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What should be learned in Kindergarten?
A project approach example

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Abstract

Developmental characteristics of kindergarteners call for a curriculum that involves a variety and balance of activities that can be provided in the context of project work (Katz and Chard, 1989). In the light of recent research, in this study, researchers developed a project for the purpose of giving an example of a well prepared project which can easily be applied to any class and representing how Project Approach can be integrated into Turkish Kindergarten Curriculum. After deciding the project topic as “buildings”, in the first phase, the research questions were determined by exploring and sharing ideas. In the second phase, data was gathered through first-hand observations, expert interviews and other age-appropriate information gathering tasks. In the last phase, questioning what has been discovered and preparations of reports to share with families were developed. In conclusion, feedbacks from children, teachers, researchers and parents were taken.

Keywords: Project Approach; Kindergarten; Buildings

1. High Quality Kindergarten Curriculum

There is a raise in the amount of children who are attending kindergarten worldwide in the last decade. According to the Ministry of National Education’s (MONE) statistical reports of 2010, 39% of all the 6 year-olds in Turkey are attending kindergarten. Some reasons for this raise in Turkey are as follows: Kindergarten will be mandatory in the near future and parents are becoming more aware that early childhood education is very important for their children’s future academic life. Many of these children in Turkey participate in all-day kindergarten programs. While recent reform efforts have focused on increasing the amount of children who are attending kindergarten and extending the kindergarten day, research suggests that how kindergartners spend their time may be more critical than the amount of time children spend in class (Helm, 1998). Spending quality time in class can only be formed with a high quality curriculum. The developmental characteristics of kindergarteners call for a curriculum that involves a variety and balance of activities that can be provided in the context of project work (Helm and Katz, 2001). The projects provide experiences that involve children intellectually to a greater degree than the experiences that come from teacher prepared activities (Katz and Chard, 1989).
In Turkey, the kindergarten teachers commonly prepare activities for the children in their classes by the help of the guide of MONE (Ministry of National Education, 2006), which is the Preschool Curriculum for 36-72 month old children. The knowledge gained through teacher-planned experiences determined by the curriculum and the teacher sometimes may not be of interest of the children. This causes an unpleasant learning environment for the children. On the other hand, if the teachers use Project Approach in their classes, it is the children’s initiative, involvement and relative control over their own activities and participation in what is accomplished that distinguish projects from activities prepared by teachers.

In today’s world, early childhood educators, like other adults, have a rush for teaching the essential knowledge -which they think it is essential- to the young children because of the concern of the rapidly changing and more global world. They believe that the children need to be more knowledgeable and problem-solving than they need to be in any other century. While the teachers “rush” to teach, they are missing the important role of play which is the essential style of learning of children. Young children construct knowledge about their everyday environment through play. As children play, they gain understanding of themselves, their friends and the world around them. Play also helps children deal with distributing events, which they portray through their play. Play provides opportunities for children to learn and work through ideas (Chard, 2001).

Early childhood specialists have long emphasized that young children need to learn about the world by questioning, wondering, investigating and the central role of play in young children’s learning. In the course of day-to-day experience with young children, it is easy for teachers to see that spontaneous play is a natural way of learning; observations of children’s play reveal that play provides a wide range and real depth of learning in all domains of development: physical, emotional, social and intellectual. However, it is just as natural for young children to learn through spontaneous investigation (close observation, experimentation, and inquiry) as through spontaneous play. Many observers have noted that young children are natural scientists and anthropologists. They devote substantial portions of their seemingly endless energy to learning all aspects of the culture they are born into: they learn its language, stories, music, and literature; they investigate with all their senses and emerging skills what people mean, when things are appropriate and when they are not, where things come from, what they are for, how they are made, and how adults and peers respond to them. They try to make sense of common objects by prying into them, taking them apart, and manipulating them in a variety of ways. Appropriate curriculum and teaching methods include activities and encouragement for kindergartners in these quests and feature the importance of individual children’s feelings and emotions in group settings (Thompson, 2005). The project approach involves a sustained, in-depth exploration of events or objects in a child’s environment and is carried out in such a way that children are encouraged to raise questions and search for answers about a topic that holds their interests (Hatch, 2004).

2. Project Approach

Children have a strong disposition to explore and discover. The Project Approach builds on natural curiosity, enabling children to interact, question, connect, problem-solve, communicate, and reflect. This kind of authentic learning extends beyond the classroom to each child’s home, community, nation, and the world. It essentially makes learning the stuff of real life and children active participants in and shapers of their worlds (Katz and Chard, 2000).

Situated within a constructivist-based theoretical framework, the Project Approach rests on the following beliefs (Beneke, 2000):

- All children come to class with a quest to understand their experiences; all children want to learn.
- Classroom is life, and teachers and children should experience their time in class as real life rather than seeing these two as separate and unrelated spheres.
- Children construct their own knowledge but also need teachers to facilitate and guide this process.
- Children have diverse strengths, weaknesses, interests, and backgrounds, and capitalizing on these differences enables students to learn from each other and to grow as individuals.
- Children learn best when they have a positive self esteem and sense of purpose.
- Children learn through a mixture of first-hand observation, hands-on experience, systematic instruction, and personal reflection.
- Teaching and learning are interactive processes.
- Social and emotional skills are as important as academic skills and knowledge.
- Classrooms are flexible learning spaces that support and adapt to children needs.
3. Learning with Project Approach

The Project Approach fosters not only academic knowledge and skill sets but the whole child. The use of the word whole stems from research indicating that children need more than content mastery to succeed in the 21st century. They need to be physically, emotionally and socially healthy, they need to be intellectually challenged and supported by caring adults, and they need to be interested and engaged in their classroom learning. The Project Approach does that by (Chard, 1998):

- connecting children to their local and global communities, and providing them with real-world experiences beyond the classroom;
- fostering what researchers refer to as essential 21st century skills, including critical thinking, collaboration, and creativity;
- providing opportunities to integrate technologies into the classroom, and to use technologies as tools for achieving specific purposes instead of as ends in themselves;
- providing children with opportunities to apply the skills they acquire through systematic instruction;
- building on the individual needs, interests, and strengths of all children, and allowing children to work, where appropriate, at their own pace;
- giving children a sense of purpose and fostering self esteem;
- providing opportunities for service learning and enhancing a sense of social justice and responsibility;
- improving research skills by helping children not only to use print and electronic resources but also field work, surveys, interviews, consultations with experts, and firsthand observations and experiences -by their basic skills-;
- honing literacy and communication skills by enabling children to use a variety of media to share the process and product of their project work with authentic audiences;
- integrating content knowledge and skills from a variety of disciplines, so that children come to see and make cross-curricular connections;
- enhancing the multicultural literacy of children by giving them opportunities to learn about and collaborate with people from other cultures -if applicable-.

4. Procedure

4.1. Preliminary Planning Stage of the Project

In the light of recent research on project approach, in this study, researchers developed a project for a kindergarten class. The purpose of this study was to give an example of a well prepared project which can easily be applied to any kindergarten class and to represent how Project Approach can be integrated into Turkish Kindergarten Curriculum.

Before the study, a kindergarten class of 23 children located in urban Ankara, the capital of Turkey was chosen as the study group and a group of 3 pre-service teachers who are senior students of Ankara University as the implementers of the project. During the preliminary planning stage of the project, as it is commonly offered for Project Approach, the 2 researchers, the 3 pre-service teachers, the classroom teacher, the teacher aid and the children selected the project topic as “buildings”, which was one the topic of interests of the children in the study group. This topic was also chosen among the other topics since early childhood educators need to start working on a familiar topic to the young children (Bronfenbrenner, 1979), especially when we are trying a new approach to this group of children and we also needed to think of the availability of local resources (Chard, 1998) so this was a good choice. After choosing the topic, the 3 pre-service teachers brainstormed and represented their own experience with and knowledge and ideas about the topic in a content web. This web became the central part of the project process, with teachers, and children using it to record the progress of their work (Chard, 1998). This web changed several times during the project after learning more about the topic.

Projects, like good stories, need to have a beginning (first phase), middle (second phase), and end (last phase) (Chard, 2000). The two researchers developed a form called Step-By-Step Guide for Project Approach (SPSG-PA) which will be filled out regularly during each phase of the project, including the preliminary planning stage. This temporal structure helped teachers align the progression of activities with the development of children’s interests and personal involvement with the topic of the study. This structure also helped teachers integrate and meet the curricula benchmarks -a crucial part of the process-. 
In the first phase of the project, the research questions of the project were determined with each other by exploring and sharing ideas, experiences, and information about the topic. In the second phase, data was gathered through first-hand observations, interviews with experts, and other age-appropriate information gathering tasks. During this phase, children represented what they have found using different methods with their basic skills. In the last phase, questioning what has been discovered and preparations of the reports to share with other classes and families were developed using different methods.

4.1.1. Phase 1: Beginning the Project

During this phase, the two researchers, the three pre-service teachers, classroom teacher and teacher aid discussed the topic with children to find out about their related experiences and pre-existing knowledge of them. This process evolved five days, with teachers eliciting prior knowledge through the use of related stories and discussions. Children then represented their experiences and showed their understanding of the concepts involved in explaining them. They brainstormed and represented their own experiences, knowledge and ideas about the topic in another content web. This web was also became the central part of the project and changed several times during the process like the one which was prepared by the pre-service teachers. Teachers helped children develop questions to pursue during their investigation; they also sent a letter about the study home to parents, who were encouraged to speak with their children about the topic and to share any relevant personal experience of their own.

4.1.2. Phase 2: Developing the Project

During this phase, opportunities for children to conduct field work and to speak with experts were arranged. Teachers provided resources to help children with their investigations, such as authentic objects, books, magazines, newspapers, websites and other research materials. Teachers then suggested ways for children to carry out their own investigations.

The teachers and the children also visited museums, libraries and the Children’s Library at Ankara University College of Educational Sciences for further investigations.

Meanwhile, each child was involved in representing what he or she was learning in a variety of ways with their basic skills, such as 3D constructions, drawings, music and dramatic play. Throughout the process, teachers used group discussions and displayed to enable children to take note of the diverse range of work. The content web designed earlier provided a short hand means of documenting the many branches of the project.

The children conducted a corner, “Buildings Corner” at the beginning of the project and placed new items, such as pictures, magazines, architectural drawings to the corner as they learned more about the topic.

During this phase, the children decided to explore a nearby a construction of a building site. They went to the site, talked to the contractors, examined architectural drawings, and as a result, they were able to raise questions such as ‘Why does so much steel need to be in that building?’

When the children needed a space to work alone, they were using the “Thinking Corner” and investigated through books, magazines, newspapers and other research materials on their own.

In this phase, the activities had begun focusing on the hands on products of the children and designing a dream house of the children. Some children drew on a projected image of their dream house. Many children created models out of clay on their own, and with foam and other ‘junk’ materials in the art area in small groups. These models were painted, labeled, redesigned, and became story subjects: “Our Dream City”. The woodworking bench with tools and wood was available regularly. Sketches of the dream houses in the neighborhood were also made. The children conducted surveys and measured and graphed various types of information related to their dream houses.

The children helped illustrate a poem about their dream house of the whole group and made it into a book. They used tape and blocks to create a representation in the classroom of the actual size of the whole group’s dream house.

The carpenters and architects visited the classroom to show their tools, architectural drawings and materials, and the children dictated questions they wanted to ask the carpenters and the architects. While the carpenters and the architects were still in class, throughout the 3D building processes of the children with clay, the children asked questions to the carpenters and architects and tried to prepare stronger buildings with discussing ideas.

The teachers took pictures each day, documenting the various steps involved. At the circle times, each day, the teachers wrote a summary of what had been done the previous day. Parents were involved by reading daily updates and by receiving tours to the class to visit the products of their children.
4.1.3. Phase 3: Concluding the Project

Teachers arranged a culminating event through which children shared what they have learned with others who are the researchers, their parents, the administrator of the school, the other classes and the experts. Children spent five days preparing for the event and selecting appropriate materials and displays. Teachers helped children in this planning process, and, in doing so, involved them purposefully in reviewing and evaluating the whole project. Teachers also offered children imaginative ways of personalizing their new knowledge through art, stories, and drama. Finally, teachers used the children’s ideas and interests to make a meaningful transition between the concluding project and the topic of study in the next project which will be implemented by the classroom teacher and the teacher aid. The three pre-service teachers, who will be working with other children in another city of Turkey carried out ideas related with the recent project they conducted to their own project in the own classes.

For the children, the main culminating event was being able to actually show their products to their parents. The children decided to make a story telling about how their buildings were made. In creating the story, the teachers used children’s drawings, the photographs of the actual building process, and the narratives written by the children each day of the building processes. The kindergarten class hosted an open house to provide parents, administrators, teachers, other classes, other class teachers, researchers and the community an opportunity to view their products. This project provided the children with concrete knowledge about the building process, experience in conducting a focused investigation over an extended period of time, and opportunities to represent their learning in a variety of ways.

5. Conclusion

The researchers and the teachers who participated this project were amazed at how long the children remained interested in investigating this topic. The success of this project emphasizes the importance of choosing a topic that is related to the children’s interests, experiences and environment. The teachers began the project assuming the children would have prior knowledge related to the topic. Due to the difference in the teachers’ expectations and the actual stage of the children’s development, the teachers learned to focus their listening skills and their guidance of learning. By the end of the project, according to the researchers’ and teachers’ observations, the children’s knowledge of this topic had grown tremendously. The teacher, the teacher aid and the three pre-service teachers felt more comfortable in their understanding of the Project Approach and in their role as co-investigators with the children.

All of the participated parents mentioned that their children have been talking about “building” and learn more about them since the beginning of the project. With the help of Project Approach, comparing with other programs, active participation of children was achieved. They were highly interested in all the phases of the project. At the end of the project, the teachers and the parents learned that their children can do an in-depth study on a subject they like. They had a better recognition of their own children. This was a very interesting outcome of the study.

Feedbacks from the children, themselves, as well as from the pre-service teachers, the classroom teacher, the teacher aid, the researchers and the parents were taken by the researchers during each phase. As a part of the project, the researchers also collected the ideas of the pre-service teachers, the classroom teacher and the teacher aid about their recommendations for future projects which can be implemented in other kindergarten classes of themselves.

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