

## **Educational sciences in France. History and current events**

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**Abstract.** French educational sciences stem from a long history that began in the late 19th century when Republican education policy needed scientific support. At that time they use the expression "Science of Education" (*Science de l'éducation*: singular in French). It soon became clear that this reference to an unique science of education was not appropriate and the discipline disappeared from universities for a long time until they were recreated as educational sciences (*Sciences de l'éducation*: plural in French) in 1967. The article examines the content of these educational sciences, now challenged by neuroeducation, regarded as a new "true and unique" scientific approach to education. This essay questions the place of pedagogy in "educational sciences", on the one hand, and the heterogeneity and epistemological value of this new discipline, its numerous and diverse contributions to the knowledge of educational phenomena, on the other. An agreement with UNESCO's conception of pluralistic and multi-stakeholder educational research is also expressed here.

**Keywords.** Educational sciences – Pedagogy – Epistemology – France

Traditionally, in France, pedagogy has been poorly regarded because of its initial links with the professional culture of primary teachers and the dominance of secondary education, «ce tout-puissant empire du milieu» (i.e. «the all powerful empire of the middle term» between primary learning and higher education), according to the historian Lucien Febvre<sup>1</sup>. This opinion belonged to the idea that pedagogy essentially involved practices without any theoretical dimension, that is empirical practices reserved for primary teachers who had no true or scientific knowledge, unlike secondary teachers trained in universities (whereas primary ones were not<sup>2</sup>). However, when it was considered as a part of philosophy and as a theoretical reflection on the school, pedagogy could eventually be accepted.

Often equated to pedagogy, educational sciences were and still are partially in the same situation. Today, they are seriously challenged by neural science and neuro-education<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup>L. Febvre, Vue d'ensemble. Cinquante and d'enseignement français, in C. Bouglé (ed.), Encyclopédie française, XV: Éducation et instruction, Paris, Société de gestion de l'Encyclopédie française, 1939.

<sup>&</sup>lt;sup>2</sup> French primary teachers were trained in *écoles normales* which belonged exclusively to "Primary learning", and by no means to universities (from 1835 until 1990).

<sup>&</sup>lt;sup>3</sup> S. Dehaene, L'école éclairée par la science. Travaux du Conseil scientifique de l'éducation nationale, Paris, Odile Jacob, 2021.

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Therefore, in this article, I would like to pose the following questions: what truly are French educational sciences? What is the place of pedagogy in their field? What is their epistemology and, ultimately, their value for the present and the future?

### 1. A brief detour through history

This detour aims to recall that the illusion of the possibility of a single science of education has already occurred in other forms and in another historical context in France<sup>4</sup>. A university discipline was created in the 1880s in order to "scientifically" support the free and compulsory school instituted by the Third Republic. This teaching was entrusted between 1883 and 1914 to professors of philosophy, recognized by rectors for their moral value and republican commitment. Under the heading "Science of Education" (or exceptionally "Pedagogy"), each teacher has in fact most often developed a philosophical thought largely imbued with moral reflection, so that on the eve of the First World War the science of education was only an «uncertain and polymorphous» discipline<sup>5</sup>. Gradually, after the war, the chairs of educational "science" (in French science de l'éducation, in the singular), disappeared: this was the case in most French university cities, except in a few places such as Lyon<sup>6</sup>.

After the Second World War, in the new context of growth and democratization of secondary education, the need for an academic discipline oriented towards the objective and scientific approach to educational questions was again felt. Professors of psychology – Gaston Mialaret – and philosophy – Maurice Debesse, Jean Chateau – undertook lobbying the Ministry of National Education in this perspective. This action was crowned with success when new "educational sciences" were created, by a decree of February 11, 1967.

See below the contents of the certificates of license in "Sciences of Education" (in French *sciences de l'éducation*, in the plural), according to the Official Journal of the French Republic (no. 0036 of February 11, 1967, p. 1512):

- Certificate in General Pedagogy (in French Pédagogie générale),
- Certificate in Psychosociology of Education (in French Psychosociologie de l'éducation),
- Certificate in Applied Pedagogy (in French Pédagogie appliquée),
- Optional second-year certificate (in French Certificat optionnel de deuxième année),

In order to designate the new academic discipline, decision-makers have long hesitated between several possible names, Pedagogy or Psycho-Pedagogy, or Pedagogical Sciences, but always from the perspective of an objectifying pluralistic approach to educational phenomena<sup>7</sup>. As can be seen from the content of the certificates under the

<sup>&</sup>lt;sup>4</sup> J. Gautherin, Une discipline pour la République. La Science de l'éducatión en France (1882-1914), Bern, Peter Lang, 2002.

<sup>&</sup>lt;sup>5</sup> Ibidem.

<sup>&</sup>lt;sup>6</sup> F. Mole, A. Robert, J. Gautherin, La science de l'éducatión à Lyon: entre initiative d'État et histoire pédagogique locale, la greffe d'une positivité scientifique sur une tradition spiritualiste (1884-1945), in «Historia de la Educación», 34 (2015), pp. 245-262.

<sup>&</sup>lt;sup>7</sup> A. Prost, La formation des maîtres de 1940 à 2010, Rennes, Presses universitaires de Rennes, 2014; F. Laot,

new discipline, except for Psychosociology, there is a discrepancy between the generic title which has been chosen, "Educational Sciences" (in French Sciences de l'éducation), and most certificates devoted to Pedagogy. In fact, it is the actual curriculum of education that has revealed, over time, the content of teaching.

# 2. Evolution and stabilization of educational sciences at the university. What epistemological consequences?

#### a) "Actual" curriculum

In their actual evolution, the new Educational Sciences are a combination of an axiological dimension relating to any question and educational action (question of aims), a praxeological dimension (pedagogical practices aimed at acting upon reality, particularly important in teacher training), and an epistemic dimension (concerned with the establishment of objective and cumulative knowledge on educational facts).

They consist of so-called 1) "mother" disciplines and 2) "other" emerging disciplines:

- 1. Philosophy, psychology, sociology, history of education and pedagogy, the basis of Educational Sciences. Pedagogy first found its justification in the reflection resulting from the experiences drawn from the practices of the "New education", which placed it in a mainly philosophical perspective (cf. Jean-Jacques Rousseau, considered as the founding father of the modern pedagogical revolution, an author analyzed mainly by philosophers). Especially in teacher training, pedagogy was considered more from the practical point of view.
- 2. Didactics, digital sciences, language sciences, nursing, "therapeutic patient education", family and social education, sciences and practices of training, Science and Techniques of Physical and Sports Activities, etc. The new knowledge brought more recently by cognitive science and neuro-education cannot be ignored in this corpus (if they do not place themselves *a priori* in a dominant and imperialist position).

In short, the result can only be that of disciplinary heterogeneity, in the manner that Bernard Charlot once spoke of an "archipelago" of disciplines and approaches<sup>8</sup>. This does not lead to a definitive epistemological invalidation but rather to a stimulating debate, initiated at the beginning of the first decades of existence of the educational sciences.

#### b) What epistemology?

On the one hand, some teacher-researchers are in favour of the thesis of distinct epistemologies, each relating to its disciplinary field of reference. Thus, at a conference held in Toulouse in 1982, sociologist Viviane Isambert-Jamati declared: «When it comes to research and no longer training, the use of the plural becomes important to affirm not only the diversity of educational sciences, but especially the specificity of each of them [...] Assumptions must be pushed to the limit, without going back and forth from one

R. Rogers (eds), Les sciences de l'éducation. Émergence d'un champ de recherche dans l'après-guerre, Rennes, Presses universitaires de Rennes, 2015.

<sup>&</sup>lt;sup>8</sup> B. Charlot, Les sciences de l'éducation: un enjeu, un défi, Paris, ESF, 1995.

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theoretical framework to another»9.

On the other hand, some other tenors of the new discipline, such as Jacques Ardoino<sup>10</sup>, argued for a unitary epistemology, calling researchers to "multireferentiality", to a true scientific "polyglotism" whose elements could be found in the celebration of the heuristic virtues of complexity<sup>11</sup>. If, with Ardoino's project, we approach, at least ideally, a form of unity, this "polyglotism" appears difficult to sustain when the question is considered from the angle of the highest scientific requirement.

This is why the path experienced by Claudine Blanchard-Laville and other teacher-researchers under the name of "co-disciplinarity" seems to correspond better to what the educational sciences can and must be in the current reality of their existence and practice: a gathering of heterogeneous fields and types of research around the educational problem. Claudine Blanchard-Laville and her colleagues put forward the idea of co-thinking about the same object, that is, the delimitation of a "space in which we do not think [...] the same thing, but where the same thing makes us think» and where "it is a question of evoking a co-construction of meaning about the same object of study»<sup>12</sup>.

Most of the current French educational sciences research laboratories display such an ambition of inter-, if not trans-disciplinarity, even if, in practice, it is difficult to achieve.

#### c) The need to work on the epistemological question

This does not solve the epistemological problem that I have previously posed. Without claiming a resolution of the latter, the analyses made by sociologists of science such as Helena Nowotny, Peter Scott and Michael Gibbons may be valuable<sup>13</sup>. These authors distinguish two modes of knowledge which succeeded each other globally over time and which today coexist, each having their own legitimacy. In the older mode 1, scientific knowledge is rather an individual product, it is clearly compartmentalized by means of disciplinary boundaries, it has an essentially academic orientation; social utility is therefore not its primary concern, at least if it is considered as immediately effective (we are not far from the Humboldtian conception of the university). In mode 2, which is more related to the professionalizing university, knowledge increasingly takes on a collective, interdisciplinary character, falling under what is called Research-Innovation-Development, deliberately turned towards social uses, and constantly concerned with the questions posed to it by society (i.e. "agora", to use the language of the authors). In other words, scientific research activities can only be conceived "in context", and, above all, "the context responds", it retroacts, forcing us to consider the developed knowledge as "situated" knowledge.

Without being the last word of the analysis, this type of approach, proceeding from

<sup>&</sup>lt;sup>9</sup> V. Isambert-Jamati, *Des sciences de l'éducation: un pluriel important lorsqu'il s'agit de recherche*, in «Les Sciences de l'éducation – Pour l'ère nouvelle», 15 (1982), 4, pp. 55-60.

<sup>&</sup>lt;sup>10</sup> J. Ardoino, *L'approche multiréférentielle (plurielle) des situations éducatives et formatives*, in «Pratiques de formation», 25-26, 1993, pp. 15-34.

<sup>&</sup>lt;sup>11</sup> E. Morin, Introduction à la pensée complexe, Paris, Seuil, 1990.

<sup>&</sup>lt;sup>12</sup> C. Blanchard-Laville, De la co-disciplinarité en sciences de l'éducation, in «Revue française de pédagogie», 132, 2000, pp. 55-66.

<sup>&</sup>lt;sup>13</sup> H. Nowotny, P.B. Scott, M.T. Gibbons, Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty, London, Polity Press, 2001.

what has been defined above as mode 2 of knowledge (which does not exclude – according to the sociologists cited – mode 1 but now encompasses it), undoubtedly makes it possible to put as accurately as possible the current sciences of education and training, and their recognized research practices, into perspective.

An examination of actual practices in educational sciences and teacher training leads to distinctions between research "on" education on the one hand, and research "in" education on the other. Researchers have an assertive orientation towards one or the other of these poles, without one excluding the other, because of a common culture built up over time, through exchanges of experiences and results. In the research "on", education tends to appear as an object like any other, distanced, objectified. This type of approach aims at the production of knowledge often called fundamental; it is research for the purpose of "knowledge for knowledge". Its impact on what exists is delayed (for example, the history of education may serve to shed light and better understand the present, but through a series of mediations that are not present from the outset).

In the research "in", we find the idea of researchers involved in the educational processes themselves, the idea of producing knowledge with a view to a more direct intervention on what already exists, often in response to a social demand, without this intervention belonging to a simple application model. The researcher fully participates in the considered object, which means that under certain conditions an ordinary social actor can adopt a co-researcher posture.

Here we enter the range of research which, through proven practices, has acquired a legitimate methodological and epistemological status: action-research, innovation research, intervention research. Participatory research (sometimes also called citizen research) also finds in education a relevant ground for its implementation, of which the INRP (Institut National de la Recherche Pédagogique) yesterday and the French Institute of Education today were the initiators along with the network of teachers and associated institutions (Léa – Lieux d'éducation associés); similarly, by creating their own research institutes (IRSHES, IREA, FSU Research Institute, Centre Henri Aigueperse of UNSA-Education), teacher trade unions have been able to set up surveys involving researchers, activists and actors in the field; the value of the research produced in these frames must only be assessed in terms of their heuristic relevance, not of their origin alone.

As an example, among others, of an approach related to citizen or participatory science in education, it is possible to mention here the thesis of a student. Responding to a request from a local community, he was able to mobilize the combined resources of appropriate scientific knowledge and those resulting from the experience of many social actors (in part co-researchers) invited to collaborate for an intervention aimed at changing an unsatisfactory social situation, in particular by promoting the creation of an observatory "living one's youth" in the city<sup>14</sup>. This is what the interdisciplinarity of educational sciences can typically produce in terms of intervention on what already exists.

<sup>&</sup>lt;sup>14</sup> M.-M. Gurnade, Circulation de savoirs pluriels et émancipation des acteurs sociaux: le cas d'un observatoire «vivre sa jeunesse» dans une recherche-intervention. Thèse de doctorat en Sciences de l'éducation, Université Toulouse Jean Jaurès, dirs. J.-F. Marcel et D. Broussal, 2016; see also A.-D. Robert, J.-F. Marcel, Des relations entre recherches en éducation et engagements militants: éléments pour un débat, in J.-F. Marcel, L. Lescouarch, V. Bordes (eds.), Recherches en éducation et engagements militants: vers une tierce approche, Toulouse, Presses universitaires du Midi, 2019, pp. 25-42.

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#### 3. Conclusion

As highlighted at the international level in the UNESCO report, *Reimagining our futures together: a new social contract for education*, the assessment of educational sciences – also valid for France – is far from negligible<sup>15</sup>. The same report, with which I agree, claims that «knowledge, data, and evidence for the futures of education must be inclusive of diverse sources and ways of knowing. Insights from differing perspectives can offer different vantage points to a shared understanding of education, rather than exclude and supplant one another»<sup>16</sup>.

By their very origins, French educational sciences are based on interdisciplinary dialogue, and, well aware of the need to push back their limits, they are open to the contributions of new scientific insights, for example those from neuroscience in the crucial field of learning psychology; they are ready to integrate them into their body of knowledge and to collaborate with them, for example within federative structures or thematic networks of research in education; however, they do not accept to give in to the pernicious illusion that one science could single-handedly reduce the complexity of the educational phenomenon, or place itself in an exclusive position of domination.

<sup>&</sup>lt;sup>15</sup> UNESCO, Reimagining our Futures Together: a New Social Contract for Education, 2021, https://unesdoc.unesco.org/ark:/48223/pf0000379707, p. 123.

<sup>16</sup> Ibid., p. 132.