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## Critical Approach to the Contribution Made by Education Research to the Social Construction of the Value of Teaching Work

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**ABSTRACT** Current changes affecting education systems have impacted teaching work as a whole. The concept of teachers' and establishments' effectiveness was introduced to operationalise an approach that is dominated by the cost-benefit model. This article uses this premise to suggest an analysis of the social value of teaching work, and more specifically the contribution made by education research in developing this value. The article outlines the most significant trends in education research in conjunction with teaching work – that is, work on the effectiveness of teachers and establishments – and applies a critical approach (methodology, theory and axiology) to indicate its limits. The article concludes with a clarification approach to enable education research to fully fulfil its social, critical and heuristic functions and renew its contribution to the definition of the social value of teaching work.

### Introduction

This article stems from an approach which considers that for several decades education policy – primarily in the West – has been applying developments strongly marked by a liberal rationale: increased margin of autonomy, accountability and competition between establishments, etc. Everything is taking place as if education were being gradually transformed into merchandise – that is, primarily under the guiding principle of a cost-benefit approach. In such an approach, however, benefit is assessed according to debatable methods using students' school results (in a few subjects). A perfect example of such can be found in PISA (Programme for International Student Assessment) evaluations. These are developed and implemented by the Organisation for Economic Co-operation and Development (OECD), which is supposed to 'promote policies that will improve the economic and social well-being of people around the world' [1], but which we consider a major instrument acknowledged to cater to liberal policies.

The changes affecting education systems have clearly impacted the teaching world – in particular, the implementation of the aim of making teachers more professional. As a corollary, concerns about teaching work have emerged due to the combination of reflections on various aspects (separation of personal and professional spheres in the professionalisation rationale, questions about organisation and more specifically about working hours, the importance of issues relating to teachers' health at work [2], etc.). The concept of effectiveness has therefore been raised to conceal the sudden formulation of the cost-benefit approach. Even though reference is made to the issue of effectiveness of either teachers or establishments (as teaching work is deployed on these two levels), the idea of a 'return' in terms of student results continues to predominate.

This article offers an analysis of the social value of teaching work on the basis of this premise. We will see that education policies relayed and/or driven by the OECD strive to circumscribe this value by paring the benefits (a few student results) down to the bare minimum as justification for

subsequently reducing their cost. Given this state of affairs, there are grounds for believing that education research serves as the crucible of resistance to such a strategy in demonstrating that the value of teaching work cannot be reduced to a measurement of a few students' results. In fact, this is not the case. This article will outline the most significant trends in education research in more or less direct relation to teaching work – that is, work on the effectiveness of teachers and work on the effectiveness of establishments. It will then be noted that such research is in line with the OECD and education policies. However, a critical approach (method, theory and axiology) will be proposed to clarify its limits. In conclusion, this article will suggest a number of vital clarifications for education research to fully fulfil its social, critical and heuristic functions and provide a consistent contribution to the definition of the social value of teaching work.

### **The Value of Teaching Work**

This section attempts to identify the issues by stipulating the terms that are subsequently discussed. It begins by outlining teaching work as an object and then stipulates what may equate to its social value. It continues by examining a few objective indicators of this value that highlight a clear paradox.

#### *Characteristics of Teaching Work*

Work is a subject of study in many disciplines.[3] Their different approaches help shape the manner in which it is perceived in social terms according to varying conditions. The approach in this article focuses on teaching work solely and the contribution made by education research [4] to defining its social value. The emergence of teaching work as a concept is relatively recent in this research field. In the French-speaking world, ground-breaking work by Tardif and Lessard (1999) defines it according to three aspects: activity, status and experience. According to them, work as an 'activity' covers 'the organisational structures in which this activity is implemented, structures that condition it in multiple ways' and 'the implementation of this activity, i.e., the continuous interactions within the process of concrete work between the worker, his or her product, aims, tools, knowledge and the results of work'. Work 'as a status' refers to the issue of the 'identity of the work both in how work is organised and in the social organisation insofar as they operate according imposed standards and rules that define the roles and positions of the parties concerned'. Work 'as an experience' equates to work as perceived and signified by and for itself. Such experience can be understood to have two meanings, either as 'a process of spontaneous training that enables the worker to acquire certainty in how to control recurring labour facts and situations', or as a process based on 'the intensity and meaning of a situation experienced by an individual'. The authors also emphasise the need to introduce a 'social aspect to the very core of individual experience, which makes it possible to position everyone's experience in setting or varying degrees of sharing of joint, typical and comparable situations'. This definition installs the complexity of 'teaching work' as a subject and justifies its consideration when studying the value of such work.

The qualification of teaching work can be extended, however, by referring to an easily identifiable trend in western countries in the last two decades (Lessard, 2000; Maroy, 2006). We are witnessing a diversification in the forms of this work which were traditionally undertaken individually by the teacher in the classroom and which are now opening up to include collaborative, partnership [5] and collective approaches (Marcel et al, 2007). This process is the consequence of the rise in establishments' autonomy (van Zanten, 2004), which is reflected in teaching teams and teachers.[6] The European Commission report (Eurydice, 2008) also highlights these trends and emphasises the development of spheres of responsibility and autonomy for teachers. The report also states, with regard to collective work, that '[i]n virtually all European countries, official legislation or regulations now require teachers to collaborate in developing subject-based curricular content, interdisciplinary activities and common assessment methods' (p. 70). The report adds that 'in the majority of countries, teamwork is not only included in teachers' tasks but also the range of its constituent activities is relatively uniform both within and between the countries' (p. 43).

These trends have consequences on the analysis conducted below on the manner in which education research highlights the value of teaching work. A review in turn of the research focusing on work at class level (and at teacher level) and of the research focusing on the establishment will be conducted. The Eurydice report (Eurydice, 2008) also finds justification for the variety of assessment and inspection conditions of teaching practice 'because the work of teachers is today viewed both in individual terms – the activity of qualified professionals – and from a collective standpoint – the results achieved by the teaching staff team at a school' (p. 62), which was confirmed by the OECD (2011b, p. 462) in its very marked insistence on 'establishment empowerment' (in terms of performance, regulations and market).

### *The Value of Teaching Work*

Work value is a subject that is clearly studied in depth in economics; however, my approach differs slightly. A very general definition [7] goes as follows: 'an assessment of a thing according to its social utility, the quantity of work required for its production and the supply to demand ratio'. I will briefly consider the last two definitions and apply them to teaching work before returning to the first (social utility), which I will use for this article:

- (a) Supply to demand ratio. I maintain that demand for teaching work is growing. The first argument in support of this is borrowed from the forecast for teacher requirements by 2015 published by UNESCO (Motivans et al, 2006). The report states that 'for all regions taken together, 76 countries must increase their teaching staff. ... Overall, they will need 2.7 million additional teachers' (p. 41). The second argument includes teaching work in a broader process that contributes to 'learning throughout life' (OECD, 2007a): 'Demographic ageing is pushing the age of retirement upwards in most developed nations. Individuals consequently face the growing need to update their abilities at all times and their education in order to progress at the same pace as their professional environment' (OECD, 2007a, p. 6). We can therefore see that such demand is increasing both for demographic and educational geographic reasons and for reasons of time and duration of education and training.
- (b) Quantity of teaching work required for production. The value of teaching work in this approach depends on the quantity of work required to produce teaching work. The value of teaching work from this point of view is also rising. There is an upward trend in recruiting levels in Europe. In France, for example (but also elsewhere in Europe), the upward trend is reflected in the 'master's' reform which came into effect in 2010 and entails requiring teachers hired for secondary schools to have degrees at least equal to a master's. Rising recruitment levels also mean extending teacher training time and therefore increase the value of teaching work.
- (c) Social utility. I will apply this social-utility definition of the value of teaching work for the remainder of the article. Beyond utility assessed in accounting terms and calculated by comparing costs to benefits in the case of a degree being granted (OECD, 2011b, p. 170), I posit that the social utility of teaching work concerns both students and teachers themselves:
  - For students [8], we can identify the conventional sphere, which refers to instruction and scholastic performance (and which can be extended by degrees, qualifications and integration in the labour market), in comparison with the sphere that refers to the education and upbringing of citizens (instilling a critical approach, a sense of independence, commitment, responsibility, etc.).
  - As far as teachers are concerned, social utility refers to their professional development and to factors relating to their well-being at work, all of which influence their initiatives and their commitments, first at school, but also, and more generally, in society. In this I would transcend a strictly professional bailiwick to address a process that has been the subject of theories in the footsteps of Paulo Freire, that is, Tommasino and De Hegedüs' (2006) ideas of 'social extension'.

### *Some Indicators of the Value of Teaching Work*

Before returning to the value of teaching work based on its social utility, it is possible to note that the value of teaching work is equally important in relation to demand for it and in relation to the

quality of work time. I will later return to its social utility [9], but will begin with a consideration of some 'objective' indicators of the value of teaching work.

First, teacher pay and compensation levels are lower than they are for workers with equivalent degrees.[10] In primary schooling a teacher earns only 77% of the salary of teachers in higher education (aged 25 to 64 and working full time throughout the year). In lower secondary schools this figure is 81%, and in upper secondary schools it is 85% (OECD, 2011b).

Second, although teachers' assignments have been significantly 'extended', their authority to act (autonomy, empowerment, etc.) and the resources assigned to implement their new positions have not kept pace. According to the conclusions of the Eurydice report (2008), such an extension has had very few effects on the two factors analysed:

- 'Besides the existence of national regulations, the individual freedom of teachers in performing their new duties is also limited daily by a new collective ethos among teachers and various forms of supervision that schools have to exercise. Indeed, close analysis of the new responsibilities exercised by teachers reveals that, in the majority of countries, they have been allocated not so much to individual teachers as to the entire teaching staff team, either separately or together with the school head' (Eurydice, 2008, p. 72).
- 'The broader range of tasks undertaken by them has not always led to an improvement in their working conditions in all countries. ... Furthermore, these incentives have not been in proportion to the growth in the responsibilities of teachers. ... There appears to be a significant disparity at present between official requirements, what exercising new responsibilities really means in practice, and the resources made available to achieve the aims concerned' (Eurydice, 2008, p. 73).

These indicators would appear to demonstrate that teaching work is somewhat mishandled by education policy [11] and that the processes for establishing its value would benefit from being questioned even in terms of its social utility. In this article I will more specifically consider the contribution of education research to the definition of the value of teaching work.

### **The Contribution of Education Research to the Definition of the Value of Teaching Work**

In the manner in which it addresses the social utility of teaching work and the results it produces, education research helps cast light on the issue. Not all the works presented below explicitly refer to teaching work (which has emerged as a subject for scientific research only relatively recently), but they do lend themselves well to the description offered in the 'Characteristics of Teaching Work' section above. I will therefore consider an 'individual' approach focusing on teaching work and then a 'collective' approach that situates the teaching work at team or establishment level. In terms of direction, I will address only the internationally dominating one [12] that stems from the paradigm of effectiveness endorsed more or less explicitly by transformative aims.

#### *Effective Teachers*

The notion of the 'effective teacher' is the object of strong political concern, as indicated by three recent reports: one in the USA (Goe et al, 2008) identifies the various approaches to 'assessing teacher effectiveness'; another in Latin America (Hunt, 2009) highlights the 'effectiveness of teaching performance'; and a French one (Cusset, 2011) has been submitted to the French government. All three emphasise in their titles the contribution made by research, with a 'research summary' in the first, a 'list of international literature' in the second and a section entitled 'what does research say about the teaching effect?' in the third.

Work on the teacher effect (for a summary, see Bressoux, 1999) [13] has provided a basic definition of this concept based on variance analysis techniques. This equates to a set of variations in student results not 'explained' by other variables (characteristics of students, school context, etc.), and which could therefore be attributed to the teacher.

Such research has subsequently targeted the characteristics of the teacher (Bressoux, 2007), such as authority, time management, clarity of objectives, session structure and high student

expectations. Similar results can be found in the recent summary proposed by Feyfant (2011) under the section entitled 'Factors Relating to the Teacher's Personality'.

An experimental research approach was implemented in the USA (in Tennessee, from 1985 to 1989) entitled 'Student Teacher Achievement Ratio' (STAR), which concerned 329 classes and 7000 students. Even though the main finding was the importance of reducing class size, collected data were used for many complementary studies. For example, Nye et al (2004) demonstrated the importance of teacher experience.

A major development does, however, emerge. It is clearly upheld by Campbell et al (2004a) and Carette (2008), and insists on the need not to focus on the teacher's characteristics but more on how class sessions are implemented (teaching method, organisation, deployment of resources, etc.) and proposes a multi-tiered model of effectiveness. The extensive collection of work focusing on quality indicators (Zumwalt & Craig, 2005) applies the same rationale (in spite of the title of the Zumwalt & Craig article – 'Teachers' Characteristics'). Using the disparities between pre-tests and post-tests, the research analyses the effects of two aspects, 'academic ability' and 'achievement'. Despite its ambition, the collection has produced only very subtly different results.

A second recent approach, 'Measures of Effective Teaching' [MET], clearly illustrates the change in focus. It was launched in the USA at the end of 2009, involving 3000 volunteer teachers with the aim of developing an effectiveness assessment approach for teachers and teaching practice. The approach takes account of disparities between student results, along with methods of teaching practice (observed or recorded on video), and it includes a measurement of teachers' knowledge, assessments by students of teacher practice and an assessment by teachers of their working conditions. Note should be taken of the diversification in terms of the aspects that are taken into account, and of changes in the status of the teacher, whose opinions regarding their work are taken into account for the first time.

### *Effective Establishment*

Given their extensiveness, I will consider here two trends in work in the Americas: the School Effectiveness Research in the USA, and *eficacia escolar* (school effectiveness) in South America.

School Effectiveness Research (SER) began in the 1980s with the aim of demonstrating that schools had a significant effect on student results. Reynolds and Teddlie simplified the emergence of this movement with the introduction of 'process variables' between 'inputs' and 'outputs' (2000a, p. 5). Outside the 'school climate' variable, they presented the nine most-studied processes (p. 144): leadership in the establishment; teaching (use of time, adapting practice, etc.); development and continuation of focus on learning; creation of a school culture; development of high expectations (for students and adults); accentuation of student responsibilities and the exercise of justice; monitoring of progress (at the level of the student, the class and the school); the development of objectives; and parent enrolment. These processes offer the specific feature of very often being presented with qualifiers such as 'effective', 'positive' or 'appropriate'. The authors position the emergence of 'school improvement studies' (SIR) as the direct extension of outputs and therefore of the SER (Reynolds & Teddlie, 2000a, p. 5, diagrams).

Research in Latin America fine-tuned the factors relating to the establishment and its context in the mid-1980s. Analyses were conducted of teacher effectiveness (traits, attitudes and behaviour), of climate (in the classroom and school), and of the economic and material resources and contextual factors affecting students: pre-schooling rate, nutrition levels and cultural conflicts (between family upbringing and schooling primarily in rural areas) (Murillo Torrecilla, 2003a, pp. 6-7). Research on *eficacia escolar* has three specific characteristics (Murillo Torrecilla, 2003b): a clearly 'applied' character; a schooling effectiveness research (SER) approach; and also a school improvement studies (SIR) orientation, along with a relation which is claimed to be with both educational development and education research.

A new phase can be seen in the models by Reynolds and Teddlie with the introduction of context variables that influence the three components (input, process and output). Teddlie, Stringfield & Reynolds (2000, p. 160) define them according to four aspects: the social and economic status of the school's students; the type of agglomeration in which the school is located

(urban, rural); teaching levels; and the hierarchical structure of the school (state-owned school, private school, etc.).

To provide a rapid overview of SER work, I outline four summaries in the form of a table (Table I). All the summaries strive to identify the features of an effective school.

	Summary of Purkey & Smith, 1983	Summary of Levine & Lezotte, 1990	Summary of Cotton, 1995	Summary of Sammons et al, 1995
Management styles	Strong leadership	Exceptional leadership	Focused on management, organisation and planning	Firm leadership, participating and visionary (professional)
School objectives	Focused on basic knowledge	Emphasising learning skills (learning to learn)	Planning and focus on learning	Focus on teaching and learning
School climate	Ordered, culture of cooperation	'Productive' climate and culture	'Rational' climate (planning, design)	Climate based on an extensive degree of approval
Assessment methods	Frequent evaluations	'Appropriate' monitoring	Various assessment levels (district, school, class)	Monitoring of progress and assessment of the establishment
Class level	Time allocated, concentration, level groups	Effective organisation of instruction	Management of class organisation, instruction	Teaching by objectives. Structured lessons, 'tailored' service
Teachers' attitudes	High level of expectation	High level of expectation	Extensive interactions between students and teachers	High level of expectation
Staff professional development	Continuous education, refresher classes	Training focusing on practice	Professional refresher classes and collegial learning	Learning organisation, continuous education in the establishment
Role of students' parents	—	High involvement	Involvement	School-family partnership

Table I. Approaches to school effectiveness research.

### Critical Approach to this Contribution

My critique focuses on an approach to teaching work that considers its value (social utility) in terms of effectiveness only. I criticize both the teacher-related and establishment-related strands of this research stream not only regarding the manner in which they approach the teaching work, but also about the way in which they address the relation between teachers' work and students' results.

#### *Methodological Criticism*

More specifically, in this section I will consider the methodologies applied by SER, as they exacerbate decisions already made in work on teacher effectiveness. For SER, effectiveness is assessed statistically by measuring the contribution of these variables to variations in student results. In quoting Raudenbush and Willms (1995), Kennedy and Mandeville (2000) and Schagen and Hutchison (2003), I can chronologically cite the statistical models that do not take account of the various levels of data and multi-level models (MM) that rank data specifically by their level. These have been progressively fine-tuned by including corrections (to offset sampling limits or neutralise various biases) with a distinction between various types of effect [14] and an increase in the number of levels.

Such a technique-focused approach requires a link with the empirical approach assumed by indicators. Fitz-Gibbon and Kochan (2000) define indicators as 'an item of information collected at regular intervals to identify a system's performance' (p. 258), and set a series of ten strictly technical criteria to select indicators. They also offer a classification (p. 262) by time over four phases (admission, implementation, exit, long term) for indicators with five variables of 'flow/production'

(number of students and school resources), quality of life (internal 'assessment'), or relating to emotional, behavioural (including aims) and cognitive fields (aptitudes and successes).

I will now review the criticism levelled at SER.[15] The characteristics of SER as listed by one of the movement 'leaders' (Hopkins, 2001, p. 57) are as follows: a pragmatic response to policy initiatives; a commitment to quantitative methods; an interest in the formal aspect of school organisation (to the detriment of informal aspects); focus on results accepted as 'good' without being questioned, and on a 'static' description of a school. These characteristics already point to a number of limits, to which I will add insufficient consideration of curricula (described as 'frog princes' by Cuttance, 1986) or of what is going on in classrooms (Wendel, 2000). Goldstein and Myers (1997, p. 2) consider the appellation 'SER' a 'misnomer', as the effectiveness of a school is constantly changing according to curricula and groups of students. Wrigley (2004) considers SER a 'reductionist paradigm', which is described in four levels:

- Methodological reductionism: this concerns both the input/output model (limits of outputs, sliding from statistical model to a causal model, etc.) and the issue of indicators and how they are qualified. Wrigley uses as an example 'a clear and continuous centring on teaching and learning' to wonder 'how do scientists decide whether one school has this characteristic and the other does not?' (2004, p. 232).
- Contextual reductionism, which dispels the role of various school environments, which the author illustrates in the catchphrase 'no school is an island' (Wrigley, 2004, p. 234).
- Historic reductionism, that divests the school from the weight of its history.
- Moral reductionism, that considers the school independently of the values pervading it.

#### *Theoretical Criticism*

To continue from Wrigley, let us consider the issue of the underlying theoretical framework. Willmot (1999) maintains that SER refers more or less explicitly to a positivist paradigm, which means considering school as a closed system dispelling any contingency ('life chances', p. 253), while Stables (2003) calls for a phenomenological approach to be applied to understand the complexity of the local environment: 'The important thing about school is how it is imagined by those who conceive it' (p. 895). In reacting to such criticism, Hargreaves (2001) offers a theory based on 'social capital' and 'intellectual capital', which results in a detailed model (p. 497) interlinking the various components in a star-shaped network, but does not qualify the interrelations. This syntactic-type model is more of an outline, however, (or a fairly broad instrument for exploratory description) than a theoretical proposition.

The theoretical criticism could be provided on two different levels. The first concerns the simplistic approach to teaching work, which can be seen in several aspects:

- The presence of one input per teacher and one input per school that, despite several tentative attempts at modelling (for example, Campbell et al, 2004a, b), tend to overlook each other.
- The almost universal absence of the teacher's point of view (the MET is the only exception to this trend).
- A decision to opt for an analytical approach (through variables or factors) that saves on ensuring a stable and global definition, but cannot avoid being split up.

It can be noted that all these trends fail to offer any theory on teaching work. Yet such work studies the effectiveness of the teacher and the school by using variables such as the characteristics of the teacher, his or her practice, the organisation of learning settings, climate and coordination, etc. It would therefore be preferable to study the effectiveness of teaching work on the basis of a theoretical structure of individual and collective (i.e. the school's) input. The model by Tardif and Lessard (1999) [16] offers a solid starting point as a theoretical approach for this. I believe that work on theorising teaching work without particular concern for its effectiveness is a primary objective for education research.[17]

The second level of theoretical criticism concerns the very concept of effectiveness and the often implicit use of the process-product paradigm. This paradigm (for a reasoned presentation, see Crahay & Lafontaine, 1986) is the direct continuation of the paradigm of the fixed point and the mechanical model of a lever.[18] It considers students' results as the 'end product' of the 'process' of teaching (taken at the level of the teacher or the school indifferently). It is structured by a linear

relationship of cause and effect, which makes it possible to understand more effectively its analytical focus broadly inspired by the Cartesian method. Not to return to the first level of criticism, and considering that the limits of analytical focus have been exceeded by the modelling of teaching work, there is still the link between work and students' results. Belief that learning changes demonstrated by the students of a class are merely the direct consequence of a teacher's work is eminently debatable. For example, it means denying the contribution made by peers (other students), by the family or media (TV, Internet, etc.) or even by time (maturing). Above all, it means considering learning as a mechanical form (as defended by behaviourism), whereas contemporary research suggests that learning is, first, an action by the student who commits, mobilises resources and strategies and agrees to make a varying degree of effort. This paradigm quite simply overlooks the student in the learning process (and his or her various factors such as age, sex, cognitive level, level of commitment and strategies, etc.). Similarly, it is equally excessive to consider learning changes in a school's students only as the direct consequence of work by teachers in the said school.

I therefore suggest breaking with the process-product paradigm in favour of a systemic paradigm that considers teaching work as a contribution to student learning, and that addresses the student locus (with its characteristics and practice, etc.) and remains vigilant with regard to two particularly delicate aspects: learning time (continuity or transitional nature – see Kane & Staiger, 2008), and the 'reciprocal' influence between students' practice and learning results on the one hand, and teaching work on the other hand.

Given the limited scope of this article, I will not develop a systemic model for teaching work in detail. I will emphasise, however, two characteristics:

- The unity of teaching work (for which, see Marcel & Garcia, 2009). Of course, the unity equates to the very definition of the system and differentiates it from its environment (Lugan, 1993). Regarding teaching work, unity makes it possible first to exceed the juxtapositions in the triadic definition by Tardif and Lessard (1999). It also makes it possible to consider that the various tasks, activities, functions, assignments, conditions or organisations comprising such work are interdependent. It therefore disqualifies an approach to teaching work that would deprive it, for example, of part of its assignments by confining it only to addressing part of its instruction mission at the cost of the mission as a whole and, above all, of its education mission.
- Interrelations between the two spheres that constitute teaching work which we could summarise as 'perceived work' and 'objectivised work', and which do not exactly overlap the triadic definition by Tardif and Lessard (1999). The first sphere refers to an intrinsic approach to work and equates to perceived activities, assessment of working conditions, perceived successes and difficulties, issues of identity and health, etc. The second sphere refers to an extrinsic approach to work and equates to indicators concerning traces for activities, methods of organisation, parameters for working conditions, various results (in particular by students), etc. The systemic approach prompts a consideration of these two spheres as interdependent. I go so far as to propose stipulating such interdependence using the concept (borrowed from Malrieu, 1977) of inter-structuring, which I apply to the framework of teaching work. I have already reviewed the limits of a strictly extrinsic approach to teaching work. The inter-structuring approach makes it possible to devise new approaches to studying teaching work involving teachers and teaching collectives so as to understand their dynamics, changes and developments. However, it also prompts administrative and political levels to adopt different thinking on implementing change within such work which, of course, does not overlook the extrinsic factors, but neither will skimp on involving the parties involved and supporting them in the change process.

#### *Axiological Criticism*

As far as axiology is concerned, current research on effectiveness implicitly endorses an assessment of teaching work reduced to its 'return' – that is, an assumed effect of said work (the methodological and theoretical limits of which have been seen above) on a part of the school results by students.



This means that current research endorses a merchandising rationale in education – that is, education considered according to the primary principle of a cost–benefit ratio. I maintain that this approach is as debatable in education as it is in health or justice. On the one hand, as has been seen, indicators intended to report on benefits suffer – to say the least – from many instances of approximation and dubious choices. On the other, at a time when the official approach favours greater autonomy (by establishments and for teachers), the said autonomy will be inversely and gravely hampered. Instead of helping to promote innovation, or at least inventiveness in teaching and instruction, it will, on the contrary, be required to bow to the law of market forces. Policy choices by schools will have to serve to preserve their resources and focus on optimising the ensuing ‘benefits’ – with all the risks that can easily be imagined – and do so within a competitive environment [19] between schools.

The other axiological criticism levelled at research on effectiveness concerns the atrophying function of the school in several aspects:

- Atrophy of school subjects. Results taken into account concern only a few of them (often mathematics and language, more rarely sciences), which results in the introduction of a ranking system within subjects (students’ and parents’ strategies, the symbolic status of teachers, resources allocated by school heads, etc.). This is the first form of reducing the school’s educational function to privileged subjects in guidance procedures at the cost of those subjects that contribute to general culture and are therefore less directly ‘useful’.
- Atrophy of the school’s education function – that is, the function that rounds out its instruction function and makes school a crucible for educating citizens (autonomy, a critical approach, cultural openness, commitment and responsibility).
- Atrophy of the role of the teacher [20] (and of the school) in the neighbourhood, village or city. The social role of the teacher is reduced to that of an instructor; the school has no other purpose [21] than to acquire scholastic knowledge. All matters pertaining to social, sporting or cultural events, or more recently to technological ones, are marginalised.
- Atrophy in autonomy in the sphere of teaching work (working conditions, professional development, pleasure at work, etc.), as it is students’ results at school that are given priority.

I could even state that these aspects have been left out, as they do not directly appear to cater to optimising defined ‘benefits’.

### **Conclusion: points to support a clarification of education research functions**

This article highlights the limits of the contribution made by education research in measuring the social value of teaching work. Of course, as already said, there are other alternatives (see e.g. Bru, 2002), although work relating to effectiveness is particularly extensive and significant. Furthermore, there are grounds for talking about a form of convergence of interest, as work pursues the same directions as liberal policy and therefore enjoys an audience (as such research is frequently cited) and consequent financial support (in the form of research tenders it is the most likely to win). To transcend these limitations, and in conclusion, I propose clarifying the three vital functions of education research: its social function and relation to policy; its critical function; and its heuristic function.

#### *The Social Function of Education Research and Relation to Policy*

With regard to work on effectiveness, Weiner (2002) asserts, for example, that ‘SER has been abused by governments’ (p. 793). He clearly indicates the limits to pragmatism and the established risks of instrumentalism and diversion. I defend education research that can uphold its independence with regard to political circles.[22] This does not mean overlooking them; on the contrary, it means clarifying relations, to which end I suggest two levels:

- The preservation of the undoubted scientific rigour of my work. This means, first, that in a field where educational beliefs and teaching values are ubiquitous, we have to be capable of distinguishing between the postures and approaches of researchers and militants. This also means that we should know how to uphold research using academic objectives (developing knowledge ‘about’) without overlooking approaches with praxeological directions to enable

consideration of social demand (mobilising research 'for'). I have even proposed an approach to structure the two directions without blending them. This approach I refer to as 'third party social and scientific space' (Marcel, 2010).

- Conditions for processing 'orders' from political actors. The items which research can offer for the concerns of a political body, which are precise and in context, are intended to 'cast light on' decision-making. Each partner must retain its prerogatives; a researcher has no call to offer turnkey solutions any more than a politician can justify a decision based solely on research. To avoid relations suffering from ambiguity and harmful derivation, I propose an approach to help decision-making (see e.g. Bedin, 1999, 2007) – that is, an approach to developing policy within which the research (or study) relation has a preponderant role.

#### *The Critical Function of Education Research*

A quote by Gaston Bachelard (1972) serves well as an introduction to such a function: 'the deeper we go into science, the higher we raise it' – although I offer two directions for the process of 'deepening'. The first direction is characteristic of all scientific approaches and targets the research process, submitting the resulting products to a continuous epistemological interrogation. It formally circumscribes research validity by an analysis of conditions (primarily methodological ones) in which research was produced. The second direction is more specific to social sciences (and therefore directly concerns education research) in being applied upstream and downstream of the process. This direction concerns primarily a rigorous analysis of the limits of empirical factors in use. It is then extended by consideration of the consequences of its findings, taking care to protect against any social exploitation designed to serve its own ends.

This twofold direction can be illustrated by questioning the use made by researchers of international surveys (Blum & Guérin, 2000) and more specifically PISA. This survey will not be presented at length.[23] It was launched by the OECD in 2000 and implemented over three-year intervals to focus on 15-year-old students (primarily in OECD member nations). Using a battery of items, the survey assesses acquired skills in literacy, mathematics and scientific culture.

The criticism levelled at this approach (in particular, methodological criticism) has been extensive and severe. The following contributions can be briefly cited: Bonnet (2002); Nidegger (2003); Rocher (2003); Goldstein (2004); and Vrignaud (2006). Even though such analyses are available, there have been many secondary analyses of the results published. Even though the interest of such results in terms of an empirical corpus can be accepted, it is important that opportunities are not seized without a detailed explanation of the precautions required for their use. In addition to occasional statistical blunders noted by the articles cited above (criticism stemming from the primary direction of the critical function in education research), the research does not in our view sufficiently present its limits as any acceptable research should do. This means that PISA 'continuations' are insufficiently kept at a distance through a fully assumed critical approach and therefore appear to endorse and consolidate the approach without questioning it (which brings us back to the second direction of the critical function of education research).

#### *The Heuristic Function of Education Research*

The primary function in education research must remain its heuristic function – that is, developing theories on teaching work that produce knowledge on such work and do not reduce its social value to its returns (as measured in terms of a few students' results).

With this outlook, it is interesting to note that the OECD advances items that may undermine the model of effectiveness. In 2006, the OECD cited Latin American work focusing on fairness to insist on 'ensuring that teachers are assigned to schools that have the greatest need of them' (Motivans et al, 2006, p. 99). In 2007, it undermined, admittedly through two indirect ways, the 'return' that would not go beyond results from the school instruction mission. First, it focused on the theory of human capital defined as 'the collection of gifts and aptitudes specific to an individual and abilities and knowledge the individual acquires throughout his or her education and training' (OECD, 2007a, p. 2); and then it considered that the 'social consequences of education' also concerned health, civic commitment and citizenship (OECD, 2007b, p. 12).

Even so, it was TALIS (the Teaching And Learning International Survey) that in 2008 began approaching broadly the sphere of schools and teachers. As a presentation I will use what was written about the 2013 survey: 'TALIS 2013 has a strong focus on teachers' professional environment, teaching conditions and the impact on school and teacher effectiveness. The TALIS 2013 survey will focus on: teacher training and professional development, teachers' appraisal and feedback, school climate, school leadership, teachers' instructional beliefs and teachers' pedagogical practices' (OECD, 2011a, p. 6). As can be seen, the sphere of teaching work is approached here in a more diversified manner. The resulting publications will make these directions operational by exploring new fields: Baker et al (2009) sweep the whole range, and Scheerens (2010) targets the professional development of teachers.

One major idea supports such work – the idea of the need to take account of the teacher [24] (his or her points of view, assessments, commitment, working conditions and development) to make the school change. It could be said that it wrong-foots what could be interpreted as an 'epistemology of suspicion' in work on effectiveness.

However, given the liberal outlook of the OECD, it would appear that the organisation is planning in the fairly near future to cross-reference the results from TALIS and from PISA. This is where education research must mobilise its heuristic function at two complementary levels which may well be divided into two phases:

- Teaching work on the one hand, contrary to the TALIS proposal, cannot be reduced to a list of rather disparate indicators. It is important that a strong theory is stabilised (in line with the complexity of the social function of the school, of establishments and of teachers). Here, the contribution by Tardif and Lessard (1999) offers an interesting starting point. However, in our opinion it has a limit which is covered in the following point.
- A theory of teaching work does not appear to be able to free itself from the consideration of student learning. This observation has two consequences. The first concerns the type of learning that cannot be limited to the instruction aspects of school (and to measuring only a few school results) but must address the educational aspects of school (and everything that relates to learning about citizenship). The second and more formidable consequence concerns the link between teaching work and student learning. It cannot be reduced to the statistical cross-referencing currently in use, but must be theorised by granting a significant role to teaching practice (teaching and other professional practice) and to student practice.[25]

## Notes

[1] [http://www.oecd.org/pages/0,3417,en\\_36734052\\_36734103\\_36734243\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/pages/0,3417,en_36734052_36734103_36734243_1_1_1_1,00.html)

[2] For example, see Janot-Bergugnat and Rasclé (2008); Lantheaume and Hélou (2008).

[3] See, for example, the summaries of the work by Pillon and Vatin (2003) in sociological terms, or the work by Brangier et al (2004) in psychological terms.

[4] Even if education research ('education sciences' in the French-speaking world) owes much to other humanities, I acknowledge it has a relative degree of autonomy.

[5] This is accompanied, in particular in North America, by an increase in the number of teaching technicians within schools who handle tasks previously carried out by teachers (Tardif & Levasseur, 2010).

[6] To which should be added the approach in terms of 'teacher professionalization' (Tardif, 2007).

[7] <http://www.cnrtl.fr/definition/valeur>

[8] I will not raise the argument here about the dual function of school (and thus of teaching work) as being one of educating and also bringing up students.

[9] I have decided to refrain here from developing the philosophical approach to the notion of value (which is abundantly considered in axiology). The value of teaching work there would refer both to the values applied within teaching situations (and these are in line with forms of morals) and to the intrinsic value of education work as a contribution to human emancipation and progress.

[10] These indicators can be considered in light of a CSA survey dating from May 2006 (<http://www.csa.eu/multimedia/data/sondages/data2006/opi20060427e.htm>) which indicates that

- the most important factor in work for workers is 'working conditions' (51%), followed by 'remuneration' (50%).
- [11] One example is the title of a recent French union review: 'Éducation: le travail empêché' ['Education – prevented work'] (*Pour*, 154, September 2011).
- [12] It should also be noted that even though their audience is narrower, other works exist and claim the need to develop a body of scientific knowledge about this work with a focus on heuristic aims alone. Such works can be found in particular in French-speaking research on teaching practice (for which, see Bru, 2002).
- [13] In the English-speaking literature, it is worth citing Stallings (1980); Brophy (1981); Rose & Medway (1981); Brophy & Good (1986); Rosenshine & Stevens (1986); Mortimore et al (1989).
- [14] Raudenbush and Wilms (1995) make a distinction between type A, drawn up by means of comparing scores between students and similar students in other schools, and type B, drawn up by comparing similar students in schools in similar environments.
- [15] The importance of which is reflected in a 'rebuttal' to the criticism (Thrupp, 2001).
- [16] These authors claim links with North American approaches, primarily in the section entitled 'Work as Activity'. They cite among others Dreeben (1970), Hasenfeld (1983) and Lipsky (1980).
- [17] Our current research, with the intention of setting up an 'observatory of teaching work' for public agricultural colleges in France, is in line with this objective; its operability and the production of results will ensure further knowledge of teaching work.
- [18] 'Give me a place to stand, and I shall move the earth' (Archimedes).
- [19] The concept of 'quasi market' has been used for several years in Belgian analyses (Dupriez & Cornet, 2005).
- [20] The history of French primary schools, primarily in rural environments, is illustrative. A reflection can be seen in the Latin American concept of 'social extension' (Tommasino & De Hegedüs, 2006) in the university sector.
- [21] To illustrate a less narrow function of a school, let us take the example of French agricultural schools and colleges which claim the role of 'regional actor' (<http://www.chlorofil.fr/>).
- [22] Of interest is the analysis in this field by Jean-Michel Berthelot (1996) in sociology.
- [23] Interested readers may refer to, for example, Rochex (2006); Eurydice (2009); Rey (2011).
- [24] The article by Torres Gonzalez (2010) shows that this concept is also present in Spanish-speaking research.
- [25] The framework of the Bandura proposal (1993, 2001, 2003) on the individuals' feeling of personal effectiveness offers an interesting contribution to cast light on the link between practice and the results of said practice for both the teacher and the student.

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