

## EDUCATIONAL PSYCHOLOGY VS DIDACTICS

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### Abstract

*Didactics, meaning the systematic study of the instructional process, has a long tradition in many European countries. In Anglo-American literature, however, didactics is largely absent. Instead, it is often dealt with under the heading of educational psychology, curriculum theory or some other heading. In this article the authors clarify the distinction between educational psychology and didactics, and argue that didactics is a valuable concept whose absence in the Anglo-American tradition of educational studies is a disadvantage.*

### Rezumat

*Ca știință a procesului instructiv, didactica are o istorie lungă în majoritatea țărilor europene. În Marea Britanie și S.U.A. însă, termenul „didactică” lipsește cu desăvârșire din cercetările științifice, fiind înlocuit, de cele mai dese ori, cu cel de „psihologie educațională” sau „teorie curriculară”. În articol, autoarea analizează diferența dintre psihologia educațională și didactică, și încearcă să demonstreze faptul că ultima este, cu adevărat, o știință care ar trebui să-i preocupe serios și pe savanții britanici și americani.*

### 1.1. Different interpretations of the term “didactics” in the scientific works

During the past fifteen to twenty years we have witnessed a shift of research in psychology to the cognitive approach. This development has brought with it some interesting but unexpected consequences which can be seen particularly in the area of research on teaching that we in Europe call didactics. We have always found it difficult to communicate with Anglo-American colleagues, because writing on the subject of didactics involves difficult problems of translation. The subject of didactics research is the instructional process. The ideal approach to such research would be to look at that process as a totality, taking all possible factors into consideration. It is certainly not possible to include all empirical viewpoints in the same design in the same study. But the research framework is totally different when the process is looked at as a whole, as against the alternative approach where the focus rests on some particular component and the totality is not even discussed. The instructional process as a totality has usually been examined in such a way that the various parts of the process were constantly considered in relation to each other and in terms of their interaction. This kind of approach required empirical methods, and the most convenient method was direct observation. Research initiatives tried to discover how the participants (teachers and students) interact in various ways. In the long run, however, the results of this approach turned out to be too one-sided and external. Nonetheless we can ask whether the withdrawal from this approach has perhaps been excessively hasty and exaggerated. It is quite easy to see how the instructional process has two different parts: the teacher on the one side and the students on the other. The researcher is interested in their cognitive processes, that is how they report and interpret their experiences. Because these cognitive processes are of great importance, it is understandable that what actually takes place concretely between the teacher and the students tends to be neglected. What is of interest is what the participants have to say about what has taken place. The common arena of the teacher and the students, namely, the instructional process, has gradually been set aside, and the two parts have drifted further and further apart. Thus the sphere of action of the teacher is examined in terms of his or her planning, decision-making, reflection and the like – in short, all of the activities that may be characterized as teaching. The students, on the other hand, are studied as learners who take increasing responsibility for their own actions and decisions. It is also of interest that the concept of “learning” is distinguished from the concept of “studying” (defined as the activity leading to learning), although in textbooks of psychology, learning is still the end result of something that has been done in some way. Towards the end of the instructional<sup>8</sup> process it is possible to move away from the role of the student to the end state of a learner, but the activity leading to this learning is studying. If we really mean to consider studying to be synonymous with learning we should say so clearly. Summarizing this

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<sup>8</sup>cf. Uljens, 1997.

development, it can be said that research on teaching has changed so much that it is difficult to find reports which treat the process of instruction as a totality. On the other hand, it is easy to find research reports dealing only with learning and others dealing only with teaching. The earlier research program called process-product research has been almost totally rejected for various reasons. The program was criticized as being too behaviorist and non-theoretical<sup>9</sup>. Apparently the program has gradually lost its attractiveness and credibility. But another possibility would have been to transform and adapt it to new challenges, such as increasing its content-relevance, clarifying its intentional aspects, and broadening its conception of evaluation. In any case, it has waned or been fragmented into projects with narrower problems, or into interview studies. Yet the criticisms presented in the literature do not entirely explain its weakening. That may have been due in large part to the decrease in financial support of educational research in the U.S.; that decrease greatly affected process-product research, which requires relatively generous resources in personnel and technical expertise.

Nonetheless there is still a need for the kind of results that this program could produce. Gage and Needels (1989) presented a thorough response to the various criticisms. But that response seems not to have achieved any strengthening of such research. The same can be said of an elaboration in the form of a cognitive-meditational paradigm by Winne (1987). Chambers (1992) thoroughly discussed the criticism of non-theoretical aspects of the process product design. He distinguished between empirical and empiricist research and claimed that "what has normally been called 'empirical research' on teaching is, in my view, empiricist. Both empiricist research and scientific research are empirical, [...] nevertheless they deal with that empirical world in radically different ways"<sup>10</sup>. This criticism could have been taken into consideration in subsequent research, but so far it has not had that kind of effect. Attention to theory has increased but in totally different contexts.

Gage<sup>11</sup> criticized Chambers' way of distinguishing between empiricism and science, a distinction which would result in the exclusion from scientific status of the biological and behavioral sciences.

It is apparently unrealistic to think of returning to old practices; this introduction is mainly necessary in order to define the place of didactics in the field of education. The area of didactics

The term "didactics" is a direct translation from the German die Didaktik. My purpose is not to explain its etymology or conceptual history<sup>12</sup>; contemporary usage creates difficulties enough; e.g., presents 30 different conceptions of didactics<sup>13</sup>. When we speak of didactics in the languages of European countries, its meaning comes from the German tradition.

But that one word (opetus, undervisning, Unterricht) has a lot more to do with teaching than with learning. The definitions of these terms are not, of course, unambiguous, but their content and meaning indicate, in any case, the direction of thinking and possible restrictions in the conclusions based on them.

From non-English-speaking perspectives, because we translate our texts into English so that they will become more widely known, this is not an unimportant problem. Research on didactics in its broadest definition refers to all kinds of research on teaching, according to the European terminology, or research on the teaching-studying-learning process in Anglo-American terms. It must be added that didactics also means pedagogy in this area. In English they must use such a clumsy expression as "pedagogy in the area of the teaching-studying-learning process" or perhaps "the art of teaching".

In addition, didactics always is connected with some context in the society, with some institution, and it is here that curriculum comes into the picture. A curriculum restricts the degree of freedom to act in this context, and the teacher-student interaction consequently becomes

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<sup>9</sup>Kansanen, 1995.

<sup>10</sup>Kron, 1993.

<sup>11</sup>Gage, 1994a; Gage, 1994b.

<sup>12</sup>Kansanen, 1995.

<sup>13</sup> Kron, 1993.

normative in nature. It is pedagogy as a totality that guides the instructional process according to the aims and goals stated in the curriculum. Thus, research on didactics has two faces: descriptive and normative.

Although it would be easy to keep them apart, doing so would not meet the requirements of the classroom. Only the researcher who conducts a descriptive inquiry and looks at the teaching-studying-learning process from the outside is able to leave the normative side out. Because the teacher and the practitioner-researcher are involved in this process, they must take both sides (descriptive and normative) into consideration.

Students, on the other hand, come to this process with their own intentions and usually must be persuaded to accept the curriculum. On this basis it may be understood that the well-known European didactic models are both pedagogical and research models. Values play a certain role in their building. In principle, the concept of didactics does not determine the angle from which we should approach the teaching-studying-learning process. It is often seen as starting with goal definitions, then coming to the actual process later. Approaching the instructional process in that way makes it easily too teacher centered and too inattentive to the activities of students and their learning. For example Anderson and Burns (1989) concentrate on teachers, teaching, and instruction, and their book may be characterized as a good and typical treatment of research on teaching. On the other hand, starting from the student side may lead to the overemphasis on learning, not leaving enough room for the idea of teacher-student interaction and the context provided by the curriculum. Somehow or other, a balance must be attained, and that is the task of general didactics. Anglo-American literature rarely uses the concept "didactics". It appears only in texts translated from another language. Its use in the writing of North-American researchers seems to be out of the question. If they use it, they do so with a contemptuous nuance. Europeans can notice this subtlety not only in novels but also in professional literature<sup>14</sup> write "didaktics" with a small "d" and they do not try to translate it. In any case, it is vital that we have the means to discuss the problems of didactics. It is unrealistic to proceed as if the concept of didactics does not exist. Didactics is, in a certain sense, also in use in southern European countries and also in many eastern European countries, as it was in Soviet pedagogy and still is in Russian pedagogy. Although we can understand how the European and Anglo- American research traditions long ago separated<sup>15</sup>, the problem of mutual communication still remains. The most promising area of education in which to look for the solution to that problem is educational psychology.

## **1.2. The area of educational psychology**

Educational psychology is most commonly defined as the intersection of education and psychology. In that intersection we can find an area where the aspects common to didactics and educational psychology are found. In countries where both educational psychology and didactics are subdisciplines of education (European countries), educational psychology considers mainly the areas of learning, development, intelligence, and motivation. If the viewpoint of social psychology is added, the area is often called the social psychology of education. In the U. S., the viewpoint of teaching is usually not central, if it is considered at all, but we can find examples where it is<sup>16</sup>. We can quickly conclude that educational psychology deals with problems that are mainly without any specific context, such as an institution or a school or a subject matter. The more we specify the problems with the help of a context, the more the questions that we consider in didactics come to the fore. This context-free to- context-dependent dimension is important to our efforts to differentiate between educational psychology and didactics. It is characteristic of those who come to educational psychology from the direction of education to say that educational psychology is a sub discipline of education, and of those who come from the direction of psychology to say that it is a sub discipline of psychology. This state of affairs only emphasizes the common area of both disciplines, that is, the place where they intersect. In the European literature, educational

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<sup>14</sup>Joyce *et alii*, 1992, p. 13; Jackson, 1992, p. 66; Shuell, 1996, p. 735; Hopmann *et alii*, 1995.

<sup>15</sup>Kansanen, 1995.

<sup>16</sup>Gage *et alii*, 1998, Chapters 9-12; Slavin, 1994, p. 2-11.

psychology has its place as a sub discipline of education, but it is hard to say whether most of the researchers have their roots in education or psychology. It depends a good deal on the actual themes they are working on. If we look at the intersection from the perspective of each of two large American organizations, the American Psychological Association (APA) and the American Educational Research Association (AERA), we can see some interesting differences. The APA has a Journal of Educational Psychology, and its division of Educational Psychology has its own journal, Educational Psychologist. The AERA has no such division, nor is there any special interest group (SIG) called educational psychology. On the other hand, AERA has some divisions on topics closely related to educational psychology, particularly Division B on "Curriculum Studies", Division C on "Learning and Instruction", and Division K on "Teaching and Teacher Education". Although it is not possible to draw far-reaching conclusions on the basis of this classification, some interesting interpretations may give food for thought. APA's Division of Educational Psychology is intended to enable "psychologists with interest in research, teaching, or practice in educational settings at all levels to present and publish papers about their work. Division members' work is concerned with theory, methodology and applications to a broad spectrum of teaching, training and learning issues". First of all, the members are identified as psychologists, and the journal of the division is also directed to educational psychologists. According to APA information, "the main purpose of the Journal of Educational Psychology is to publish original, primary psychological research pertaining to education at every educational level", and the program of the journal may be characterized as basically research-centered. In AERA, on the other hand, the questions related to the teaching-studying- learning process are embraced in several divisions, and the themes of the divisions are more content-related. Some inferences can be drawn from this structure. AERA seems to lack a division devoted to the totality of the teaching-studying-learning process. If we interpret this situation from the viewpoint of continental didactics, questions of curriculum, teaching, and learning are separated from each other. Characteristic of the discussion in American educational psychology in the late 1980s was the claim that the content – the subject matter – in the research problems published in the area of educational psychology was missing<sup>17</sup>, and the leading principle in research was "the empirical imperative"<sup>18</sup>. From the viewpoint of didactics, on the other hand, content has always been an essential part of the discussion, and there is a special branch, die Fachdidaktik (subject-matter didactics), for concern with content. When Shulman discusses the problem of substance as a "missing paradigm", he refers to the remark of Hugh Sockett that it was not knowledge or content that was missing but "the centrality of character"<sup>19</sup>. This is quite near to what we traditionally have understood as belonging to didactics, and this point of view is of fundamental importance in the research on the teaching-studying-learning process. One more point is also exposed: where is philosophy of education or – to be logical in our use of terminology – educational philosophy? Even in the articles in the journals specializing in educational psychology, we can see that any philosophical background or any philosophizing is scarce or almost lacking. Traditionally, educational philosophy has always been included in German didactics. We can say that philosophical contemplation is an essential part of didactics<sup>20</sup>.

In normative didactics, it belongs at the very heart of any critical conception of better education, and in descriptive didactics it forms the justification and the basis for the arguments to be investigated. In the divisions of AERA we can see a connection to a broader context and a link to the society in which education takes place. That means awareness of value questions and the purposes of education, of its institutions, and of the professionals working in them. Interestingly enough, the role of educational philosophy has emerged in the Swedish discussion, where didactics was revived in the early 1980s. Kroksmark and Bengtsson<sup>21</sup> have started to use the subarea of philosophical didactics in the same way as educational philosophy is used. This

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<sup>17</sup>Shulman, 1992.

<sup>18</sup>Shulman, 1995.

<sup>19</sup>Shulman, 1992, p. 24.

<sup>20</sup>Glockel, 1990; Jank *et alii*, 199; Klafki, 1985.

<sup>21</sup>Kroksmark, 1995.

approach seems logical, and it can be explained as a positive contribution to any discussion where educational philosophy is a separate subarea and can be linked to any main area of education. This feature may enable philosophical didactics to be distinguished from educational psychology. What is worth considering here is that, in German *Padagogik*, educational philosophy does not exist at all, although, as was noted earlier, it is an essential part of every area or sub discipline of education. We can see that transferring concepts from a different culture brings along local interpretations. From this discussion it is possible to revise further the context-dependent to-context-free dimension as a means of distinguishing between didactics and educational psychology. Context-dependency means that the teaching studying- learning process is intentional, that actions are based on values and purposes, and that the process is located in some institution in the society.

Context-dependency also involves professional teachers with institutional teacher education, and it assumes that the outcomes of studying, with learning as the most important part of them, are achieved within the framework of a systematic curriculum. The more the teaching is considered context-dependent, the closer its problems are to didactics. Some reflections After these characterizations of didactics and educational psychology, we pose the question: Where can we find didactics in Anglo-American research on the teaching-studying-learning process? It is clear that there is no corresponding Anglo-American field of study; instead the array of questions considered in didactics is dealt with in several problem areas. Although this Brian Simon's question: "Why no pedagogy in England?"<sup>22</sup>. Even though Woods has no definitive answer he at least indicates an awareness of the problem. Anglo-American studies related to curriculum, teaching, and policy questions probably provide the most common links to didactics. It is also clear that learning and the problems belonging to its scope are included, but left in the background, although it is self-evident that the outcomes of education are always central to its purposes. To some extent it can also be said that learning is left in the background in the European didactics, although there the totality of the teaching-studying-learning process is more frequently sought. Similarly, some components of the teaching-studying-learning process are left out if we approach the process from the learning point of view. This kind of approach is clearly seen in the APA Handbook of Educational Psychology<sup>23</sup>, which leaves the area of curriculum and teaching more in the background. This fact has led to some new trends in the area of educational psychology. The pressure to expand the role and the meaning of learning can be seen in the broader use of the term "learning".

Learning is being used more and more in the sense of studying, and in educational programs the old idea of child-centered education is being pursued with new zeal with the aid of constructivist conceptions of learning. This trend has also, perhaps, opened our eyes to broader perspectives on research questions and brought educational researchers and educational psychologists closer to each other in designing studies. Didactics in Europe and educational psychology in the U. S., have both been used as part of the basis of teacher education. Educational psychology has been characterized as a "master science" in education, even though gradually that quality seems to be receding<sup>24</sup>. Grinder identifies withdrawal, fractionation, and irrelevance as some explanations of this recession<sup>25</sup>. Withdrawal refers here to moving from the general problems of education into more limited fields of experimental psychology. This movement is obviously related to the increasing lack of subjectmatter content and character. Fractionation refers to the many areas where the problems of the educational process are examined. Irrelevance is related to the disposition of laboratory research as against research in real-life settings. Grinder<sup>26</sup> suggests a two-step reform: educational psychology should be presented as "the integrative discipline", and historical, theoretical, and social issues should be given more attention in its publications. These

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<sup>22</sup>Woods, 1996, p. 16-17.

<sup>23</sup>Berliner *et alii*, 1996.

<sup>24</sup>Grinder, 1989, p. 14-15.

<sup>25</sup>*ibidem*.

<sup>26</sup>Grinder, 1989, p. 16.

two points remind us very much of what we understand by the term “didactics.” The integration of teaching and learning has also been suggested by Shuell (1993). The logical question is: Can we find a more integrative conception on the part of AERA research? If we look into the third “Handbook of Research on Teaching”<sup>27</sup>, we see that teaching is considered with much attention to context. The social and institutional contexts of teaching and the teaching of specific subject matters have their own chapters, and the mental processes of students also have a chapter of their own. In the Handbook of Research on Curriculum<sup>28</sup>, the societal context of curriculum and teaching is emphasized even more. On the other hand little space in these handbooks is devoted to learning, and this fact corresponds for the most part to the conception of European didactics as well. It must be remarked that the next generation of handbooks will probably deal more extensively with learning than before. One good example is the book “Models of Teaching” by Joyce<sup>29</sup>, where the instructional process is looked at through various models, which “[...] are really models of learning”. The older model of Dunkin and Biddle (1974), based on Mitzel’s research, is also a representation of the totality and contains all of the formal factors (presage, context, process, and product) needed in the teaching-studying-learning process. The latest well-known model of Shulman<sup>30</sup> contains all possible factors in some way, and it contains a new element compared to the older models: the societal/organizational transactions are seen as central in the process of teaching. Maybe this feature is implicit in all models, but this has not been said aloud so clearly until now. With these additions the approach comes quite close to the European didactics, but only to the descriptive conception of didactics. The models presented by Dunkin and Biddle and Shulman may be interpreted as research models. The models of German didactics, based on human sciences, are moreover ideological constructions about how the teaching-studying-learning process should be organized in the society and in the school. According to Shulman, however, the focus on totality seems to be receding again.

The European didactics uses the term more in the sense of descriptive didactics that may be characterized as curriculum theory and educational psychology. Empirical research is not carried out in the traditional didactics; it is practically impossible to find any empirical research reports in the European didactics. On the other hand, in descriptive didactics or in educational psychology empirical didactic research reports are self-evident.

The models of didactics are based on curricular context; that is why the models are context-bound. Although they may look quite universal, the models have a certain value background and usually the contents are determined by some curriculum. Therefore, the content usually relates to some subject matter. Theoretically at least, the reflections and conclusions concerning the teaching-studying-learning process are limited to the predetermined curricular context, in spite of the fact that the curricular context may be fairly general. It may be said that the models of didactics are in a certain way ideological and they are planned for carrying out “good teaching” and for achieving the aims and goals defined in the curriculum. Naturally, new knowledge and empirical results are taken into consideration when the models are improved. The models, however, are not research models and not tested or examined like these. Hopmann and Riquarts (1995) give a historical explanation by referring to the centralized school system in Germany and the Nordic countries that made the State curriculum-making possible and a generally accepted rule. In countries where the educational system has been more decentralized, the need for general models has not been of much current interest.

The research approach to the problems of the teaching-studying-learning process takes its starting-point from practical circumstances, but it is not restricted to some educational system or curriculum. In this sense it is more field-independent or context-free. The research models are made for some research program or to test some idea. Implicitly at least, these models are also normative because they try to find out e.g. the teaching or teacher effectiveness, good textbooks or

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<sup>27</sup>Wittrock, 1986.

<sup>28</sup>Jackson, 1992.

<sup>29</sup>Joyce *et alii*, 1992, p. 1.

<sup>30</sup>Shulman, 1986; see also Burns, 1995.

harmonious interaction. This kind of normative value background, however, is characteristic of education in general. Without aims and goals there is no education.

### Conclusions

In spite of different terminology there are many common elements in the didactics and educational psychology. Instead of emphasizing differences the joint components in a common conceptual system may indicate their distinct characteristics and also indicate where the differences may be found. In both Anglo-American and European education an area of educational psychology can be identified. In addition to this, the area of didactics is generally employed in the European education. It deals with the totality of the teaching-studying-learning process, mainly with the questions of educational policy, curriculum theory and instructional process. It may be seen as a parallel of education in general, concentrating on the institutional part of schooling.

Didactics in its traditional meaning is thus a sub-area of education which concentrates on all questions related to the teaching-studying-learning process. It has emphasized the basic problems of curriculum planning and selecting content valuable enough to be transmitted to the rising generation. The other side of this totality is naturally evaluation and the criteria of learning and other outcomes. The teaching-studying-learning process, where the curriculum is realized, has become more and more the main concern of didactics, with learning as its central focus. This is especially the case in all European countries, but for different reasons. Didactics was brought into the middle of an empirically oriented research approach that has been dominant in various forms since the Second World War.

Didactics is part of a greater system, which refers to a conception of being human and living in a constructed human culture. It refers to a world of pedagogy with its curriculum, defined aims and goals, schools, classrooms, teachers, and students. The whole is clearly a bounded system; it is context-dependent. The activities, the values, and the knowledge are, in principle, restricted to the context of the curriculum. Educational psychology, on the other hand, has always been understood to be more descriptive and more context-free. The criticism directed against too generally formulated problems has led to a revised conception of ecological validity and to an effort to study more context-dependent problems. The context, however, is still understood as situational; thus situated learning reflects the trend in this area. Values and knowledge are in principle free, and the society at large is the locus of control corresponding to the curriculum. In the literature of educational psychology, there is a clear pressure to extend its scope in the direction of increased attention to context<sup>31</sup>. Teaching as a topic is not a sufficient solution to these efforts. Without being placed inside the boundaries of the curriculum, teaching is as context-free as learning. Combining teaching with learning into a common teaching-studying-learning process brings in, almost necessarily, the content, i.e. the subject-matter. This process belongs to a greater system in the society and is guided by the societal educational policy. Didactics is a means to guide it in practice, and the concrete means for it is the curriculum. Research carried out within this system may be called didactic research. Research on teaching may also be done outside the curriculum, as descriptive basic research. In that case it is difficult to call it didactic research; it is more general by nature and has more qualities typical of educational psychology.

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<sup>31</sup>e.g., Anderson *et alii*, 1995; Salomon, 1995; Olssen, 1993; Special Issues of *Educational Psychologist*, 1992, 1994, 1996.

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