

## Proposal for a Hybrid Education Model to Ensure the Continuation of Education of Hospitalized Children

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### KEYWORDS

Hospital Education, Hybrid Education Model, Preschool, Preschool Teacher Candidates.

### ABSTRACT

The right to education is a fundamental human right that every individual is born with. However, some children are unable to fully benefit from their right to education due to health issues. The aim of providing hybrid educational services to preschool-aged children hospitalized is to protect their educational rights, ensure the continuity of their education, prevent boredom in the hospital environment, and support their development. In our research, literature review, document analysis, and data analysis were utilized. A comprehensive review of both domestic and international literature was conducted concerning the design, implementation, and evaluation of a hybrid education model for preschool-aged children hospitalized. The data obtained were used to identify the problems, objectives, and questions of the study. Content analysis was employed as the method for data analysis. The model we propose is a hybrid education model implemented to provide educational services to preschool-aged children hospitalized. It includes face-to-face and remote education components to protect the children's right to education, ensure continuity of their education, prevent boredom in the hospital environment, and support their development. It also provides professional experience for teacher candidates and strengthens the collaboration between the hospital and the school. The roles, duties, and responsibilities of stakeholders in the model have been defined. This study has concluded that it is an effective method for protecting the educational rights of hospitalized children, ensuring the continuity of their education, enhancing the quality of education, providing equal educational opportunities, preventing boredom in the hospital environment, and supporting their development.

### 1. Introduction:

Children may encounter various health problems and be hospitalized during their normal developmental process. Hospitalization is a challenging and stressful experience for children. During hospitalization, children stay away from school, friends and family, are deprived of their right to education, and their social and emotional development is negatively affected. Therefore, it is important to enable hospitalized children to participate in education and social life, to provide them with psychological and pedagogical support, and to make the hospital environment more child-friendly.

According to the United Nations Convention on the Rights of the Child, education should be developed in accordance with the capacity and human rights of every child and should be child-centered, child-friendly and child-empowering according to Article 29 [1]. In rights-based education approaches, three rights are mentioned: access to education, quality education and respect for the learning environment[2]. As a requirement of the Education for All (EFA) approach, it is very important to provide educational opportunities for students in hospitals. The importance of basic education for all was emphasized at the World Conference on Education for All held in Jomtien, Thailand in March 1990. Accordingly, basic learning needs contribute to areas such as developing the knowledge, skills and attitudes necessary for individuals to survive, improving their quality of life, contributing to the development of individuals and increasing their capacities [3].

The right to education and self-development as a fundamental human right has become an indispensable element in the information society of our age. It is seen that children's lack of access to adequate education is a major factor in the chronicization of general and most fundamental problems such as child poverty and child labor. Although the issue of children's inability to access the right to education has been widely examined from the perspective of refugee, poverty, gender and disability, it is seen that today the right of children with chronic diseases to access education is not sufficiently focused on. Chronic diseases, the effects of which start to be seen from childhood onwards, require

children to be hospitalized frequently and for a long time for treatment or to continue their treatment at home for a long time. This situation causes children with chronic diseases to need different academic, physical and psycho-social support than their peers. It is critical that children are not deprived of their right to education in this process or that practices that will lead to discrimination in the social sphere based on this reason are prevented [4].

Prolonged hospitalization for illnesses can cause trauma in children. The major stressors caused by hospitalization on children are separation from family, loss of control, physical injury and pain [5]. Pekyiğit, et al. determined the traumas of school-age children who experienced hospitalization as separation from family, school, friends and lessons [6].

In our country, the Ministry of National Education offers "Education Service in Hospital". In the guideline published by the General Directorate of Special Education and Guidance Services, the program is defined as "Education service provided in the hospital for students in need of special education who receive inpatient treatment in health institutions due to health problems." In addition, "Early Childhood Education, Education of Individuals with Multiple Disabilities, Education at Home or in the Hospital, Preparation for Group Education, Family Education" is described in Article 15 of the Special Education Services Regulation:

ARTICLE 15 - (1) Hospital classes are opened in hospitals with the proposal of the provincial or district special education services board and the approval of the Ministry of Health with the Governorate's approval [7].

However, the fact that hospital education services are provided with the written application of the parents of students in need of special education and the written opinion of the physician(s) responsible for the treatment of the student, the implementation of the education programs applied at the school where the students are enrolled, and the existence of a combined class of 10 students in pre-school, primary, secondary and high school disrupts the functioning and prevents its widespread use. Hospital teachers also experience some problems in the challenging process of hospital education.

The literature review reveals the existence of various studies on the problems faced by hospitalized students and the educational models applied. The study conducted by Bilir and Baykoç (1995) evaluated the benefits of education from the perspective of children receiving education in hospital schools [8]. Kılıç (2003) analyzed various variables in children who benefited from educational services provided in hospital schools [4]. Kamışlı, Yanpar Yelken, and Akay (2013) as well as Kamışlı (2014) determined teachers' opinions about the education model adopted in hospital schools [9]-[10]. Kılıç (2004) and Bozdoğan (2012) focused on the perceptions and attitudes of parents in the hospital education process [4]-[11]. Sezgin (2006) contributed to the literature in this field by examining the burnout levels of administrators and teachers [12]. Işıktekiner and Akbaba Altun (2011) tried to determine the problems experienced by hospital schools and the education model applied in a comprehensive manner [13]. Ünüvar (2011) and Gültekin, Boyraz, and Uyanık (2017) conducted research to determine the needs of children receiving education in hospitals [14]-[15].

In general terms, the problems faced by the teachers are the indifference of the family, school administration and the child to the educational practices in the hospital, teachers' reluctance, teachers' feeling psychologically uncomfortable, anxiety about disease transmission in the hospital, weakening of field knowledge over time, financial inadequacy, insufficient knowledge about educational practices in the hospital. Some of these issues can be considered as teachers' self-criticism [16]. Similarly, Tarcan (2007) reported that teachers working in hospitals had problems with other teachers, hospital management and staff, educational activities and parents [17]. Uçar (2010) stated that the problems of hospital students are generally related to school administrators, hospital staff, teachers, parents, the program implemented, the physical condition of the classroom, lack of school staff and the use of equipment [18]. As a solution, increasing the number of these classes and personnel, providing tools and equipment, and providing training for teachers to learn about students' diseases were suggested.

Teachers suggested increasing the number of hospital classes, changing the perception of these classes in the society, training teachers and hospital staff, having a child psychiatrist in these classes, increasing the number of teachers, and creating entertainment and hobby rooms [16]. They also mentioned that there are some situations that families should pay attention to. For example, in one study, families of hospitalized children stated that nurses did not act in cooperation and therefore had limited relationships. However, as a result of the positive interaction of families with nurses, nurses became more interested in child care and started to mediate between the child and the doctor [19]. Teaching environments are not suitable and teaching materials are inadequate. School administrators and teachers who will work in these classes lack training and experience [20].

Gayatri (2020) also conducted a study on the implementation of early childhood education during the COVID-19 pandemic and examined the effects of school closures and children's transition to online learning [21]. In her research, she explained the benefits of distance education in preschool and emphasized the cooperation of teachers and families. Kurupınar and Kanmaz (2023) also found that children mostly experienced psycho-motor, social-emotional and linguistic losses in distance education [22]. It was determined that children with learning loss are mostly those whose parents do not follow their development, those who have inadequate access to technological devices, foreign students and children with special needs. Figueroa-Céspedes and Guerra (2024) identified the problems faced by educators in the distance education process and emphasized the need for direct interaction and the lack of digital skills [23]. In this context, one hundred percent distance education implementation in preschool education encounters problems. Plotka and Guirguis (2023) investigated the experiences of families and educators regarding the implementation of distance education in early childhood education during the COVID-19 pandemic [24]. According to the study, the pandemic is changing the roles of parents and educators by shifting interactions from the immediate environment to the online environment. Young children learn best through social interactions, hands-on exploration and sensory activities, and therefore distance learning cannot fully meet the need. Tunca and Bay (2022) also investigated the views of preschool teachers on online education implemented during the COVID-19 pandemic period and showed that teachers mainly preferred game activities, demonstration and application methods and question-answer techniques in the online education process [25]. It emphasizes the importance of taking into account the special needs and developmental characteristics of preschool children in the planning and implementation of online education. Solekhah (2020) investigating the impact of preschool education in distance education in Indonesia: "The government provided support by publishing twelve books on home learning and providing internet data. Parents play an important role in distance education, including supervising, conducting and assisting teachers in assessment [26]. Teachers create weekly lesson plans, communicate the learning process and assess student progress. However, both teachers and parents face barriers such as lack of technology skills and difficulty in providing learning materials to support child development." Atış-Akyol, Turanoğlu, Parpucu (2023) emphasized the importance of technology integration in education, the need for teachers to be equipped to support children in the use of technology, and the importance of including technology in educational standards and curriculum in their research on digital technology in Turkey as a result of the rapid increase in studies on digital technology in preschool education in recent years [27]. Kuset et al. (2021) stated that distance education was introduced to ensure the continuity of education and training due to the COVID-19 outbreak, and that teachers, students, administrators and parents faced difficulties in adapting to distance education, but also found that the biggest contribution was to ensure that children are not disconnected from education [28]. Kim et al. (2023), in their study focusing on the experiences of Korean early childhood practitioners during the COVID-19 pandemic, emphasize that social distancing rules affect teachers' interaction with children, leading to increased emotional difficulties among students [29]. Omar and Al-Yami (2022) uncovered the challenges that preschool teachers face in positively interacting with children during distance education and found that the implementation of distance education alone in preschool education is not efficient [30]. Altın and Gündoğdu (2021) emphasized that preschool education was negatively affected during the pandemic

and that face-to-face education should be continued by taking necessary measures [31]. According to the research, the biggest challenge in distance education was the lack of technological tools, equipment and infrastructure. Yürek (2021) found that the teachers and academicians who participated in the study thought that there would be some limitations in the evaluation of preschool education implemented with the distance education model [32]. In preschool education implemented with the distance education model, the view that it is difficult to make an accurate evaluation because the teacher cannot share the physical environment with the student and the teacher has limited communication with the student comes to the fore. At this point, the participants mostly think that it is possible to evaluate the development of children with the support of families, who are an important stakeholder of education and whose importance in education has increased especially with the distance education process. As a result of the literature review and our observations, although the hospital education service implemented within the MoNE has yielded good results, albeit limited, its awareness has not developed and has not become widespread throughout the country. In addition, this education cannot be inclusive due to the fact that it is provided in a unified classroom, it is determined as at least 10 hours, it cannot make the student think that he/she is in a school environment, and the curriculum cannot be fully implemented [33].

This study attempts to provide educational services to hospitalized preschool children with a hybrid education model. The hybrid education model is a combination of both online and face-to-face education methods. This model is an effective method to ensure the continuity of education, improve the quality of education, ensure equal educational opportunities, prevent boredom in the hospital environment and support the development of hospitalized children. In addition, this model will contribute to pre-service preschool education teachers to gain professional experience, improve their professional competencies, and gain awareness of social responsibility. Considering that there is a limited number of studies in the literature on the use of hybrid methods for the education of hospitalized children, this study will fill an important gap in this field, pioneer new research and applications, and create a model for the education of hospitalized children. It is an original, creative and innovative study aimed at solving an important problem in both education and health.

The designed education model not only meets the educational needs of hospitalized children, but also has the potential to contribute to the training of pre-service preschool teachers. Pre-service teachers will have the opportunity to apply their theoretical knowledge and improve their professional competencies, learn how to communicate with hospitalized children, recognize their characteristics, needs, interests and skills, prepare and implement appropriate activity plans, use online and face-to-face education methods, learn classroom management and evaluation techniques. Pre-service teachers will also experience collaborating with hospital and school administrations, abiding by professional ethical rules, developing reflective thinking and self-evaluation skills, and continuing their professional development. It is thought that this model design will contribute to the development of pre-service teachers and contribute to their training as qualified and creative teachers with a high sense of social responsibility.

## **2. Materials And Methods**

Literature review is a method that collects data by examining previous studies, theories, models and findings related to the research topic [34]. In this study, domestic and international literature on the design, implementation and evaluation of a hybrid education model for hospitalized preschool children was reviewed. The data obtained were used to determine the problems, aims and questions of the research. Content analysis was used as the data analysis method. Content analysis is the process of coding, classifying and interpreting qualitative data in a systematic way to reveal its meaning [34]. In the data analysis process, firstly, the data obtained as a result of literature review and document analysis were read and the integrity of meaning was ensured. Our study was planned as a design-based research involving the design and development of a hybrid education program. The design-based research method is carried out in a systematic and flexible structure based on improving educational

practices in a dynamic process of analysis, design, development and implementation in collaboration with participants [35]-[36]. This project, which is based on design-based research, consists of "Design and Development" steps.

### **3. Findings**

The problem revealed by the research is that hospitalized preschool children are deprived of their right to education, their educational continuity is disrupted, they are bored with the hospital environment and their development is negatively affected. This problem appears as an important problem in both education and health. The proposed solution is to provide hybrid education services to hospitalized preschool children in order to protect their right to education, ensure continuity of education, prevent them from being bored in the hospital environment and support their development. This solution proposal will benefit both hospitalized children and preschool education teacher candidates.

In this model, different stakeholders have different roles and responsibilities. Stakeholders cooperate to ensure effectiveness, efficiency and quality in the implementation of the model. There is a hierarchy of responsibility among stakeholders. According to this hierarchy, National Education is at the top, students are at the bottom and supporters are at the variable level. The university, hospital and pre-service teachers are in the middle level. The hybrid education model offers a multi-layered and systematic structure that requires the cooperation of different stakeholders. The success of the model depends on each stakeholder fulfilling their roles and responsibilities effectively. It requires a multifaceted collaboration in which stakeholders contribute with specific roles and responsibilities. The roles, responsibilities and hierarchical structure of stakeholders are described in detail below:

- 1. Ministry of National Education (Ultimate Authority and Responsibility):** The Ministry of National Education is the highest authority in terms of implementing and setting standards for the hybrid education model. The Ministry has key responsibilities such as carrying out the authorization processes, making the necessary protocols and agreements, defining the quality standards of the model, setting evaluation criteria, and monitoring and reporting the overall effectiveness. It also takes strategic decisions for the development and sustainability of the model.
- 2. Universities (Top Hierarchy):** Universities provide the infrastructure, hardware and human resources that support the viability of the model. They also manage the integration of the hybrid education model into the academic environment. Their main responsibilities include coordinating with the university administration, faculty, students and other stakeholders and facilitating the functioning of the model.
- 3. Hospitals (Top Hierarchy):** Hospitals provide a specific context in which the hybrid education model is implemented. In this context, the provision of physical and technical infrastructure, meeting staffing needs and effective implementation of the model in the hospital environment are among the main tasks of hospitals. The hospital management is responsible for organizing relationships with patients and their relatives for the hybrid education process.
- 4. Student Teachers (Intermediate Practitioners):** As the direct implementers of the hybrid education model, pre-service teachers are responsible for meeting the pedagogical and social needs of children. In this context, pre-service teachers carry out both online and face-to-face training activities. Monitoring, evaluating and reporting children's learning processes are the basis of their duties. In addition, they enrich the process with activities such as games, entertainment and social interaction with children.
- 5. Parents (Lower Hierarchy):** Parents are defined as a group that supports the hybrid education model. Their main responsibilities include allowing their children to participate in the model, being involved in the process and providing feedback. Parents are a stakeholder group that contributes to the applicability of the model while benefiting from the process at the same time.
- 6. Students (Lowest Level Beneficiaries):** Students, the main target group of the hybrid education

model, are the individuals who directly benefit from this system. Their main roles are to participate in the process, adapt and achieve learning outcomes. They can also contribute to the development of the model by providing feedback.

**7. Supporters (Variable Hierarchy):** Supporters are a group of stakeholders who contribute financially, technically and morally to the hybrid education model. They contribute to the model in different ways such as volunteering, expertise support and promotion. Hierarchically, they can be located at different levels according to the type of support they offer.

The hybrid education model is a model developed to ensure that hospitalized children are not deprived of their right to education. Three different components such as online education, face-to-face education and out-of-class interaction are used to contribute to both academic and social development of children. These components are planned flexibly and harmoniously according to children's learning styles, needs, interests, disease status and leave periods.

The hybrid education model consists of three main components: online education, face-to-face education and out-of-class interaction. These components include different content, duration, frequency, timing, methods, materials and assessment elements to support learning in both online and physical environments.

Online education consists of interactive course materials, live broadcasts, online interactive tools and other digital resources. It has a flexible program lasting 2-3 hours a day, on average 3 days a week. This program is planned according to students' learning pace and needs. Access to learning resources, management of the learning process and personalization of the learning experience are the main methods of this component.

The materials used in online education include tablets, smartphones, computers, cameras, microphones, speakers, headphones, virtual learning platforms, learning management systems and creative learning materials. Evaluation processes are carried out with assessment and evaluation tools. In this process, teacher candidates, children, families, volunteers, academics, experts, consultants, sponsors, donors and media are active participants.

Face-to-face training is an activity-oriented component to reinforce, apply and deepen the knowledge learned. It has a fixed schedule of 2-3 hours a day, 2 days a week on average. This schedule is adjusted according to students' sickness and leave periods. Methods include activity management, interaction management and feedback management.

The materials used in this component are traditional educational tools such as classroom, table, chair, board, pencil, paper, books, toys, games, music and theater. Evaluation processes are done through qualitative methods such as observation, interviews, questionnaires and portfolios. Participants include student teachers, children, parents, volunteers and hospital staff.

Out-of-class interaction is supported by digital tools to ensure sustainability of in-class learning experiences and provide new opportunities for interaction outside the classroom. It has a flexible program that lasts 1-2 hours a day, 2-3 days a week on average. This program is planned according to students' free time and interests. Methods such as interacting, sharing, learning, playing games and having fun are the focal points of this component.

The materials used include games, apps and digital tools. Self-assessment, peer assessment and teacher assessment methods are used in the evaluation processes. Participants of this component include prospective teachers, children, families, volunteers, academics, experts, consultants, sponsors, donors and media representatives.

The hybrid education model offers a diversified and flexible structure to meet different learning needs. These components enrich the learning process and improve the quality of education and training practices through a student-centered approach. Effective implementation of the model is possible

through the complementary integration of the components.

The expected social and individual benefits of the study can be listed as follows:

**Student:** It will provide a great benefit to hospitalized preschool children by protecting their right to education, ensuring their continuity of education, preventing them from getting bored in the hospital environment and supporting their development. It will increase the retention of what is learned by making learning fun with creative educational materials and activities suitable for children's interests and skills. It will improve children's social skills by enabling them to communicate, collaborate, share, share, evaluate, report, and present with prospective teachers, families, volunteers, academics, experts, consultants, sponsors, donors, and the media using online and face-to-face education methods. It will enable them to achieve equal educational opportunities, improve the quality of education, facilitate their adaptation to the educational process, and increase their motivation for education.

**Hospital:** By providing educational services to pre-school children hospitalized in the hospital, it will contribute to the hospital's social responsibility awareness, provide a useful service to the society, and increase the hospital's image and prestige.

**Education:** By providing education services to hospitalized pre-school children with a hybrid education model, it fills an important gap in this field, pioneers new research and practices, and creates a model for the education of hospitalized children. It develops educational curricula, methods, materials, evaluation techniques, learning management systems, reporting and presentation methods, and raises the quality and standards of education.

**Community:** It will strengthen the relationship and communication between institutions and individuals in the field of education and health, and increase the resources and opportunities in the field of education and health in the community.

**Teacher Candidate Pre-service preschool teachers** will gain professional experience, improve their professional competencies, and gain a sense of social responsibility. It will enable prospective teachers to communicate with hospitalized preschool children, recognize their characteristics, needs, interests and skills, prepare and implement appropriate activity plans, use online and face-to-face education methods, learn classroom management and evaluation techniques, collect and analyze data, report and present, and use learning management systems. It will contribute to both the professional and personal development of prospective teachers and train them as qualified and creative teachers with a high sense of social responsibility.

The benefits of this model for the state and the education system are as follows:

State the hybrid education model will contribute to the development, improvement, activation, efficiency, quality and sustainability of the state's activities such as policies, strategies, plans, programs, projects, services, investments, budgets, resources, personnel, infrastructure, standards, audits, evaluations and reporting in the fields of education and health. The hybrid education model will help the state solve problems in the fields of education and health, meet needs and expectations, provide opportunities and possibilities, provide services and benefits, observe rights and justice, and fulfill its legal and ethical responsibilities. The hybrid education model enables the state to strengthen its relations such as cooperation, coordination, communication, sharing, support, promotion, feedback between institutions and individuals in the fields of education and health, to cooperate with new institutions and individuals, to access new resources and opportunities, to pioneer new research and practices, and to create new models and examples.

**Education system** The hybrid education model contributes to the development, improvement, activation, efficiency, quality and sustainability of the education system's knowledge, skills, attitudes, values, principles, goals, objectives, benefits, processes, results, impacts, indicators, criteria, standards, quality, evaluation, reporting and presentation in the fields of education and health. The hybrid education model helps the education system to solve problems in the fields of education and health,

meet needs and expectations, provide opportunities and possibilities, provide services and benefits, observe rights and justice, and fulfill its legal and ethical responsibilities. The hybrid education model enables the education system to strengthen its relationships such as cooperation, coordination, communication, sharing, support, promotion and feedback between institutions and individuals in the fields of education and health, to cooperate with new institutions and individuals, to access new resources and opportunities, to pioneer new research and practices, and to create new models and examples.

#### 4. Discussion And Conclusion

The model we propose is a hybrid education model to provide educational services to hospitalized preschool children. It includes face-to-face and distance education components to protect children's educational rights, ensure their continuity of education, prevent them from getting bored in the hospital environment and support their development. It also provides pre-service teachers with professional experience and strengthens the cooperation between hospital and school.

In this study, a model was designed to provide educational services to hospitalized preschool children with a hybrid education model. The hybrid education model consists of three main components: online education, face-to-face education and out-of-class interaction. The content, duration, frequency, timing, method, material, assessment and participants of these components are defined. In addition, the relationships and transitions between these components are shown. The stakeholders involved in the designed model are National Education, Hospital, Prospective Teachers, Parents, Students and Supporters. The roles and hierarchies of these stakeholders were identified. The scope, process, effectiveness and benefits of the model were reported through a writing process consisting of preparation, writing and revision phases, using visual tools such as a working diagram and tables.

It was concluded that this study is an effective method to protect the right to education of hospitalized children, to ensure their continuity of education, to improve the quality of education, to ensure equality of opportunity in education, to prevent them from being bored in the hospital environment and to support their development. This method will enrich the learning experiences of both children and pre-service teachers and provide them with new skills, knowledge, attitudes and values. In addition, this method provided the opportunity for collaboration, communication, sharing, evaluation, reporting and presentation between different stakeholders such as National Education, Hospital, Parents and Supporters. It is recommended that this method be further researched, developed and disseminated both theoretically and practically.

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