

DISCUSSION PAPER ON COMPETENCE IN EDUCATION FOR SUSTAINABLE DEVELOPMENT

Comments by two Italian experts¹

Comments by Michela Mayer², Member of the national institute for the evaluation of the education and training system (INVALSI) set up by the Ministry of Public Education, Italy.

The document is very interesting but shows some inconsistencies and missing points that can be improved. In general, I agree with the points already raised by my colleague Bruno Losito, and more specifically I will like to add the following:

1. because the focus of the UNECE strategy is on ‘**education and learning**’, the main questions are ‘what competences should **be learned** for becoming citizens active toward sustainable development’, and ‘how’ these competencies should be acquired. The ‘when’ and ‘where’ questions have already been answered by the strategy: during all life, at school, in the family, in the working places, in the society. The focus on formal education and on initial teachers training could be accepted only as one way to start, but not as the main issue to face. To restrict ‘education’ to formal education, not taking into account the many ‘informal initiatives’ (nature camp, science festival, saving energy days,...) and ‘non formal experiences’ (as the hundred of local and regional Agenda 21) already existing in ESD, continues to divide education at ‘school’ from ‘education in society’, and we know from Environmental Education that such an approach is largely ineffective.
2. the ‘basic’ document for the definition of general key competences is nowadays the De.Se.Co. study by the OECD, where Sustainable Development is explicitly one of the motivation of the Study (“*Sustainable development and social cohesion depend critically on the competencies of all of our population – with competencies understood to cover knowledge, skills, attitudes and values.*” OECD Education Ministers, quoted at pag. 4 of the study). Explicit reference to this document should be part of the discussion paper.
3. the *Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning* is also important for the European region: in this document competences for ESD do not have their own place but are included both in scientific competences (“*competence includes an attitude of critical appreciation and curiosity, an interest in ethical issues and respect for both safety and sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community and global issues*”) and in social and civic competences (*Full respect for human rights including equality as a basis for democracy ... This means displaying both a sense of belonging to one’s locality country, the EU and Europe in general and to the world... Constructive participation also involves civic activities, support for social diversity and cohesion and sustainable development, and a readiness to respect the values and privacy of the others.*”).
4. key competences in ESD should be clearly distinguished from ‘main ESD issues and problems’ (listed in the Strategy and in the DESD document) and from ‘key concepts’ needed for ESD. The knowledge competences listed in the CSCT project could offer a starting point, but other efforts should be made: ‘sustainability science’ is a reality, and new and old concepts are already being proposed in school and university curricula as basic interdisciplinary and trans-disciplinary ‘sustainability concepts’: interdependency, uncertainty, limits, evolutionary process, resiliency of a system, life cycle, risk threshold, carrying capacity, etc. It will be an important contribution to ESD to collect and diffuse these concepts (in Spain, the International University of Andalusia, is proposing a forum in this direction): a working group composed of scientists/teachers/general ESD educators could work together to compose an ‘in progress handbook’;

¹ The text in this paper is submitted as received from the authors.

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5. assessment of the defined competences and key concepts is fundamental: in Italy, in 2000-2001, a first national assessment on 'environmental competences' was proposed to a national sample of 25000 students at 4 school levels. A framework of 'cognitive competences' and of 'constellation of key concepts' was defined, and the assessment tool was composed by 'PISA-like' units concerning ESD (not only environmental issues, but also social and economic issues were proposed). The study was published in 2002 (A. M. Caputo and M. Mayer (Eds.) *La qualità del sistema scolastico*, Giunti, Firenze).
6. PISA 2006 results could be taken into account as a baseline of some of the competences needed: in effect one of the focuses of the PISA science framework was on environmental knowledge and responsibility toward environment and sustainable development, and it could be possible to reflect on students science performance from an ESD point of view;
7. As far as the 'whole institutional approach is concerned' a 'self assessment' proposal has been produced by the ENSI network in 2005, and it is already translated in 17 languages (all main European languages, included Russian, Hungarian and Romanian) and used in many countries. The 'Quality criteria for ESD schools' booklet (Soren Breiting, Michela Mayer, and Finn Mogensen, *ENSI-SEED networks*) propose 15 'quality areas', that correspond to the main competences needed by pupils and by teachers (in order to develop pupils competences and to build an effective learning organisation). The quality areas and the quality criteria were based on the results of an international research and on case studies concerning the whole institutional approach to EE and ESD (Finn Mogensen and Michela Mayer, *Ecoschools: trends and divergences*, *ENSI-SEED networks*).

Comments by Mr. Bruno Losito³, Associate Professor of Experimental Pedagogy at "Roma Tre" University, Italy.

1. As an "outside" reader it seems to me that the various paragraphs need to be a little bit more integrated in a common perspective. For example, if one tries to understand what is the idea of competencies the paper refers to, what is said in the first paragraph (Why do we need competence in ESD?) and the way the "competence issue" is dealt with in the following second paragraph could appear not completely consistent. In addition to that, it could be useful to try to establish some links between the definition of (and discussion on) competencies in ESD and the definition of key competencies (as it was developed, for example, in the OECD De.Se.Co. study). Some of the competencies related to ESD are not only related to ESD, but seem to be part of key competencies in general (e.g. problem solving) and – as it is for key competencies - they need to be developed in different settings (formal, informal, non formal education) and through the contribution of different disciplines and/or in a "whole institutional approach". Moreover it could help to stress the link between ESD competencies and citizenship competencies.
2. In addition to that, may be it would be helpful to make a clearer distinction between the competencies needed in order to deal with SD (the competencies needed by all citizens) and competencies needed in order to develop those competencies (I mean the competencies needed by teachers, teachers educators, trainers, ...). The impression I got is that of an overlapping of the two within the paper. It could also help to specify that the paper mainly refers to the formal sector (although it is recognised that ESD is related to formal, non formal and informal sectors). The discussion about ESD in the non formal and the informal sectors (and the links with adult education and a LLL perspective) need to be better discussed and clarified.
3. In paragraph II.B (Building competence in ESD), it is not clear to me why "low salaries of teachers" is a challenges for ESD. It is (or could be) a challenge for teacher education and for the quality of teaching in general and not only (and in a specific way) for ESD.

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4. I completely agree that “equipping educators with the competence to include SD in their teaching” needs the development both of educational programmes and didactic tools. I would add that educators need to learn to develop their own courses and their own didactic tools, exactly because EDS is context based and because the development of competencies need to be related to specific contexts. I think it would help to stress the importance of developing assessment skills. The issue of competencies assessment is, in my view, one of the most relevant in the perspective on strengthening teachers’ awareness of their role in ESD.
5. As it is stressed in the paper, competencies cannot be taught, they need to be learnt. If so, this could be stressed in III.A.2, the importance of the whole school experience students have. The issue here is that of the consistency between ESD and the characteristics of the schools as learning environments. Here again, useful links could be established between ESD and education for democratic citizenship (EDC). Experiences in the field of EDC already developed within the framework of the Council of Europe initiatives give us useful indications about how to develop a whole school approach in the field and how to assess it (see the Tool on quality assurance in education for democratic citizenship, published in the EDC pack for the Year of citizenship through education – published on the CoE website. The project was promoted by CoE and UNESCO).
6. In point III.A.3, the decision of focusing on initial training is presented. I’m wondering to what extent this decision is consistent with the proposals developed in the following paragraph (III.B), where the proposed initiatives seem to be related also (and may be more) to the in-service training sector.
