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Effectiveness of individualized teaching materials on bricklaying skills prepared with direct teaching method

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Abstract

The objective of this study is to examine the effectiveness of individualized teaching materials on bricklaying skills prepared with the direct teaching method in terms of reflections of ergotherapy on vocational education. Bricklaying skills were taught with direct teaching method to four students with mild mental disability, who attended the 2016-2017 education-teaching year at Duzce Special Education Vocational Education Centre. Information was collected from the student, parents and teachers with semi-structured interview. Data of a period of one year of ergotherapy was collected in the study. Evaluations of the student, student's parent, teacher and the observer were taken into account in the bricklaying work analysis, joint evaluation of the evaluators were cross-matched and reliability of the outputs were found at high level. Analysis of the data revealed that the success in lime mortar preparation and bricklaying, taught with the direct teaching method was over 80%. Based on the outputs of the study, it was concluded that individualized material presented to the children with mental disability is effective.

Keywords: Individuals with mental disability; vocational training; bricklaying skills; direct teaching method.

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1. Introduction

In the studies carried out on individuals with mental disability up to date, the focus point has been inclusion into of these individuals into the social structure and their acceptance. Today, we witness that the success of these studies is high and that individuals with intellectual disability are being accepted both in the social concept and by the institutional education establishments. Individuals first enter the social life and subsequently, obtain a role for themselves. Individuals with mental disability also enter the phase of undertaking a role in the social structure and the main activities carried out for this purpose, include ergotherapy applications or work or occupational therapies (Carstensen & Bonsaksen, 2016; Caswell et al., 2004).

The main purpose of ergotherapy works is to ensure that individuals produce things, become producers and obtain their social identities in the social structure. In the studies aimed at this purpose, the individuals are directed towards production things within their field of interest and possibilities, interpret things that are produced and acquire the skills of making more beautiful and sophisticated productions (Huri, 2012).

Ergotherapy, which is an individual-oriented education type that develops the mental and physical health of individuals within the framework of certain applications, is an important part of vocational education that has a positive effect on social emotional learning and socializing skills and mental health of individuals. Direct teaching method is a part of constructivist education and provides for learning of individuals by doing. With the use of individualized teaching materials within the process, it is possible to carry out the learning process of the individuals effectively and achieve a more permanent progress.

Adaptive behavior areas specified in the definition of are communication, self-care, home life, social skills, social utility, self management, health and safety, academic skills in addition to work skills (MEGEP, 2007). In this context, the focus has been on adaptive behavior areas of individuals.

Ozbey and Diken (2010) examined 25 studies on vocational-occupational education and employment between 1990 and 2010, and determined that the studies on these areas were grouped under four categories based on teaching of pre-job skills, vocational skills, preparation of individuals for the vocation, process of transition to the vocation, and employment status; that most studies were on prejob skills and development of vocational skills of individuals with mental disability, and that the process of transition to the vocation by these individuals was the area with the least studies

Among the studies on job and vocational education, Demir (1996) examined the effectiveness of individualized teaching materials given with modeling and modeling. Applications were made on three children with mental disability with the use of A-B model. Research results indicated that children are successful in sewing buttons with one, two and four holes.

Ozokcu (1997) examined the sewing skills in the form of sewing buttons and stitching on eight individuals with mental disability. Individualized teaching materials given with modeling and verbal cues were used in the study. Based on the research results, while the traditional method is not effective in every subject, individualized teaching materials given with modeling and verbal cues are effective in every subject.

Degirmenci (2010) studied the success of individuals aged 18-21 with mild mental disability in hotel and floor services with the video modeling method. Based on the study's outputs, the video modeling method provided an effective result. With a similar method, it was found that spaghetti cooking skill was effective in individuals with mental disability (Haliskucuk & Cifci-Tekinaslan, 2007).

Aykut (2007) worked on stitching folded fabrics and making instant soup with children aged 12 and 13 diagnosed with epilepsy with the systematic withdrawal of cues method and the method has resulted

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in effective outputs. In literature, there have been studies reporting that individualized teaching materials are effective in individuals with mental disability, in which the skills of making instant soup by looking at recipes with images (Atmaca-Karakas, 1996); embroidery with tapestry (Eratay & Guler-Ozkan, 2004); preparation of casting clay (Demirezen, 2006); sewing (Ozokcu, 1997); button sewing (Demir, 1996) were taught. It was concluded that teaching with simultaneous cues was effective in the teaching of occupational skills such as job skills (Ozbey, 2005); car washing (Topsakal, 2004); photocopying (Yucesoy, 2002); stamp processing (Aslan & Eratay, 2011); stockinet stitching (Cankaya & Eratay, 2011); lawn mowing (Aslan, 2009) and that the acquired skills were maintained and generalized after teaching was completed.

It has been concluded that constant time delay procedure is effective in kitchen skills such as making a sandwich, preparing and serving hot fruit infusions (Bozkurt & Gursel, 2005). Moreover, studies on food preparation for individuals with mental disability (Bozkurt, Tekin-Iftar, 2003) and dressing up skills (Yucesoy-Ozkan, 2007) have been found.

It was found that boys are more successful in children and teenagers with mental disability in need of protection in terms of setting a table, washing dishes, rinsing, sweeping the floors and collecting it on a mini shovel (Bilir et al., 1992).

Despite the successful job and vocational skills aiming at individuals with mental disability, acquisition job and vocational skills cannot be provided in schools and these individuals cannot be placed in employment (Gursel, Ergenekon & Batu, 2007).

This study aims at observation of effects of the bricklaying module training carried out with the direct teaching method, which is a form of ergotherapy, in schools on the development of individuals with mild mental disability and analysis of direct teaching and social validity based on teachers' opinions and observations of the parents.

In this context, does the individualized teaching material 1, 2 and 3 for lime mortar preparation and bricklaying skills in individuals with mental disability who fulfill the prerequisite skills, result in the students learning the sub-purposes of these skills?

If the permanency of these skills achieved in the observations made after completion of teaching.

The study is important as it provides for examination of the effectiveness of the activities within the framework of student-teacher-parent, who are the ecological environment components; presents the differences between the opinions of the teachers and students regarding the comparison results of the training process with the beginning; and as it provides for evaluation and observation of changes and developments in the students by the teacher and parents and identifying the differences.

2. Method

Multiple probe design, which is one of the single subject research model, is used in the research.

2.1. Characteristics of the Work Group

Subject students of the study were four students with mild mental disability, consisting of three test subjects and one substitute, who attended the 2016-2017 education-teaching year at Duzce Special Education Vocational Education Centre, affiliated to Provincial Directorate of National Education of Duzce.

In general, the fathers of the students, who were included in the study, were self-employed with an income which is slightly above the minimum wage, and the mothers were housewives, and the families were nuclear families with 2 to 4 children, who live in a private house.

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1st Subject:

Student is a 16-year old male diagnosed with mild mental disability. He does not have any other additional disabilities. He is capable of realizing self-care skills independently and doing activities requiring fine and gross motor skills independently. He is capable of establishing communication by making use of recipient and expressive language skills. He is capable of realizing basic Academic Skills such as reading-writing and mathematics.

2nd Subject:

Student is a 17-year old male diagnosed with mild mental disability. He does not have any other additional disabilities. He is capable of realizing self-care skills independently and doing activities requiring fine and gross motor skills independently. He is capable of establishing communication by making use of recipient and expressive language skills. He is capable of realizing basic Academic Skills such as reading-writing and mathematics.

3rd Subject:

Student is a 16-year old male diagnosed with mild mental disability. He does not have any other additional disabilities. He is capable of realizing self-care skills independently and doing activities requiring fine and gross motor skills independently. As he has social phobia, he has inefficiencies in establishing communication through the use of recipient and expressive language skills. He is capable of realizing basic Academic Skills such as reading-writing and mathematics.

4th Subject:

Student is a 17-year old male diagnosed with mild mental disability. He does not have any other additional disabilities. He is capable of realizing self-care skills independently and doing activities requiring fine and gross motor skills independently. He is capable of establishing communication by making use of recipient and expressive language skills. He is capable of realizing basic Academic Skills such as reading-writing and mathematics.

2.2.1. Data collection tools

Brick laying work analysis mainly consists of two main headings. These are preparation of wall mortar and bricklaying. Job steps are created for each phase and job analysis is realized in consultation with specialists working in the field of special education.

2.2. Data collection and analysis

Study data is collected personally by the author. Necessary consents of the related institutions were collected before collection of research data.

After the consents were obtained, the works of the students were controlled regularly. The training, which started in the 2015-2016 education-teaching year, continued with the vocational education teachers who volunteered to participate in the study.

Audio and video was recorded during the interviews with the teachers, students, parents and the management during data collection phase. Students and parents, and especially the school management provided great assistance and support on this subject. Subsequently, the collected data was transferred to the computer environment and used for further analysis after their transcription.

Several data collection methods were used for data collection in the study. First of these is the video recording evaluation for evaluation of the students works by the construction technologies teacher and the teacher of the individuals with mental disability, and data was collected with semi-structured interview from the students, Construction Workshop Teacher, Special Education Teacher, School

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Counselor, Deputy Principal and School Principal for social validity and the audio and video recordings were evaluated for reliability.

Table.1. Student assessment form

BRICKLAYING VIDEO RECORDING EVALUATION +/- ASSISTANCE TYPE	
A. Lime Mortar Preparation	B/H
1. Mortar is prepared and the ground is cleaned.	
2. Surface on which mortar will be applied is wetted.	
3. Sufficient amount of sand is prepared.	
4. Lime paste is prepared proportionately to sand amount.	
5. Adequate amount of lime is added on the sand.	
6. A mixture is prepared with a shovel from the sand and lime paste.	
7. Homogeneity of the mixture is controlled.	
8. Center of mixture is opened with the shovel.	
9. Necessary water is added.	
10. Water is kept in the mixture for 5 minutes.	
11. The mortar is mixed to paste (plastic) consistency with the shovel.	
12. The spread mortar is placed on the mortar board with the shovel.	
B. Bricklaying	
13. The ground on which the wall will be built is cleaned.	
14. Required amount of bricks are carried to the location where the wall will be constructed	
15. The prepared mortar board is carried to the place where the wall will be constructed.	
16. Wall floor will be wetted with a brush.	
17. Bricks will be wetted. (according to the temperature)	
18. Mortar is spread with the trowel where the first row full corner bricks will be placed.	
19. First row full corner bricks are placed.	
20. A string is stretched over the front face of the wall from the corner bricks.	
21. The interim section is laid in line with the string with 1 cm of gap in between.	
22. The levelness of the wall top is controlled with a water gage.	
23. The gaps (joints) in between are filled with mortar.	
24. Corner strings are removed.	
25. Mortar is placed at the beginning of the first row.	
26. Half bricks are placed with mortar on two sides with a shifting of half a brick.	
27. An alignment string is stretched over the corner bricks.	
28. The interim bricks are laid with 1 cm of gap in between in line with the string.	
29. Alignment of the brick rows will be control with a float and water gage.	
30. Bricks not in alignment will be corrected by hammering with a plastic hammer.	
31. When the laying of the bricks is completed for the aligned and balanced wall the alignment string will be removed.	
32. Upon completion of the bricklaying, the workplace is cleaned.	

B: Steps of independent skills performed independently.

H: Readymade material provided in individualized form.

Lime Mortar Preparation module consisted of a total 12 items while the Bricklaying Module consisted of a total of 20 items with a total of 12 achievement steps. Individualized materials or the materials prepared by the students themselves were evaluated for each achievement step.

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The conditions of the students were evaluated prior to and after the ergotherapy application with the semi-structured interview with the students.

In the semi-structured interview carried out with the students' parents, they were requested to describe the changes that occurred in their children prior to and after the ergotherapy. Nine structured questions were included along with certain demographic data on the parent interview form.

The author examined the developments of the students, who started the bricklaying module in the 2015-2016 education-teaching year, within a period of one year, and the opinions of the new teachers and the parents were analyzed with descriptive analysis.

3. Findings and Discussion

The rate of skill realization in the teaching of bricklaying skills with the direct education method is summarized in the following table.2

Table 2.

Subject	Lime mortar	Bricklaying
1.	91.6%	80%
2.	100%	90%
3.	100%	79%
4.	100%	95%

It is concluded in this study that the individualized bricklaying teaching material applied to first, second, third and fourth student is effective. From this aspect, the study supports the studies that report the effectiveness of the individualized teaching materials (Atmaca-Karakas, 1996; Eratay & Guler-Ozkan, 2004; Ozokcu, 1997; Demir, 1996). Obey and Diken (2010) divided the studies involving job-vocational skills into categories. In this context, this study falls in to teaching of vocational skills. It has partial resemblance with the studies based on the constant time delay procedure (Bozkurt & Gursel, 2005; Bozkurt & Tekin-Iftar, 2005; Yucesoy-Ozkan, 2007) and with studies with video recording procedure (Degirmenci, 2010, Haliskucuk & Ciftci-Tekinarslan, 2002).

3.1. Parents Interview Analysis

Observations of the parents during the teaching period and their opinions on the developments in the children were obtained during the study. Based on the opinions of the parents, the main problems experienced with students before the individualized teaching programs were the difficulties the students faced in expressing themselves in a social structure and the substantial inefficiencies in socializing. A total of eight questions were asked to the parents in the parents interview form. Accordingly, the answers given to the questions can be summarized as follows:

1. How can you summarize the general condition of your child before these trainings?

In response to this question, the parents of the subject and substitute students, stated that the children had high levels of social phobia and that the children abstained from going in to crowded environments, let alone expressing themselves in crowded environments. One of the student's parents stated that one of the subjects had intense stereotype actions previously. Again, based on the common statements of the parents, it has been reported that the children acted more indifferently, carelessly and with excessive reactions at times before the training.

In general, there is parallelism between the statements of the parents regarding condition of the students before the training and the definitions provided in literature regarding social identity

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inefficiency. In individuals with social identity inefficiency, there is lack of balance towards the reactions against the environment, and subsequently, the individuals experience social solitude. In the study, parents of the students emphasized this point rather than the symptoms of mental disability

2. What kind of changes did you observe at the beginning of the training?

Mothers of students, who had a better chance of observing their children, observed an increase of anxiety, shyness and fear of failing at the beginning of the training in addition to the excitement of starting something new, based on the statements of the mothers. Mother of one of the students said, "It was like my son had a profession, and we were happy like we were sending him to work". Thus, the training had a positive impact not only the children but on the parents.

Fathers stated that the change was not very distinctive and that only the interest of the child towards his environment increased. Fathers of two students used the expression "he started to stay with us longer after dinner". Father of one of the subjects said, "I would not be informed this much if I had attended the training, he talks about it for hours". Thus, even the fathers, who had a opportunity to observe their children, observed the changes in their children closely, although not as much as the mothers.

3. What kind of changes occurred in the behaviors of your child in the family and in social environment?

Again, the changes in the children in terms of family and the social environment were observed and evaluated the most by the mothers. Mothers stated that they witnessed that children started to say welcome to the guests, started to smile and that there was reduction in the disturbance caused by long periods of visits. Mother of one of the subjects stated that his son started to offer candy and cologne to the visitors on the fifth week of the training and that this was the most important event of her life and was like her second birthday.

According to the fathers, there were not that many changes at the beginning because they did not have that many problems with the social environment when compared to that of mothers. Self-stigmatization in psychology may result in non-acceptance of the assistance by people seeking assistance due to fear of being labeled as a result said assistance. Especially, due to the subjects being male and the fathers being more sensitive towards the outer world, the level of self-stigma and non-acceptance of the condition of the child was higher in fathers.

4. In your opinion, what kind of positive effects will this training process have on the life of your child in the future?

Although, all answers given to this question by the mothers and the fathers were positive, there is distinction and difference as specified in the gender schema theory.

Mothers believe that the children will not fall into the hands of someone in the future any longer and that they will be capable of looking after themselves. Mother of one of the subjects said "Now I can think of death without worry", while the mother of another subject said "I have less worries on whether my son will be hungry and homeless after I die." Mothers gave greater importance to self-care of the children and expressed that there were substantial developments in this area.

However, fathers gave answers that had greater emphasis on the social side. Fathers of two subjects said "now, my son will be useful to his country and nation". Father of the substitute child said that "I can even send my son to do his military service with the help of God". In general, fathers expressed their thoughts and concerns related with the future position of the child outside the family rather than inside the family. Common point is that concerns of both the mothers and the fathers were alleviated after the trainings.

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5. What are the factors that directed you or our children towards bricklaying skills? What is the level of your role in your child selecting this application?

A great difference was not found between the answers given to this question by the mothers and the fathers. In general, it is stated that the teachers and the courses opened in schools are effective among the factors that directed them towards this school. Actually, especially the fathers stated that the program did not make a difference for them as they did not believe that their children will make great progress at the beginning. However, all parents have stated without exception that they would select the bricklaying module to the question of which profession they would pick if they were to send their children again.

In fact, selection of the vocation is not important in the first phase in terms of social identity development process in the society. Generally, the importance of a vocation is emphasized with terms such as “earning one’s bread”, “a skill to make living” etc. Although, the vocations selected by the individuals in the later periods are subjected to a classification system in social sense, first step in social identity formation and entering of this system by the individuals is having a vocation. When the answers given by the parents to his question are examined semiotically, it is seen that the main thought in the foreground is “as long as it is vocation, it does not make a difference” and “although there is no expectation, there is nothing to lose by trying”. Profession selection may be made consciously in the future if the studies in this field are increased and greater alternatives are made available. However, this approach of the parents does not constitute a problem as there vocation selection is a problem for even the individuals who do not have disabilities in our country.

6. How long will these developments last in your children in your opinion? What is the level of your concerned that you had in the past?

Again, the answers of both the mothers and the fathers are in common for this question to the effect that these developments will be permanent. Mothers of two subject and a father of one subject said “when my son puts on the golden bracelet of vocation on his arm, no one can take it off”. Thus, in general, all parents believe that this development in their children will be permanent.

The differences between the mothers and fathers in terms of concerns related with the future, are same as the answers given to the question of socializing of the child. Here, once again it is possible to say that while the mother speaks of reduction in the concerns related mainly with the life and self care of the child in the future, fathers think mainly on social basis.

7. Which modules which you select instead of bricklaying if you were at the beginning of this process?

Again, all parents said that they will be selecting the same module because the teacher giving the education is more important than anything else. Moreover, the opinion in common of all parents is that they will be selecting the same teacher if the teacher who gave the lesson gave another lesson, that it is very important for their children to get along with the teacher, and they stated that the only architect of the developments with their children is the teacher.

When the studies on school life quality and in-class learning environments in education life are examined, it is seen that the teacher-student interaction is of great importance. The communication between the teacher and the student is the prerequisite for learning. On the other hand, one should keep in mind the role of method and the motivation of the individuals to succeed. Direct instruction will not go any further than transfer of knowledge between a teacher-student couple with good communication in all terms. On the other hand, the knowledge obtained in constructivist education is shaped in flesh and bones at the same time. For this reason, it can be said that while communication provides the basis for information flow, it must be supported with the method.

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8. Finally, what is your opinion on whether these trainings have caused a change in the point of view of those around you?

Again the answer given to this question is related and similar to answers given to socializing level and relationship of the child with the external environment. Mothers have stated generally that the people around them have noticed the differences greatly. According to the mothers, the whole neighborhood and the relatives are observing and following the development in their children with envy

According to the fathers, although the people in environment responded positively to their child starting to work, there is no great surprise like that expressed by the mother. In fact, as the majority of the society is not interested greatly in the children and their parents, this has not been an exaggerated source of pride and greeting other than several close acquaintances. Again, the mothers have accepted the past condition of their children more than the fathers.

3.2. Teacher's Opinions

In evaluation of the opinions of the teachers the parallelism between the opinions of the special education teacher and the vocational education teacher is interesting. The common opinion of both students is that the development observed in the children is mainly related with social identity and that for this reason it is largely permanent and that this field is not given adequate importance in the world or our country. The questions asked to the teachers on this subject are provided below.

1. How long have you been working on direct teaching method and individuals with mild mental disability?

Special education teacher and the vocational education teacher stated that they have focused on individuals with mild mental disability for approximately 15 years and 6 years, respectively. However, both teachers have stated that application of direct education method as ergotherapy for individuals with mild mental disability is currently new.

2. What kind of effects do you think that your vocation has on individuals with mental disability?

The opinion of the vocational education teacher in terms of effects of vocational education is that vocation education opens the mind and broadens the horizon and the function of all individuals in the society and not only those with mental disability. According to the vocational education teacher, the vocational high schools and vocational education institutions are the kitchens of the society and they provide for development of a common mind in terms of both the individuals and the society.

Special education teacher stated that vocational education's effects are important mainly in terms of social identity and individual socialization development of the individual. The presence of individuals in a society is identified with the work they perform and their social identities after a while. In this term, social identity constitutes the final phase of socialization of the individual. Even if the socialization process is realized with external support for individuals with mental disability, social identity is needed for this to become permanent. Vocational education plays a vital role in assuring this.

3. What kind of problems do you face vocational education applications?

The answer given by both the vocational education teacher and the special education teacher is very similar. Main difficulties experienced in vocational education applications are inadequate equipment and tools, limited economic possibilities and insufficiency of qualified labor. As a separate laboratory was not available in the study, application was made on the building's pavement at the back garden of the school.

Again there are serious inefficiencies in terms of materials. The wall that was constructed in the bricklaying module removed before setting of the mortar and constructed again. Moreover, absence of

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a separate and specific location as a work environment makes working outside in the cold necessary. Again snow, rain etc. natural conditions are also obstacles preventing the training.

4. What are the positive and negative aspects of direct teaching method as a vocational education method in your opinion?

The opinions of the two teachers are close to one another in this question. According to both teachers, the most important and primary contribution of vocational training is shifting of the individuals to a producer position and entering a process of acquiring a social identity. Moreover, the direct and indirect acquisitions are affecting not only those receiving the training but also the people around them. For example, the concerns and fears of the parents related with the future, reduction of today's abstinence from the social environment and the happiness given by the progress of the child are the main acquisitions. In addition, the individuals taking a productive position provides for direction of the resources to be spent on rehabilitation of these individuals to different areas.

Inefficiencies of vocational education are lack of sufficient infrastructure and tools, and the impossibility of making professional selection when selecting a vocation as a result of sufficient alternatives not being provided. Special education teacher emphasized the inefficiency of in-depth and important public applications in this area by saying, "maybe we are directing the artists, poets, musicians of the future to the vocation we are selecting here".

5. What can you say when you evaluate bricklaying skills in terms of vocational education and mental development.

According to the vocational education teacher, the bricklaying module is an education method that covers the most basic vocational education phases, and it is not a method that has many advantages on individuals who have completed their mental development. However, it is perfectly suited for individuals with mild mental disability. The special education teacher indicated that gradual increase in Lego toys in the western countries and our country showed the advantages of these kinds of modules on the psychomotor development.

The answers of the special education teacher were also in line with the vocational education teacher. Special education teacher also stated that the bricklaying skill is easy in practice but, the fact that it has important rules in mental sense and the large mass volume of the final product strengthens the feeling of success of the child. In addition, bricklaying module results in a mental association with home. This condition may have an effective role in giving the happiness of making a house, a home.

6. What kind of important contributions have there been from the starting of education by the children up to date, and what are the cornerstones of this process?

Due to the special education teacher evaluating the process externally, this question was answered by the vocational education teacher. According to the vocational education teacher, the most important acquisition of the student from the beginning to date is the acceptance that he is now capable. Moreover, the vocational education teacher has also stated that the prestige and importance of the child has increased in the social community as a result of this development being observed by the parents and the individuals in the environment. Basically, the cornerstones of the activities can be specified as contact establishment process, student's process of getting used to, and the processes having difficulty and succeeding.

7. How do you evaluate the effectiveness of individualized teaching materials in this process.

Again, the vocational education teacher, who answered this question due to being able to evaluate the process from inside, stated that there has been a positive but limited effect. Before evaluation of the individualized teaching materials in terms of contributions to the children, the issue of which

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individualized teaching material will be used in which work step and which phase. For example, while giving individualized teaching materials in certain phases gave negative results due the students wanting to do that phase themselves, in some phases the students wanted that the lesson materials are individualized in certain phases.

8. What is the permanence of this process in your opinion? With which teaching module can this process be complemented?

The permanence of the process is very according to both teachers. Permanence of the process is strengthening by doing the work according to the vocational education teacher. However, due to bricklaying being a basic construction phase, the individuals will not lose much of the acquisitions even if they do not do the work for long years. For example, permanence is relatively lower in modules like plastering or pavement, painting etc. modules. The opinions of the vocational education teacher related with permanence of the acquisitions are mainly in the framework of vocational acquisitions and has stated that these could be developed with different and advanced modules like plastering, painting and pavement.

Special education teacher considered the subject in terms of mental development and socializing and stated that this permanence will be at high level with development of social identity but that this must be developed in the future periods also.

As recommendations; it can be recommended that teaching and effectiveness of job skills to groups with different disabilities with methods other than direct teaching method can be considered and studies on placement of individuals with disability into jobs and permanence of the acquisitions can be carried out.

As limitations; the study is limited to single subject research model, bricklaying skill, individualized teaching material, 2016 education year, a school in Duzce and a single module.

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