communal and which contributes to advancing conceptions and practices in AfL. It is owing to the collective construction of a common referent of AfL that the participant can be both enriched and remain detached. Collaborative research creates a new context that makes it possible to see and think about assessment differently, for both individual and collective enrichment. Individuals can reflect more deeply about the meaning of their choices when experiencing the 'pressure' exerted by others.

According to Jorro (2016), offering teachers the opportunity to analyze their assessment practices allows them to develop a new assessment culture, other professional approaches and actions, and new assessment competencies. The processes of subjectification-intersub jectification are linked to the power of individuals and collectives to act, to give meaning to their setting, and to see their priorities reflected when decisions are made. There are many ways to think of oneself as a subject. These processes of subjectification find expression in the form of an escape valve, offering relief from the pressures of established knowledge and dominant power. The creation of a professional collective of experimentation and analysis provides a favourable space from which to observe inseparable collective and individual constructions. The other becomes a mirror in which one may to varying degrees recognize oneself, if at all; a source of inspiration or of detachment; and a resource for the collective construction of a professional genre and style (Clot and Faïta, 2000). These are not independent from the intersubjectification process created by the collective mechanism, which emerges in the gradual construction of a shared sense of AfL and of new professional rules and other norms of action deeply anchored in the individual and social trajectories of those concerned.

## NOTES

1. Institutions at the first level of secondary education that provide four years of schooling for students coming out of elementary schools.

2. This collaborative research project was conducted as part of joint research-action projects involving the *École supérieure du professorat et de l'éducation* (graduate school of the teaching profession and education, or ESPE) and the *Cellule académique recherche, développement, innovation, expérimentation* (academic group for research, development, innovation, and experimentation, or CARDIE) in Auvergne, in the interests of innovation and experimentation in the school environment (2015). The ESPE institutions, which have now become *Instituts nationaux supérieurs du professorat et de l'éducation* (national graduate institutes of the teaching profession and education, or INSPE), are the university units for teacher training in France. The CARDIE is dedicated to innovation at the level of the local school board (decentralized branch of the national education ministry in the academy for mandates related to the content and organization of educational action within institutions and among staff).

3. The term meta-research is used in the sense of a second-level analysis carried out using a body of knowledge created over the course of the initial research.

4. Multireferentiality refers to the multiple referents that emerge from the assessment process. These referents come from a variety of meaningful contexts. They can be external and established referents, but also internal, i.e. specific to cultures and to personal experience.

5. According to Dewey (1993) and his inheritors who present themselves as belonging to the pragmatist school, the scientific experiment is not radically different from the common-sense experiment since it derives from the latter.

6. The apprentice researcher, who is in a Master of Research program in educational sciences, is also a participant in this research project as a teacher at the other college in the study.

7. The contractual arrangement between the local educational authority and the colleges was set at two years.

8. Co-author of this article.

9. A central element in teaching and a tool passed on to Pascal by a peer recognized as competent when starting out in the profession, the instruction sheet formalizes and illustrates the criteria for completing a task (e.g., conception of a drawing: a drawing must have a title, a scale, a legend, and various features).

10. The French equivalent of school boards in Quebec, which in 2020 became school service centres.

11. Renamed in 2019 as the *Institut des hautes études de l'éducation et de la formation* (IH2EF), which translates as graduate institute for education and training.

12. Certificate of competency in the role of academic trainer for secondary school teachers.

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## ANNEX

### *Analytical framework of assessment for learning proposed by the co-researcher*

| | Assessment process and tools for teaching Interactions between teachers, student(s), and the pedagogical collective | | |
|---|---|---|---|
| | **Teacher** | **Student(s)** | **Pedagogical collective** |
| Learning objectives | | | |
| Tasks | | | |
| Achievement criteria[a] Success criteria[b] Success indicators[c] | | | |
| Modalities/assessment process (diagnostic/ formative/ training/ summative/ certification dimensions) | | | |
| Feedback: responses to students | | | |
| Analysis | | | |
| Action plan (objectives) | | | |
| | Context – professional identity | | |

*Temporal dynamic (iterative stages)*

[a] Achievement criteria: what the student needs to do to complete the task at hand.
[b] Success criteria: quality of the achievement (general criteria).
[c] Success indicators: quality of the achievement in the context of the task.