Art. # 844, 17 pages, http://www.sajournalofeducation.co.za

Integration of educational methods and physical settings: design guidelines for High/Scope methodology in pre-schools

Shirin Izadpanah
Department of Architecture, Eastern Mediterranean University, Cyprus
shirin.izadpanah@cc.emu.edu.tr
Kağan Günçe
Department of Interior Architecture, Eastern Mediterranean University, Cyprus
kagan.gunce@emu.edu.tr

Quality design and appropriate space organization in preschool settings can support preschool children's educational activities. Although the relationship between the well-being and development of children and physical settings has been emphasized by many early childhood researchers, there is still a need for theoretical design guidelines that are geared towards the improvement of this issue. This research focuses on High/Scope education and aims to shape a theoretical guideline that raises teachers' awareness about the potential of learning spaces and guides them to improve the quality of the physical spaces. To create a theoretical framework, reliable sources are investigated in the light of High/Scope education and the requirements of pre-school children educational spaces. Physical space characteristics, the preschool child's requirements and High/Scope methodology identified design inputs, design considerations and recommendations that shape the final guideline for spatial arrangement in a High/Scope setting are integrated. Discussions and suggestions in this research benefit both designers and High/Scope teaching staff. Results help High/Scope teaching staff increase the quality of a space in an educational setting without having an architectural background. The theoretical framework of the research allows designers to consider key features and users' possible activities in High/Scope settings and shape their designs accordingly.

Keywords: daily activity; design; High/Scope education; interior space; teaching method

Dependency of Early Childhood Education on interior space

Preschool is an important stage in early childhood development. Children at the preschool age (between three and five years old) start to learn new skills and deal with important developments such as "experiencing broader social circumstances," "an increase in language skills" and the "ability to control their behavior" (Brown, Isaacs, Krinke, Lechtenberg & Murtaugh, 2011:267). In addition to these listed developments, preschoolers' cognitional and psychological development expands throughout this period. The influence of preschool learning skills on a child's success in school has been shown to be significant (Ricci & Kyle, 2009).

The advantage of preschool education for a child's future success is mainly based on the quality of the education and the programs that are offered in preschools and kindergartens (Shaffer, 2009). Preschool education can be viewed as an investment in the future academic success of children (Albanese, 2010).

There is ongoing research with the purpose of improving the quality of early childhood education. The difficulty of analyzing and evaluating the child at early ages makes the research in this field challenging (Clark, 2010). To simplify the challenges and introduce new insights into this topic, there is a need for cooperation between the field of early childhood education and other disciplines (Organisation for Economic Co-operation and Development & Centre for Educational Research and Innovation, 2007). Interior design is one of the disciplines that improves the quality of learning in early years (Howe & Prochner, 2012).

Among preschool educational methods, High/Scope has been proven through long-term research as a competent means of establishing positive programs for children's future success in terms of health, family, economy, and career (Weikart, Deloria, Lawser & Wiegerink, 1970; Durlak & Ferrari, 1998). Since the High/Scope approach is being used throughout the world and its policy has significantly contributed to different programs globally (Grotewell & Burton, 2008), its methodology will be the focus of this study.

Based on the need for developing a cross-disciplinary study on the integration of an educational method in designing the school setting environment (Ata, Deniz & Akman, 2012), this study establishes a design guideline, based on High/Scope goals and the associated curriculum.

Since structural support in an environment can influence teachers' attitudes in a positive way (Nel, Müller, Hugo, Helldin, Bäckmann, Dwyer & Skarlind, 2011), the theoretical framework provided in this research increases the awareness of teaching staff in High/Scope settings and helps them improve the quality of the physical spaces.

The scope of this research is limited to the indoor space of the High/Scope settings and by assuming that facilities in High/Scope settings are accessible to all the children, with or without disabilities, this study does not include the disability standards in its framework.

Current research uses simple terminology in order to create a clear theoretical framework for teachers without any architectural background and designers with no educational background. Discussions and guidelines established in this research provide indirect training for early childhood staff to be involved in the organization of an interior space within a learning environment before and after the design process. Additionally, it helps them improve the quality of space based on the features they find relevant to their own teaching methods.

Methodology

The literature related to early childhood education has been thoroughly reviewed and books and journal articles related to preschool education and children's spaces have been investigated. The results of this literature review are seen in the view of High/Scope education and preschool requirements. To achieve a broader view, this research engaged data from a wide range of research collated over a long duration.

The main focus of this article shapes the theory and consists of four stages of literature surveys. In the first stage, the main activities and features of High/Scope education are classified and summarized. In the second stage, teachers' and children's daily performance is classified and summarized in light of the High/Scope methodology. In the third stage, design considerations that support teachers and children in accomplishing the possible daily activities are classified and discussed based on the findings of the first two stages.

In the final stage, the arrangement of the main spaces of the High/Scope setting is interpreted and classified by integrating the findings of the previous three stages. Due to the dynamic characteristics of the High/Scope educational method and the changeability of everyday routines, the visual presentation of findings of each stage of research are symbolized as a spinning wheel to express the flexibility of the educational features.

High/Scope Education

High/Scope was founded as a nonprofit educational organization in the 1960s by David P. Weikart with the intention of providing an education based on children's development (Weikart, Rogers, Adcock & McClelland, 1971). 'High' refers to the maximum level of achievement for children and 'scope' implies the variety of experiences that can be offered to children so they can achieve their personal heigh (Holt, 2010).

High/Scope was originally developed to profit disadvantaged children and to encourage them in self-learning and support their sense of competence and confidence (Gettinger, Elliott & Kratochwill, 1992). Today, a number of newly developed preschool education programs such as the World Bank and Inter American Bank in "the United States, Netherlands, Norway, Finland and Singapore", consider High/Scope a core structure of their philosophy (New & Cochran, 2007:261).

The High/Scope daily program is based on 58 key experiences of preschool children that are grouped into 10 categories. The categories are: "creative representation, language and literacy, initiative and social relations, movement, music, classification, seriation, time, space and numbers" (United State General Accounting Office, 2003:17). All the key experiences are supported by "adult-child interaction, daily routine, active learning, and a rich learning environment and assessment" (Davis & Hui-Tu, 2008:34).

The 10 categories of children's experiences offered by the program represent the daily activities, and the teachers' active assessment leads and evaluates these activities throughout the day. At the end of each day, there is an overall assessment by adults (parents/teachers) together with children in an open conversation about the children's daily experiences and accomplishments (Georgeson & Payler, 2013, Gestwicki, 2010).

Based on High/Scope 'daily routine,' children's daily experiences may vary based on their interest; therefore facilities and materials have to be visually and physically

available to stimulate children's interest and exploration. Figure 1 represents the ideal discipline and activities in a High/Scope setting and its circular shape represents a wheel which symbolizes the change in everyday activities as a spinning wheel.

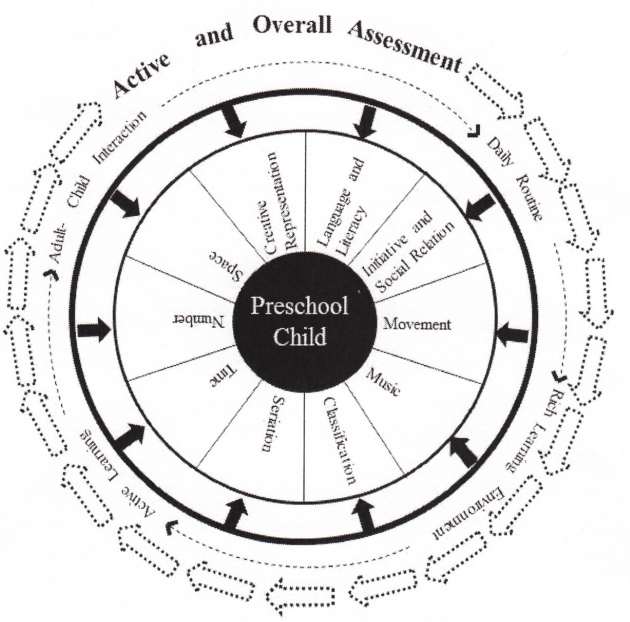

Figure 1 High/Scope ideal discipline and activity wheel developed by author according to the High/Scope preschool wheel of learning (Holt, 2010)

Teachers and children daily activities in High/Scope setting

'Plan-do-review' forms the core of children's everyday routine in High/Scope settings. Children are free to plan their desired activities to the extent of their abilities. Through this planning, they develop their thinking and reasoning (Schweinhart & Weikarf, 1997). After planning, they start exploring and interacting with their environment and discover what they had planned earlier. At the end of the day, they share their experiences and discoveries with teachers, parents, and other children in a review session. In this entire process, teachers act as supporters (Grotewell & Burton, 2008), observers, listeners, and participants (Holt, 2010).

Another intention of the High/Scope program is to increase the child's cooperation with other children and adults, and this requires the teacher's full participation in the interested activities (Peyton & Rapporteur, 2005) by breaking the social isolation and providing an atmosphere that increases 'children's social competence' (Holt, 2010).

Parallel to the issue of cooperation, it is desired that children will be active learners and involved with the environment as an indicator of learning (Samuelsson, Sheridan & Williams, 2006). Children's active learning relies mainly on their interaction with their teachers (Grotewell & Burton, 2008).

In the High/Scope program, teachers have to 'visualize children', consider their intentions, and lead them through key principles toward key experiences (Samuelsson et al., 2006). However, the teacher's leading role should be indirect, since the program suggests constructive rather than direct teaching. Using the constructive method, teachers exchange information with children through the process of doing as a means of communicating with them (Schweinhart & Weikarf, 1997).

The High/Scope program suggests a maximum level of exploration for children to challenge their abilities (Holt, 2010). To meet this aim, teachers have to be active observers of children's behavior and activities and are expected to create problem solving situations accordingly in order to challenge children and engage them logically (Barry & Jenkins, 2007).

High/Scope teachers are also responsible for the active and overall assessment of children. The child observation record (COR) framework is a checklist that assists teachers in their evaluation of the children's adoption of key principles and understanding of key experiences (Gestwicki, 2010). However, completing the checklist only happens though the full visual and physical interaction of teachers with children.

Since emotional intelligence is an important aspect of the High/Scope program, children's positive interactions with adults, especially their parents, is considered a supportive feature in terms of the child's emotional development (Peyton & Rapporteur, 2005). Parents' involvement in educational settings creates a partnership between home and the educational environment, and this partnership plays a significant role in children's success and achievement (Mmotlane, Winnaar & Kivilu, 2009) in parallel with their emotional intelligence. Teacher-parent communication also benefits both sides by increasing the parents' knowledge of skills while also increasing teachers' familiarity with the children's culture, language, and goals (Barry & Jenkins, 2007).

Teacher satisfaction is indicated by their desire to stay in the teaching profession and their experience of fulfilment in what they do (George, Louw & Badenhorst, 2008). Since their 'need, value and expectations' define their perception and satisfaction (Palenzuela, 2004), satisfying their needs and expectations is an essential task in terms of supporting children's positive learning and development. Considering teachers and children's possible actions (Figure 2) illuminates their basic needs, which must be taken into account by designers.

Interior design consideration in High/Scope settings

The learning environment is one of the key principles of a High/Scope education, and children's interactions are based on the way that the physical setting facilitates their intentions. Elizabeth Mayo, head teacher at the Birchwood High/Scope nursery school

in Hatfield, stated, "The environment is crucial because it is how the children access their learning" (cited in Dudek, 1996:20). An increase in children's challenges and discoveries is related to the existence of motivation in an environment. High/Scope settings have to provide children with "need, control, interest, enjoyment, a feeling of competence and probability of success" in order for them to be motivational (Holt, 2010:18).

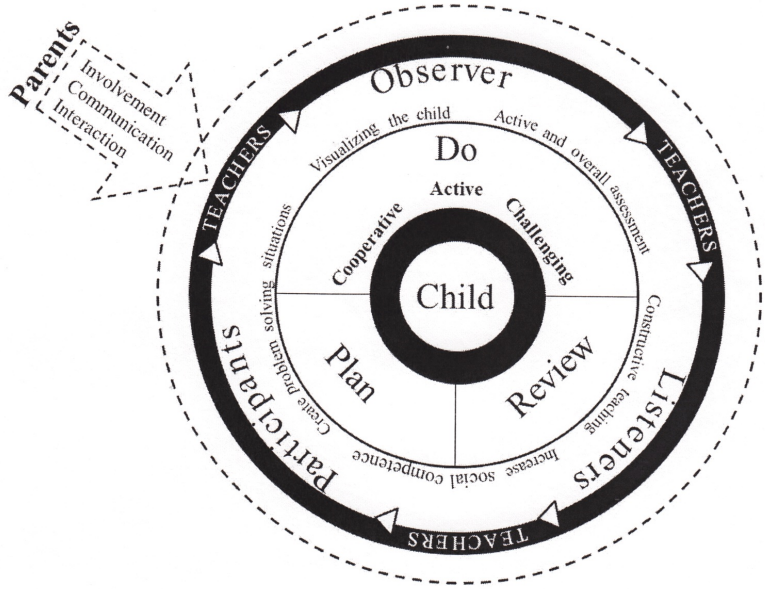

Figure 2 User daily task and activity wheel in High/Scope settings developed according to a review of possible activities in High/Scope centres

As discussed in previous sections, children in High/Scope settings are planners, active learners, and self-evaluators. In order to select their choices for daily exploration, children have to be perfectly aware of existing options in the setting.

Materials are the most important options in the High/Scope environment, and thus displaying them is a critical task. Legible and child-scaled display units provide an easy access for children and support their sense of control, competence, and probability of success (Greenman, 1988).

According to Holt (2010:14), the materials in the High/Scope program are generally categorized as everyday "objects, natural materials, tools, messy items, large and heavy items, and smaller items". The scale, design, and location of the design elements

have to be defined according to each category. It is better to place messy items in a zone with easy to clean surfaces (Bentzen & Frost, 2002), and heavy items can be displayed horizontally or in transparent boxes to allow children to take and return them more easily.

After children plan their daily activities, their work time begins (Georgeson & Payler, 2013). In this part of the program, children are ready to start their active exploration and discovery. Children need to "use all their senses, move between activity areas and connect with different activities" in order to experience positive exploration (Community Plaything, 2009:10). Safe and comfortable movements are desired for preschool children. Teachers and designers can provide this by defining a clear circulation path, locating landmarks and partitions, providing visual access by using various colours and textures on the floor (Trancik & Evans, 1995), ignoring sharp edges and sliding materials such as floor surfaces, and removing elements with rough covering (Robertson, 2001).

Parallel to the provision of safe and easy movement, increasing the sensual experiences in the setting will support children's exploration. Education specialists such as Comenius (1921) and Radulph and Cohen (1964) (cited in Peltzman, 1991) believed that children's development is realized through their senses. Mixing and matching a variety of textures and surfaces and placing natural and living elements such as plants and water in indoor spaces, will motivate children's sensory explorations. Selected textures can either be smooth like painted walls and windows, rough like brick and stone surfaces or soft like pillows and curtain (Kubba, 2003).

Children's ability to identify and connect to their activities will increase their sense of control and self-competence and support their exploration. An overall unification between the zones and areas will allow children to feel their movement. To create this unification it is wise to consider some of the spaces as "the star" and the rest as the 'supporters' (Weinstein & David, 1987).

Since High/Scope demands active learning and challenges for a child, the interior space should offer the opportunity for a variety of discoveries and experiences (Holt, 2010). Displaying a variety of materials and using complex and super units can increase the complexity in the setting and encourage children with more challenges. Complex units should contain more than two objects, such as a pile of Lego building blocks. Super units are complex units with more than one additional play material, such as a pile of Lego building blocks and toy digging equipment (Wellhousen & Crowther, 2004).

To encourage children to cooperate with their peers, existing options in the physical setting should be balanced with the number of children who will use that space. A lack of enough toys and materials may result in fights over property. Prescott and Kritchevskey (1969 cited in Weinstein & David, 1987) suggest providing at least two elements, consisting of objects and furniture, per child to avoid aggressive behaviour and help the children cooperate and increase their sense of control.

At the end of the day, in the review session, children share their experiences with

peers, teachers, and their parents. Assigning a comfortable corner or area for this social activity can increase a child's social competence. Using soft materials and furniture that allow children to sink in (Miller & Schiltt, 1985), creating a curvilinear sitting arrangement to increase social contact, using warm colours to create a sense of coziness (Creative Publishing International, 2002), using appropriate lighting (Kubba, 2003), avoiding too many colours and textures to prevent overstimulation (Meerwein, Rodeck & Mahnke, 2007), and placing landscape elements (Weinstein & David, 1987) where children and teachers meet to review the daily experiences, will create a pleasant environment for their conversation.

In regard to the teacher's responsibility for rearranging the interior space and challenging children by creating problem solving situations (Barry & Jenkins, 2007), the interior space has to have an appropriate level of flexibility, especially if there is a lack of enough space. However, too much flexibility will overcome the design and dissemble the definition of the zones and the order of activity areas, which goes against the High/Scope philosophy (Tassoni, 2006). An appropriate level of flexibility in a space allows transformation without destroying the overall identity of the space (Greenman, 1988). Using low weight elements and furniture and using movable shelves (Feinberg & Keller, 2010) will provide teachers with the option for rearrangement.

High/Scope teachers have to visualize and evaluate children through active observation; therefore, they need an appropriate level of visual access to the children's activities. Using transparent barriers by considering children's safety and enclosing the zones with low level partitions and dividers will allow teachers to have better control over different activities and accomplish a better assessment. Easy circulation is another feature that is essential in a physical setting to support teachers' observation (Samuelsson et al., 2006). Good circulation does not mean providing a corridor. A good circulation is a path with an appropriate proportion that creates a positive spatial quality (Dudek, 2008) that allows children and teachers to be aware of events and happenings by passing from one zone to another.

To create a positive interaction between teachers and children, teachers are expected to participate in the children's play and activities, so the size of the activity spaces should allow for adult participation without creating a crowded space or reducing the comfort of teachers and children. Sometimes using adult-sized furniture, such as locating a sofa in a corner of an activity area, can provide teacher comfort and also allow children to curl up with their teacher and feel part of the adult world (Miller & Schiltt, 1985).

In summary, teachers and children must have control over the environment in order to spend quality time together. Integrating the daily routine of teachers and children (Figure 3) in High/Scope settings will transform the physical space from a shelter to a facilitator of children's activities and assistant for teachers' assessment.

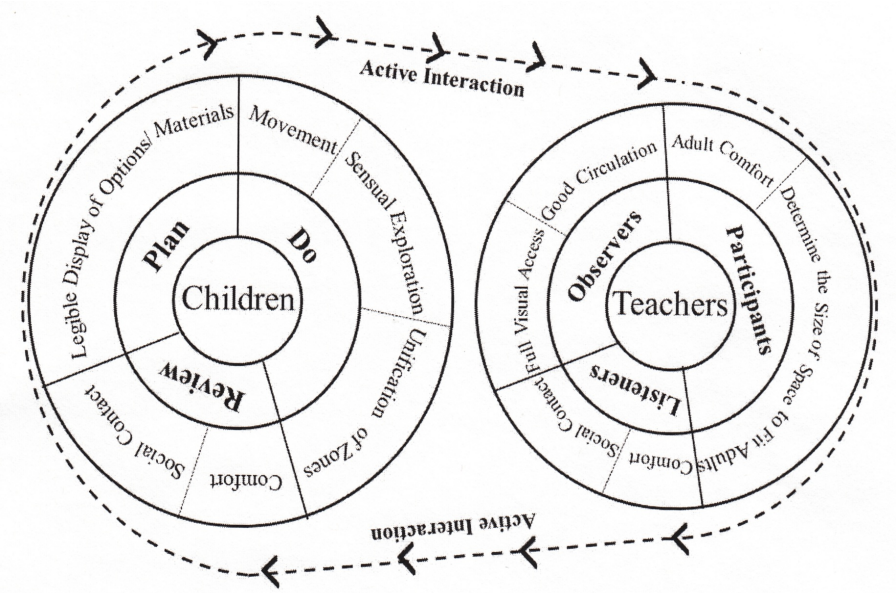

Figure 3 High/Scope design consideration wheel developed according to the daily activities of children and teachers in the High/Scope settings

Space arrangement guideline in High/Scope settings

The size of settings differs and so do the interior organizations of the settings. Since the current research aims to benefit a broad category of High/Scope settings, there is a focus on the arrangement of at least five spaces (entrance, learning area, playing area, kitchen, and lavatories) in terms of High/Scope activities. Table 1 presents a brief explanation of the core activities in each space.

Table 1 Classification of core spaces in high/scope setting

Space	Activities	Learning Experience
Entrance	Children's arrival and departure	Depends on activities offered in this space
Learning area	Activities which require concentration	Art, literature, math, science…
Playing area	Movement and music, play	Social interaction and increase in children's physical awareness
Kitchen	Eating	Social interaction and increase in self-dependency
Toilet facilities	Hygiene and bodily needs	Increase in sense of independence

Every space in an educational setting should be identified according to the activity and learning experiences that will happen in that space. Identifying zones and spaces will help children to link and distinguish the activities. In the case of High/Scope education, this is very beneficial since seriation and classifications are part of the key experiences of the program (Holt, 2010). To encourage preschoolers to engage in activities suggested by the educational methodology adopted in preschool settings, the interior space has to be organized based on the adopted methodology.

Entrance

The entrance in a High/Scope setting can be more than a space for the children's arrival and departure. As discussed in previous sections, parents are temporary participants, and their interaction with children and teachers in High/Scope settings is required. Since parents meet teachers in the entrance hall when they deliver or collect children, a well-designed entrance can be a positive attempt to support their interaction (Dudek, 1996).

Secure and welcoming spaces are important aspects for an increase in a sense of belonging to educational settings (Tabane & Human-Vogel, 2010). Emphasizing a sense of belonging, especially in the entrance, will ease the separation of parents and children. An attractive and comfortable entrance, which welcomes children and invites parents to meet other parents and teachers, can act as a strong meeting point and social space (Hertzberger, 2001). When possible, a small playing zone containing comfortable sitting elements can increase the comfort and attractiveness of an entrance hall (Community Plaything, 2009). In addition to providing a comfortable sitting arrangement, locating cubbies where children can leave their personal belongings before entering the setting can have a positive effect on increasing their sense of place and thus their interest (Cherry & Harkness, 1991).

Learning Area/Classroom

The classroom generally facilitates the activities that require concentration. According to Mark Dudek (2008), the features of a learning environment, including the colours, lighting, and furniture arrangement, should differentiate from the rest of the spaces. Schickendaz (1976 cited in Weinstein & David, 1987) defines three rules for preschoolers' classrooms, which are beneficial in terms of High/Scope classrooms as well. He claims that if children are expected to work with materials and return them after they are done, it is essential to have a well-defined storage area somewhere close to the learning area. Second, he recommends physical indicators such as carpet or a tape on the floor to define the best options of seating arrangement. This will help teachers in changing the arrangements related to the group and solitary activities. It is also helpful to prevent children from overstimulation by ignoring long and narrow spaces and breaking the large areas into smaller areas by using partitions, level differences, and furniture (Weinstein & David, 1987).

Learning areas in a High/Scopesetting seem to be the best option for supporting

children's art, math, literacy, and social skills; therefore, a classroom should include at least four main zones: art zone, reading zone, a zone to supply open-ended and manipulative materials that promotes children's learning and encourage them to explore (Epstein, 2006), and a sitting area.

It is better to create a semi-open area for an art zone and divide it from the rest of the learning areas (Dudek, 1996). Using walls and bulletins to exhibit children's art work can identify the art zone and support their self-esteem (Weinstein & David, 1987). "The blank wall covered by a tackable surface or display shelves and cabinets" can provide artistic surfaces and act as a changeable plane based on children's daily art activities (Feinberg & Keller, 2010:48).

Providing a reading corner with a well-defined library is a positive attempt to support children's literacy. The reading corner needs to be located in a quieter zone with a soft and comfortable sitting arrangement. It should allow for the display of a variety of books (Weinstein & David, 1987). Considering children's different positions while reading in arranging the reading zone, will increase the quality of this activity. Some children may prefer to lie on their stomachs while reading and some may prefer to sit. Some of the children like to cut and paste text and pictures and require a table. Some may prefer an audio book and will need special technology to do this without creating a distraction for others (Community Plaything, 2009). The selection of appropriate lighting is another essential concern in the reading zone. Integrating natural light and placing this zone near a window will increase the positive performance of children (Lawson, 2001).

Materials are the most important part of High/Scope education, so designers and teachers have to be very sensitive in terms of supplying them. Greenman (1988) suggests six tips for designing good storage, which can be useful in terms of a High/Scope material supply area as well. According to him, a good storage area:

1) Should be close to the space of use.
2) Should be able to store the required amount of materials and be able to display them easily.
3) Should be balanced with the size of the space and amount of materials.
4) Should not prevent designers from designing the storage aesthetically.
5) Should be designed clearly to allow users of any age to use that space.
6) Should be safe.

Consistent with the above features, designing the material storage with maximum visual and physical access will increase children's control and allow them to select their materials of interest easily.

Children and teachers exchange their daily experiences through conversations in the review session (Georgeson & Payler, 2013). Therefore, increasing children's social competence will encourage them to talk. The circular seating arrangement is the best option for review sessions, since it connects children to each other and increases their social competence (Wellhousen & Keiff, 2001) while providing equal visual access to one another (Hennink, 2007).

Playing Area

Play is a vital activity in terms of preschool children. Play helps children to be creative (Dansky & Silverman, 1975), supports their physical development (Lindon, 2003) and as Froebel (1899 in Peltzman, 1991:85) stated, "creates joy, freedom, and inner peace". An interesting play area is a space that increases the children's level of exploration. Increasing the complexity and variety in a space is a positive means to encourage children to take part in further exploration (Trancik & Evans, 1995). Creating different heights by using ramps, stairs and lofts, creating brighter and dimmer zones by playing with the amount of light (Community Plaything, 2009), and offering a variety of options for solitary and group playing alternatives will provide positive variety in the playing area.

A playing area should be safe above all else, so that teachers can comfortably allow children to engage in free play. Using unbreakable windows and mirrors, softening the space by using soft materials and furniture, locating stable elements and furniture, covering the electrical outlets, and using surfaces which can easily be cleaned (Bentzen & Frost, 2002) will increase the safety in the playing area.

Dramatic play is one of the activities in a High/Scope setting that supports children's imagination and creativity (Goelman & Jacobs, 1994). The quality of dramatic play relies on the quality of display materials that exist for this activity. Making a dramatic play area look visually different than the rest of the room, locating this area away from the quiet zone, offering dress-up clothes, props, toys and accessories that support children's role play, using child-sized equipment and providing kitchen equipments will increase the quality of this play (Hereford & Schall, 1991).

As previously mentioned, exploration needs movement, and in a High/Scope setting, movement follows the music. The integration of music with play will support a child's movement and joyful exploration. Using a quality sound system to play quality music and creating an empty area for musical activities such as dance and gymnastics will positively support a child's physical movement (Community Plaything, 2009).

The ease of teacher movement and participation should also be considered in arranging the equipment and zones in the playing area. Teacher presence should not prevent a child's movement or distract them from their activities due to a lack of space.

Kitchen

In most of the settings, the kitchen is considered an isolated area that only serves food to children; however, creating easier access for children to this space and integrating this area with activity spaces will increase children's exploration. A safe and well-defined kitchen that allows preschoolers to participate in food preparation will increase their sense of independence and their 'at home' feelings of the setting (Dudek, 1996).

A collaborative kitchen with a comfortable and friendly environment increases the social interaction between teachers and children and supports the children's social competence (Creative Publishing International, 2002). The kitchen can also be a good

meeting point for teachers and parents when there is a need for a conversation without interrupting the children's activity (Dudek, 1996).

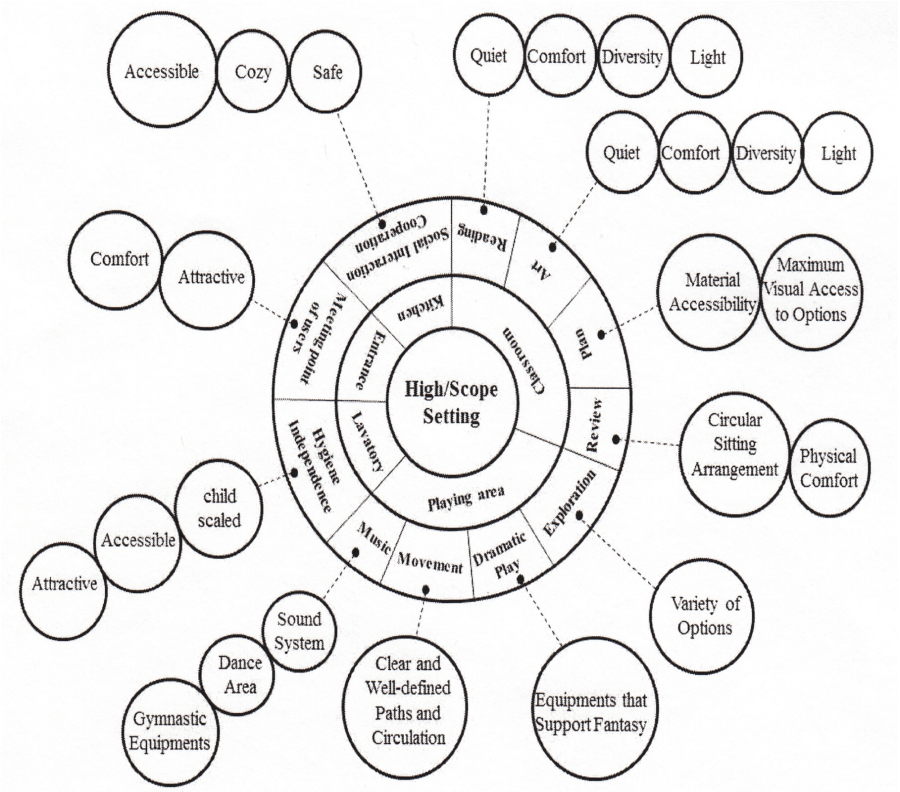

Figure 4 Classification and arrangement of zones and spaces in a High/Scope setting based on the activities offered in the program

Toilet Facilities

A visually attractive and physically accessible toilet will encourage children to use that space easily and regularly.To transform the clinical experience of children in a toilet to an experience that supports their self-competence, sinks and toilets must be constructed to a child's scale to enable them to use that space without adult assistance (Greenman, 1988). When there are no small scale sinks available, locating safe stools will also allow children to wash their own hands (Weinstein & David, 1987).

Private Areas

In addition to the classified spaces, private areas are necessary spaces that every setting

should offer to provide children with a sense of privacy. Dudek (2008) suggests the provision of breakout spaces to accommodate children's need for privacy, but if there is a lack of space, a cosy corner or a piece of furniture that provides a semi-hidden area behind it can also create private spaces for children (Greenman, 1988).

Figure 4 summarizes the design tips and considerations that will help teachers improve the environment according to possible activities in key spaces of High/Scope settings.

Conclusion

Researchers affirm the positive effects of a high quality preschool education on children's further learning and development (Samuelsson et al., 2006). High/Scope has proven its positive influence on children's futures in long term research studies. As Barnett (1996:245) stated, "High/Scope is a social program whereeverybody wins".

Emphasizing the interior arrangement and spatial organization of a learning environment is one of the essential features of a High/Scope education due to the insistence of the program's philosophy on children's active learning and free daily planning. Teachers and children enjoy very active and flexible experiences in High/Scope settings, and the quality and level of their interaction and accomplishments are based on the interior space and its provided options. Therefore, the integration of education and design is an essential concern and the reason for conducting this research.

High/Scope is a child-interested program that leaves the daily activities and experiences to the children's interest. Teachers are supporters and physical and visual participants in the children's activities. Although children select their areas of interest and discovery, teachers play an important role in arranging the environment to lead their learning through High/Scope key principles and experiences (Figures 1 and 2). Basic considerations and features in arranging the interior space of High/Scope settings (Figures 3 and 4), can help teachers to be designers and provide a quality and pleasant education.

This research links useful suggestions and findings based on reliable research and references to High/Scope education, preschool children, and an interior space to form a theory that benefits both teachers and designers and defines a path for further empirical research studies. The main aim of the current research is to create a theoretical framework that helps teachers and staff in High/Scope preschools and improves the quality of physical space with least facilities based on requirements of the program. Since High/Scope is child-centred and the core of many new programs worldwide, this research focuses only on regular spaces in educational settings, so that consideration and recommendations established in this study can be used by a variety of teachers and caregivers throughout the world.

The second aim of the research is to familiarize designers with the importance of considering the children and researchers needs and activities in terms of specific curricula. This research classifies and briefly reviews principles and activities in the High/Scope program and it encourages designers to enrich their designs in regard to

the needs and requirements of users while acknowledging the educational philosophy. To emphasize the importance of integrating the educational method and designing the spaces that serve that method, more empirical research studies on the effect of this integration on the daily performance of teachers and children in educational settings will need to be conducted.

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