

Teaching Inclusion Preparation Skills to Children with Developmental Disabilities

*Serhat ODLUYURT**, *E. Sema BATU***

Abstract

The general purpose of the present study was to examine the effectiveness of simultaneous prompting embedded in activities for teaching preparatory skills to children with developmental disabilities. Furthermore, determining the perspectives of the teachers about the skills taught to the participants and also to themselves were targeted. Depending on the performance and characteristics of the participants and the observations conducted in the classroom, three skills were determined to be taught to three children with developmental disabilities. The effectiveness of simultaneous prompting embedded into teaching activities for teaching these skills to children with developmental disabilities was planned. A multiple probe design across behaviors was used and replicated across subjects. Also, the perspectives of the teachers about the skills taught to the participants and themselves were determined through interviews conducted by the researchers. The participants of the study had Down syndrome with an age range of 36-44 months. The target skills taught to the participants were: (a) following two step instructions provided in group activities, (b) participating in group activities by raising his/her hand, and (c) nodding the head when asked "Do you want ...?". The effectiveness results of the study revealed that all three participants acquired the target skills at criterion level. Moreover, two of the participants maintained the skills in the inclusive environments where they were placed seven weeks after the study was completed. Furthermore, the social validity data revealed that the preschool teachers of the two participants were very pleased about having the participants in their classes, the participants' skills acquisitions and also about being informed about inclusion and children with special needs at the beginning of the school year.

Key Words

Preparatory Skills for Preschool Inclusion, Developmental Disabilities, Single Subject Design, Simultaneous Prompting.

* *Correspondence:* Assist. Prof. Serhat Odluyurt, Anadolu University, Research Institute for the Handicapped. 26470, Eskişehir/Turkey.

E-mail: syildirir@anadolu.edu.tr

** Assoc. Prof. E. Sema Batu, Anadolu University, Research Institute for the Handicapped. 26470, Eskişehir/Turkey.

A number of professionals and trainers mention that an important part of learning occurs in the early childhood years. Early childhood is as important as the normally developing children for the children with developmental disabilities. If children with developmental disabilities cannot benefit from the opportunities of early intervention in their early childhood years, most important learning ages would be lost when they reach elementary school ages (Barnett, 1995; Gomby, Lerner, Stevenson, Lewit & Behrman, 1995; Yoshikawa, 1995).

An essential milestone in the lives of children with developmental disabilities is covered during transition to an inclusion environment in pre-school education. Inclusion is providing education opportunities for children with special needs by providing the necessary support services in the least restrictive environments (Kircaali-İftar, 1992). Since children with developmental disabilities are being included to the pre-school, it is very important to teach the behavioral requirements and skills to these children before they are placed into classes (Guralnick, 2001, Odom & Diamond, 1998).

Preparatory skills are also called as the “classroom survival skills” in some of the studies in the literature (Noonan & McCormick, 1997; Rule, Fiechtl & Innocenti, 1990; Salisbury & Vincent, 1990; Guralnick, 1990). In order to teach these skills to children with developmental disabilities, appropriate prompts should be used, natural reinforcers should be provided to their correct responses, and adaptations should be made for them to reach these reinforcers by themselves (Cavallaro & Haney, 1999; Klein, Cook & Richardson-Gibbs, 2001; Kemp, 2006).

Rule et al. (1990) found that teachers could teach various skills to children with developmental disabilities through using appropriate prompts, and reinforcers. By doing this, it is hoped that the child would get used to the school easily and the teacher would be more comfortable with the child while teaching these skills to the child.

The major purpose of activity-based applications is to teach functional and developmental skills to children. In order to do this, the activity transitions and the physical and social settings of the child are turned to be teaching opportunities by the teacher (Pretti-Frontczak & Bricker, 2004). There are a number of studies showing the effectiveness of activity-based applications on different age and disability groups. Grisham-Brown, Schuster, Hemmeter, and Collins (2000) taught making choice,

taking off shirt skills; Johnson, McDonnell, Hozwarth, and Hunter (2004) taught reading words, asking for help, and determining the bigger number skills; Kurt (2006) taught chained skills. Besides these skills, McDonnell, Johnson, Polychronis and Riesen (2002) taught reading words with constant time delay; Polychronis, McDonnell, Johnson, Riesen, and Jameson (2004) taught academic skills with two different teaching techniques; and Schepis, Reid, Ownbey, and Parsons (2001) taught embedded teaching to the support services personnel. Moreover, Swell, Collins, Hemmeter, and Schuster (1998) taught dressing skills with simultaneous prompting embedded in activities; Venn, Wolery, Werts, Morris, DeCesare, and Cuffs (1993) taught imitating skills through increasing time delay embedded in activities; and Wolery, Anthony, Caldwell, Snyder, and Morgante (2002) taught word reading with constant time delay.

The most important aspect about activity-based applications is embedding teaching opportunities into the activities (Bricker, Pretti-Frontczak & McComas, 1998; Pretti-Frontczak & Bricker, 2004; Swell et al., 1998). Embedding skills into the daily routine activities requires determining the aims and targets and preparing a detailed plan (Davis, Kilgo & McCormick-Gamel, 1998).

In the present study the effectiveness of simultaneous prompting embedded into activities on teaching preparatory skills. In the simultaneous prompting, during every trial, controlling prompt is being provided; therefore, the subject is not allowed to respond independently (Tekin-İftar & Kırcaali-İftar, 2004). Research has shown that simultaneous prompting is an effective instructional procedure for teaching both discrete and chained skills to young children with disabilities (e.g., Gürsel, Tekin-İftar & Bozkurt, 2006; Akmanoğlu & Batu, 2005; Birkan, 2005; Akmanoğlu & Batu, 2004; Tekin-İftar, 2003; Tekin-İftar, Acar & Kurt, 2003; Doğan & Tekin-İftar, 2002; Yücesoy, Ş. 2002; Maciag, Schuster, Collins, & Cooper, 2000; Parrot, Schuster, Collins, & Gassaway, 2000; Sewell, et al., 1998; Singleton, Schuster, & Ault, 1995; MacFarland-Smith, Schuster & Stevens, 1993; Gibson & Schuster, 1992).

When the literature is reviewed, it can be said that there is still need for research examining the systematical applications about teaching inclusion preparatory skills. The studies conducted about this concept mention that preparatory skills be taught systematically to children with developmental disabilities (Kemp, 2003; Kemp & Carter, 2000, Rule

et al., 1990; Sainato & Lyon, 1989; Salisbury & Vincent, 1990). In the recent implementations, pre-schools provide models for students with developmental disabilities to learn new skills (Conn-Powers, Ross-Al-len & Holburn, 1990; Lamorey & Bricker, 1993; Odom & Diamond, 1998). Hence it can be said that teaching preparatory skills play an important role in the success of students with developmental disabilities in the regular education classes in the pre-schools (Kemp & Carter, 2000, 2006; Noonan & McCormick, 1997).

When the literature on simultaneous prompting was reviewed it is seen that there is not any study about teaching preparatory skills. Depending on the need for such a study, three preparatory skills were determined in order to be taught to children with developmental disabilities by using simultaneous prompting embedded into routine activities in the present study. Also it was aimed to examine the follow-up data for the students after the training has been completed. The teachers of the participant children were also reviewed by the researchers regarding their opinions about the students' being in their classes.

Method

The participants of the study were children with developmental disabilities who were all three years old. The teachers of the preschool classes where the participants of the study were placed after the training was completed were also the participants of the study. Their ages were 21 and 25 years. Training and data collection of the study were conducted by the first author.

Training was conducted in the classes of the children, kitchen, play ground, and corridors of the Training Unit for the Individuals with Developmental Disabilities in the Research Institute for the Handicapped in Anadolu University.

The study was conducted by using one of the single subject research methods; multiple baseline design across behaviors and was replicated across subjects (Tekin-İftar & Kırcaali-İftar, 2004). Social validity data were collected via semi-structured interviews conducted with the teachers of the students with developmental disabilities (Batu, 2000; Creswell, 2005).

Data on effectiveness were analyzed by graphical analysis whereas the social validity data were analyzed descriptively. Besides these analyses,

inter-observer reliability data were analyzed (Tekin-İftar & Kırcaali-İftar, 2004; Richards, et al 1999). Treatment integrity data were also collected and analyzed (Tekin-İftar & Kırcaali-İftar, 2004; Richards, Taylor, Ramasamy & Richards, 1999) during the study.

Results

Results of the study revealed that simultaneous prompting embedded into daily activities of children with developmental disabilities found to be effective on teaching inclusion preparatory skills to these children. Results also showed that the children maintained the acquired skills after the training sessions were completed. Besides, social validity results of the study showed that the teachers of the students with developmental disabilities were pleased about having those children in their classes. The teachers mentioned that both the participant children and the regular education students benefitted from having the participant children in their classes.

Discussion

The results of the study seem to be consistent with other studies conducted by different researchers. In these studies, the authors taught various skills by using errorless teaching techniques and found these techniques effective in teaching the targeted skills to individuals with developmental disabilities (Grisham-Brown, et al., 2000; Kurt, 2006; McDonnell, et al., 2002; Swell, et al., 1998; Venn, et al., 1993; Wolery, et al., 2002).

Although there are a number of studies showing the effectiveness of errorless teaching techniques in teaching various skills, there are not any studies conducted for teaching preparatory skills by using these techniques. Therefore, it is hoped that the present study will extend the literature.

In different resources, it is pointed that generalization should be planned by the implementers instead of waiting for having generalization naturally (Kurt, 2006; Özyürek, 1996). In the present study, teaching opportunities were embedded in the daily routines for helping the children generalize the targeted skills into different settings and trainers.

The participants of the study were all children with Down syndrome.

It is known that children with Down syndrome are ready to communicate with others, are willing to share with people more than the objects (Pueschel, 2001). Therefore, they are suggested to be placed into inclusion settings after they are 36 months old (Klein et al., 2001; Pueschel). The participants of the study were 36 months old and older.

In their study, Morse and Schuster (2004) examined 18 studies conducted until 2004. In that study, they found that since the daily probe sessions were conducted before each training session, there may be errors in the responses of the participants. In the present study, Berkan had 36%, Serap had 35%, and Murat had 48% errors in their responses.

Social validity results were also similar to those studies conducted by embedded instruction (Horn, Lieber, Li, Sandall & Schwartz, 2000; Johnson et al., 2004; McDonnell et al., 2002; Polychronis et al., 2004; Horner, et al., 2005). Besides, Kemp and Carter (2006) suggested that if the preparatory skills were taught before students were placed into the inclusion settings, teachers of the regular education classes would be more comfortable with the included students in their classes. Moving from this point, it may be hoped that the present study will extend the literature and would be an example study for the implementers of inclusion.

References/Kaynakça

- Akmanoğlu, N., & Batu, S. (2004). Teaching pointing to individuals with autism using simultaneous prompting. *Education and Training in Developmental Disabilities, 39*, 326-336.
- Akmanoğlu, N., & Batu, S. (2005). Teaching Relative Names to Children with Autism using Simultaneous Prompting. *Education and Training in Developmental Disabilities, 40*, 401-410.
- Barnett, W. S. (1995). Long term effects of early childhood programs on cognitive school outcomes. *The Future of Children : Long Term Outcomes of Early Childhood Programs, 5*, 25-50
- Batu, S. (2000). Özel gereksinimli öğrencilerin kaynaştırıldığı bir kız meslek lisesindeki öğretmenlerin kaynaştırmaya ilişkin görüş ve önerileri. Eskişehir: Anadolu Üniversitesi Yayınları.
- Birkan, B. (2005). Using simultaneous prompting for teaching various discrete tasks to students with mental retardation. *Education and Training in Developmental Disabilities, 40*, 68-79
- Bricker, D., Pretti-Frontczak, K., & McComas, N. R. (1998). *An activity based approach to early intervention* (2nd ed). Baltimore: Brookes.
- Cavallaro, C. C., & Haney, M. (1999). *Preschool inclusion*. Baltimore: Paul H. Brookes.
- Conn-Powers, M., Ross-Allen, J., & Holburn, S. (1990). Transition of young children into the elementary education mainstream. *Topics in Early Childhood Special Education, 9*, 91-105.
- Creswell, J. W. (2005). *Educational research planning, conducting, and evaluating quantitative and qualitative research* (2nd ed). Columbus, Ohio: Merrill Prentice Hall.
- Davis, M. D., Kilgo, J. L., & McCormick-Gamel, M. (1998). *Young Children with special needs a developmentally appropriate approach* (1st ed). MA: Allyn and Bacon
- Doğan, O. S., & Tekin-İftar, E. (2002). The effects of simultaneous prompting on teaching receptively identifying occupations from picture cards. *Research in Developmental Disabilities, 23*, 237-252.
- Gibson, A. N., & Schuster, J. W. (1992). The use of simultaneous prompting for teaching expressive word recognition to preschool children. *Topics in Early Childhood Special Education, 12*, 247-267.
- Gomby, D. S., Lerner, M., Stevenson, C., Lewit, E., & Behrman, R. (1995). Long term outcomes of early childhood programs: Analysis and recommendations. *The Future of Children, 6*, 6-24
- Grisham-Brown, J., Schuster, J. W., Hemmeter, M. L., & Collins, B. C. (2000). Using an embedding strategy to teach preschoolers with significant disabilities. *Journal of Behavioral Education, 10*, 139-162.
- Guralnick, M. J. (1990). Major accomplishments and future directions in early childhood mainstreaming. *Topics in Early Childhood Special Education, 10*, 1-17.
- Guralnick, M. J. (2001). *Early Childhood Inclusion Focus on Change*. Baltimore, Maryland: Paul Brookes.

- Hains, A. H. (1992). Strategies for preparing preschool children with special needs for the kindergarten mainstream. *Journal of Early Intervention*, 16, 320-333.
- Gürsel, O., Tekin-İftar, E., & Bozkurt, F. (2006). Effectiveness of simultaneous prompting in small group: The opportunity of acquiring non-target skills through observational learning and instructive feedback. *Education and Training in Developmental Disabilities*, 41, 225-243.
- Horn, E., Lieber, J., Li, S., Sandall, S., & Schwartz, I. (2000). Supporting young children's IEP goals in inclusive settings through embedded learning opportunities. *Topics in Early Childhood Special Education*, 20, 208-223.
- Horner, R. H., Carr, E. G., Halle, J., Mcgee, G., Odom, S., & Wolery M. (2005). The use of single-subject research to Identify evidence-based practice inspecial education. *Exceptional Children*, 71, 165-180.
- Johnson, J. W., McDonnell, J., Hozwarth, V. N., & Hunter, K. (2004). The efficacy of embedded instruction for students with developmental disabilities enrolled in general education classes. *Journal of Positive Behavior Interventions*, 6, 214-217.
- Kemp, C. (2003). Investigating the transition of young children with intellectual disabilities to mainstream classes: An Australian perspective. *International Journal of Disability Development and Education*, 50, 404-433.
- Kemp, C. (2006). Active and passive task related behavior, direction following and the inclusion of children with disabilities. *Education and Training in Developmental Disabilities*, 41, 14-27.
- Kemp, C., & Carter, M. (2000). Demonstration of classroom survival skills in kindergarten: a five year transition study of children with intellectual disabilities. *Educational Psychology*, 20, 394-411.
- Kemp, C., & Carter, M. (2006). Identifying skills for promoting succesful inclusion in kindergarten. *Journal of Intellectual and Developmental Disability*, 30, 31-44.
- Kırcaali-İftar, G. (1992). Özel eğitimde kaynaştırma. *Eğitim ve Bilim*, 16, 45-50.
- Klein D., Cook R. E., & Richardson-Gibbs, A. M. (2001). *Strategies for including children with special needs in early childhood settings*. NY: Delmar Thomson Learning.
- Kurt, O. (2006). *Otistik özellikler gösteren çocuklara zincirleme serbest zaman becerilerinin öğretiminde gömülü öğretim yaklaşımıyla sunulan sabit bekleme süreli öğretimin ve eşzamanlı ipuçuyla öğretimin etkililik ve verimliliklerinin karşılaştırılması*. Yayınlanmamış doktora tezi, Anadolu Üniversitesi, Eğitim Bilimleri Enstitüsü, Eskişehir.
- Lamorey, S., & Bricker, D. D. (1993). Integrated programs: Effects on young children and their parents. In C. Peck, S. Odom & D. Bricker (Eds.), *Integrating young children with disabilities into community-based programs: From research to implementation* (pp. 249-269). Baltimore: Paul H. Brookes.
- Maciag, K. G., Schuster, J. W., Collins, B. C., & Cooper, J. T. (2000). Training adults with moderate and severe mental retardation in a vocational skill using a simultaneous prompting procedure. *Education and Training in Mental Retardation and Developmental Disabilities*, 35, 306-316.
- McDonnell, J., Johnson, J. W., Polychronis, S., & Riesen, T. (2002). Effects of embedded instruction on students with moderate disabilities enrolled in general education classes. *Education and Training in Developmental Disabilities*, 37, 363-377.

- Morse, T. E., & Schuster, J. W. (2004). Simultaneous prompting: A review of the literature. *Education and Training in Developmental Disabilities, 39*, 153-168.
- Noonan, M. J., & McCormick, L. (1997). *Early intervention in natural environments methods ve procedures* (1st ed). CA: Brooks/Cole Publishing.
- Odom, S. L., & Diamond, K. E. (1998). Inclusion of young children with special needs in early childhood education: The research base. *Early Childhood Research Quarterly, 13*, 3-25.
- Özyürek, M. (1996). *Sınıfta davranış yönetimi-uygulamalı davranış analizi*. Ankara: Karatepe Yayınları.
- Parrot, K. A., Schuster, J. W., Collins, B. C., & Gassaway, L. J. (2000). Simultaneous prompting and instructive feedback when teaching chained tasks. *Journal of Behavioral Education, 10*, 3-19.
- Polychronis, S. C., McDonnell, J., Johnson, J. W., Riesen, T., & Jameson, M. (2004). A comparison of two trial distribution schedules in embedded instruction. *Focus on Autism and Other Developmental Disabilities, 19*, 140-151.
- Pretti-Frontczak, K., & Bricker, D. (2004). *An activity based approach to early intervention* (3th ed). Baltimore: Brookes.
- Pueschel, S. M. (2001). *A Parent's Guide to Down Syndrome Toward a Brighter Future* (Rev. ed). Baltimore: Brookes.
- Richards, S. B., Taylor, R. L., Ramasamy, R., & Richards, R. Y. (1999). *Single subject research applications in educational and clinical settings*. California: Wadsworth Thompson Learning.
- Rule, S., Fiechtl, B., & Innocenti, M. (1990). Preparation for transition to mainstreamed post-preschool environments: Development of a survival skills curriculum. *Topics in Early Childhood Special Education, 9*, 79-90.
- Sainato, D. M., & Lyon, S. R. (1989). Promoting successful mainstreaming transition for handicapped children. *Journal of Early Intervention, 13*, 305-314
- Salisbury, C. L., & Vincent, L. J. (1990). Criterion of the next environment and best practices: Mainstreaming and integration 10 years later. *Topics in Early Childhood Special Education, 10*, 78-89.
- Schepis, M. M., Reid, D. H., Ownbey, J., & Parsons, M. B. (2001). Training support staff to embed teaching within natural routines of young children with disabilities in an inclusive preschool. *Journal of Applied Behavior Analysis, 34*, 313-327.
- Sewell, T. J., Collins, B. C., Hemmeter, M. L., & Schuster, J. W. (1998). Using simultaneous prompting within an activity based format to teach dressing skills to preschoolers with developmental delays. *Journal of Early Intervention, 21*, 132-145.
- Singleton, K. C., Schuster, J. W., & Ault, M. J. (1995). Simultaneous prompting in a small group instructional arrangement. *Education and Training in Mental Retardation and Developmental Disabilities, 30*(September), 218- 230.
- Tekin-İftar, E. (2003). Effectiveness of peer delivered simultaneous prompting on teaching community signs to students with developmental disabilities. *Education and Training in Developmental Disabilities, 38*, 74-94.

Tekin-İftar, E., Acar, G., & Kurt, O. (2003). The effects of simultaneous prompting on teaching expressively identifying the objects: An instructive feedback study. *International Journal of Disability, Development, and Education*, 50, 149-167.

Tekin-İftar, E. ve Kırcaali-İftar, G. (2004) *Özel eğitimde yanlışsız öğretim yöntemleri* (2. bs). Ankara: Nobel.

Venn, M. L., Wolery, M., Werts, M. G., Morris, A., DeCesare, L. D., & Cuffs, M. S. (1993). Embedding instruction in art activities to teach preschoolers with disabilities to imitate their pers. *Early Childhood Research Quarterly*, 8, 277-294.

Wolery, M., Anthony, L., Caldwell, N. K., Snyder, E. D., & Morgante, J. D. (2002). Embedding and distributing constant time delay in circle time and transitions. *Topics in Early Childhood Special Education*, 22, 14-25.

Yoshikawa, H. (1995). Long term effects of early childhood programs, on social outcomes and delinquency. *The Future of Children: Long Term Outcomes of Early Childhood Programs*, 6, 51-75.

Yücesoy, Ş. (2002). *Zihin özürlü öğrencilere fotokopi çekme becerisinin öğretiminde eşzamanlı ipucuyla öğretimin etkililiği*. Yayınlanmamış yüksek lisans tezi, Anadolu Üniversitesi, Eğitim Bilimleri Enstitüsü, Eskişehir.