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The European Commission Stepping Up Both the Efficiency and Equity of Education and Training Systems

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ABSTRACT This article analyses the Communication of the European Commission (EC) devoted to efficiency and equity of European education systems. It shows the Commission's difficulties in integrating the multiple dimensions of education equity and the confusion between pedagogical and economical notions of efficiency. The authors also analyse the means proposed by the Commission to foster equity and efficiency at different education levels. Under the guise of a specific interest in pre-schooling, the arguments concerning compulsory education were rather lightweight and incomplete, and those on higher education worrying. This article raises the concerns and questions that remain after the reading of this Communication.

The Communication from the European Commission (EC) to the Council and to the European Parliament, 'Efficiency and Equity in European Education and Training Systems' (CEC, 2006a), calls for consideration of the double challenge posed to European education and training systems: to ensure both competitiveness and social cohesion. It immediately sets the background against which this challenge must take place: a context of limitation of public spending, and four significant pressures – globalisation, demography, rapid changes in the labour market, and technological innovation. A resolutely economic approach is therefore clearly outlined right from the beginning of the text, and is maintained throughout the text as a whole, supported by a 'Commission staff working document' (CEC, 2006b), itself prepared with the help of a text written by the experts of the 'European Expert Network on Economics of Education' (EENEE) (Wößmann & Schültz, 2006).[1] This economic orientation translates into the approach of the two central concepts of the text: equity and efficiency.

Equity is defined as 'the extent to which individuals can take advantage of education and training, in terms of opportunities, access, treatment and outcomes'. This definition combines, without specifying as such, different notions which should deserve greater attention than a footnote (CEC, 2006a, p. 2, n. 2). These different concepts (which were well covered, for example, in the work of the European Group for Research on Equity in Educational Systems [2] [EGREES, 2005]) are based on very different demands: first, equal opportunities; and second, actual equality of access, treatment and results (internal or external). While the first of these concepts comes back to the idea of potential equality (having virtually the same chance of getting a degree or a certification), the three others concern actual equality: having access to the same educational service (equality of access to higher education, for example); benefiting from equal treatment (teachers or premises of equal quality); or obtaining equal achievement (by mastering essential skills, for example). Going on with its definition, the Communication from the Commission

specifies that a system is defined as fair if, first, 'the outcomes of education and training are independent of socio-economic background and other factors that lead to educational disadvantage', and second, if 'treatment reflects individuals' specific learning needs'. The notion of educational equity retained by the Commission – in other words, independence between the socio-economic status and the outcomes of education – refers to the common denominator on which most theoreticians of justice (Meuret, 2001) agree. However, the Commission has not retained the notion of 'threshold' suggested by EGREES (2005), which states that below a certain level, or 'skill threshold', individuals have sufficient ability to continue their schooling and to meet required higher skills in order to get suitably integrated into civil society and the labour market. The footnote continues rather oddly though: 'Inequity in relation to gender, ethnic minority status, disability and regional disparities etc. is not the prime focus here, but is relevant as far as it contributes to overall socio-economic disadvantage.' Therefore, it seems that the Commission, in its Communication, only wishes to cover inequalities from socio-economic origin, excluding any other source that would not come under this origin. Yet at the same time, it is difficult to isolate one source from another, and notably when they interact with each other, and it is regrettable not to take into consideration such determining factors quoted by the Commission itself. Gender, ethnic minority status, and disability are just as much constitutive conditions from which individuals cannot escape, making the inequalities they are victims of particularly unfair. Disability affecting mental faculties may nevertheless be handled in a different way generally, since it would prevent the individual from attaining the same cognitive objectives, despite increased educative resources. Therefore, it remains to determine to what extent it is appropriate to focus on the attainment of objectives other than the shared objectives for this specific population group, which will be unable to attain the objectives of competitiveness and excellence.

A fair system is a system which does not produce unfair inequalities. The recent EGREES works (EGREES, 2005; Baye et al, 2006) explain that equity is a normative notion, intimately linked to the concept of justice. Thus, the member states must define the unfair inequalities in education. Replacing the term *equality* with the term *equity* does not detract from the necessity to make a statement on the model of Justice, which seems to go unmentioned in the Commission's Communication.

The Commission (CEC, 2006a, p. 2, n. 3) defines efficiency as 'the relationship between inputs and outputs in a process'. It thus refers more to a measure of economic efficiency – achievement of results at lower cost – than to effectiveness in the teaching sense – achievement of objectives (regarding the distinction between effectiveness and efficiency, see Reezigt, 2001, pp. 2-4). The footnote specifies that 'Systems are efficient if the inputs produce the maximum output.' This approach is clearly related to the Lisbon Strategy: it is not so much a matter of providing everyone with a satisfactory standard of living measured against defined criteria as of becoming the most competitive knowledge economy (European Council, 2000). This utilitarian approach aiming at the maximisation of the average result, at the risk of leaving aside a large part of the population, confirms the need to take an interest, at least in the name of equity, in the fringe of individuals below the threshold, and not only in the gaps between those who are better off and those who are less so.

In the context of educational equity, the Lisbon objectives defined by the member states could be considered as the minimum to be reached. The follow-up reports from the Lisbon Process (CEC, 2004 et seq.) henceforth can be read as much as evaluations of the teaching effectiveness of European educational systems. Evaluating their (economic) efficiency would suppose reaching a consensus on an ideal rate of return between inputs and outputs or, at least, that inputs are explicitly taken into account when considering the related outputs. However, not only are there not yet any indicators translating this view, but it is also clear that the Commission has not made any proposal in these terms. This seems logical as the objectives established in Lisbon foresee an increase in spending, including private spending (CEC, 2003). In fact, the reports on which the Commission's proposals were based, although they use the term 'efficiency', tend to confuse this notion with that of effectiveness, since the performed evaluations are done in relation to cognitive data, measuring the acquired knowledge of the pupils (and therefore the 'cognitive' yield of educational systems), and not according to the inputs (in terms of money, teaching loads, time, and so on) invested in the various educational systems. Although recent literature in the field of

educational sciences clearly shows that effectiveness and equity can be mutually beneficial, such an analysis on the link between efficiency and equity has not yet been carried out at a European level.

Pre-school Teaching: focusing on learning at an early age

The proposals of the Commission are largely based on the theoretical model proposed by Cunha et al (2005). This economic model for child development postulates that skills which are innate or acquired at a certain age are the foundation on which subsequent learning is built. Starting out from this principle, which is backed up by common sense, the authors assert that the earlier the investment, the better its rate of return, since the fruits of this investment will last all life long. On the contrary, later investments will yield a lesser return, since they are only effective over a shorter period, and will have to be more substantial since, the older the child, the harder it is to remedy shortcomings accumulated since early childhood.

As attractive as this 'ballistic' theory may seem, it can be called into question on several points. First of all, it does not take into account the fact that learning difficulties can occur relatively late in the development process of a child or an adolescent, without these difficulties being easily attributable to a deficit during previous stages. The difficulties observed at a given schooling period or level could therefore be too easily and routinely attributed to the previous schooling period or level. This could have the effect of absolving subsequent educational professionals of responsibility, while depriving them of the attention and tools required to prevent and remedy school dropouts, particularly at the level of secondary education. Second, the data used are not suitable for testing the general model of the authors, since they do not take into account the development of skills measured at the pre-school level, for which progression would have to be monitored until at least the end of secondary schooling (i.e. there is no ongoing long-term follow-up).

Moreover, the model of Cunha et al (2005) relies on empirical data coming from the United States that are scarcely convincing for European countries. In order to grasp the range of the proposed model, one must be aware of the specific nature of pre-school education in the United States. Indeed, international data concerning attendance at pre-school education show that national traditions vary hugely: while the rate of participation of children less than four years old stands at 52.9 % in the United States, it is on average 73.5 % in the OECD countries belonging to the European Union (EU) (EU-19, according to the OECD, 2006, p. 266). This high average can be explained both by a strong tendency to attend pre-school education which has long been present in certain member states (Belgium, France, Italy and Spain) and by the significant efforts carried out in this area during the course of the last decades in the EU, as revealed by Eurydice data on the progression (1979-2002) of rates of participation in pre-school teaching schools among four-year-old children (Eurydice, 2005, p. 133).

The assertion that pre-school education displays the highest yield in terms of obtained results and social adaptation of children is not based on empirical data from within the member states of the EU. Given the diversity of the national contexts in terms of participation in pre-school education, a common policy within the EU cannot be uniformly valid. Moreover, it must be stressed that the works assessing the impact of childcare structures preceding obligatory schooling are fairly discordant. While the impact is positive overall, it is more so in terms of social adaptation than from a language viewpoint (Duru-Bellat, 2003). In her overview of social inequalities at school, Duru-Bellat also states that the social gaps can be slightly increased by attendance at primary school because, with all children benefiting from early schooling, the better-off children could benefit even more from it.

On the level of EU countries, the data from the recent Progress in International Reading Literacy Study (PIRLS) (Mullis et al, 2003), concerning the reading skills of pupils in primary education, can be called upon to support the debate. Unfortunately, they do not include longitudinal data allowing a response to the statement formulated in the Communication. But, the context questionnaires used in this study allow correlating the reading results and the length of participation in pre-school education. On average, for the EU countries who participated in the study, no correlation is observed (or rather, a slightly negative one, -0.14) between the proportion of children having attended pre-school education for more than two years and the average primary reading results. However, the attendance of pre-school structures seems beneficial to the weakest

children, since the participation rate of children aged four years in pre-school education programmes (Eurydice, 2002, p. 133) is positively correlated (0.41) to the rate of pupils reaching at least the 25th percentile in reading (Eurydice, 2002; Mullis et al, 2003).

The weakness of the Commission's argument should not, however, make us forget the importance of pre-school education. Above all, it raises the question of the state of research on the long-term benefits of pre-school education in the countries of the EU. The recommendations of the Commission would benefit from integrating the policies already implemented by member states. In that context, the study on education and training of young children before the age of mandatory schooling carried out for the OECD (2001) indicates converging policy tendencies. The report notes a tendency towards an extension of services so that all children get at least two years of free subsidised services before mandatory schooling. A centralisation of financial measures at this level, as proposed by the Commission, will no doubt only reinforce the current policies, to the detriment of obligatory schooling for which too few measures are proposed by the Commission. The OECD report (2001) states that current concerns favour above all the quality of services, due to a lack of coherence of policies and services with regard to education and training of young children, the lack of training of some staff and the tendency for low-income families to get access to worse services.

On the level of pre-school education, more than a prioritisation of resources is required: efficiency must be sought via the coordination of policies and services, via allocating means to teachers' initial and lifelong training, improving the status and salaries of staff and setting up better services targeted at the most disadvantaged children, especially through dedicated parental education. The description of framework documents and pedagogical objectives centred on the overall development of the child should reach to standards setting and assessing their achievements towards a better management of pre-primary education systems. The OECD report (2001) also warns against decentralised measures which would place no limits on variations, either in access to services or in their quality. Finally, it points out the necessity of an international harmonisation of data collection concerning this level of education.

The need to invest in favour of children from disadvantaged families as a priority is well known. However, this observation calls for a reflection on the way of helping the most vulnerable populations without stigmatising or condemning them when, despite the help given, they do not reach the foreseen result. Priority education policies may sometimes turn out to be disappointing for many reasons, not least because in reality they do not always get the means they are supposed to receive in principle. This may be because, notably, the most experienced teachers are assigned elsewhere or choose establishments attended by less vulnerable children. Another handicap arises mainly from the absence of serious audits taking into account both the problems upstream (targeting the public, determining and selecting programmes, allocating human resources and equipment, and so on) and the manner in which these actions are implemented in practice (Slavin & Fashola, 1998; Wang et al, 1998).

Primary and Secondary Education

The Communication from the Commission devotes a relatively limited space to the study of effectiveness and equity in the area of mandatory schooling, though it should be subject to full vigilance. Indeed, some children, and in particular those from disadvantaged backgrounds, only have effective access to mandatory schooling and research has shown that different pedagogic structures and practices can lead to different results in terms of both effectiveness and equity (Elley, 1992; Mullis et al, 2003; Mullis et al, 2004a,b).

On the level of primary education, the Commission does not mention any specific analysis and does not set out any particular measure. However, data from international studies show that countries largely diverge in terms of average output, social inequalities, gender inequalities or the proportion of pupils attaining a certain threshold of skill at the primary level.

In this respect, one could place the cumulative and multiplying model of acquired skills proposed by the Commission alongside a cumulative and multiplying model of inequalities. Therefore, for example, the specific effect of social environment on school productivity, which may be slight at the start of schooling and on a one-year scale, is progressively incorporated on the school level, and will be the main ingredient for the progression to the later level. In other words,

social inequalities put in place on one level will have a perennial effect, via the school level achieved at the start of the following year (Duru-Bellat, 2003). However, research in education sciences (Crahay, 2000; Demeuse et al, 2001, 2005; Demeuse & Baye, 2007a,b) has shown how much educational structures can reinforce these inequalities on all school levels, since all the explicit or implicit selection mechanisms, established or not countered by the education systems, can produce this effect.

On the level of implicit mechanisms, let's take the grouping of pupils in homogeneous classes. If this practice may be favourable to the most skilful pupils, it seriously harms the worst performing ones. They are put into conditions which are often less favourable, in terms of work climate, of teachers' expectations, of time effectively devoted to learning. This just concerns factors of pedagogic effectiveness (Scheerens, 2000); what underperforming pupils would gain from the spread of heterogeneous classes is twice as important as what the skilful pupils would lose. Heterogeneity in classes appears to be the most effective solution to maximise the progress of the underperforming pupils without proportionally burdening the progress of the most skilful pupils (Crahay, 2000; Duru-Bellat, 2003).

Some EU member states are also characterised by major differences between schools. Often, these schools are far more unequal than the pupils they take in (Coleman, 1966; OECD, 2004; Grisay, 2006). A more and more diversified school market is a vector for social segregation. The results of the international assessment PISA 2000 indicate that the overall majority of top-performing countries in reading shows a large degree of performance homogeneity between schools (OECD, 2005). Those data show the importance to pursue the objectives of equity and effectiveness simultaneously.

One example of an explicit mechanism generating social inequalities is the practice of holding pupils back a year, still possible from the primary level and more so at the secondary level in some member states (Eurydice, 2005). In his synthesis on social failure, Crahay (2005) demonstrated that this practice was not only ineffective, since it did not allow pupils to fill in the gap, but also unfair in the sense that it is marked on a social and gender basis.

Other structural mechanisms may reinforce inequalities at certain key moments of the educational system: transitions (between levels of education, courses, options and so on) are susceptible to reinforcing disparities between pupils (Boudon, 1973). In particular, the regular accumulation of inequalities seems to accelerate at the transition time from primary to lower secondary school (Sammons, 1995; Duru-Bellat, 2002), to such an extent that in two years, as many social inequalities are created as during the entire primary education (Duru-Bellat, 2003). With courses and options, pupils from disadvantaged backgrounds are offered more concrete programmes. Teachers are more concerned with motivation than with content, and they show less ambitious expectations for these pupils, and have more negative representations creating 'self-fulfilling prophecies' or a 'Pygmalion effect' (Rosenthal & Jacobson, 1968).

The Commission has put forward the ineffective and unequal character of early courses. Research studies confirm that a long period of a common-core syllabus before any selection appears less socially selective (Crahay, 2000; OCDE, 2005) and avoids the trap of 'segregated democratisation', denounced by Merle (2000). Ensuring the success of all pupils requires stopping a multi-speed system in which some pupils are led to pursue a valued education while others, having accumulated setbacks, are transferred to different school types or courses. This raises at the same time the problem of course prestige, school orientation and the place of special schooling, organised separately rather than being integrated into an ordinary system.

Aside from Nordic countries, which have adopted voluntary policies leading to both great effectiveness and great equity in cognitive results, we should note the recent example of Poland, which has profoundly changed its educational structures and has notably lengthened the common-core syllabus, resulting in a reduction of social inequalities in performances at 15 years old, whilst raising the average level (OECD, 2004).

If all the implicit and explicit differentiations have the effect of producing inequality, and often ineffectiveness, it is notably because they involve parents' choice, unequally informed and unequally capable of investing financially in their children's schooling. Moments when children choose their courses and the different levels in schooling are also moments of (self-) selection, socially differentiated according to the schools, pupils and their parents. In the discussion on

efficiency and equity, the Commission does not get involved with families' strategies that depend on their social contexts and does not debate the huge inequity regarding the freedom to choose. However, these strategies must be taken into account in order to avoid a waste of talents. In this respect, the Commission's structural proposal, which pleads for a combination of local autonomy and central responsibility, must be handled with a lot of caution. Indeed, 'each time possibilities to choose are introduced, they are used above all by well-off families, in particular to ensure that their child is well educated amongst his peers, in a school which is not too heterogeneous socially or ethnically' (Duru-Bellat, 2003, p. 60). More autonomy may therefore lead to unequal strategic choices, depending on the quality of users' information, or the forms of self-selection within families. The proposal to increase local autonomy may also be called into question by an international comparison of school performances. These do not show a noticeable relationship between more school autonomy and better performances from pupils (Duru-Bellat, 2003; OCDE, 2004). The higher performances from autonomous and private schools can largely be attributed to the socio-economic composition of their public (OECD, 2005). Strengthening local autonomy may favour geographic disparities, offering optimal conditions to increase a differentiated offer of unevenly prestigious courses, options and schools.

The Commission makes few recommendations regarding structures and teaching practices. It identifies a single structural mechanism which is both inefficient and inequitable: early tracking through courses. But education systems are complex systems, in which actors tend to seize any opportunity for strategic distinction (Demeuse et al, 2001, 2005). These mechanisms, particularly understandable in discriminating systems where nobody wants to be on the wrong side of the education barrier, must be taken into account as a whole to promote efficiency and equity at the level of the education system. It is therefore imperative to take note of all implicit and explicit differentiation mechanisms, and to anticipate actors' strategies, in order to propose effective solutions.

To determine good practices, it is important to identify accurately the conditions in which these practices are effective, both in order to increase the average level of apprenticeship and to reduce disparities between pupils and limit failures affecting the weakest pupils. It is useful to study protocols that would enable identification of those practices and their conditions of spreading, involving specialists in research methods in education. The Commission should therefore support more intensively studies including analyses of class practices, by direct observation in a real context, and evaluating their outcomes. This support should also include means to disseminate these practices.

Higher Education

The observations presented in the Commission's preparatory working paper (CEC, 2006b) rightly indicate that the expansion of student numbers in higher education has not been accompanied by its democratisation: young people from poorer families are still clearly disadvantaged in terms of equality of access and consequently in terms of corresponding qualifications. Furthermore, those going on to higher education do not choose the most profitable subjects, and have a tendency to give up more quickly if they fail. This situation is harmful in terms of both effectiveness and equity, as there is a waste of talent determined by individuals' intrinsic characteristics.

Given that the growth in student numbers in higher education is a relatively recent phenomenon, this observation may appear logical: the more favoured families continue to be best placed when access to a level of education traditionally reserved for the elite is spread. Even without taking into account the recent fact of the increase in higher-education public, this phenomenon is coherent with regard to other levels of education: the most prestigious subjects, options or schools are selected and in turn largely select a favoured public. The higher level of education is, however, designated, more than others, as unequal by virtue of the inequitable distribution of collective financial funding. The rationale is simple: the community contributes to an educational good of which the most favoured are the greatest beneficiaries. The unfair nature of this situation is countered only if one takes into account the positive externalities that the most qualified produce, especially in terms of innovation and productivity. This observation may be made, *mutatis mutandis*, for secondary education, but in the Communication from the Commission

the system beneficiaries' personal contribution is envisaged as a means of making the system more fair. This can effectively justify itself more at the tertiary level than at other levels, if one takes into account the unequal distribution of private and public financial inputs in proportion to the output.

If the statements of the Commission can be largely shared, the solutions proposed must be questioned. Spreading tuition fee schemes, even when accompanied by financial support for poorer students through loans, risks increasing inequity in higher education. Tuition fees are supposed to introduce market effects meant to favour positive pressure on the system (CEC, 2006b), leading to a higher quality of teaching and greater student motivation (higher attendance rate, lower failure rate). On the one hand, as the Commission recognises, data are totally missing within Europe to support these arguments, and, on the other hand, this method could have the inverse consequences. Therefore, the Nordic countries, which traditionally used the system of loans in higher education, observed that students preferred to finance their studies with paid work. Student work having a tendency to extend studying length, it led these countries to increase grants (Eurydice, 1999).

Bayenet & Demeulemeester (2005), in their review of the literature concerning public finance policies of higher education in the countries of the OECD, name three arguments in favour of the grant system as opposed to the loan and tuition-fee system: (i) the non-existence of studies on the effects of these policies in terms of choice of programmes and length of studies; (ii) the difficulty in determining the incidence of reimbursement obligations; and (iii) the example of Nordic countries faced with the results of a policy favouring loans.

Vocational Education and Training

The Commission groups into the same section vocational education and training, whether provided in the context of secondary education or of training programmes for adults. This unconventional grouping is interesting, as it recognises the need to improve the quality of any training directly linked to the labour market. The Commission acknowledges that some vocational training faces deadlocks, whether it be vocational education organised at a secondary level which does not ensure access to employment, or further training or programmes for adults aimed at those with few qualifications.

To improve the situation, the Commission proposes two steps, the first being a reinforcement of the partnership between the public and private sector and the social partners, and the second being the adaptation of training programmes to employers' needs. If the dialogue between the labour market and the vocational education and training sector must be reinforced, we should be under no illusions that this collaboration might guarantee greater efficiency of the education and training systems. A too-close dependence of training programmes on requirements of the labour market could lead, in a recession period, to a severe discrepancy between the specific skills acquired and the new requirements of the labour market. Furthermore, the Commission underlines the difficulty of persuading the private sector to finance vocational training, as the latter has no direct link to company needs. This statement makes a case for the public sector to preserve an important role in the sphere of the workers' social promotion, especially those without much training, so as to allow the acquisition of either general skills, not directly linked to the work posts held, or skills allowing the acquisition of a better position on the labour market.

Actions by the European Union

International cooperation between countries of the EU is essential. By virtue of their common destiny, it is in these countries' interest to work together to establish the objectives to be attained and their evaluation methods to be used. With regard to the methods to be implemented to achieve these objectives, the Commission recommends an exchange of good practices, and recognises the specific responsibility of member states. It would be illusory to imagine that identical methods would produce identical results in different historic, cultural, economic and educational contexts. The assessment of promising practices must deal not only with their efficiency and their capacity to increase equity, but also with the conditions of transferring or spreading them into other contexts.

The Commission sees, in the efficiency and equity improvement of education systems, a source of people mobility. Will mobility be extended as a corollary result or as an intended objective of the Commission's Communication? This is not obvious. If it is an objective, it seems appropriate to question it. From what kind of mobility will people benefit? A mobility alleviating the problems of regional employment without resolving them? Mobility centred on employment? On exchanges between citizens? In any event, questions can be asked with regard to the added value of an investment centred on mobility. It seems more important to underline the added value of an investment centred on the development of basic skills of all citizens, including as a priority disadvantaged citizens and those with few qualifications. On the other hand, we must reflect on mobility conditions with regard to students and rethink the fair allocation of exchange grants as well as the amounts of grants, as the latter do not allow equitable access to training in other member states. Without rebalancing, the gap between well-off and mobile students and underprivileged and therefore less mobile students will widen, all the more so as mobility is important to get a job. The setting up of education and training centres of excellence, rather than a universal service, accessible throughout the EU, if not coupled with proper support related to the costs generated by this mobility, will lead to a reinforcement of regional disparities and discrepancies between individuals on the basis of their own resources.

The Commission concludes that the priority is to provide equity and efficiency in European education systems. Our introductory remarks concerning the precision required in defining these concepts are extremely significant here. The culture of assessment and exchanges must be developed to reach these objectives. The Commission calls for this culture only in the field of pre-school education, though it should be provided at every level of education. Education and training must be conceived as a coherent combination in close interaction with other major economic and social sectors. Wider policies aimed at reducing inequalities in living conditions and financial security are required to increase equality of opportunity (Shavit & Blossfeld, 1993). Coherency of policies and evaluation thereof must therefore be looked into. With regard to policy evaluation, work already carried out under the aegis of the Commission (regarding, for example, the Eurydice network, NESSE [3] and EGREES) must be developed. An ambitious and multilingual policy for developing the results of European research into education science must be set up. While education economy is a relatively structured discipline sharing largely common methods, the same does not apply to social sciences, where national and international funding is generally modest. It is important to support the development of a cumulative approach, especially by establishing or sustaining the development of European research centres concerning education and the diffusion of knowledge in the field, from an interdisciplinary perspective.

Notes

- [1] 'Réseau Européen d'Experts en Economie de l'Education' in French and 'Europäische Expertennetzwerk Bildungsökonomik' in German (<http://www.education-economics.org/>).
- [2] <http://www.schoolequity.eu>.
- [3] Network of Experts in Social Sciences of Education and Training (<http://www.nesse.fr>).

References

- Baye, A., Demeuse, M., Monseur, C. & Goffin, C. (2006) *A Set of Indicators to Measure Equity in 25 European Union Education Systems*. Rapport remis à la Commission européenne, Direction générale 'Education et Culture', Brussels.
- Bayenet, B. & Demeulemeester, J.-L. (2005) Politiques publiques de financement de l'enseignement supérieur: une tentative d'évaluation, in M. Demeuse, A. Baye, M.H. Straeten & J. Nicaise (Eds) *Efficacité et équité des systèmes d'enseignement et de formation*. Brussels: De Boeck
- Boudon R. (1973) *L'inégalité des chances. La mobilité sociale dans les sociétés industrielles*. Paris: Armand Colin.
- Coleman, J.S. (1966) Equal Schools or Equal Students? *The Public Interest*, 4, 70-75.
- Commission of the European Communities (CEC) (2003) Investing Efficiently in Education and Training: an imperative for Europe. Communication from the Commission (COM[2002] 779 final), Brussels. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2002:0779:FIN:EN:PDF>

- Commission of the European Communities (CEC) (2004 et seq.) Progress towards the Common Objectives in Education and Training: indicators and benchmarks. Commission staff working paper. Brussels: CEC.
- Commission of the European Communities (CEC) (2006a) Efficiency and Equity in European Education and Training Systems (COM[2006] 481 final), Brussels.
http://ec.europa.eu/education/policies/2010/doc/comm481_fr.pdf
- Commission of the European Communities (CEC) (2006b) Accompanying document to the Communication form to the Commission to the Council and to the European Parliament. Efficiency and Equity in European Education and Training Systems (COM[2006] 481 final). Commission staff working document (SEC [2006] 1096), Brussels.
- Crahay, M. (2000) *L'école peut-elle être juste et efficace? De l'égalité des chances à l'égalité des acquis*. Brussels: De Boeck.
- Crahay, M. (2005) *Peut-on lutter contre l'échec scolaire?* 2nd edn. Brussels: De Boeck.
- Cunha, F., Heckman, J., Lochner, L. & Masterov, D. (2005) Interpreting the Evidence on Life Cycle Skill Formation. IZA Discussion Paper-1675. <http://ssrn.com/abstract=766744>
- Demeuse, M. & Baye, A. (2007a) Medir y comparar la equidad de los sistemas educativos en Europa, in M.A. Sancho Gargallo & M. De Esteban Villar (Eds) *Libertad, Calidad Y Equidad en Los Sistemas Educativos (Buenas prácticas internacionales)*, 69-92. Madrid: Comunidad de Madrid, Consejería de Educación y Fundación Europea Sociedad y Educación.
- Demeuse, M. & Baye, A. (2007b) Measuring and Comparing the Equity of Education Systems in Europe, in N. Soguel & P. Jaccard (Eds) *Educational Systems and the Challenge of Improving Results: explaining and enhancing performance and equity*. Dordrecht: Springer.
- Demeuse, M., Crahay, M. & Monseur, C. (2001) Efficiency and Equity, in W. Hutmacher, D. Cochrane & N. Bottani (Eds) *In Pursuit of Equity in Education: using international indicators to compare equity policies*. Dordrecht: Kluwer.
- Demeuse, M., Crahay, M. & Monseur, C. (2005) Efficacité et équité dans les systèmes éducatifs. Les deux faces d'une même pièce? In M. Demeuse, A. Baye, M.H. Straeten, J. Nicaise & A. Matoul (Eds) *Vers une école juste et efficace. 26 contributions sur les systèmes d'enseignement et de formation*, 391-410. Brussels: De Boeck Université.
- Duru-Bellat, M. (2002) *Les inégalités sociales à l'école. Genèses et mythes*. Paris: PUF.
- Duru-Bellat, M. (2003) *Inégalités sociales à l'école et politiques éducatives*. Paris: UNESCO–Institut international de planification de l'éducation.
- Elley W.B. (Ed.) (1992) *How in the World do Students Read?* Hamburg: Grindeldruck GMBH.
- European Council (2000) Presidency Conclusions, Lisbon European Council, 23-24 March. Document DOC/00/8. http://europa.eu.int/ISPO/docs/services/docs/2000/jan-march/doc_00_8_en.pdf
- European Group for Research on Equity in Educational Systems (EGREES) (2005) Equity in European Educational Systems: a set of indicators, *European Educational Research Journal*, 4(2), 1-151.
<http://dx.doi.org/10.2304/eej.2005.4.2.1>
- Eurydice (1999) Financial Support for Students in Higher Education in Europe: trends and debates. Key Topics in Education 1. Brussels: European Commission.
- Eurydice (2002) *Key Data on Education in Europe*. Brussels: European Commission, Eurostat.
- Eurydice (2005) *Key Data on Education in Europe*. Brussels: European Commission, Eurostat.
- Grisay, A. (2006) Que savons-nous de l'effet établissement? In G. Chapelle & D. Meuret (Eds) *Améliorer l'école*, 215-230. Paris: PUF.
- Merle, P. (2000) Le concept de démocratisation de l'institution scolaire : une typologie et sa mise à l'épreuve, *Population* 55(1), 15-50
- Meuret D. (2001) School Equity as a Matter of Justice, in W. Hutmacher, D. Cochrane & N. Bottani (Eds) *In Pursuit of Equity in Education: using international indicators to compare equity policies*. Dordrecht: Kluwer.
- Mullis, I.V.S., Martin, M.O., Gonzales, E.J. & Chrostowski, S.J. (2004a) TIMSS 2003 International Mathematics Report. Findings From IEA's Trends in International Mathematics and Science Study at the Fourth and Eighth Grades. Chestnut Hill, MA: Boston College.
- Mullis, I.V.S., Martin, M.O., Gonzales, E.J. & Chrostowski, S.J. (2004b) TIMSS 2003 International Science Report. Findings From IEA's Trends in International Mathematics and Science Study at the Fourth and Eighth Grades. Chestnut Hill, MA: Boston College.
- Mullis, I., Martin, M., Gonzalez, E. & Kennedy, A. (2003) PIRLS 2001 International Report. IEA's Study of Reading Literacy Achievement in Primary Schools in 35 Countries. Chestnut Hill, MA: Boston College.

- Organisation for Economic Co-operation and Development (OECD) (2001) *Starting Strong: early childhood education and care*. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) (2004) *Learning for Tomorrow's World: first results from PISA 2003*. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) (2005) *School Factors Related to Quality and Equity: results from Pisa 2000*. Paris: OECD.
- Organisation for Economic Co-operation and Development (OECD) (2006) *Education at a Glance: OECD indicators 2006*. Paris: OECD.
- Reezigt, G.J. (Ed.) (2001) *A Framework for Effective School Improvement*. Final report of the ESI project, Gronings Instituut voor Onderzoek van Onderwijs, University of Groningen.
- Rosenthal, R. & Jacobson, L. (1968) *Pygmalion in the Classroom: teacher expectation and pupils' intellectual development*. New York: Holt, Rinehart & Winston.
- Sammons P. (1995) Gender, Ethnic and Socio-economic Differences in Attainment and Progress: a longitudinal analysis of student achievement over 9 years, *British Educational Research Journal*, 21(4), 465-485. <http://dx.doi.org/10.1080/0141192950210403>
- Scheerens, J. (2000) *Improving School Effectiveness*. Paris: UNESCO.
- Shavit, Y. & Blossfeld, H. (1993) *Persistent Inequality*. Boulder, CO: Westview Press.
- Slavin, R.E. & Fashola, O.S. (1998) *Show Me the Evidence! Proven and promising programs for America's schools*. Thousand Oaks, CA: Corwin Press.
- Wang, M.C., Haertel, G.D. & Walberg, H.J. (1998) Models of Reform: a comparative guide, *Educational Leadership*, 55(7), 66-71.
- Wößmann, L. & Schültz, G. (2006) Efficiency and Equity in European Education and Training Systems. <http://ec.europa.eu/education/policies/2010/doc/eenee.pdf>

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