OPINIONS OF SPECIAL EDUCATION TEACHERS ABOUT ACTIVITY-BASED INTERVENTION

ÖZEL EĞİTİM ÖĞRETMENLERİNİN ETKİNLİK TEMELİ ÖĞRETİME İLİŞKİN GÖRÜŞLERİ

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ABSTRACT: This study aims to determine whether or not teachers working with children with developmental disabilities use daily routines, transitions and, planned play activities that are among the basic elements of Activity-Based Intervention (ABI) into instruction. The study also investigates how the teachers implement instructional procedures in order to teach target skills and concepts to their students if they use these activities into instruction. Semi-structured interviews were conducted with participants, and data were analyzed via inductive analysis technique in the study. At the end of analyses, three main themes and sub-themes were identified. Findings of the study showed that teachers have limitations in using ABI strategies systematically in their classes. In spite of these limitations they deliver positive opinions regarding ABI applications. Offering ABI strategies as an alternative instruction to teachers working with students with developmental disabilities and improving their competence to conduct these strategies may contribute both to increase in successful practices and occur a positive atmosphere in the classroom settings.

Key words: Developmental disabilities, early intervention, activity-based intervention, teacher opinions, and special education teachers


Anahtar sözcükler: Gelişimsel yetersizlik, erken eğitim, etkinlik temelli öğretim, öğretmen görüşleri, özel eğitim öğretmenleri

1. INTRODUCTION

Children with developmental disabilities need to receive systematic instruction in order to learn basic skills and adapt to community life. Using effective teaching methods based on Applied Behavior Analysis such as errorless teaching and direct instruction are suggested for teaching various skills to children with developmental disabilities (Alberto & Troutman, 2009; Kerr & Nelon, 1998). In recent years, naturalistic teaching approach has emerged as an instructional strategy that has become alternative to didactic instruction for generalization issue on teaching various skills to children with developmental disabilities (Daugherty et. al., 2001; Kurt & Tekin-İftar, 2008; Wolery, Anthony, Caldwell, Snyder & Morgante, 2002). In naturalistic teaching procedures, target skills are determined based on the child’s interests, and taught by embedding into natural activities as they are displayed in daily life routines (Bricker, Pretti-Frontczak, & McComas, 1998; McBride & Schwartz, 2003). One of the naturalistic instruction procedures is Activity-Based Intervention (ABI). ABI allows multiple
applications in educational environments and teaches target skills via activities in the daily routine without arranging an extra teaching session (Pretti-Frontczak & Bricker, 2004).

In the literature ABI has different terms such as ABI and embedded instruction. In spite of these differences in terms, there is no difference between their applications technically. The authors preferred to use the term of ABI in full text of this study. There are four main elements of ABI. Pretti-Frontczak and Bricker (2004) listed these elements as follows:

1. Choosing activities according to the child’s interests
2. Teaching individual goals embedded in routines and planned activities
3. Teaching functional and generalizable skills
4. Using before and after behavior stimuli which have natural and meaningful relations with behaviors and environment

One of the main components of ABI is daily routines and planned play activities. The order that is followed for daily life activities is called a routine. Daily routines include many activities conducted in a day such as waking up, going to restroom, washing hands and face, breakfast, dressing up, attending school or park, dinner, playing games, chatting, taking baths, getting ready for sleeping. Furthermore, school routines involve going to school, attendance, transitions, breakfast, break, and leaving to school. Instructional goals determined for children can be embedded into daily routines as well as play based activities. Planned play activities provide instructional opportunities to children to acquire, maintain and generalize many different skills such as choice making within context and initiations to communicate with others. These activities are natural reinforcers because the children have fun when playing a game. Planned play activities likely to be used in different environments enable children to be socialized, learn different skills and concepts. Furthermore, it is important to provide children with a way to develop skills in their leisure time (Barton & Wolery, 2008; Buysse, Wesley, Keyes & Bailey, 1996; Lieber, 1993; Morrisson, Sainato, Benchaablan, & Endo, 2002).

In the literature there are several research findings indicating that daily routines and planned play activities are used effectively in teaching children with developmental disabilities in various ages and disability categories (Johnson & McDonnell, 2004; Kurt & Tekin-İftar, 2008; McDonnell, Johnson, Polychronis, Risen, Jameson, & Kercher, 2006). When examining these studies related to ABI, two groups of study attract attention. The first group comprises of research showing the effectiveness of ABI in teaching various skills in the pre-school period and inclusion settings. Examining the reports of the studies, it is seen that children with developmental disabilities in the pre-school period were taught various skills by using ABI such as communication (Warren, 1992; Warren & Gazdag, 1990), play and academic skills (Fox & Hanline, 1993; Malskog & McDonnell, 1999), imitating peers (Garfinkle & Schwartz, 2002; Venn, Wolery, Werts, Morris, Decesare, & Cuffs, 1993), social interaction (Macy & Bricker, 2007), self-care (Sewell, Collins, Hemmeter, & Schuster, 1998), leisure time (Kurt & Tekin-İftar, 2008), and transition skills (Bakkaloglu, 2008). Furthermore in the studies ABI was conducted in inclusion settings children with developmental disabilities were taught various skills such as counting (Daughtery, Grisham-Brown, & Hemmeter, 2001), reading words (Wolery, Anthony, Caldwell, Synder, & Margante, 2002), appealing for help, reading words and indicating the greater number (Johnson & McDonnell, 2004), answering science questions, reading words and making a request (Johnson, McDonnell, Holzwarth, & Hunter, 2004), and giving definitions for the words (McDonnell et. al., 2006). The second group includes the research showing the opinions of teachers participating in the study that experimentally determines the effectiveness of ABI and how to use ABI (Horn, Lieber, Sandall, & Schwartz, 2000; Pretti-Frontczak & Bricker, 2001; McBride & Schwartz, 2003).
There are limited number of second group studies showing the opinions of teachers regarding the effectiveness and applications of ABI. Horn and colleagues (2000) evaluated teachers’ planning, application and assessment of the embedded instruction strategy included in ABI, the impact of the application on students’ learning, and teachers’ perception of these strategies. The multiple case study was conducted in inclusion settings in three early education programs with different scopes in three cities. Four children with developmental disabilities and their classroom teachers participated in the study. Prior to the study, teachers were informed about embedded instruction strategy, and examples relating to its application were presented. At the end of the study, an increase was observed in using instructional strategies by all the teachers in accordance with the targeted goals. Clear increases also appeared in performance levels of children. Teachers mentioned that these strategies should be developed, and made suggestions for preparing a concrete format related to the application and for making this format attractive in order to place in individualized children’s education programs.

McBride and Schwartz (2003) investigated the effectiveness of offering teaching opportunities in ABI and of training teachers in ABI in discrete trails. Multiple probe design was used to survey three teachers and three children with developmental disabilities. Two instructional goals were set for each child’s individualized education program by taking the opinions of teachers, and the goals were embedded into playtime of the class. The teachers’ training package consisted of presenting a written document, practicing, counseling and individual feedback presented in the class. The training package in this study came to be effective in increasing the rate of educational opportunities available to the target children in the context of classroom play. Findings of this study showed the necessity of including ABI as part of all teacher training programs.

Johnson and colleagues (2004) examined the effectiveness of constant time delay on three students with developmental disabilities in inclusion settings as part of ABI in the science curriculum. In this study, skills for answering science questions, reading word sets containing different words and making a request by means of an electronic communication tool were taught. Multiple baseline design was used in the study. Two general education teachers and an assistant teacher participated. Research findings indicated that embedded instruction strategy was effective for all three students. In addition, results of study revealed that general education teachers and assistant teachers could conduct this application with high reliability without decaying concurrent teaching activities in their classrooms. Furthermore results showed that teachers consider embedded instruction as a practical, efficient and productive strategy, and it allows multiple application opportunities via different routines during the day.

The studies mentioned above are aimed to experimentally determine the effectiveness of ABI and teachers’ opinions regarding the study. There is only one study related to how teachers use ABI. Pretti-Frontczak and Bricker (2001) investigated the usage of embedded instruction strategy, which is included in the ABI approach, by seven special education and seven pre-school teachers working at the pre-school level. Researchers assessed embedded instruction strategies they use during the activities by means of various measurement tools. Research findings indicated that seven teachers employ limited use of embedded instruction strategy. Teachers mentioned that they embed targeted goals in the children’s activities by asking questions and providing verbal models. They use the embedding operation mostly in pre-academic skills and language activities while conducting one-to-one practices with children.

As a result of all these studies examining ABI, it is seen that there is still a need for more study of ABI. In addition, ABI applications are included in “recommended practices” in early intervention programs in the United States of America and Canada (NAC, 2009) on the other hand ABI is not included as a course in programs training special education teachers in Turkey. However, some other teacher training courses make reference to the concept of that target skills are embedded in daily routines and planned play activities. For that reason, determining the opinions of teachers working with children with developmental disabilities regarding use of daily routines and planned play activities will constitute a basis for experimental studies to be planned based on plays and routines.
What is more, teacher opinions are one of the most important elements effective in developing, shaping and ensuring the applicability of a particular teaching strategy. In other words, it is of great importance to determine how teachers perceive, define and consider a particular strategy in order for the strategy to be applied successfully (Horn, Lieber, Sandall & Schwartz, 2000). To this end, the present study aims to determine whether or not special education teachers working with children with developmental disabilities use daily routines and planned play activities into instruction as ABI elements, and how they teach target skills and concepts to their students when these activities were embedded.

2. METHOD

2.1. Participants

The present study was conducted on 10 special education teacher volunteers who worked in two different educational institutions rendering service to students with developmental disabilities in a city center in central Anatolia during the academic year 2008-2009. Eight of these special education teachers are women while two of them are men. Six of the teachers work in a state school while four of them work in a special education institution. All of the interviewed teachers hold specialized university degrees in special education. Their experience levels vary between 1 year and 19 years. These teachers did not take any course relating to ABI in their undergraduate studies and did not take part in any ABI in-service training.

2.2. Development of Data Collection Instrument

Data of the research were collected via semi-structured interviews. Interview questions were prepared in order to determine what are the daily routines of special education teachers, whether or not they embed the instructional goals into daily routines and play activities, how they teach skills and concepts when they embed them. While preparing interview questions, studies regarding basic elements of ABI, how these elements are used in the instructional settings and teacher opinions about ABI use were examined. Specific interviewer instructions were developed in order to ensure reliable application of interviews. In addition, a demographic information form was prepared in order to obtain personal information relating to the teachers.

Prepared interview questions were sent to five experts specialized in the field, and their advice was taken. In accordance with expert opinions, the order of the questions was changed, new questions were added, adaptations were made in some questions and they were finalized. A pilot interview was conducted with a special education teacher so as to test the questions. No change was made in interview questions at the end of the pilot interview. There are a couple of questions asked to teachers in the interview below. The interview’s introduction question was, “How do you spend a day in the school? Can you give examples?” In addition, questions like “What kind of play activities do you embed during a day? What do you take into consideration while planning the games? What do you think regarding how play activities contribute to the development of children?” were addressed to the teachers.

2.3. Data Collection

Data were collected in June and July 2008. Interviews were made in days, hours and places determined by the special education teachers. The second and fourth authors conducted all of the interviews. Prior to each interview, participants read and signed the contract expressing the rights of the participants prepared by the researchers beforehand.

In the present study, all of the interviews were voice-recorded, and each interview lasted for 24-54 minutes. The total interview duration lasted for 373.15 minutes; the data are transcribed on 122 pages of text. Each teacher participant received a code name.
2.4. Data Analysis

Data obtained from the research were analyzed via inductive analysis technique (Creswell, 2005). Inductive analysis is made in order to enable complex data to be understood via special themes or categories developed from raw data (Thomas, 2003). Steps followed during the analysis are as follows:

1. Verbatim of each interview conducted with the participants was made.
2. All of the researchers shared the conducted interviews, controlled the accuracy of documents, and divided related discourses into paragraphs.
3. First and second researchers controlled the paragraphs divided according to the related discourses.
4. All of the researchers shared the conducted interviews, and combined the answers given by participants to each question one by one in different files.
5. First and third participants and second and fourth participants encoded data by working in groups independently from one another.
6. Two groups agreed on all the encoded data by working together.
7. Two groups constituted themes and sub-themes independently from one another.
8. Two groups agreed on themes and sub-themes they constituted by working together.
9. Data on which groups agreed were arranged, and themes and sub-themes were written. At the end of these stages, data analysis was completed, and research findings were revealed.

3. FINDINGS AND DISCUSSION

This section contains three main themes that were obtained from information special education teachers gave within the framework of research questions and presents discussion of possible reasons for the main findings and their relationships with the literature. Three main themes determined by data analysis are as follows:

A. Routine activities made during the day
B. Teaching
C. Play

A. Routine activities made during the day

Routine activities made during the day vary according to the institutions where teachers work. Teacher discourses about ABI applications in the routines are examined below. For instance, most of the teachers (8) stated that they use the lessons such as “life sciences, mathematics, reading and writing, painting, physical training, social adaptive skills, language and speech development and nutritional education” included in the daily programs as routine activities. They embed instructional goals such as “teaching different concepts and skills” in daily routines. The same teachers mentioned that they begin the day with warm-up activities such as “counting the days, talking about the weather, calling the roll, chatting with the children about what they did in the house, talking about practices to be done during the day.” Four of these teachers stated that they make “gross motor activities” routinely “just after the beginning activity.” Two teachers did not make mention of any daily routine morning activity. Just 3 of the teachers mentioned that they embed the goals into various routine “play activities” during the day. Apart from these data, there are also a couple of teachers constituting different routines though they are very few in number. For instance, a teacher working in a private institution stated that he/she conducts the activities in the order of “table-time activity” while constituting the daily routines. Another teacher mentioned that he/she begins the class with “finger games”, and after making the activity, he/she sings “songs between the activities” as transition. It is a
known practice that teachers’ use of songs and desk-ground activity order in transitions between the activities is effective in prevention of children’s likely problem behaviors (Alberto & Troutman, 2009).

In addition, teachers stated that they teach different concepts and skills in the courses they use in the routine daily program. Most of the teachers (8) mentioned that they embed the goals for teaching concepts such as color, number, shape, location, seasons, clothes, professions, vehicles, animals, fruits-vegetables, single stage and chain behaviors in the fields such as social skills, gross-fine motor, self-care, communication and daily life skills.

In Turkey, activities in educational institutions providing service for children with developmental disabilities are presented in the form of different lessons, as in primary schools, rather than in the form of routines, as in pre-school institutions. Teachers plan and apply contents of these lessons by following a program prepared by the Ministry of National Education in accordance with the particular school type and taking into consideration particular periods. Accordingly, teachers cover the concepts and skills of their daily programs in the classes existing in the program rather than as daily routines. Research findings indicate that special education teachers have daily routines, but they rarely use plays as a routine activity.

B. Teaching

More than half of the teachers (7) mentioned that they use “errorless teaching methods, direct instruction” based on ABA and sometimes for “both of them together” while teaching concepts to their students. While teachers Jale, Pervin and Osman stated that they “mostly prefer simultaneous prompting or constant time delay teaching”, teachers Canan and Kezban mentioned that they use both these methods and “direct instruction”. Most of the teachers (8) stated that they use “games, songs and art activities” after teaching concepts to reinforce what they taught. Some of the teachers (3) said they embed “pretend plays in teaching concepts. Just one of the teachers mentioned that he/she uses “stories, activity cards and technology” to support learning.

Teachers stated that while teaching skills to their students, in addition to methods based on ABA (4), they conduct teaching by creating “simulation environments (2)” which are similar to the real environment in the class or “in the social environments out of the school (2)”. A small number of teachers saying that they use simulation environments also mention that they use “role plays” in these environments. However, though teachers state that they use role play, it appears from their expressions that they do not make any systematic plan based on play activities. One of the teachers who uses social environments outside school mentioned that he/she “gets his/her students to go to the bazaar and do shopping” in order to “introduce fruits-vegetables” of the season while covering the seasons; and they “collect dry leaves” from the garden while covering seasonal changes.

Examining the findings, it is seen that teachers generally use systematic teaching methods based on ABA while teaching concepts and skills; and they use daily routines and plays as supplementary activities rather than using them for instructional goals. The most important limitation of methods based on ABA is that additional sessions are needed for generalization. Since daily routines and play activities are used for educational purposes in ABI, practiced skills can be generalized more easily without arranging any additional teaching session (Grisham-Brown, Pretti-Frontczak, Hemmeter, & Riddley, 2002). When teachers are equipped with skills for creating natural needs related to target skill in the routine activities, their students will be able to generalize target skills when they encounter different routines and different applicators. Enabling teachers to acquire these skills may also help eliminate this limitation of systematic teaching methods based on ABA.

Teachers participating in the study are limited in teaching by embedding methods based on ABA in daily routines and plays. In the literature, there are many studies indicating the effectiveness of ABI together with different methods based on ABA (Johnson & McDonnell, 2004; Kurt & Tekin-
Iftar, 2008; McDonnell et. al., 2006). There is a continuing need for this kind of study. Furthermore, a concrete format pertaining to the application should be developed, inclusion of this format in individualized education programs should be made attractive, and systematic strategies should be developed for ABI to be easier and more applicable for teachers (Horn et. al. 2000). It can be said that if this is achieved more teachers may prefer to implement ABI.

One of the reasons for teachers’ non-use of ABI for instructional goals may be the fact that they did not formally study ABI as a course in their undergraduate studies. Looking at the course contents of programs training teachers in the field of special education in Turkey, it is seen that systematic teaching based on ABA constitutes the main frame of these programs. Likewise in the program from which teachers participating in this study graduated, there is just one course that presents the use of routines and plays as alternative pedagogical methodology. This course has been lectured with ABI content since 2006. Though some university courses consider the use of systematic teaching methods based on ABA embedded in games, the use of these methods is also limited. Even though special education teachers know the importance of routines and plays in child development, they have greater preferred the use of systematic teaching methods based on ABA. The main frame of programs training teachers in Turkey is made up of methods based on ABA, but studies can be conducted into ABI together with methods based on ABA. Examples relating to this can be added to the course contents.

C. Play

C.1. Plays

Most of the teachers (8) mentioned that “they sing songs and play finger games and rule play with their students” and some of them (3) stated they play “investigative and manipulative plays” with their students while very few of them (2) mentioned that they play “imaginative play” with their students. It can be said that teachers mostly prefer plays with particular rules and stages because of the features of the group with whom they work.

It is seen that more than half of special education teachers use the most common play types, but they do not use investigative and manipulative, imaginative, construction, natural materials, and outside plays. However, these kinds of plays provide educational opportunities for a child to acquire, maintain, and generalize skills supporting different developmental areas relating to the context (Barton & Wolery, 2008; Wolery, 1994). At this point, in order to ensure maintenance and generalization of new skills learned in the special education classroom, it is very important to enable teachers to acquire skills for planning and applying different types of plays while they are training in undergraduate programs.

C.2. Planning the plays

While half of the teachers (5) said that they take into consideration “wishes and games they are interested in” while planning the games, some of them (3) mentioned they plan the games and songs “according to the annual plan” or carefully take into consideration student “performance levels” in play activities. Discourses of teachers about the points they pay attention to in planning are as follows. For instance, teacher Pervin stated “she determines the games students have interest in” and “chooses whatever kinds of games children like.” Teacher Canan expressed that she “pays attention to” the fact that games should be “related to units” in the annual plans. Teacher Fatma mentioned that she “pays attention to fine and gross motor skills” of the students while planning the play activities.

One of the main components of ABI is embedding the goals into the activities initiated by a child. More than half of the teachers stated that when planning play activities they embed plays the children like. Considering this finding, it can be said that teachers take account of this component of ABI.
C.3. Use of plays in teaching

C.3.a. Supporting academic courses with play activities
Most of the teachers (8) mentioned that they “support” teaching “with play activities.” Teacher Osman expressed the impact of play activities on students with the words “They think they are playing games, but they also learn the concept very well in the meantime.” In addition, teacher Pervin expressed that she also conducts teaching while playing games. “I can study colors while overturning the pins; I can study numbers while kicking a goal.”

C.3.b. Playing games as a transition activity
Some of the teachers (4) mentioned that they play games with their students as a transition activity. While teacher Gaye stated that she embed games “as transition activity .... between teaching and evaluation”, teacher Haluk mentioned that dividing “structured teaching” practices into short periods and “putting play activities between them” rather than conducting them in “long periods” is important in terms of “controlling the students better” and “directing their attention”.

C.3.c. Use of plays as reinforcers
Some of the teachers (3) mentioned that they use plays as reinforcers. Pervin mentioned that she plays “doctor game as reinforcer” with her students after “drawing practice” and her students “like it very much”. Gaye mentioned that she allocates space for activities such as “singing a song by oneself, singing a song in groups and musical games” in “music and physical training” lessons. The lesson becomes “more colorful” when different games are played.

C.3.d. Plays’ supporting maintenance and generalization
A couple of the teachers stated that play activities support maintenance and generalization. Teacher Kezban stated that she conducts “desk” teaching in acquisition and fluency stages of the concept and arranges “play activities” for the maintenance. Teacher Haluk said he uses play activities “in order to generalize taught skills and concepts” and mentioned these activities as “song, game and drama.” Even though maintenance and generalization are the most important stages in working with children with developmental disabilities, it is striking that very few teachers stated that they opt for maintenance and generalization.

As it is seen also in this finding, special education teachers state that they use plays to support teaching rather than use plays as a teaching strategy they use games to support teaching rather than for instructional goals. In recent years, naturalistic instruction procedures have been among the suggested applications in the literature relating to special education in developed countries. Accordingly, it is increasingly important to conduct studies that show Turkish special education teachers that the use of plays for instructional goals is an alternative, and to habilitate teachers in this area. Similarly, the literature suggests focusing on studies that examine the impacts of different teaching variables such as offering trials based on plays, using systematic hints in teaching, systematic use of reinforcers and reinforcing schedules (McBride & Schwartz, 2003).

C.4. Acquisitions from playing

C.4.a. Having fun during play activities
More than half of the teachers (7) mentioned that children have fun during play activities. Teachers mentioned that children “have a very nice time, become happier compared to the other activities, and they make activities fondly” during the games activities. Haluk mentioned play activities as “absolute must activities” and stated the importance of the play.

C.4.b. Supporting social development
Half of the teachers (5) mentioned that play activities support social development. Teachers mentioned social skills students acquired through games: “establishing communication with peers and teachers, establishing communication or raising hand to ask for something, lining up, increasing
sharing, and, establishing better relations with one another, beginning a game by oneself”. Fatma stated that students “gain self-confidence” via play activities.

**C.4.c. Supporting communication skills**

Some of the teachers (4) stated that play activities support communication skills. Jale mentioned that students “start to use expressive language more instead of body language” via play activities. Canan stated that play activities support children’s “language and speech development.”

**C.4.d. Play’s decreasing behavioral problems**

Some of the teachers (3) mentioned that play activities help reduce misbehavior. Fatma stated, “when students sit constantly, they automatically start to display the behavior of standing up after a while.” Play activities decrease this behavior “as much as possible” and “a positive learning atmosphere” is formed in the playful class. Canan expressed that children “adapt to rules” during play activities.

**C.4.e. Play’s supporting psychomotor skills**

A couple of teachers said play activities support psychomotor skills. Teacher Osman stated, “when they play a game regarding gross motor, muscles are also developed in addition to the activity’s entertainment value.”

These discourses of teachers are expressed also in many studies that reveal the importance of play. Accordingly, these research findings are consistent with the studies in the literature (Barton & Wolery, 2008; Colozzi, Ward, & Crotty, 2008).

**4. CONCLUSION AND SUGGESTION**

Determining teacher opinions about working with children with developmental disabilities is very important. It is particularly crucial for these teachers to understand the use of daily routines and planned play activities as different lesson plan alternatives in teaching practices. Research findings revealed that special education teachers are limited in terms of using ABI strategies systematically for instructional goals in their classes, but they have positive points of view about ABI applications. Offering ABI strategies to teachers working with students with developmental disabilities as an alternative, and training them in this matter, may contribute both to increase in successful practices and creation of a positive classroom atmosphere. Considering these findings, suggestions for practice of ABI and further studies are as follows:

**4.1. Suggestions for Using ABI in Practice**

1. Measurement tools based on ABI can be developed in order to determine performance levels of children with developmental disabilities regarding target skills.
2. Planned play activities can be organized in instructional settings arranged for children with developmental disabilities, and teaching target skills can be realized in these plays.
3. Target skills existing in the program can integrate the daily routines, and multiple learning opportunities can be created in natural environments.
4. ABI applications can be implemented in course in special education and preschool education programs in higher education. ABI can serve to enrich the current system by offering alternative practice examples to the prospective teachers.
4. 2. Suggestions for Further Studies

1. Scientific studies can be conducted in different environments, with children with different disabilities and with different applicators in order to test effectiveness and efficiency of teaching activities based on ABI.
2. Effectiveness and efficiency of teaching practices based on ABA together with ABI can be sought. In this research, the impact of maintenance and generalization can also be examined.
3. Since ABI applications are easy and practical, research on the use of families and peers can be planned.

As a result, considering the advantages of ABI as an alternative instructional strategy using ABI in practice can be recommended to special education teachers in teaching various skills to children with developmental disabilities from different ages and disability groups.

REFERENCES


**Geniş Özet**


vermedikleri, yer verdikleri durumlarda ise öğrencilerine hedef beceri ve kavramları nasıl öğrettiğine ilişkin durumun betimlenmesi amaçlanmıştır.


(c) Oyun: Öğretmenlerin çoğu (8) öğrencilere “şarkılar söylerdikleri, parmak oyunları ve kurallı oyunlar” oynadıklarıını söylemiştir. Öğretmenlerin yarısi (5) oyunları planlarken öğretmenlerin “isteğlerine ve ilgi duydukları oyunlara” yer verdiğiğini söyleırken, bir bölümü (3) oyunları ve şarkıları “yılın plana göre” belirlediğini ya da oyun etkinliklerinde çocukların

Araştırma bulguları, öğretmenlerin ETÖ stratejilerini sınıflarda sistematik olarak öğretim amaçlı kullanmadan sınırlıkları yaşadıklarını; ancak, ETÖ uygulamalarına ilişkin bazı açıların olmamasını ortaya koymuştur. Gelişmiş yeteneklerini olan çocuklarla çalışan öğretmenlere ETÖ stratejileriinin bir alternatif olarak sunulmasını ve bu konuda yeterlik kazandırılması, hem başarılı uygulamaların artmasına hem de sınıfta olumlu bir öğrenme atmosferinin oluşmasına katkı sağlayabilecektir.