



---

## **Proposals for the development of competences in geography by applying the IGU International Charter**

**Daniela Pasquinelli d'Allegra<sup>a</sup>**

<sup>a</sup> Dipartimento di Scienze Umane, LUMSA University, Rome, Italy

Email: [pasquinelli.daniela@gmail.com](mailto:pasquinelli.daniela@gmail.com)

Received: September 2017 – Accepted: October 2017

### **Abstract**

Nowadays competences represent a real test in the world of work. As a consequence, their acquisition requires the commitment not only of schools at all levels but also universities. Geography is ready to give its contribution not only for the development of specific transversal competences for the education for development, environment and cross-culture, but also for lifelong learning. This paper sets out to demonstrate how geography, even if not expressly listed in the eight key competences for lifelong learning recommended by the European Parliament and Council in 2006, is to be found in all of them with its fundamental themes; another objective is to make proposals – going from theories to didactic practice – to put into practice the precepts of the “2016 IGU International Charter on Geographical Education”: a number of possible strong arguments of geography have been taken from the “International Action Plan” of the Charter on which to build a curriculum which is as unitary as possible and which links all levels of education.

**Keywords:** Charter on Geographical Education, Key Competences, Method, Vertical Curriculum

### **1. Introduction**

In today's society there is more and more talk of competences to possess and competences to assess in the world of work and the field of education. Nobody aspires to entrusting themselves to someone “incompetent” in any sector of work, and therefore an education based on specific skills for each type of employment is desirable. Consequently, in recent decades the world of schools, university and education in the broad sense has been entrusted with the task of training competent people, able to apply their

knowledge and skills to practical cases that they will have to deal with in their daily lives, in contexts that are completely different from the case studies encountered at school.

Education focussed on competences has considerable merits insofar as it has made it possible to pass from a more or less mnemonic learning to a “meaningful” learning, or a learning that can be linked to a network of concepts that is already structured in the mind so as to enable the person, their skills and knowledge to evolve (Ausubel, 1968). The aim

of “productivity” in the construction of competences in the teaching/learning process at school must be placed at the cognitive and personal growth level connected to the development of autonomy and a critical sense, and not with a view to its use in the labour market; it is therefore necessary to avoid the risk that the logic of competences makes the delicate sector of education plummet into the innerworkings of the economy (Reboul, 1980). This would bring about an impoverishment of general culture, above all the humanistic one, which instead should be overriding at school so as to allow the development of harmonious personalities able to cultivate interests transversal to knowledge and interpret the reality from a broader and more complex viewpoint (Le Boterf, 2000a). This knowledge (from literature to music, from art to philosophy) contributes to fully realising the human being, an objective that is indispensable for a proper education. Nowadays however, there are many scholars and operators working in the education sector who fully support the opportunity to assume competence as an organisational element of the curriculum, considering the building of skills as being very important not for an early preparation for the world of work, but to face the vicissitudes of life (Perrenoud, 2000).

Destined to being defined as a bridging or linking discipline between the scientific-technological and humanistic subjects, geography has a more complex identity, just as its task in society has. For this reason it has a rare wealth and potential, even if all too often not recognised or neglected. Nevertheless, it has now reached a turning point: the urgent need for geographical knowledge – to collaborate with other knowledge that is indispensable to remedy the desperate predicament of the planet from an environmental and humanitarian point of view – must be promptly tackled by qualified and motivated teachers, who can foster the development of geographical competences in their students. The aim of this paper is twofold in this sense. The first, dealt with in the third paragraph, is to demonstrate the pervasiveness of geography in continued education, setting out in a geographical perspective the key competences for lifelong learning of the Recommendation of the European Parliament

and of the Council of 2006. The second aim, dealt with in the fifth paragraph, sets out to highlight the passage from theory to didactic practice: in fact, proposals are made for the selection of a number of fundamental arguments of geography (among the many to be found in the Charter). The four arguments have been chosen because they make it possible to deal with other important focal themes within them. From these themes it is possible to bring forth the indication of competences to be developed in a possible vertical curriculum, as shown in the attached table.

## 2. Competence or competition?

The term “competence” derives from the Latin *cum-petere*, or that is, “ask together, to converge towards one same point, to meet”, from which derives also the term “competition”. “Competence” and “competition” are two terms around which revolve research and the labour market in today’s world. The application and evaluation of individual competences can lead to a healthy competition which gives good results when arousing emulation and making team work and/or research collaboration grow, but it can become harmful if it poisons the work environment and sours the relations between colleagues or students.

Authentic competence is when it is put to the service of the common cause and expense to make an entire community grow, at school, in companies, in society and state government.

Nonetheless, great attention must be paid to the polysemic and complex word “competence”, which Guy Le Boterf (2000b, p. 18) very effectively defined as ‘conceptual chameleon’. One of the first to bring the concept of competence to the attention of the scientific world was Noam Chomsky, who in his book “Syntactic structures” 1957 deals with the concept of “linguistic competence”, meaning all those types of knowledge that go beyond the simple act of speaking, like for example, the conscious use of grammatical structures and the various communication registers, appropriate for rapidly conveying a certain type of message to one’s interlocutor. Very soon the concept makes its way into the world of companies and

business, spread by organisation psychology. In 1973 in the United States, David C. McClelland maintains that in order to select personnel it is preferable to assess their competences rather than resort to aptitude and intelligence tests: "For some purposes it may be desirable to assess competencies that are more generally useful in clusters of life outcomes, including not only occupational outcomes but social ones as well, such as leadership, interpersonal skills, etc. [...] Some of these competencies may be rather traditional cognitive ones involving reading, writing, and calculating skills. Others should involve what traditionally have been called personality variables, although they might better be considered competencies" (McClelland, 1973, pp. 9-10).

Competences thus connect the world of education with the world of employment and, in the context of education, become increasingly more prominent with the spread of theories supporting the importance of acquiring constructive knowledge of thought, shunning those that Alfred North Whitehead defined as "inert ideas" at the beginning of the 1920s: "In training a child to activity of thought, above all things we must beware of what I will call "inert ideas" – that is to say, ideas that are merely received into the mind without being utilised, or tested, or thrown into fresh combinations. [...] Except at rare intervals of intellectual ferment, education in the past has been radically infected with inert ideas" (Whitehead, 1929, pp. 1-2).

Therefore, inert ideas are the ones deriving from notions accumulated in the memory to be then soon cancelled almost without leaving any trace and without having entered to be part of a network of authentic knowledge which, integrated with personal skills and abilities can become useful competences in the personal and working sphere.

For many years geography too was "infected" by inert ideas connected to the simple memorisation of names of seas, mountains, rivers and towns. Many generations lost the appeal and the sense of the study of geography, but there is always time to make up for this by fostering a "significant" learning and competences that enable young people, also by means of the study of geography, to give their

concrete contribution to work and the community in which they live, taking part in a healthy and fair competition for the improvement of everyone's quality of life and the protection of the environment.

### **3. The key competences in the European reference framework, in a geographical perspective**

In Europe an important unitary reference framework with regard to competences at educational and training level is represented by the "Recommendation of the European Parliament and of the Council of 18/12/2006 on key competences for lifelong learning". It stresses the need to ascertain competences and unifies their interpretation, offering a precise definition of competence as "a combination of knowledge, skills and attitudes appropriate to the context".

The Recommendation identifies eight key competences, considered equally important, as "those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment":

- 1) Communication in the mother tongue;
- 2) Communication in foreign languages;
- 3) Mathematical competence and basic competences in science and technology;
- 4) Digital competence;
- 5) Learning to learn;
- 6) Social and civic competences;
- 7) Sense of initiative and entrepreneurship;
- 8) Cultural awareness and expression.

These key competences must be achieved at school and in permanent training through the contribution of all subjects. Geography is not mentioned in the document, even though its educational contribution has great transversal potential and is fundamental for the understanding of the complex dynamics of the contemporary world.

Upon analysis of the document, I noticed that many parts relative to each of the eight key competences are perfectly adapted to the

geographical contents and objectives. As well as highlighting them, I have added some didactic-operational indications, among the many possible.

*Communication in the mother tongue and Communication in foreign languages*

The first two key competences are at the basis of all knowledge, including geographic knowledge. One can of course speak about linguistic competence, which is fundamental for the expression and circulation of any information. But students need to be made literate also in the specific lexicon of the various subjects, geography included (as well as the specific cartographic code), both in their mother tongue and in the most widespread foreign languages. While the use of English in international communication (also at scientific level) is now consolidated, defined as the “passport language”, no language should be neglected, but rather they should all be cultivated owing to the huge baggage of culture and identity that they bring with them.

The communication in foreign languages fosters one of the educational objectives of geography: the meeting between geographical realities and different cultures. In fact, the Recommendation states: “A positive attitude involves the appreciation of cultural diversity, and an interest and curiosity in languages and intercultural communication”.

In order to widen young people's increasingly limited vocabulary from the very first years of school, the specific terms of geography can be introduced, for example by means of iconic cards (evoking a certain geographical “object” in a picture, like a volcano, a river mouth, or an estuary, an archipelago, etc.). Divided into teams, the students correctly match the card containing the geographical term (which can be written in their mother tongue and in a number of foreign languages) with the one with the corresponding image.

*Mathematical competence and basic competences in science and technology*

The third key competence also involves geography in different ways: a great deal of

geographical knowledge in fact requires an interdisciplinary link with mathematics (from the basic concept of scale reduction to those of localisation, distance, and direction, to the processing of statistical data in graphs, tables etc.). The Recommendation declares: “Mathematical competence involves, to different degree, the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentation (formulas, models, constructs, graphs, charts)”. And once again geography finds itself, always non-explicitly, among the key competences in the scientific and technological fields: “Competence in science refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. [...] Competence in science and technology involves an understanding of the changes caused by human activity and responsibility as an individual citizen”.

Physical geography collaborates with natural sciences, applying its own methods “to explain the natural world” and human geography, also to realise environmental education and active citizenship, tackling the study of both the positive and negative changes made to the environment by anthropic action and making students and citizens feel responsible for the respect and protection of their natural environment.

*Digital competence*

This competence has become fundamental in geography, both in research and didactics. There is more widespread use of geotechnologies in Italian schools, supported by invaluable manuals like Cristiano Pesaresi's (2017), which guides teachers and students in acquiring competences in the use of Geographic Information Systems (GIS), today the most powerful and complete means for the analysis, interpretation and territorial planning. The author also stresses the importance of a strong educational focus that these new means require. This attention is shared by Michael F. Goodchild, who in the preface to his volume writes: “We could even go so far as to say that no geographic data are the truth, as all are subject to varying degrees of uncertainty. This last point provides a very important caution to any user of GIS, and

establishes the need for what is often called critical spatial thinking. A GIS is not a machine to which a user can surrender responsibility. Rather it is an aid to the user's own thought processes, which must be constantly reflecting on what the GIS is saying and what it means. A GIS database is not the truth, but a representation of the truth, and only the user can appreciate how the GIS database differs from what is true in the real world" (Goodchild, 2017, p. X).

### *Learning to learn*

This fundamental competence can be applied to geography, inasmuch as one can learn to learn the use of specific methods of geography (direct observation, indirect observation, analogies and differences etc.): one thus has the right "instruments" to know and explore the world, distinguishing between man's positive and negative actions in the construction of the territory. From a very early age the observation of the surrounding environment allows learning by direct experience and undoubtedly the most fruitful type of learning. In order to learn to learn in terms of space, a guided reflection is needed that leads to metacognition. It is important, but difficult even for adults, to exercise metacognition to learn to learn space, to make oneself aware of how one can dominate increasingly vast spaces by means of direct or indirect knowledge.

Learning to learn space must start in the very first years of school. By means of game-exercises and, eyes closed, the children are encouraged to reflect on how they are able to carry out a certain habitual path in the well-known spaces of the school (for example, to go from the classroom to the IT lab), inviting them to go over it mentally: they are thus surprised to discover that their capacity for intentional movement in space is guided by the capacity to learn to memorise the known space, or by the creation of mind maps. The metacognitive phase is important during the whole learning process in geography; to reflect on the methods and instruments and individual strategies that are triggered when learning to learn the world undoubtedly helps to understand its entire complexity, but also to approach its multifaceted aspects with curiosity and undiminished amazement.

### *Social and civic competences*

In the interpretation of the territory and the consequent development of the capacity for the planning or redesigning of defined spaces, geographical competences contribute to the conscious participation in "civic life". One enters into the domain of geographical education also when the Recommendation states: "Understanding the multi-cultural and socio-economic dimensions of European societies and how national cultural identity interacts with the European identity is essential. [...] Individuals should have an interest in socio-economic development and intercultural communication and should value diversity and respect others, and be prepared both to overcome prejudices and to compromise". By means of the in-depth knowledge of others and other places, geography can foster hope (today increasingly hard owing to conflicts and even threats to use devastating arms, like chemical and atomic ones) for a future of peace and solidarity among peoples, forming new generations used to relating with persons of different ethnic groups, cultures and religions and ensuring that everyone is willing to respect and valorise the identity of others, by that very knowledge of this reciprocal reality.

There are many educational-didactic projects being set up in this direction in schools at all levels, involving more and more children belonging to other ethnic groups: such projects aim at the knowledge of the different traditions, customs and food which are connected to the study of the contexts, landscapes and resources of the students' places of origin. If well guided by appropriate training, young people represent the hope for a real inclusion.

### *Sense of initiative and entrepreneurship*

With regard to this key competence, geography can contribute to developing "an individual's ability to turn ideas into action" by means of the capacity for territorial planning. By exercising their active democratic citizenship, students can be guided to take part in projects for the organisation of the territory in which they live, putting forward proposals to local institutions, gathered from a survey carried out among the inhabitants of the area to record their different opinions and most urgent needs, and

from a pieces of research carried out with cutting edge geographical instruments, first and foremost GIS.

It is however important that geography, linked to other disciplines, contributes to the acquisition of the “awareness of ethical values and promote good governance”. In fact, it is essential to make young people understand that the spirit of initiative and enterprise is a value only if realised bearing in mind the common good.

#### *Cultural awareness and expression*

Lastly, with regard to the eighth key competence on the list – but not least for its importance, insofar as each competence is placed at an absolutely equal level – the text of the Recommendation repeats exactly some of the educational objectives of geography, among which “an awareness of local, national and European cultural heritage and their place in the world”, but also the capacity “to understand the cultural and linguistic diversity in Europe and other regions of the world, the need to preserve it and the importance of aesthetic factors in daily life”. By stressing the aesthetic factor and emotional geography, the subject uses the aesthetic approach to landscape (from the emotionally engaging common perception of the “beautiful landscape” to the reflections of privileged witnesses who might be painters and writers, who filter their observation through their sensitivity and make it the interpretation in their works) so as to enrich the scientific study of the geographical landscape with data taken from individual geographies and its didactic application with cross-curricular projects (Pasquinelli d'Allegra, 2016, pp. 79-83).

#### **4. A unifying document: “2016 IGU International Charter on Geographical Education”**

At the end of 2016 a very important document marked a turning point in geographical education at international level: this was the “International Charter on Geographical Education” (hereinafter referred to only as Charter)<sup>1</sup>.

<sup>1</sup> “This 2016 Charter on Geographical Education has been prepared by prof. Joop van der Schee and prof.

In the initial “Proclamation” the origin of this document is declared, which is essentially based on the Charter approved in 1992 by the General Assembly of the International Geographical Union during its 27<sup>th</sup> Congress in Washington. The huge importance of the 1992 Charter lies in its having communicated with an act of international reach and appeal what Geography is and can do, by means of a complete and fulfilling geographical education, for a better understanding of the contemporary world and for a wiser construction of the future one (Bissanti, 1995, p. 95). The successive evolution of the world and the increasingly rapid transformations led the Commission to review some of the contents and to streamline the structure. The merit of this new Charter is that it better meets the needs and methods of the contemporary school and the teachers of geography who have to tackle a subject that is in continuous evolution, like the world itself with its changing territorial layouts and growing global problems. It is a “practical” Charter, which can be a valid help for the creation of educational-didactic projects in schools at all levels.

If the most recurring terms were recorded, all the paradigms of modern research and the strategies of the most updated geographical education would appear. Here is an example of some recurring terms: natural and human environments, places, landscapes, relationships, responsibilities, the others, perspectives, challenges, choices, resources, educational goals, experiences... and this could go on. It must be stressed that the above terms are cited in the plural in the text: the preferential use of the plural would perhaps seem to underline the fact that one does not want to speak about absolute concepts but concepts declined in the different territorial realities, which draw lifeblood from individual geographies.

A geography appears that is concerned about being close to all the peoples of the world (“The Commission commends the International Charter on Geographical Education to all people of the

---

John Lidstone (co-chairs) on behalf of the IGU Commission on Geographical Education. Draft versions of the 2016 Charter have been discussed with representatives of EURO GEO, EUGEO, AAG, SEAGA and others”.

world”), a geography that finally comes back to claim a fundamental role in the education of the new generations and to let its universal voice be heard by young people and adults. It is just a question of knowing how to listen. The Charter rallies round for this aim “national and local policy makers, as well as geography teachers at all levels”. We just have to take action now.

## 5. “An International Action Plan” for the construction of the vertical curriculum of geography

The heart of this renewed UGI Charter is undoubtedly the part that suggests the passage for all countries from the theoretical framework to didactic practice, and which is by no chance entitled: “An International Action Plan”. Who exactly are the subjects that have to develop this Action Plan? They are listed in detail in the document in point 2: “This 2016 Charter specifically addresses policy makers, education leaders, curriculum planners, and geography educators in all nations and jurisdictions of the world [...] and to help geography educators everywhere to counteract geographical illiteracy”.

All school levels have the task of combatting illiteracy in the various fields of knowledge in their own particular way and must make students literate in geography too; they therefore find themselves having to put a curriculum in place that mirrors the needs highlighted by the Charter in point 3: “Teaching geography serves several vital educational goals. Building on people’s own experiences, learning geography helps them to formulate questions, develop their intellectual skills and respond to issues affecting their lives. It introduces them not only to key 21<sup>st</sup> century skills but also to distinctive investigative tools such as maps, fieldwork and the use of powerful digital communication technologies such as Geographic Information Systems (GIS)”.

### 5.1 Questions of method

Some of the most updated methods of general didactics are outlined in the Charter, and can be successfully applied to the didactics of geography too.

The first among these is the method of learning by research and discovery. The research methodology, which is now successfully applied in all types of school and level, foresees teachers no longer being committed to transferring contents but to researching the suitable methods and strategies to lead pupils to “conquering” their knowledge. The most advanced part of such methodology is action-research which was born in the 1940s from the theorisations on social dynamics by the German psychologist Kurt Lewin and successfully transferred to the field of education (Lewin, 1946; Ebbutt, 1985; McTaggart, 1991; McNiff and Whitehead, 2002). Applied to geography, action-research involves teachers and students in a circular process that goes through three phases:

- a) cognitive (identification of the knowledge problem, formulation of solution hypothesis);
- b) operational (experimentation on the territory and planning of solutions in the spatial and environmental surroundings; for example, to devise the redesign of a space or adopt measures for energy saving and waste recycling);
- c) metacognitive (consideration of the results achieved also to set up appropriate assessment and self-assessment instruments and mechanisms).

From this last phase arises a new cognitive phase and the circle closes, at the same time opening up to new fields of research and learning to be reached (Pasquinelli d'Allegra, 2016, pp. 50-51). Action-research proceeds along two parallel lines: that of the students who work around a research project and that of their teachers who, on the one hand are involved in being the “directors” of the students’ work and on the other carry out their action-research by finding methods, techniques and strategies that are suitable for pursuing specific educational targets.

The Charter stresses the role of the teacher-researcher: “How best to teach geography to a range of learners is a deep concern and will require significant and ongoing research. We encourage policy makers and geography educators to build capacity to conduct both theoretical and applied research”. In a following passage the Charter states the importance to

“develop a ‘research orientation’ amongst geography teachers and educators that enables reflective and critical engagement with educational practices, and professional ‘habit of mind’ that demand improvement in the quality of geographical education”.

Furthermore, the Charter refers to the importance of teachers’ in-depth understanding of the ‘problem based learning strategies’ and the use of the new technologies. The Problem-based learning (PBL) process comes into constructivism, which is based on the active and autonomous “construction” of knowledge rather than on the acquisition of knowledge. Dialectical Constructivism (Moshman, 1982) highlights the sharing process of learning in a social context: the learnings spring from the exchange of opinions with others and this is important for geography, insofar that in the contact with the world one cannot overlook the relations that are established with others. From this viewpoint therefore, PBL foresees that the construction of new knowledge starts from the search for solutions to a problem and is the exact opposite of the contents based method: in fact, it foresees a cognitive activism that brings into play all the personal and group resources and strategies to resolve a knowledge problem, linked to a surrounding reality. For this reason, it is particularly effective in the study of geography too: geographical research must always be linked to a real context, to the problems of construction and protection of the territory and landscape, exercising critical thinking and developing competences relative to active citizenship, development education and cross-culture (Giorda, 2014).

## 5.2 “Strong arguments” for a possible curriculum for competences

The 2016 Charter pays particular attention to the geography curriculum that each country must draw up as homogeneously as possible: “While it is acknowledged that school curricula around the world will differ in significant ways, it is important that all geography curricula are recognizable around the world as reflecting the best of contemporary geographical scholarship”. As is well known, the curriculum is the set of training and learning paths that each school organises for its own pupils, with the aim to reach

the educational objectives and competences that conform to the educational standards for which it is formulated. The vertical curriculum is the one that, with a progression of objectives and contents in keeping with the age of the pupils, develops their competences along the whole educational path, guaranteeing continuity between the different levels. According to what is set out in the Charter, the construction of a unitary and homogenous curriculum is an extremely difficult and complex operation for a series of reasons: “Different national systems reference different age and grade bands, have varying jurisdictional reach, and different levels of subject prescription. When reviewing national curricula, not only are there linguistic barriers but also regional variations as to the degree of detail publicly available. Indeed, even the notion of a national curriculum is problematic in countries which allow for regional variation and local curriculum control” (Brooks, Qian and Salinas-Silva, 2017, p. 8)<sup>2</sup>. What should at least be shared are the geographical principles and the precise guidelines, at the basis of a renewed didactics, contained in the Charter’s “International Action Plan”. I have taken some key concepts from this document, among the many that make up the “strong arguments for geographical education”. I think that these themes, which contain a number of important contents might constitute the unifying cornerstones of the geography curricula. By way of example, a vertical curriculum is given in Table 1 developed only on the last of the following arguments identified and which are worthy of reflection:

- A) Location;
- B) Region;
- C) Transcultural vision;
- D) Human-environment interactions.

<sup>2</sup> In order to make the curricula of the various schools more homogeneous in Italy, in 2012 The Ministry of Education, Universities and Research published the “National guidelines for the nursery school and primary school curriculum”, the latter, in order of time, still in force. These guidelines have since 2004 substituted the ministerial syllabuses, which were completely prescriptive; these are only prescriptive when they say the “goals for the development of competences”, to reach at the end of each segment of education, while the rest is presented as a rough “indication” for the teachers’ creative and professional work.



Strong arguments of International Action Plan	Competences to assess at the end of each level of education	Methods -Activities
<p><b>HUMAN-ENVIRONMENT INTERACTIONS</b></p> <p>Nursery school (3-5 years of age)</p>	<p>The child:</p> <ul style="list-style-type: none"> <li>- “knows” the surrounding landscape by means of the use of all their sensoperceptive systems; the principle natural and anthropic elements of a landscape and can identify them in the surrounding environment;</li> <li>- knows the functions of spaces experienced daily (spaces of the school and home), understands their relations and rules of usage;</li> <li>- understands that some of man’s actions produce negative effects on the surrounding environment and on the consumption of resources and knows what the right behaviour is to avoid them (actions for water and energy saving).</li> </ul>	<ul style="list-style-type: none"> <li>- Exploration of an environment (urban park, wood etc.) hunting for sensorial clues (visual, tactile, olfactive, auditive and gustatory) and natural and anthropic elements to be known in order to protect them.</li> <li>- Listening to and dramatisation of tales for a fantastic approach to geographical reality.</li> <li>- Exploration of the spaces of school and outside school to identify their functions and links.</li> <li>- Realisation of sketches to stigmatise incorrect behaviour towards the environment and others.</li> </ul>
<p>Primary School (6-10 years of age)</p>	<p>The student:</p> <ul style="list-style-type: none"> <li>- identifies the physical and anthropic elements characterising the landscape and can apply the analysis to their place of residence, region and the state in which they live;</li> <li>- recognises man-environment interactions in the configuration processes of the neighbouring territory and surmises transformations on the basis of the needs arising among their peers;</li> <li>- knows the negative effects of the man-environment interaction and devises solutions for the protection of the neighbouring environment and natural resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Setting up of direct observation methods (land excursions) and indirect observation (use of maps, modern and period photographs, satellite images etc.) for the study of the landscape.</li> <li>- “Problem based learning”: to identify problematic situations and devise solutions for the protection of the environment and sustainable development.</li> <li>- Role playing games to develop the ability to manage the territory and the exercise of active citizenship.</li> </ul>
<p>First-grade Secondary School (11-13 years of age)</p>	<p>The student:</p> <ul style="list-style-type: none"> <li>- knows the principle European and world landscapes and can identify analogies and differences;</li> <li>- recognises a common patrimony in natural and cultural heritage and plans actions for its protection and valorisation;</li> <li>- identifies the results of the</li> </ul>	<ul style="list-style-type: none"> <li>- Setting up of direct and indirect observation methods and analogies and differences.</li> <li>- Application of cooperative learning and Problem based learning methods.</li> <li>- Application of territorial analysis methods and computerised (GIS) methods to the subjects and problems being</li> </ul>

	<p>man-environment interactions in the territory, even with the use of information technologies and remote sensing images;</p> <ul style="list-style-type: none"> <li>- has acquired the concept of territorial system and recognises it in the urbanisation processes, also in a diachronic sense;</li> <li>- knows the local and world environmental issues and the solutions adopted by the institutions to knowledgeably carry out responsible behaviour;</li> <li>- knows the main causes of inequality and poverty and can identify them in cases of their living environment seeking their causes and possible solutions for a united world.</li> </ul>	<p>studied.</p> <ul style="list-style-type: none"> <li>- Use of different sources (scientific, photographic, literary, artistic-architectonic, musical, cinematographic etc.) to interpret the features of European and world landscapes and territories and to become acquainted with global issues.</li> </ul>
<p>Second-grade Secondary School (14-18 years of age)</p>	<p>The student:</p> <ul style="list-style-type: none"> <li>- knows worldwide subjects and issues (climate change, energy supplies, migration, land use etc.) and is ready to give their contribution to a society committed to repairing the damage caused to the environment and the weakest;</li> <li>- knows the main economic, demographic and social parameters to identify countries according to their level of economic, human and social development and to undertake, as future citizen of the world, to combat inequalities and build a more equal and supportive future.</li> </ul>	<ul style="list-style-type: none"> <li>- Use and comparison of different sources.</li> <li>- Use of GIS for the interpretation of themes and issues at local and global level.</li> <li>- Research-action method in cooperative groups; project and realisation of a final multimedia product to raise awareness in the local population of problems for the protection of the environment, reception and solidarity towards migrants.</li> <li>- Reading, interviews and debates with selected witnesses on the most pressing subjects of contemporary society.</li> </ul>

Table 1. Example of a vertical curriculum for competences referred to the strong arguments of the International Action Plan of 2016 International Charter on Geographical Education. The school levels follow the Italian legal system and the age of the pupils is given in brackets to make it possible to adapt the curriculum more easily to the different levels of other school systems. The example only considers one of the themes highlighted in this article. The curriculum could be enhanced "according to the context" with other columns dedicated to specific objectives, contents, means and instruments. Source: Original elaboration.

#### A) Location

This "strong argument" is set out as follows in the Charter: "As location is a key factor in life, especially in an era of globalization and the internet, geography with its focus on spatial variability provides a very practical and useful perspective on everyday life". The argument and

the term used to define it could therefore include both the place, or a space rich in its own identity, given also by those living there who over the centuries have imprinted a stratified series of meanings, and the localisation, or the identification process of the place by means of the instruments used in geography.

In its didactic application, the study of places is highly interdisciplinary; geography can involve history, art and architecture, literature and cultural anthropology in cross-cultural projects: they all contribute to interpreting the sense of place, as well as the perception of those living there. In this case considerable input can come from the geography of perception and from individual geographies, which students can investigate by interviewing insiders and outsiders, or those staying in a particular place for some time for study, work or tourism. On the basis of the validity of the results achieved, the final product of the students' project can also go on to enrich the research data in the subjects involved.

Localisation, which goes hand in hand with the objective of "orientation", must lead to the construction of a mind map of the "espace vécu" (Frémont, 1972), and to the progressive widening of the map through the direct and indirect observation of more distant lands. At school therefore one can begin in the first years with the construction of a basic mind map of the position of the "objects" in the classroom and short routes around the living space of the school, to then arrive at the orientation in space with fixed reference points and/or with compasses and large scale maps (map of the quarter or town) and lastly in secondary school the use of maps and grid references and GPS too to localise one's own position and that of others in the relative space. The use of geotechnologies greatly facilitates the localisation processes.

### *B) Region*

The Charter states the importance of the concept of region for the study of geography as follows: "Geography is the discipline where knowledge about locations and regions has its base. The appreciation of unique contexts and circumstances in an interconnected world helps deepen our understanding of human diversity".

With regard to this, I would just like to recall the fact that the debate on the regional theory is still open among geographers, bearing in mind that in the systemic logic of recent years the criterion of change in time and evolution to which regions are subject constitutes one of the main subjects of diachronic analysis. Adalberto

Vallega<sup>3</sup> identified a complex bimodular system in the region, in which the two modules are made up of society (human elements) and the ecosystem (external natural environment), continually interacting. Society reacts to the change of the external environment with a change in its organisation. Vallega gave the example of the Mediterranean coastal regions which, in the post-industrial period of western Europe, gave up the idea of industrial economy based on the transformation of imported raw materials and decided to create a new economic source by developing tourism and the advanced tertiary sector (Vallega, 1995, pp. 61-83).

All these and many other variables must be taken into consideration when these themes are transferred to the didactics of geography; one must at least be careful that the study of geographical regions does not become "regionalism", but opens up a range of opportunities for knowledge starting from the different meanings of the polysemic concept of region (physical, climatic, historical, cultural, linguistic, administrative...). At secondary school level the regionalisation process can be gone into in more detail (also in relation to the sustainability of human development by the environment) along with the changes of some of the regional set-ups that took place in the past, with a view to future perspectives.

### *C) Transcalar vision*

"Geography is concerned with both the local and the global and the interconnections between these scales of human experience": this is another strong argument for geographical education set down in the Charter. Today, this is a very strong argument to which schools must be fully committed. The "human experience" develops on the large scale of the neighbouring space (diagram, map, topographic map) and projects its acquisitions and deductions onto the distant space of the very small scale (planisphere). However, at the same time, through the study of interpretative theories of the territorial reality, one must be prepared to tackle the investigation of complex

<sup>3</sup> President of the Association of Italian Geographers (AGeI) from 1981 to 1984; vice-president from 1996 and president from 2004 to 2006 (year of his death) of the International Geographical Union (IGU).

global problems to then go on to analyse the “shapes” that they take on in the local space and devise suitable solutions. In today’s world one must be trained to have a transcalar vision that goes continuously from local to global and vice versa.

Competence in using the scale game from local to global and vice versa comes into the sphere of the competences of the language of geographicity, which is the most valid to transmit spatial information with respect to verbal and numerical languages (De Vecchis and Morri, 2010). This also includes the whole series of cartograms, models, graphs, statistical data and whatever else geographers and teachers of geography use to “educate to the territory, educate the territory” (Giorda and Puttilli, 1995).

#### *D) Human-environment interactions*

This is another of the fundamental arguments for geography as a science and discipline. With regard to this, the Charter states as follows, suggesting also the delicate issues that teachers can tackle with their students: “Geography is concerned with human-environment interactions in the context of specific places and locations and with issues that have a strong geographical dimension like natural hazards, climate change, energy supplies, migration, land use, urbanization, poverty and identity. Geography is a bridge between natural and social sciences and encourages the ‘holistic’ study of such issues”. Once again the complex task of geography appears, which is the only subject able to link almost all the others by very reason of the fact that it deals with the study of the interconnections between human and environmental systems; its interdisciplinary nature enables it to become the pivot of cross-curricular projects with strong educational objectives (De Vecchis, Pasquinelli d’Allegra and Pesaresi, 2011).

Other “strong arguments” of geography come into this general theme, like the concepts of landscape and territory, with all the processes linked to them. In the study of systemic interactions it is important to underline to students what the impact is of human beings on the ecosystems, evaluating the increasingly

negative outcomes of this (reduction of biodiversity, excessive land use owing to uncontrolled urbanisation processes, excessive exploitation of natural resources and big inequalities in their distribution, air, water and land pollution etc.). The “era of Anthropocene” is the definition being used more and more to indicate the new geological era in which the environment has begun to be considerably conditioned – and often even threatened – by human action (Crutzen, 2005). By including the tackling of the issues connected to the Anthropocene era in education, it is considered opportune to lead young people to look towards the future with hope and not only with the great fears generated by the present situation (Pawson, 2015).

Geography expresses all its educational potential on topics of sustainable development<sup>4</sup> and environmental protection. Joop van der Schee’s statement is also a strong reminder: “To get attention for the contribution of geography education to society and particularly to sustainable development it is better to start sustainable development projects in which geographical knowledge is indispensable than to complain about the marginalized position of geography education” (van der Schee, 2016, p. 13).

Young people (but above all the policy-makers of all the world states), starting with those with greater influence on the international stage), must finally understand the urgency to remedy even greater damage in every way possible, and be aware that what happens in every corner of the Earth has repercussions on the whole planet, sooner or later involving all its inhabitants.

I would just like to add that the arguments that the Charter sets down must be dealt with in vertical progression, according to the capacities of each age group of students, but I also underline that smaller children can be exposed to them, since with respect to spatial dynamics they are territorial actors and citizens in the same way

<sup>4</sup> The UN 2030 Agenda for Sustainable Development has 17 Sustainable Development Goals, many of which are common to geography; one example is the goal number 11: “Sustainable Cities and Communities” (<https://sustainabledevelopment.un.org/sdgs>).

as adults, even if they are younger (Guaran, 2017, p. 38). By means of suitable strategies they can in fact begin to behave responsibly towards the environment and others right from the word go.

## 6. Conclusion

In its last part the Charter stresses that “National and local education policy makers and geography teacher associations and teachers should create and maintain a strong professional network structure”. There are many countries in which geographical associations are “historically” strong; all geographical associations are committed to fostering the values of geography as science and discipline, even if the path is fraught with obstacles. The specific sixty-year mission of the Italian Association of Geography Teachers (AIIG) has also been to promote geography through training and refresher courses for teachers in schools of any level and type and universities, with international exchanges, as reported in this very same Journal.

There is still a long way to go to completely revitalise the subject of geography, but one thing is certain: we must believe implicitly in what we are doing, with determination but also with solid competences. Going back to my original reasoning: geographers and teachers of geography with “competence” can “compete” with each other only to affirm, each in their own way, the values that geography brings with it. Nevertheless, they must remain united to make everyone understand what their specific tasks are how they cannot be replaced by other knowledge and, as the Charter recommends, create a solid professional network and a real community for geographical education.

The recommendations of the Charter are triggering a series of important reflections on many sides. The hope is that one can really go from programmed intentions to a renewed daily action in didactics at all levels, which might have a shared common theme. The very objective of taking part in the debate on the sharing of a pathway to follow together and encouraged by international documents, is what mainly gave the input for this contribution.

Geography, along with the generations working to one day intervene in the territorialisation processes, urgently need a strong unity of purpose, from that of the national policy-makers and supranational bodies to the teachers at all levels of education. Young people are gaining the awareness of having to repair the excessive damage caused in the past and still today and of having to put the good of a universal community before local interests and separatist pressures: the human community.

## References

1. Ausubel D.P., *Educational Psychology. A cognitive view*, New York, Holt, Rinehart & Winston, 1968.
2. Bissanti A., “Una carta internazionale per l’educazione geografica”, *La didattica*, 2, 1995, pp. 95-98.
3. Brooks C., Qian G. and Salinas-Silva V., “What next for Geography Education? A perspective from the International Geographical Union – Commission for Geography Education”, *Journal of Research and Didactics in Geography (J-READING)*, 1, 6, 2017, pp. 5-15.
4. Chomsky N., *Syntactic Structures*, The Hague/Paris, Mouton, 1957.
5. Crutzen P., *Benvenuti nell’Antropocene! L’uomo ha cambiato il clima, la Terra entra in una nuova era*, Milan, Mondadori, 2005.
6. De Vecchis G. and Morri R., *Disegnare il mondo. Il linguaggio cartografico nella scuola primaria*, Rome, Carocci, 2010.
7. De Vecchis G., Pasquinelli d’Allegra D. and Pesaresi C., “Geography in Italian schools. An example of a cross-curricular project using geospatial technologies for a practical contribution to educators”, *Review of International Geographical Education Online (RIGEO)*, 1, 2011, pp. 4-25.
8. Ebbutt D., “Educational Action Research: Some General Concerns and Specific Quibbles”, in Burgess R.G. (Ed.), *Issues in Educational Research: Qualitative Methods*, London, The Falmer Press, 1985.
9. EU, “Recommendation of the European Parliament and of the Council of 18

- December 2006 on key competences for lifelong learning", (2006/962/EC), <http://data.europa.eu/eli/reco/2006/962/oj>.
10. Frémont A., *Essai sur l'espace vécu, Mélanges offerts à André Meynier*, Rennes, PUB, 1972.
  11. Giorda C., *Il mio spazio nel mondo. Geografia per la scuola dell'infanzia e primaria*, Rome, Carocci, 2014.
  12. Giorda C. and Puttilli M. (Eds.), *Educare al territorio, educare il territorio. Geografia per la formazione*, Rome, Carocci, 2011.
  13. Goodchild M.F., "Preface", in Pesaresi C., *Applicazioni GIS. Principi metodologici e linee di ricerca. Esercitazioni ed esemplificazioni guida*, Novara, Utet-De Agostini, 2017, pp. IX-XI.
  14. Guaran A., "Le competenze pre-geografiche nella scuola dell'infanzia", in Zanolin G., Gilardi T. and De Lucia R. (Eds.), *Geodidattiche per il futuro. La geografia alla prova delle competenze*, Milan, FrancoAngeli online open access, 2017, pp. 34-42.
  15. Holloway S.L., Rice S.P. and Valentine G. (Eds.), *Key concepts in geography*, Sage, London, 2003.
  16. IGU-CGE, "International Charter on Geographical Education", Amsterdam-Beijing, IGU-CGE, 2016, [www.igu-cge.org](http://www.igu-cge.org).
  17. Le Boterf G., "De quel concept de compétence les entreprises et l'administration ont-elles besoin?", in Bosman C., Gerard F.M., Roegiers X. (Eds.), *Quel avenir pour les compétences?*, Bruxelles, De Boeck, 2000a, pp. 15-19.
  18. Le Boterf G., *Construire les compétences individuelles et collectives. Agir et réussir avec compétence. Les réponses à 100 questions*, Paris, Édition d'Organisation, 2000b.
  19. Lewin K., "Action research and minority problems", *Journal of Social Issues*, 2, 1946, pp. 34-46.
  20. McClelland D.C., "Testing for Competence Rather Than for Intelligence", *American Psychologist*, 1, 1973.
  21. McNiff J. and Whitehead J., *Action Research: principles and practice*, London, Routledge, 2002.
  22. McTaggart R., "Principles for participatory action research", *Adult Education Quarterly*, 41, 3, 1991, pp. 168-187.
  23. Moshman D., "Exogenous, Endogenous and Dialectic Constructivism", *Development Review*, New York, 2, 1982, pp. 271-384.
  24. Pasquinelli d'Allegra D., "Le competenze geografiche. Presupposti metodologici e costruzione del curricolo", in De Vecchis G. (with the contribution of Pasquinelli d'Allegra D. and Pesaresi C.), *Insegnare geografia. Teorie, metodi e pratiche*, Novara, Utet-De Agostini, 2016, pp. 50-67.
  25. Pasquinelli d'Allegra D., "Apprendimento autentico in geografia. Le prassi didattiche", in De Vecchis G. (with the contribution of Pasquinelli d'Allegra D. and Pesaresi C.), *Insegnare geografia. Teorie, metodi e pratiche*, Novara, Utet-De Agostini, 2016, pp. 69-93.
  26. Pawson E., "What sort of Geographical Education for the Anthropocene?" *Geographical Research*, 53, 3, 2015, pp. 306-312.
  27. Perrenoud P., "L'école saisie par les compétences", in Bosman C., Gerard F.M., Roegiers X. (Eds.), *Quel avenir pour les compétences?*, Bruxelles, De Boeck, 2000, pp. 21-41.
  28. Pesaresi C., *Applicazioni GIS. Principi metodologici e linee di ricerca. Esercitazioni ed esemplificazioni guida*, Novara, Utet-De Agostini, 2017.
  29. Ray W.C., Waverly C., Muñiz-Solari O., Klein P. and Solem M., "Effective Online Practices for International Learning Collaborations", *Review of International Geographical Education Online (RIGEO)*, 2, 1, 2012, pp. 25-44.
  30. Reboul O., *Qu'est-ce qu'apprendre? Pour une philosophie de l'enseignement*, Paris, Presses Universitaires de France, 1980.
  31. Tani S., "The environments of learning environments: What could/should geography education do with these concepts?", *Journal of Research and Didactics in Geography (J-READING)*, 1, 2, 2013, pp. 7-16.
  32. UN 2030, "Agenda for Sustainable Development", <https://sustainabledevelopment.un.org>.

33. Vallega A., *La regione, sistema territoriale sostenibile. Compendio di geografia regionale*, Milan, Mursia, 1995.
34. van der Schee J., "Sustainability and Geography Education", *Journal of Research and Didactics in Geography (J-READING)*, 2, 5, 2016, pp. 11-18.
35. Whitehead A.N., *The Aims of Education and Other Essays*, New York, Macmillan Company, 1929.