Chapter 6
Exploration as a Dynamic Strategy of Research-Education for Creativity in Schools

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Abstract Creativity, due to its very nature as polymorphous, cannot be considered a static concept, but a laborious process, activated by several factors strongly interconnected with the environment and the situation of reference. Each of these is also the object of important reflections in education, put as the objective for the development of the individual in learning, allowing us to make a parallelism between the creative process and the teaching-learning process. These processes have important subjective variables, but also constant elements which are discussed here in a dimension of dynamic and parallel references. The teacher, as a key figure and mediator with society, is considered explorer of contexts, strategies, skills, activities and ideas which become fundamental for his/her training and for that of others. The intrinsically dynamic nature of both processes brings them closer, tracing the possibility of including creativity as an indispensable and transversal skill in daily didactics. In this perspective, the exploratory appears a coherent way as a dynamic methodology of schooling. Exploring becomes a dynamic creative path, which has seen different applications in the area of research-education with teachers, but also research-action at school with children.

6.1 Introduction

Creativity, probably due to its very nature as polymorphous, cannot be considered a static and rigid concept, but a laborious process, activated by several factors – "cognitive, emotional, motivational and personality traits" (Barbot et al. 2011,

This contribution is the result of a collective work. For academic purposes please note that Monica Guerra has authored sections 6.1, 6.3 and 6.4; Federica Valeria Villa has authored sections from 6.1.1 to 6.1.5 and 6.2.

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R. A. Beghetto, G. E. Corazza (eds.), *Dynamic Perspectives on Creativity*,
Creativity Theory and Action in Education 4,
https://doi.org/10.1007/978-3-319-99163-4_6

p. 59) – strongly interconnected with the environment and the situation of reference. Each of these is also the object of important reflections in the world of education, put as the objective of reference for the development of the individual in learning, allowing us to make an immediate parallelism between the creative process and the teaching-learning process.

The multiple variables involved in both processes are often unexpected, not controllable and differ from one subject to another and from one situation to another, but there are just as many factors that are constant and therefore the object of investigation in greater depth. It can therefore be said that it is the way in which these are related and entwined with one another that creates that cocktail of personal and contextual elements, unique to each one. The creative process or product of a subject is something new – for the person, the community or the whole of society – and useful, suitable for meeting the initial stimulus; just as learning, all new information – or creation – is integrated and acquired by each person in a different way, reorganizes old beliefs, or takes a place next to them. The way these processes take place has important subjective variables, but at the same time they present constant elements which it is worthwhile discussing here in a dimension of dynamic and parallel references.

6.1.1 Cognitive Factors

The processing of information and thoughts is the faculty of the cognition, understood as the ability to interpret and attribute meaning to the data perceived. The creative process takes advantage of this human skill by soliciting sub-faculties, mechanisms of production and management of incoming ideas or that have already been controlled. The process starts through the identification, by the subject, of a situation defined "problem", in which an obstacle or a desired objective is recognized. This activates a consequent production of a broad spectrum of ideas, aimed at seeking a solution (which can be defined as divergent thought), to be reduced to a temporary conclusion in the choice of the most suitable and appropriate one for the situation in question – convergent thought (Hadani 2015). This pattern outlines a macro level creative process, which is even excessively simplistic and linear, as going into detail, both divergent thought and convergent thought have their respective characterizing factors.

The cognitive faculty of divergence effectively implies flexibility of thought – understood as the ability to consider the problem from different perspectives, going through different conceptual categories, experimenting different styles and strategies –, fluidity of ideas – proposing a wide number of ideas and solutions referring to a problem –, originality – building up something different or that others would not have tried to do that is unusual and unique (Runco 2015). In addition to these classic characteristics of divergent thought (e.g. Guilford 1950; Torrance 1974) others can be found, such as the ability to think by combinations and systems, as continuous redefinition and combinations of different solutions to create new insights (*ibid.*), or the elaboration, the ability to make associations or also to completely restructure the problem (e.g. Hocevar 1980; Runco and Pritzker 1999; Giorgetti et al. 2009; Cropley and Cropley 2012).

The converging counterpart, on the other hand, comes at the time which moves towards the conclusion/resolution of the creative macro-process seen earlier, in which the decision-making process is activated, where the subject, from the many options and opportunities thought of and proposed, selects one – or a combination of several – pertinent to that specific situation-problem and which, to be creative, does not adapt to conventions: original and valid. It is a path characterized by continual references between divergent and convergent thought that is characterized by being cyclical (Hadani 2015), where one does not exclude the other but is constantly dependent on it.

The teaching-learning process is, in the same way, completely based on and structured by the cognitive faculties. The processes of thought, conceptualization, reasoning, memorization etc. are involved actively and continuously in the educational field. "The characteristics underlying this behaviour of the mind are of an abstract nature, of involvement of symbolic processes, of intuition, expectation, of the use of complex rules, of problem-solving, etc." (Stella 2001–2003, p. 1). An attitude of restructuring knowledge through the reception and interpretation of the multiple inputs both from the exterior and the interior is constant. Learning is the result of a process which follows and interprets new experiences in the light of the preceding ones (Donovan and Bransford 2005; Beghetto 2016) which, if it transforms and modifies the subject (Antonietti and Cantoia 2010, p. VIII), activates the perception and the definition of the real in a new way. Cognitive restructuring understood this way takes on sense becoming a combinatory and creative process, on which leverage can be used in education to reach personally significant learnings.

Cognitive style (Gardner 1983) is also talked of, as the individual variation in the way of perceiving, remembering, thinking, learning, storing, transforming and using information (Kogan 1971), which is connected in turn to the style of learning understood as a "set of operations and procedures that the student can use to acquire, retain and recover different types of knowledge and performance" (Kigney in Antonello 2002, p. 72). It is a personal style of managing and organizing one's cognitive faculties and using them in learning, in teaching – we will now speak of educational style –, but also in the creative process.

6.1.2 Emotional Factors and Motivational Drives

"Communicating to others one's perspective, resolution or idea plays a vital role in creativity as it allows expressing one's feelings and desires" (Hadani 2015, p. 29). For some time now, research in psychology has maintained that the positive emotions have a role of exhorting creativity as "amplifiers of the mind" while negative ones were damaging as they were aimed at narrowing the view in a convergent way to only one perspective. New research (e.g. Gable and Harmon-Jones 2008, 2011; Akbari Chermahini and Hommel 2012) supports a new theory, suggesting that the critical variable that influences the focus on reaching a purpose "is not the

emotional value (i.e. the dichotomy between positive emotions and negative emotions) but the intensity of the motivation to reach an objective" (Kaufman 2015). Emotions and motivation thus become closely interconnected and dependent variables, which involve one sphere of the individual which goes beyond the rational and definable, and which cannot be discussed separately.

In education, as in the creative process, "motivation is at the heart of the experience of development and inspires the subject to explore, to seek satisfaction for their curiosity" (Hadani 2015, p. 34). It inspires teachers in planning and in the passion of what they want to convey to the children, in the search for meaning of their acting; but it is also an element that allows learners to pay attention, to be involved and to keep their hunger for curiosity alive.

Motivation, as a container of the emotions adjoined to it, can also be understood in unconsciously negative terms; if resistance is opposed to an activity, or when a path is avoided. It is energy that supports acting in any field, but it requires a supportive and guiding environment. According to Moè (2001), motivation has deep roots that can be traced back to categories of power, success and affiliation, where each one has respectively an implication a fear (of losing, of failing, of being rejected). Our emotions intervene by revealing, at times, which of these motivations comes into play, through the classic dichotomy "avoid – confront" (as in the *fight or flight* theory of Cannon 1929). This strategy is fully part of the educational process as well as of the creative one because both can be defined as situations-problem to be avoided or confronted.

A further classification, also deemed valid for both the processes in question, concerns extrinsic and intrinsic motivation. The former is bound to external influences, more interested in the benefit given by the finished product, while the latter is guided by the individual's own interests, leading to autonomous control of the situation, to involvement and to the consequent learning (Hadani 2015), which can be interpreted here as real motivation. This motivation which comes from the interior, emerged as a drive (Bragby et al. 2012, p. 33) acts without the promise of a reward, without an interest finalized to the product alone, but to satisfy a curiosity, a need for knowledge, seeking a meaning (*ibid.*) leading to a greater inclination to creativity, learning or teaching, as there is a real reason by the subject to invest time and energy. Real motivation drives a real involvement which intertwines with the previously identified elements, triggering off a chain of relations which is enclosed in the macrosystem (Bronfenbrenner 1979) in which the individual is placed.

6.1.3 Personality

Abundant literature deals with the subject of the personality of the creative student, identifiable through standard characteristics which can be observed by teachers and researchers (e.g. Aljughaiman and Mowrer Reynolds 2005; Glăveanu and Tanggaard 2014; Gralewski and Karwowski 2016), often related to the recognition of particular attitudes, motivations and/or cognitive factors.

We limit ourselves here to highlighting how the personality is a fluctuating variable, a bubble containing all those aspects characterizing the individual, and how this differs with the varying of contexts and relations.

In the educational field, the co-presence of several players means that each one intervenes, with a different personality, in building the teaching-learning process. The way of presenting oneself in the educational relationship, the teaching style and the pedagogical school/s of thought, like the cognitive style of the learner, make the dimension in which these dynamics take place unique and personal. In the same way, the creative process, as mentioned earlier, becomes personalized according to the subject who has activated it and the context of reference: the same essential conditions as the educational process.

"Numerous studies have found that some traits of the personality can be directly connected with creativity, such as the desire to overcome obstacles, to take risks, to tolerate ambiguity" (Sternberg 2006, p. 89). At a more visible level, the observations of individuals deemed creative have characteristics of shyness, domination, seriousness, little or no attention to rules, sensitivity and autonomy (Guastello 2009; Runco 2007). These are again qualities which cannot be static or fixed; "Csikszentmihalyi (1996), in his interviews, meets subjects who seem to be at the same time logical and naïve, disciplined but jokey, introvert and extrovert, realistic but imaginative, objective and passionate…" (Lin et al. 2012, p. 114), where ambiguity, in the positive pragmatic sense of containment of dualism seems to reign in them.

Learning implies checking "behavioural changes as the result of experience" (Taylor and MacKenney 2008, p. 2), that lasts in time. The method consists of the use of strategies, called learning styles, which vary from one subject to another and from one situation to another. The personality traits and the learning styles are interconnected dimensions, where the personality forms an important aspect of learning. The learning strategies do not work autonomously, but are directly dependent on the personal variables (e.g. Cohen 1996; Sadeghi et al. 2012; Ibrahimoglu et al. 2013, p. 97), and vice versa.

6.1.4 Context

The context, "co-presence of spatial-temporal dynamics and psychological phenomena" (Glăveanu 2014, p. 382), is a place for meeting, exchange and sharing; a complex of circumstances within which an event, a matrix of meanings, is born and developed (Bateson 1972).

Barbot et al. (2011), in their definition of creativity, attribute to the context the power to stimulate or inhibit the expression of the creative potential (see also Besançon and Lubart 2008). It is, however, the subject that defines this relation; their exploration allows them to be overcome – inhibiting their potential – or to dominate the context (Sternberg 2006) – in terms of management and organization.

Like the subjective differences, the differences of setting also influence creativity, creating a *person-environment interaction* "that can explain the reasons why certain factors can stimulate the creative efforts of one person and freeze those of others" (Runco 2014, p. 153). For Runco and other researchers, the key element is perception, a variable based on expectation and interpretation (Carson and Runco 1999; Millward and Freeman 2002; Nicol and Long 1996; Runco 2012), which intervenes in the analysis of the situation, of the context and therefore in the consequent reaction of the subject.

This is a dynamic conception and one of continuous references between physical situation – which entails the presence of a problem to solve, activating a creative process – and psychology of the individual, which can be observed to the same extent in educational contexts as well, based wholly on the relation between subject-subjects, subjects-objects, subjects-environment and objects-environment, in continuous change and reciprocal adaptation. The importance of the "preparation of the context, as rich and motivating" (Malaguzzi 1983, p. 74), can accompany the subject in the discovery, in the exploration and therefore in the view of supporting their creative process. Vygotskij (1972) also believed that the principle of freedom was essential as a presupposition of the creative act, considered in broad and free environments to allow combinations, associations and syntheses.

In addition to the physical space, there is also the social, psychological and personal space that analyse and contain all those complex connections that only the interaction between several individuals with the environment can have. Being in an educational context implies being inside this close-knit network, here described briefly, of meanings, values and actions which make the educational experience significant and rich. Observing the context at school is necessary to be included in its specificity and in its implicit dynamism, which is also essential in the actions where flexibility is the essential requisite of the figure of the teacher.

6.1.5 Creative Democracy

The continuous reference between these two processes, the creative one and that of learning, tracing their connections and potential, underlines and consolidates what has already been maintained and confirmed for some time now by several researchers (e.g. Runco 2004; Hadani 2015; Robinson 2015; Craft 2001a), as a basic presupposition which supports all our claims: everyone has creative potential, as every person is naturally gifted with the implied factors. We can therefore talk of creative sharing, in broad terms of a common "characteristic", way of thinking, of coping with problems and situations in a different way. Creativity is exploration of possibilities, alternatives, solutions and feedback that are then shared to be given meaning and sense, leaving the intrapsychological sphere to explore the interpsychological one (Beghetto 2016). Creativity would be meaningless without a social dimension, as if it remained that of the individual, all their discoveries would potentially be a creative revolution; this brings us back to the importance of the context, as a social

group in which the creative process takes on value and sense. "According to this perspective, creativity becomes a democratic construct as we can all be creative" (Gariboldi and Cardarello 2012, p. 66). An anti-elitist concept of creativity, referred to everyday life (Banaji et al. 2010) – also called "little-c" or "mini-c" (e.g. Craft 2001b; Craft 2005; Kaufman and Beghetto 2009; Simonton 2017) –, with a social and essentially a diffused, shared and common meaning. In these terms, creativity becomes everyone's, of children as much as of adults, and today, more than ever necessary in a constantly evolving society. The democratic dimension puts it "within reach", more easily usable and equally requested at all levels. "Its dimension expressed in terms of a complex process would seem to complicate the school curriculum but in actual fact it acts to its advantage: instead of focusing on a single process or a single skill, it allows supporting many and different behaviours and attitudes; instead of making the children adapt to a single attitude, "signs of creativity" can be observed in many activities and in many contents" (Runco 2015, p. 4; Guerra and Villa 2017a).

The teacher, as a key figure and mediator with society, now requires attention as the explorer of contexts, strategies, skills, activities and ideas which become fundamental for their training and for that of others. It is a dynamic trend of doing and discovering, of return journeys, of experiences and feedback.

6.2 Dynamisms

'Dynamic', from the Greek *dynamikós*, means strength associated with movement, as opposed to the term 'static'. In painting or sculpture, for example, a canvas or a statue are dynamic if they can transmit an idea of movement, even in their static matter, inducing in the observer an action during their fulfilment, a process. Therefore, in a classic transitive reaction, if creativity is process, and process is movement as the activation of several elements together, therefore dynamism, creativity is also dynamism.

The composition of the factors involved in the creative process, as mentioned, is different in each individual and as the situation varies: movement is already observed here, in the change of perspective, in considering positively different each process in each individual in the most widely varying contexts. Education is also dynamic due to its continuous entwining of a multitude of elements, unfolding into an unforeseeable chain of references between the suggestions and the feedback.

Education and creativity are therefore increasingly becoming closely linked topics which it is worthwhile discussing in connection where one – the educational context – becomes the ideal underlying base of support and field of action for the creative potential of the subjects involved.

The intrinsically dynamic nature of both processes brings them closer together, now tracing the possibility of including creativity as an indispensable and transversal skill in daily didactics (Guerra and Villa 2017b, c; Villa 2017). In detail, the dynamism intrinsic to creativity can be traced back to several levels: (1) individual

but also (2) extra-individual. The first embodies the expression of all the previously stated factors; the ability to process internal and external information, the personality, the motivation and the emotivity of the individual are combined in a unique way in the subject, who creates a dynamic relationship with the context. It appears as a useful metaphor of comparison, the first theorization of the multiple intelligences suggested by Gardner (1983), which can be interpreted here as the theory 'of glasses' – for the sole explanatory and not reductive purpose. If, as maintained by the author, the concept of intelligence is considered as non-unitary, but broken down into different areas linked to different styles and types of knowledge, these can be represented as several glasses containing different quantities of liquid. Each individual has all the glasses, but the level of liquid in each one will be different; a personal mix will be obtained from them all which determines the individual profile of knowledge (Gardner 1982). At first, Gardner does not distinguish an artistic-creative intelligence as he believed that each one of those shown could be interpreted in those terms. The creative process can thus be interpreted in a similar way, in the idea that the different elements involved in the final mix are dependent on the set of individual variables and the relative relationship with the context. Going further into his research, Gardner effectively inserted creativity in an interactive dimension as the relationship between the person, the field or the discipline and the environment (Gardner 1989, 1993), making it subsequently important to the point of being contemplated in the five keys for the future (Gardner 2007), useful for the citizens of the future who will have to cope with the complexity of the world. He highlights how it is necessary to make this dimension explicit, as a fundamental element in the individual, focusing attention on a mind that cultivates new ideas and skills, that is always asking new questions to discover new problems and methods (Gardner in EduSkills OECD 2012).

In both representations, the relationship with the context seems to remain the indispensable indicator, especially as it is extremely dynamic, never fixed or perpetual. From the point of view of teaching-learning processes, this means paying particular attention to the arrangement and organization of the educational space, with the aim of fostering different forms of communication and strategies, such as to allow both processes, educational and creative, to take place.

The physical space, like the methodological-operative one as well, outline the background against which the actions take place, becoming a characterizing element of the extra-individual level (2). The reference to the social dimension of creativity and to some questions concerning the context of reference within which a process or a product are considered creative is immediate.

In educational experience and practice, the social dimension means sharing, collaboration, comparison and discussion. The Other is too important not to be considered, especially if it is a group, in the awareness that through an encounter we become mature and achieve knowledge of a higher level than can normally be reached individually, as it is built up, integrated and discussed: "groups may discuss a wider range of topics and emphasize marketability" (McMahon et al. 2016, p. 254).

The sociality of creativity gravitates around the concept of sharing the idea because exposure to the thought of others contributes to cognitive stimulation

(Dugosh et al. 2000; Paulus and Yang 2000) and therefore, to a consequent greater production and activation of the creative process, creating a continuous flow. This refers back to an umpteenth and strong dynamism between stimuli that are external and internal to the individual, where one set influences the other and vice versa and where both are indispensable for a *learning-in-creativity* (Beghetto 2016).

The idea is certainly the hinge on which the creative potential takes shape, understood as the visible and directly usable moment; a large part of an even larger complex process. However, we believe that the start of the whole process can be traced back to something less explicit and spectacular like the phase of idea generation, but definitely fundamental: a problem. The problem here is to be understood as a situation – social, relational, contextual – a stimulus that can trigger a series of new questions which in turn activates a procedure and an attitude of research in the person involved.

One question now remains suspended on how it is possible to identify positively problematic situations in everyday life and in the educational field, capable, that is, of activating processes of research which are creative and of learning at one and the same time. The adequate approach is, for us, of the exploratory type, which allows the subject to be in an attitude of constant material and contextual research, to have eyes attentive to the world. Exploring becomes the matrix and frame within which the whole creative process is activated: an attitude that is the container of all its dynamism.

6.3 Acts of Exploration

If creativity is per se a dynamic concept due to the co-presence of various factors related to the personality and its relationship with the context, we can maintain that its dynamism can be increased by educational methodologies which widen the field of the possibilities of response to a given problem. In this sense, educational and didactic project development can be usefully engaged in supporting creativity as a cross–curricular objective, which means in the first place accepting its manifestations at the time they emerge. What is prefigured is a frame within which the strategies, the methodologies and the opportunities made available to children allow them to build up their own paths of learning in an original way.

In this perspective, a way of proceeding which appears coherent as a dynamic methodology of schooling is the exploratory one, which takes its cue from the work of the Canadian artist Keri Smith and her "explorations of the world", first presented in her book "How to be an explorer of the world" (2008) and continued in many others (2007a, b, 2010, 2011, 2014, 2016).

In its educational variation (Guerra 2013a), each exploration can be described as an open question, which asks for the study of an element of or a situation, first observing it and then documenting it. This is a procedure which makes some specific requests of the subject but which explicitly leaves room for individual interpretation, so that each person can approach the instruction in personal ways

(Guerra 2016). This openness, placed in a methodology which is offered as a frame for the action, is what immediately connects the exploratory approach with an educational and didactic project development concerned with supporting the expression of creativity: the multiplicity of the possible answers to the same instruction, just as the structuring of paths to answer it, represent ways through which different and even diverging answers find room, which leave space for original possibilities of proceeding.

Moreover, the roots of Keri Smith's original proposal seem to lie in the beginnings of her biography of a child bored by school which offered – and required – repetitive and anonymous tasks: precisely to flee that routine which suffocated her creative inclination, Ms. Smith hypothesized becoming a "creative" child as a response to a request of productivity but above all of uniformity. That response takes shape in the exploration of unusual materials (Guerra 2013b), which she used to construct, transform and create which, along a path which was not linear or painless, led her to an artistic research, offering her the occasion to legitimize her particular perspective, along a path which does not fear disorientation or chaos. Following this path, her training was nourished by heterogeneous references which often refer to other "rebels", underlining how personal expression – of Ms. Smith but of many other students besides her – often finds space as divergence from the status quo, from what is conventionally requested. In the first place by school. Her artistic experimentation then takes on as presuppositions the legitimacy of error against the slavish respect for the rule, understood as conformity and standardization. Her production, in particular as a writer, has its origin in the desire supported by creative thinking, of sharing a thirst for knowledge, understood as an original interpretation of the world. This is why, the use of articulated and heterogeneous methods of investigation, in turn interested in bringing out multiple ways of seeing, find a place in her work, as in evidence for example in *Finish this book* (2011): here the reader is accompanied in structured training on the methods of observation and documentation and then introduced to techniques of analysis of the objects found. In parallel, her proposal insists not only on practising how to investigate the world, but to act on it to transform it, as for example in *The Guerilla Art Kit* (2007a), and then increasingly in *The imaginary world of …*(2014) or *The Wander Society* (2016).

These presuppositions help to better understand the origin and peculiarity of Keri Smith's proposal, including in its pedagogical and didactic translation (Guerra 2013a, 2016). It includes the possibility of thinking and planning educational and learning experiences of children and youngsters as occasions that the adult offers, so that they can be seized, interpreted and structured in a personal way. Through this methodology, there is practice in observing, connecting, documenting, remaining open to the unexpected and accepting error as an occasion for discovery, all of which are actions that support the exercise of creativity.

The exploratory methodology forms a possibility of interrogating the world (Guerra 2015) through the intelligences of each person: it is an encounter that is simultaneously material and reflective, which comes into being from the experimentation of the matter, because each instruction starts from a question of investigation around objects, situations, concrete contexts that belong to the inhabited

contexts. This moment is however accompanied by a constant reflection, which arises from the interrogation of materials and the objects investigated and above all by the possible connections between them. This close-knit work, starting from a "material" starting base (Guerra 2017), i.e. which requires measuring up to the physical nature of the environment observed and described, supports the continuous search for connections between objects and contexts and, with them, the multiplication of levels of interpretation, making room for divergence.

Exploring this becomes a dynamic creative path, which has seen different applications in the area of research-education with teachers, but also research-action at school with children.

The proposal of an exploratory approach in the educational and scholastic field has effectively been experimented in the training of educators and teachers, allowing the collection of over two thousand explorations inspired by *How to become an explorer of the world*, the analysis of which shows how this practice – understood as the possibility of experiencing research around an object, documenting it and then rethinking in in an educational way – allows bringing out some problems relative to methodological strategies which can foster approaches attentive to the inclinations of each person, but also to discover creative potential in the way of presenting oneself educators and teachers, recognizing in oneself abilities that had not previously been identified. This appears particularly in line with the dynamism that mainly regards the work of the teacher: it changes continuously, in the constant need to restructure knowledge and situations, but also to take decisions on the spot (e.g. Mortari 2009).

In parallel, the use of this approach directly offered to children appears a strategy that allows generating questions that allow going into depth, in the world and in knowledge (Antonacci and Guerra 2015). Transposing the exploratory approach into education puts the children into the condition of researchers, "scientists" interested in getting to know themselves, the world and things with an open and curious approach, oriented towards learning the mechanisms of what surrounds them. In this sense, the project of scholastic innovation called "Una scuola" has found one of its cornerstones.

The project originated with two educationalists, researchers in the Department of Education of the University of Milano-Bicocca, active in research and education in the field, with the aim of giving shape to a possibility of school that many good practices, in Italy and abroad, show is feasible and concerns schools for children aged from 3 to 13, therefore pre-school, primary school and middle school. The project rereads and reinterprets some crucial and structural elements of school, varying them in the light of the most recent research in education and didactics. The central aspects include: the group, heterogeneous to take best advantage of the possibilities offered by different skills, but also fluid to allow organization that respect time, ways and interests; the learning context, organized instead of in classrooms through diversified but interrelated areas of experience, equipped with materials and instruments that support autonomous research; languages, mainly on the subjects and present without hierarchical logics; assessment, understood as a moment of reflection rather than judgement. Alongside these, the educational and didactic ori-

entation identifies in questions the privileged form of learning and, in this sense, addresses the construction of questions of exploration (Smith 2011; Guerra 2013a, b), understood as the authentic questioning of contexts, oriented at supporting multiple paths of enquiry and shunning univocal answers. The use of exploratory instructions is oriented in the first place to building up a habitus interested in the discovery of knowledge. Their construction in the form of open questions of research allows each child to go through them starting from their own skills, but also to investigate those skills and challenge them. In this approach, knowledge is built up through the act of exploring at a material and contextual, individual and collective, personal and social level and this fosters the exercise of creativity, as it allows each one to create paths, conceive of possibilities and build up knowledge.

6.4 Conclusions

The exploratory approach, inspired by the work of Keri Smith but reinterpreted as a pedagogical and didactic methodology of interrogating the world to try to know its meaning and functioning personally and therefore originally, appears a coherent way with a proposal of school that wishes to foster and encourage the expression and exercise of creativity. Exploration appears as a constitutive dimension of the educational experience, which solicits attitudes of research oriented towards bringing out questions through constant dialogue with the contexts and with others. The suggestions made by Smith have many nuances which allow articulated directions: by making for example reference to "How to become an explorer of the world", any exploration starting from the initials, like number 5 – which suggests "start[ing] a collection based on the first found object you see on your walk, whatever that is. You decide what the connection between the objects is (can be based on shape, colour, size, etc.) – is an invitation to investigate the world in a way that is not linear but reticular and highlights an inclination to research which is far removed from the disciplinary fragmentation at school. Every exploratory question goes in this direction and can be treated in infinite combinations: using them thinking of them inside the educational and scholastic experience can be a useful strategy but above all its can indicate a fertile path to build and ask good questions again. The suggestion proposed. i.e. is not necessarily that of referring to the explorations imagined by Smith which, moreover and curiously, do not come into being for educational or scholastic purposes, but of being a reference as an exercise to recognize and cultivate productive questions for the construction of knowledge and the promotion of creative thinking. This means, on the one hand, learning to recognize the questions of meaning, relation and correlation that children and youngsters ask themselves, giving value to them and offering space and time to consider them in depth, even if they are not the ones that the teachers would have proposed: their coming into being from the field, from experience and from curiosity makes them an intriguing opportunity not to be missed and to investigate. On the other hand, it teachers translate it into looking for questions that are neither rhetorical or univocally oriented to

acquiring predetermined contents, but privileging questions – exploratory, precisely – which invite looking at the objects investigations from several points of view, whatever they are, to find connections between what emerges in progress, to make suppositions based on the research.

The attitude to research which the approach which we define exploratory supports, allow reinforcing/consolidating the skills oriented towards learning to learn, understood here as a permanent way of investigation interested in building up questions from the context but also soliciting connections between the elements making it up and between the subjects and these elements. Above all, this exercise of continually connecting the parts with one another and with the context allows stimulating the skill of reading the relationships between things, but also reorganizing them according to personal inclinations and interest. This constant solicitation to think and redefine relations and connections seems particularly promising for the purpose of cultivating creative skills, which can appear from this interpretation of the existing world which is always new and original.

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