

Urban Design Approaches to Fostering the Participation of Children and Teenagers in their Everyday Environments

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Introduction

The aim of this paper is to present the Inquiry by Design Approach as a method by which the participation of children and teenagers can be fostered in the practice of urban design. In order to achieve this, a preliminary analysis of the requirements of current educational curricula is undertaken in order to understand how the approach fits within current practices and the analysis of two case studies, where the approach has been implemented, San Juan de Dios in Guadalajara, Mexico and Making Better Places by CABE in UK, the forms of participation of these groups are identified. A strong need to devise and implement multi-disciplinary approaches in current educational curricula become important in order to encourage the continuous participation of children and teenagers in their everyday environments. It is further argued, that the Inquiry by Design Approach, as an important methodological tool currently used in the analysis of the built environment, can generate further advancements for understanding the complexities of the mental and cognitive development of children and teenagers, as well as their urban, social and political lives. In this regard, the paper proposes that new educational approaches, which consider a range of multidisciplinary methods such as the Inquiry by Design Approach need to be considered to further foster participatory and educational programmes by which the ideas and voices of children and teenagers can be heard.

Education and the Participation of Children and Teenagers in their Everyday Environments: Identifying New Predicaments

The seminal work developed by UNICEF since the early nineties reveals significant predicaments about the need of strengthening the rights and needs of children and teenagers living in developed and developing countries. UNICEF (2006) establishes that issues such as poverty and inequalities which children experience within their local environments; weak governance systems, which do

not normally respond to the needs and interests of these groups; and, the lack of appropriate education programmes not only lead to the significant exclusion of these groups from the aspects that enable them to participate in urban life but, subsequently, they jeopardise the chances of children and teenagers to overcome the situations which affect their lives.

In particular, UNICEF (2006) and different theorists and practitioners (refer to: Spencer et al., 1989, 2006, Dudek, 2005), consider that education plays an important role on how children and teenagers can, or not, face the social, political, cultural and urban problems which they experience in their lives. In this regard, education is conceived as a process through which children and teenagers can be helped to develop the intellectual tools and learning strategies needed to acquire knowledge that will allow them to think productively about all the factors shaping their lives. This view suggests that through a basic understanding of the principles of learning children and teenagers can be assisted in becoming self-sustained, lifelong learners able to take important decisions which will enrich their lives and the lives of other social groups.

As a response to these predicaments, a variety of research approaches and techniques have emerged in the last years which further suggest that learning should be understood as both a process and as an outcome. This is, learning needs to be seen as *'a continuous process which addresses the characteristics, rights and needs of different students'* and, as an outcome which *'in turn satisfies all the expectations, needs and characteristics of these groups in ways that they can make more informed decisions about the ways they want to lead their lives'*¹. These views consider different aspects of learning such as the future requirements of learning and research education and, other predicaments are also revealed which, in particular, support the need for better educational programmes which strengthen the rights and needs of children and teenagers. The most substantial studies which have enriched current debates about learning are briefly explored as follows.

Cognitive Psychology Approach

Research from cognitive psychology has increased understanding of the nature of competent performance and the principles of knowledge (Bransford et al., 1999; Spencer et al.,1989). It

¹ Italics: understanding of learning by the authors.

makes reference to people's abilities to solve problems in a wide variety of areas which include mathematics, science, literature, social studies and history. In this approach, learning is perceived as a developmental and cyclical process which contradicts the traditional educational approaches. Examples of these approaches have taken part in the practice of environmental psychology which confirms that people's views and experiences, normally studied in relation to particular places, are fundamental to the development of self concepts and identity (Spencer, et al. 1989, 2006); identity in turn, depicts the abilities and capabilities of students in particular settings.

In this regard, research on the development of children is essential to progress on cognitive psychology as it establishes that children, as young adults, have the ability to understand a great deal about the basic principles of life such as biology, physical causality, about numbers, narrative and personal intent and that these capabilities make it possible to create innovative curricula that introduce important concepts to advance reasoning at early stages (Bransford et al., 1999; Sobel, 1998; Lewis et al., 2004). Within this reasoning, the seminal work of Hart (1979) becomes relevant as it further explores children's experiences of place in terms of their place knowledge, place values and feelings and place use. Hart's study (1979) progresses on the development of relationships and construction of meanings and values which in turn defines how children can engage in different educational curricula; this unveils a number of different methodological implications which need to be considered in order to allow new curricula to succeed.

Research on Learning and Transfer of Knowledge

Further *research on learning and transfer of knowledge* (Lewis et al., 2004) emphasises that the current and previous abilities and capacities of students should be acknowledged especially when they have been introduced to new settings. In this way the analysis of sociological patterns and established relationships can be best understood and transferred to new surroundings. In this regard, studies of the design of learning environments become important as they yield new knowledge about the nature of learning and teaching taking place in a variety of situations. Clear examples of this are the area-based approaches to learning and the pedagogy of place which act as means of social action through which deeper engagement of spatial change and society can be gained (Gruenewald, 2003). Through these approaches student's strengths, their local knowledge, attention to detail and visual as well as verbal communication skills can be further understood.

These approaches encourage a reflective process of learning by which the aspects regarding the development of students whether social, political or cultural can be identified and best understood. This places further emphasis on the methodological implications of such processes.

Learning Technologies

Finally, the expansion of *learning technologies* is also guiding the development of new opportunities to lead and enhance learning through digitalised systems. Examples of interactive places for learning have taken place within different practices such as architecture and urban design which suggest thinking of pedagogy not in relation to knowledge as a thing made but to knowledge in the making (Ellsworth, 2005; pp. 1). This allows an open exploration into the experience of the learning self in what comes before the self and in what can not be reduced to the self who learns (Ellsworth, 2005; pp. 2). In other words, this places values to the individual's previous knowledge and experiences.

Problems with Traditional Educational Approaches

Despite the research advancements which encourage the development of more innovative and reflective learning processes and education approaches especially for children and teenagers and which suggest learning processes as a multi-dimensional experience, it is still currently found that the present educational approaches only focus on one spectrum of learning, therefore, contributing only to a few aspects of the lives of particular social groups. Subsequently, the many models of learning leading current practices, which have been constructed on poor empirical foundations or which only comply with particular curricula, can be criticised. In this regard, traditional learning is seen as obsolete as it only emphasises particular skills, memorisation and mastery of texts being the most common ones, rather than encouraging students to question what they have learnt of to associate with previously acquired knowledge (Bransford et al., 1999). This situation generates a narrow view of learning through which only a set of general problem-solving skills are developed. This further undermines the cognitive and learning capacity children and teenagers.

Further arguments establish that current educational approaches encourage a policy tradition and pre-determined standards or guidelines which although supposedly answer all sort of questions in reality these only allow little scope for creativity and innovation (Dudek, 2005). Through this view of traditional educational approaches, learners are perceived as passive recipients undermining by this the variety of patterns of learning which characterise particular social groups such as children and teenagers (Dudek, 2005; Spencer et al., 2006). In this regard, it is considered that more innovative measures to encourage young students to learn are required in order to generate supportive curricula which enhance the lives of children and teenagers (Hart, 1996).

The Role of the Built Environment in Fostering the Education and Participation of Children and Teenagers in their Everyday Environments

In trying to achieve further advancements about the cognitive and developmental processes of children and teenagers, the practices of urban planning and urban design have placed particular emphasis on gaining a greater understanding about how these groups can best participate within their everyday environments. In these practices, the participation of children and teenagers has been studied not only to understand how their inclusion in the decision making systems can be fostered but, furthermore, participation is also explored as the process through which children and teenagers will learn the necessary skills which will enable them to better understand and control the aspects that shape their lives such as the environments in which they live and, the social and political processes which in turn define their localities. The most important advancements on the participation of these groups within the practices of urban design and urban planning are presented as follows.

First, an instrumental point of view of participation establishes that individuals are best judges of their own destinies and hence by participating in the decisions which affect their localities they are best placed to articulate and advance their views. In this regard, it can be established that children and teenagers have the right to participate in the matters that shape their lives as freely as adults do (Bartlett et al., 1999; Hart, 1997; Driskell, 2002). In particular, Bartlett et al. (1999) argue that the opportunities that children and teenagers have to participate in community action and decision making will not only support their development as responsive citizens but, furthermore, this will

help them to ameliorate the issues which characterise their exclusion from the processes taking place in their localities. It is by providing them with the opportunities to make responsible decisions within their community and at the city level that positive benefits in the ways these groups participate in social and political life can be devised. This perspective lays the groundwork for children's and teenagers' rights to activate citizenship and, in general, this view enables new means towards more democratic systems of governance.

Secondly, from a communitarian perspective there is a need for a more advocatory, collective and social approaches through which citizens can negotiate and mediate their views and needs rather than having them articulated by the other social groups. These arguments ascertain cognitive development approaches and establish the need of children and teenagers to participate from the point of view that through their involvement they will be more informed, both intellectually and socially, about making responsible decisions. This, it may be argued, needs to be supported by providing them with the necessary mechanisms and tools by which different aspects of their development can be further explored.

Thirdly, educational approaches related to the development of the built environment (CABE) also suggest that participation helps in achieving a better understanding of the instrumentalities of the decision making processes, the different components and characteristics of the built environment and, to some extent, the complexities of the policies and ethical dilemmas involved in the development and implementation of local plans. Particularly, Spencer et al. (1989) and Spencer and Blades (2006) consider that the participation of children and teenagers in the aspects that define the environment can have positive impact in their cognitive development. It is argued by these authors that the knowledge that children and teenager can acquire through their participation in matters which consider their experiences within their localities can enable them to develop further geographical and spatial skills which will be useful for their future adaptation to the environment in which they live.

Finally, a fourth conception of participation is devised as that through which individuals are able to express their identities. This view in particular, is supported within the practice of urban design; it takes all the previous aspects into consideration and act as a means by which different social groups such as children and teenagers can define and communicate their views and needs in ways

that these are satisfied (Bentley, 1999). This final view, lays important groundwork to significant advancements to the development of teenagers. This view considers that the processes of personal and collective identity of teenagers can be significantly benefited if they are given the substantial information about the factors that shape their lives and experiences (Hart, 1997; Spencer et al., 2006).

All these arguments are proved as legitimate by different scholars and practitioners who regard the understanding of the built environment, as a process and as an outcome, as an evolutionary, yet distinctive, form by which different social groups, especially children and teenagers, can gain an insight about those issues which affect their lives and the lives of others. In considering these aspects, the participation of children and teenagers in the aspects which constitute their local environments can provide substantial elements for the development of methodologies which consider the needs and abilities of children and teenagers within a particular context. In this regard, this paper stresses an approach by which the intrinsic characteristics of children and teenagers such as their needs, interests, abilities, etc, as well as, the characteristics of the environment which surround them such as their home, neighbourhood and community and further suggestions and improvements to education can be identified.

Developing an Analytical Framework: Inquiry by Design Approach

In considering the different aspects which constitute the local environments of children and teenagers, which are, the physical, political, social and cultural characteristics of the places in which they live, their experiences, needs and the relationships they develop in these areas as, well as, their capacity and ability which enable them to participate as individuals and as groups, an inquiry by design approach, a methodological tool devised by Zeisel (1985) to understand the behaviour of social groups in particular settings, is explained in this paper in order to better understand the methodological and theoretical implications which surround the participation of children and teenagers. As explained above, participation is here stressed as a process of inclusion (i.e. children and teenagers' participation in processes such as decision making) and, also as a process of learning (i.e. a process through which students and practitioners will learn about the necessary skills to foster the participation of pupils within their environments).

The following sections, therefore, explain two case studies which have enriched the development and implementation of the inquiry by design approach and which have revealed new predicaments about the future participation of children and teenagers and which also encourage innovative learning processes in different settings. In this regard, the case study of San Juan de Dios in Guadalajara, Mexico exposes the reality of children, their capacities, and interests in becoming involved in the processes affecting their lives (Gomez, 2006). San Juan de Dios, s a example of area-based learning, which as a setting, offers the urban, social, political, and cultural elements which shape the lives of children and other social groups. And, on the other hand a second case study of the Making Better Places Learning Programme by CABE (Commission for Architecture and the Built Environment) in England explores the relationship of teenagers and the built environment in order to identify features which can enrich new curricula. Both case studies complement each other as they expose the capacity and interests of children and teenager to participate but, they also, unveil common predicaments which need to be considered to further develop the appropriate learning approaches and educational processes which will enrich the lives of these groups.

San Juan de Dios Case Study

General Background

San Juan de Dios is the oldest historic district in the historic core of the city of Guadalajara in Mexico. It is an area in which the physical decline and the concentration of low-income social groups has prevailed throughout the years. In San Juan de Dios, a great concern has been placed on the development research methodologies by which different social groups are brought to participate in the social, political, cultural and urban dynamics of their area. In particular, the participation of children has been fostered using the inquiry by design approach and great insight has been gained about how children can participate in their environments and advancements have been made on the development of further methodologies to foster their participation and the participation of other social groups within their environments. In the following sections the participatory exercise, which considered the inquiry by design approach, is explained as a process.

The outcomes are also outlined and these are further explored in the following sections of this paper.

Preliminary Ideas for the Implementation of the Inquiry by Design Approach

In order to foster the participation of children preliminary ideas concerning their cognitive development, their experiences and understanding about the complexities of their local environments were taken into account. By considering previous knowledge and by recognising the experiences of these groups, more suited learning processes (e.g. participatory exercises) could be developed in ways that their needs and interests were addressed. The main ideas leading the development of the exercise were:

- (i) Children's needs and patterns of interaction are strongly determined by gender, age and social background. Therefore, there is a need to consider diversity, first as an intrinsic characteristic of their participation, and second in order to better design the workshop activities. This ensures that both boys and girls participate equally.
- (ii) Children have a wide understanding of the needs and interests of other social groups, such as their parents, siblings and the elderly. The needs of all the groups are highly linked and can provide potential ideas on how to address the needs of other social groups within their community.
- (iii) Children relate to the physical and social characteristics of open spaces especially when these are relevant to their everyday life activities. This sets a need for relating the exercise to their experiences. In this way, children can own their ideas and better express them through the exercise.

Implementation of the Exercise

The exercise took place with a group of children from San Juan de Dios who attend the elementary school Javier Mina. Boy and girls from 6 to 12 years old, also from different school grades, participated in the exercise which was undertaken in two days. In day 1 the identification of problems, advantages, threats in the area and the desires of children were mapped out using a variety of inquiry methods such as brainstorm activities, general discussion, etc. The use of these methods at early stages allowed children to identify the characteristics of the area in which they

live, and also, to discover issues of common interests between them. Discussion led to a set negative and positive characteristics of the area which in turn led to the development of an action plan through which students would regenerate those areas of their locality which they thought needed to be enhanced in order to satisfy their views and the views of other social groups, such as their parents, siblings and the elderly.

On day 2, the main aim of the activities undertaken by children was to identify the urban design elements necessary to further develop the area they wanted to redesign. This part of the exercise showed evidence on how the decisions of children are bound to those decisions taken by their parents therefore a further aim of the exercise was to explore how those relationships were characterised. Children split into smaller groups, varied in age and boys and girls, and children appointed a leader of the group who would make sure that ideas would be established and that the action plan would be followed. Using material such as paper, cardboard, coloured pencils, scissors and so on children developed a plan of an open space (the Cabanas Open Space). They also used photographs to support their ideas, and following their design, a group presentation of their ideas took place.

The presentation of the design ideas allowed that children would explain their views about their needs and aspirations within their community but also, the presentations allowed them to understand the needs and views of other social groups. As a discussion took place, children were also exposed to think about how plans were to be implemented. The role of decision makers (i.e. local government) was brought to the agenda and a discussion led as to what was more important for them. At this stage strong arguments such as ‘we want spaces where we can be respected’ had significant impact in the exercise and also in the development of future urban design approaches. As it was perceived that for children, their participation goes beyond the mere act of being engaged and communicating their ideas, but it is also a platform where their rights and needs can be further explored.

Making Better Places, CABE

Making better places is an educational package developed by the Joint Centre for Urban Design (JCUD) at Oxford Brookes University supported by CABE Education. The aim is to develop pupil's appreciation of the urban environment and good design, to develop understanding about what makes a good place and how it can be created, to broaden understanding of citizenship and to cultivate their ability to participate actively.

The learning package comprises an online resource which has been designed for AS and A level students of Geography, although through its implementation relevance for other parts of the curriculum were also devised. The resource uses a combination of lessons, notes, handouts, video clips, photography and comprehensive teachers' notes. This not only emphasises the pupil's development but, furthermore, it encourages and sustains better working relationships between students and teachers. From the practical point of view of learning, this further generates better working conditions and durable relationships which enable students to participate in similar contexts in their adult life. The resource can be accessed at www.cabe-education.org.uk/makingbetterplaces and the generalities of the exercise and the methods utilised are briefly explained in the following paragraphs.

Neighbourhood exploration

Students are encouraged to explore their neighbourhood using their experiences and knowledge in order to generate a better understanding about the location and geographical characteristics of places studied, their external relationships and how the places are changing. This exercise enables students to know more about the interaction of people and their environments (in space and over time), the distinctiveness and interdependence of places and about the roles of values, attitudes and decision making processes in geographical issues and in decision making about the use and management of resources and environments.

Assessment of Urban Design Qualities

This involves creating a site analysis to demonstrate the students' understanding of the observations they made during the neighbourhood exploration. Students also offer recommendations for the site's redevelopment. For every point of the analysis students decide on an action plan, that is to say, they decide on which issues they want to keep or change. This leads to the development of a list of regeneration strategies for the site through which students

demonstrate further abilities such as site management, economics, and mathematics, government and policy and business studies; and, through the presentations of their proposals further design technology and art and design skills are reinforced.

General Discussion

Through the analysis of the case studies the following general findings can be observed:

Learning as a developmental process

The analysis of both children and teenagers demonstrated that prior skills, beliefs and concepts of children and teenagers significantly influence what they notice about the environment and how they organise and interpret it. This situation further demonstrates the abilities of these groups to reason and to resolve particular problems but also, they lead to new paradigms about how further knowledge can be developed in ways that their own theories, views and understandings of the world can be perpetuated as part of the active learning process – inquiry by design.

Area-based Learning

The inquiry by design approach further contributed to the knowledge of these groups in terms of their localities, communities and the problems presented in these areas. The approach also provided the understanding of the social, political, economic and cultural conditions and needs of children and teenagers. Further implications of this approach to learning can, therefore, be devised; it may be argued that the inquiry by design approach is more than just a method of teaching and learning. It provides an understanding that teaching inherently takes place in a social, cultural, economic, political and natural context and that when learning is focused on local places it can enhance students engagement. In turn, this form of engagement is what provides students with the necessary skills to take further control of their lives and in this way, understand, if not overcome, the particular situation that they may also encounter in their adult lives.

Group working and Individual learning

Children and teenager develop strong working relationships, and strengthen their views as individuals throughout the exercise; the ties with particular social groups become very evident. It clearly defined the roles of these groups in the development and enhancement of their urban areas

as active citizens and as collective units. From a political point of view, the exercise helped in identifying the basis for a new model of collaboration which will need to consider a wide range of actors and disciplines in order to address the multi-dimensional needs of children and teenagers. The exercise reinforces the need to promote equality through the implementation of the approach and the understanding of raising the standards of the quality of life of these groups. It also suggests different degrees of social and political interaction through an approach that recognises primarily the needs of the most vulnerable groups as ways of engaging others who are not as vulnerable. In this regard, the inquiry by design approach functions as a multilayered approach in which issues of common concern can be identified and further analysed in, between and across groups.

CONCLUSIONS

This paper stresses the need for encouraging learning processes through which students; in particular, children and teenagers can become more engaged in the processes taking place in their environment. The Inquiry by Design Approach, as presented in this paper, challenges existing teaching paradigms and exposes the need for developing and implementing learning approach which will not only encourage the cognitive development and needs of children and teenagers but also, their need for participating in the decision making processes within their localities. This wider view of conceiving learning, that is to say as a process and as an outcome, can generate further benefits not only for children and teenagers; it can also enrich current teaching curricula and furthermore, it generates great advancements for the development of democratic and equitable processes by which the needs and rights and children can best be articulated.

The main aim of the Inquiry by Design Approach, thus, is to further identify those factors which need to be considered in order to develop strategies, whether educational, social or political, which will be more reflective of the characteristics of particular social groups. In this reflection, practitioners, whatever their specialisation, begin with a given determinate situation, discover what is unresolved and indeterminate in that situation requiring new design thinking, and then seek to resolve the uncertainty through creative exploration of the parts of the relations of the parts, leading to a solution that brings unity to what was indeterminate.

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