



THE THEORY-PRACTICE¹ PROBLEM IN EDUCATIONAL SCIENCE

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*For with the judgment you pronounce
you will be judged,
and the measure you give
will be the measure you get.
Matthew 7:2*

According to Freud there are three impossible professions: educating, healing and governing. These three core institutions (1) have a long history, (2) are universal, (3) are multifaceted, and (4) are valued in a variety of ways. This state of affairs is reminiscent of what Churchill is supposed to have said of the Balkans: that the people there were confronted with more history than they can cope with. These words could equally apply to the public debate on the ins and outs of these three core institutions.

Educating, healing and governing are common "goods," so there also will be "ills." People are continually concerned about proper order in society. In this respect, they regularly ask themselves whether the management of the respective institutions is in good hands. This occasionally results in a struggle for meaning with multi-voicedness and the taking of distinct positions as its main characteristics. Secondly, this struggle for power is a constant phenomenon throughout history. A third critical trait is the use of the words "old" and "new." Time and again, we reach the stage when the old institutions have had their day, and have to make way for new ones. Then the long march through the institutions begins. Regarding the latest crusade through the educational province (Nota Bene, the expression is Goethe's), we still have a long way to go.

The question arises whether everything that is labeled "new," actually is "new." This applies not only to material objects, but also to concepts and worldviews and notably to the ways those are valued. According to the Dutch novelist Couperus, it is not only things that pass, but also people.

Yesterday's newspaper contains only "old" news. Time and tide wait for no man. This conventional wisdom relating to the transience of all manner of things leads to the question of which concepts of education are outdated, and which are old but not yet outdated. In other words, which pleas for school reform are currently – and rightly – subject to criticism, and on what grounds? The point of departure for my present argument is based on two recent events. I am here referring to the remarkable interest within the pedagogical province for the French movie *Être et avoir*, and the appearance of the term "new learning."¹ Before elaborating this argument I would like to note that, in both cases, the discussion differs on where priorities should lie. Should the curricular and organizational dimensions of a concept of education take priority, or the pedagogic dimension?

The denotations and connotations relating to *Être et avoir* and the appearance of the term "new learning" caused me think. I regard both events as writing on the wall. Whenever a new term comes into being, it always occurs to reflect a new need. For instance the term "air pollution" only came into fashion, when we realized that clean air is no longer a matter of fact. A revealed shortcoming calls for action. The massive interest in *Être et avoir* is, in my view, a symptom of the epidemic that is currently raging in the pedagogical province. I use the term "epidemic" as a metaphor in the spirit of Freud. According to him, it is not only people who can suffer from serious disease, but also institutions. He wrote about the widespread discontent with the culture of his time. He wanted to transform this mind-set into its opposite.

Être et avoir depicts an idyll in which a schoolmaster is wrestling with the standards of the teaching profession. In Monsieur Lopez and his one-man school in Auvergne, we recognize an idealized version of a primary school. Lopez pays no attention to the regulations drawn up in Paris and, lo and behold, he and his students are happy. Books have a moral, and so

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1. The term "new learning" is recently introduced in The Netherlands as an overarching concept. Under this heading traditional didactic instruction with its teacher-posed question and answer duplets is strongly rejected. Instead there is a strong preference for hands-on and project-style activities.

do movies. Here, the moral is addressed at the Ministry of Education. Additionally, the message in this case is twofold. In the first place, the movie points out that the quality of the pedagogical relationship in the classroom is a significant source of variance in explaining successful and failed learning. In other words, the master's eye makes the horses fat. The well being of the students and their curiosity for learning depends to a large extent on the way in which the teacher is able to make the dead letter of the course book come alive. Knowledge must be anchored in the student's personal repertoire, as Spinoza already contended. In short, the teacher must attune the language of the mind to the language of the heart. Monsieur Lopez has apparently taken this Augustinian philosophy of education to heart. He believes that quality is more important than quantity. Moreover, he wants to avoid a situation in which he has finished the course book at the end of the year, but the students have not. The inspector wants more, Lopez wants better. Just like the Dutch educationalist Jan Ligthart, he is a passionate advocate of the '*pedagogy of the heart*'². This child-centered approach evidently appeals especially to the pedagogically minded. Lopez resists drilling his students towards the final examination. He prefers adaptive education, i.e. education at "knee-height." Here lies the movie's second message. Lopez follows his own plan. He himself, not Paris, sets the educational standards that really count, and moreover he determines how the quality requirements should be assessed.

Monsieur Lopez is a hero of our time, because when he talks about his students, he speaks in an other voice than the educational managers do. Lopez does not believe in "Sunday-like" pedagogy in which the emergence and measurability of learning outcomes is an axiom. Lopez is only interested in weekday pedagogy. In his philosophy, practical objections and legislation stand in the way of school reform. For Lopez, curiosity is more important than learning outcomes and the number of students admitted to secondary education.

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2. Nota Bene, Jan Ligthart uses this term to refer to Pestalozzi's three-step "hand-head-heart" approach. A student can, for example, count with the aid of his fingers, count by thinking aloud, or "by heart," i.e. without any external aid.

We can categorize the story of Lopez as that of a practitioner. However, Lopez has a theory as well. Some social scientists refer to this theory as "a practice-bound theory." Lopez' mind set apparently appeals to many people, and the high audience attendance at *Être et avoir* are the resounding proof. I am inclined to take Lopez' position seriously. But I am not prepared to claim that his pedagogy can be valued as a "best practice."

The time when the majority of the students receive no more than a primary-school education is definitely over. Today, in The Netherlands, all children attend school for at least four years after primary school. During this period, they must appropriate a wide variety of cognitive, communicative and social skills, along with the connected intellectual and moral virtues. The requirements that used to be placed upon only a proportion of adolescents have now become common goals for all young people. This implies that the familiar primary-school subjects are now taught in a different format. Additionally, new syllabuses have been introduced to the primary-school curriculum. In particular, there have been major changes in the selection and sequencing of curriculum content for geography (social studies), physics, history and the arts. The new curricula for mathematics and first language teaching even bear no resemblance to those of the past. Lastly, in The Netherlands, teaching English is now also compulsory in primary education. I see no reference to all these new requirements in the concept of education of Monsieur Lopez. Moreover, there is the thorny issue whether he actually wants to receive further teacher training.

In order to become familiar with a new curriculum, the teacher must put himself in the position of a *student*. Initially, any new curriculum actually is a course book for the teacher. He must, for example, learn to think differently about the orchestration of educational discourse in the classroom. A small part of further teacher learning involves additive learning, but the main part of it amounts to unlearning. This applies particularly if the new curriculum is designed as an alternative to the familiar recitation script. Studies of how new curricula usually are chosen, and above all studies of the teachers' in-service training that follows – individually and collectively - during the first three years after the introduction of a new curriculum, reveal that the teachers involved are mainly hampered by old habits. They are inclined to use the new curriculum in the old way, al-

though this occurs less often when supervision and coaching at the school level are provided during the implementation phase. I shall return to this thorny issue further on.

Thus far, with the story of Monsieur Lopez, I have referred to only one voice of the many in the public debate with respect to the issue of “new learning.” However, I would emphasize that complaints in the spirit of Lopez nowadays are heard not only among teachers, but also among parents. In fact, both groups oppose the pressure to perform that is inbuilt in the new core objectives of primary education. These core objectives, they argue, are no longer in line with the existential needs and wants of contemporary students. Neither are they in line with those of teachers. I hasten to add that this heartfelt cry is far from new, as is evident from the many references that can be found in the *belles-lettres* as well as in the educational literature. In this context, the word “new” can at best only be applied to the slogans propagated by the sponsors of post-modern pedagogy. Two striking examples in The Netherlands are the schools that agree to the pedagogy of the Polish physician Janusz Korczak, and the so-called ‘*Iederwijs*’ schools³. Both current concepts of education have fully embraced a post-modern pedagogy, allowing the students to choose what they want to learn and how they want to learn it. A post-modern restaurant has no menu; Korczak-inspired schools and *Iederwijs* schools have no syllabus.

It is tempting to devote the space allotted here to analyzing and commenting on the pedagogy of the Korczak-inspired and *Iederwijs* schools. Admittedly, their proponents make an important point with their argument against burdening children to early and too emphatically with learning tasks that are important in a world where life amounts to fierce competition and where lack of time has become a status symbol. Unfortunately, Carl Rogers’ *Freedom to Learn* remains a utopia for schools.⁴ Schools

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3. The so-called ‘*Iederwijs*’ schools are inspired by the American Sudbury Valley School (www.sudval.org). In Dutch the compound word “*Iederwijs*” refers to a natural striving in all children to become “universally wise.” Regarding the Korczak-inspired schools for brevity’s sake I refer to www.korczak.org.uk.
 4. C.R. Rogers (1969), *Freedom to Learn*. Columbus, Ohio: Merrill.

alone cannot heal society's ills. Additionally, schools are not permitted simply to dance to the tune of all kinds of interest groups. A second important point in this context relates to the question of whether the adult world should be protected from the unbridled urge for renewal of the younger generations. As Lafontaine once aptly remarked, young people do not compromise: "*cet âge n'a pas de pitié*". In short, without teacher guidance and social support, it appears very unlikely that all children will learn. Therefore, my advice to the *Iederwijzers* (as teachers in these schools are called) is to listen closely to the students themselves. I myself got wise in the 1970s, when I overheard a girl in a progressive primary school ask her teacher whether she could do the group task on her own. We can dispense with authority, but we cannot do away with the need for it.

The dissenting voices I have mentioned so far can be heard at the margins – or the boundaries, if you prefer – of the pedagogical province. The people in this realm usually rely on seers rather than thinkers. But there also is a second camp that accommodates people who rely on the work of educators rather than seers. From this position they regularly launch crusades in an attempt to convert the conservatives in the pedagogical province. With this assertion, I arrived at the argument of the proponents of new learning.

Before I discuss the main characteristics of this echelon, I would like to point out that all the advocates of "new learning" appear to be employed in the school support sector. None of them are teachers in a primary or secondary school. We could also refer to this echelon as "theorists," provided the term is interpreted not in a pejorative sense, but as a description of the main activity of the professionals concerned. Based on a quick survey of the Dutch literature concerned, I discovered that all the proponents of "new learning" are either teacher trainers, curriculum developers within some organization, or counselors in one of the many agencies within the school support sector.

Naturally, I had a good reason for carrying out this survey with respect to the background of the authors involved. As a downright school watcher, I already had noticed that in the last decade a radical shift has taken place in the domain of educational research. In The Netherlands the majority of

researchers have moved – voluntarily or otherwise – from university-based positions to appointments in the school support sector. Time will reveal whether this new positioning of educational researchers will indeed have rendered schools into *learning organizations*. In any case, one thing is certain: teachers will have to move with the times. Just like dentists and physicians, for example, they will have to undergo further teacher training on a regular basis. The question that arises is how. On the one hand there is nowadays pressure from parents who are searching for a school for "our type of people." On the other hand, all schools are wrestling with the thorny issue of how to formulate their mission statement. A choice in favor of a wide range of alternatives for parents to choose from has its advantages, but the question arises how concepts of education should be stated, justified and above all financed.

The increasing number of pleas in favor of "new learning" makes one thing clear. Traditional didactic teaching has had its day. Classroom talk must be orchestrated differently. It should be based on hands-on and project-like activities. A second requirement in the context of school reform concerns the provision of curricula that aim at a wide range of competencies. Whether we like it or not, the demands placed on future citizens have become more complex. Therefore, more students will have to appropriate skills and attitudes that in the past were required only for a restricted category of students. Put simply, how do we transform schools into a *workplace* in the spirit of John Dewey, where the students learn by taking a substantive part in an embryonic community of inquiry?

So far I voiced in headlines the argument of the advocates of new learning. Apparently, their approach is based on a variety of *learning theories* that underlie cognitive constructivism. The proclaimed aim is to develop positive dispositions toward teaching practices that encourage exploration, collaboration, and individual student responsibility. Nurturing a love for learning and an excitement towards learning through guided discovery are also goals. The theories span intersubjectivity and scaffolding from Vygotsky, individual responsibility for learning, and assimilation and accommodation of ideas to allow for individual construction of knowledge from Piaget. Project work is also included, as well as the application of the emergent social construction of knowledge in the spirit of Dewey.

Lastly, there is also reference to the notion of multiple intelligence from Gardner.

Those who know my work now no doubt expect me to praise the advocates of new learning, given the theoretical framework that Van Parreren and I introduced in 1960s for the school reform that was under construction at that time. However, I will not do that, and for two reasons. First, I am of the opinion that the proponents of “new learning” think about successful and failed learning from at least two different perspectives. In the vein of Piaget, some of them actually advocate *learning-alone-together*, while others in the footsteps of Dewey and Vygotsky focus on learning *in a team setting*, in which teacher and fellow students each make their own specific individual contributions.

In terms of De Groot’s famous work *Vijven en zessen* (Fives and Sixes), we have in the first case a “cross-country model”, and in the second case an “expedition model”: “out together, home together.”⁵ For pedagogical reasons I have always opposed the cross-country-model. That is why I have never been a supporter of the Montessori and Dalton pedagogies. I have well-founded objections to both these approaches, and in fact I am against all forms of learning based exclusively on individually prescribed curricula. Curriculum content is not transferable until it has functioned in a classroom discourse between the teacher and students, as well as among the students themselves. Students should regularly rotate in the role of teacher and of student so that they can learn to regulate and monitor each other’s approach to the learning task involved. The majority of proponents of “new learning” lack this focus on peer learning in appropriating the curriculum content involved. In my view of “new learning,” a Dewey-Vygotsky-inspired approach has a double benefit. A teacher cannot monitor all students simultaneously, although this is necessary. If the teacher’s and the student’s role rotate, the students can learn by means of group

5. Cf. A.D. de Groot, (1966), *Vijven en zessen. [Fives and Sixes] Cijfers en beslissingen: het selectieproces in ons onderwijs.* [Grades and Decisions: the Selection Process in the Dutch School System] Groningen: J.B. Wolters. See also J.A.M. Carpay (1979), *Over leerlingen gesproken.* [A talk on students] Inaugural lecture, Free University, Amsterdam.

tasks to keep to the rules exemplified by the teacher. By providing more group tasks with built-in guidelines for study, students will appropriate more effectively their role than when classroom talk only is followed by individual seatwork or by work in small groups in which certain students always take the teacher's role, leaving others to take on the student's role. According to Aristotle, democracy is a matter of leading as well as being led. Viewed from this perspective, I think it is wise to allow the students in schools systematically to acquire experience, in the teacher's as well as the learner's role. Learning to collaborate in a team setting has rightly been declared a core objective of preadolescent education.

The topic of peer learning in a community of inquiry – or of learners – brings me to my second objection to the proponents of “new learning.” Most of the arguments I have studied lack the necessary knowledge of the literature produced in the vein of Dewey, Vygotsky and in The Netherlands of Kohnstamm.⁶ For example, I not only miss references to Gal'perin and Davydov, but also to European and American educators who have carried out school-bound research in the spirit of Vygotsky, Dewey or Kohnstamm. I suspect that this is due to what Piaget once referred to as ‘*la maladie Américaine*’, namely the tendency to look at only the most recent literature. I fear that this practice has taken root in The Netherlands, too. However, something that bears the label “new” is not necessarily “new’.” I condemn the practice of not quoting in full. There is one Bible, but many different interpretations to debate. In a historical and contemporary context, the way one reads a text always varies. A book is not a book until the reader opens it. The same holds true of concepts of education. We can study them from a generic or from a genetic point of view. In this respect I make a further distinction between a top-down and a bottom-up approach. The former was sponsored by William James in his famous book *Talks to Teachers on Psychology*. John Dewey and Lev

6. For the *relationship* between the approaches of Dewey, Vygotsky and Kohnstamm, see my two articles: J.A.M. Carpay (1996), “Learners' appraisals do count. A critical case study”, in *Scientia Paedagogica Experimentalis* 33, nr. 1, 79-106. J.A.M. Carpay (1996), “A school for future citizens”, in *Scientia Paedagogica Experimentalis* 33, nr. 2, 147-170.

Vygotsky introduced the latter approach.⁷ Both scholars actually advocated talks *with* teachers rather than talks *to* teachers. Therefore, I would advocate establishing *study groups* of theorists and practitioners. In such networks the participants exchange their experiences with a certain curriculum on a regular basis by means of a logbook. In my view, real or virtual study groups are necessary in order to ensure that a new curriculum can function properly, that is, in accordance with the objectives of its sponsors. As Newton once aptly remarked “all scientists stand on the shoulders of giants.” Good teachers also build on the work of their predecessors.

I would like to devote the rest of this talk to explore the issue of “new learning” in more detail on the basis of my own experiences with reading comprehension and project-like work in Dutch middle schools. Until recently, neither of these subjects had been developed at full at the primary school level. My research reveals that the design (theory) and the implementation (practice) in pre- and in-service training can be seamlessly linked, provided the teachers are first familiarized with the “student track” that, in most curricula, is usually only delineated in the singular ($N=1$). Teachers should not move from the “student track” to the “teacher track” until they are familiar with the co-ordinates of the various learning trajectories that the students ($N \geq 3$) actually follow in order to reach their goal. *Magister a puero discit*: the teacher learns what he must do from his students. These words by Seneca were formally engraved above the entrance to the Rousseau Institute in Geneva. Teachers must learn to shape the learning process in close co-operation with small groups of students. The more we teach, the less they learn, as Comenius wrote in his *Magna Didactica* (1657). The “new learning” that is currently being promoted rightly emphasizes *heuristic* education, that is, forms of teaching whereby teacher and students construct knowledge together. However, this teaching-learning strategy has yet not been developed satisfactorily from a pedagogical perspective.

7. See W.J. James, (1899) *Talks to Teachers on Psychology*. New York: H. Holt. For my argument in favor of ‘talks with teachers’, see J.A.M. Carpay (2002): “The presence of the Past: Talks with teachers on Dewey and Vygotsky”, in *Scientia Paedagogica Experimentalis*, 30, no. 2, p 133-152.

Finally I would like to comment, in this context, that “new learning” still focuses too heavily on the principle that every teacher must design his or her own curriculum. I would only wish to advocate this approach for those from the field of educational science who, together with teachers, develop and test *new* curricula. My second objection is that curriculum developers are inclined to restrict themselves chiefly to the cognitive domain. The affective domain is not sufficiently dealt with. Additionally, the majority of developers tend to ignore the rules for class-management, which shape the pedagogical environment. In this respect, many new curricula leave teachers in the lurch. The heterogeneous school population in today’s schools is unmanageable if teachers are unable to achieve unity in diversity. The authors of curricula will therefore have to pay greater attention to the issue of *individualization*, that is, recognizing the signals given by various categories of students when they encounter difficulties in their learning process⁸. Sometimes the students require academic help, sometimes social support. The fact that fellow students often understand these signals better than the educators should make teachers stop and think. Sometimes the practitioners (in this case the students) are ahead of the theorists (the educators). In this case, the blind will have to lead the lame.

So far on my argument regarding the issue of “new learning.” I have attempted to give a brief guided tour in which classroom-bound learning came to the fore from two different points of view. For the purpose of the current discussion I chose two extreme positions, namely the perspective of the radical “practitioners” and that of the radical “theorists.” Mindful

8. In my “Talks with teachers,” I distinguish between three layers (or loops) in the argumentation concerned. 1. Aims and objectives as articulated in an old or a new *syllabus*. 2. Pedagogical approaches as delineated in the respective *curricula* or *guidelines*. 3. Forms of *individualization* (or participatory structures) conceived of as a variety of measures to be taken into consideration in order to accommodate the students’ uniqueness. In practice this triple loop approach has proved to be an appropriate format for managing talks with teachers in the context of in-service teacher training. See further: J.A.M. Carpay (2001), Towards mutual understanding in the classroom. In *Scientia Paedagogica Experimentalis* 38, 1, 3-16.

of the scholar after whom this chair is named, the historian of science George Sarton, I looked at the past from the point of view of the present. I then attempted to project several paths from the present into the future. In the course of this quest I have voiced a number of doubts. Consequently, I have advocated a more moderate approach in certain areas. Of course, the theorists must keep the conversation with the practitioners going. However, I see no point in an academic debate between the two echelons because basic pedagogical assumptions and educational principles can only be endorsed or rejected. Better results would be achieved by a study group that is engaged on schoollevel in an ongoing discussion in a team setting, and considers the issues concerned from the maker's as well as the user's perspective. This would encourage all parties concerned to make their own contribution. If I understand it well, this actually also is the intention of the proponents of "new learning". Experiences with learning to use the computer support this claim. The spread of the PC did not come about through a formal learning process, but through an *informal* learning process in which the participants involved sometimes figure as teachers, sometimes as students. In Cicero's words: "Through doubt, we arrive at the truth".