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Teaching Purchasing Skills Through
the Application of Constant Time Delay to
Students with Moderate Mental
Retardation during Community-Based
Instruction

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Running Head: TIME DELAY

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Abstract

A constant time delay procedure was used to teach two students with moderate mental retardation how to purchase food at local fast food restaurants and snacks at a local convenience store. Students were taught to purchase the items using paper money and were required to determine the amount due by locating the next dollar up amount on a number line. A 5-second time delay was used in teaching the subjects these purchasing skills. Training was evaluated with a multiple probe design across settings. Results indicated subjects did not reach criterion in the fast food setting. In the convenience store setting subjects did not reach the criterion level; however, subjects made substantial improvements in their purchasing skills.

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Table of Contents

List of Appendices by Titles	5
List of Tables by Titles	6
List of Figures by Titles	7
Text of Thesis	8
Literature Review	8
Community-Based Instruction	10
Time Delay Procedures	13
Statement and Purpose	20
Method	21
Experimental Design	21
Subjects	21
Setting	21
Dependent Variable	22
Materials	22
Procedure	22
Baseline	22
Training Sessions	23
Results	25
Discussion	27
References	30
Appendices	33
Tables	41
Figures	46

List of Appendices by Titles

Purchasing Task Analysis for Convenience Store	34
Purchasing Task Analysis for Fast Food	36
Consent for Participation	38
Letter to Parents	40

List of Tables by Titles

Data Collection	
Subject 1- Fast Food Setting	42
Data Collection	
Subject 2- Fast Food Setting	43
Data Collection	
Subject 1- Convenience Store Setting	44
Data Collection	
Subject 2- Convenience Store Setting	45

List of Figures by Titles

Percentage of Correct Responses Subject 1- Fast Food Setting	47
Percentage of Correct Responses Subject 2- Fast Food Setting	47
Percentage of Correct Responses Subject 1 Convenience Store Setting	48
Percentage of Correct Responses Subject 2 Convenience Store Setting	48

Teaching Purchasing Skills Through
the Application of Constant Time
Delay to Students with Moderate
Mental Retardation during Community-Based
Instruction

In the past, a curriculum designed for students having moderate to severe mental retardation did not focus on the social, employment, or self management skills needed to function in society effectively. For example, in a sample of special education students who graduated or aged out from 1984-1986, only 29% of these special needs students found full- or part-time work and only 17% lived independently of their parents (Frederick-Dugan, Test & Varn, 1991). The average wage of the special needs person is \$4.35 per hour and this wage does not increase appreciably over time (Frederick-Dugan, Test, & Varn, 1991). These wage and employment rate statistics, when compared to the "normal" graduate, are extremely low; thus, many authorities suggest that the system has failed these students in preparing them to live and work within the community (Frederick-Dugan, Test & Varn, 1991).

More recently, researchers are concentrating on developing a curriculum focusing on survival and life skills activities. Instead of emphasizing the traditional academic areas of reading, writing and arithmetic more focus is placed on such essentials as purchasing skills, grooming

skills, communication skills, cooking skills, life skills, vocational skills and use of public transportation (Griffin, Wolery, & Schuster, 1992). This training is designed to teach students with moderate mental retardation to live and work more independently than in the past. Through the implementation of this curriculum students are trained to maintain a job, dress and undress, travel through their community efficiently, and purchase items from the community shops or restaurants.

An important aspect of this life skills curriculum is community based training. In community based training the students learn, first hand, appropriate behavior, purchasing skills and communication skills. There is less need for generalization across settings, thus the training is more effective. Students who learn a skill in the classroom must be able to perform this skill while in a totally different situation. Students with mental retardation have a more difficult time generalizing skills than most "normal" students (Stokes & Baer, 1977).

Recently, authors have tested a new method for training students with moderate mental retardation called time delay. The time delay procedure is a response prompting strategy in which stimulus control is transferred from a controlling response prompt to a target stimulus (Wolery, Ault, Gast, Doyle, & Griffen, 1991). The time delay procedure has been used extensively in the classroom for training; however, very little experimentation with time delay while students

are in the community setting has taken place. Research involving community based instruction and the use of time delay is necessary in order to determine if this is an effective training tool for students with moderate mental retardation.

Community-Based Instruction

In the past, students with mental retardation have been taught in traditional settings with traditional methods that may not be relevant to the real world. Students counted wooden blocks, performed addition and subtraction with pencil and paper and put pegs in pegboards (Nietupski, Hamre-Nietupski, Houselog, Donder, & Anderson, 1988). These tasks failed to teach students with mental retardation to function effectively in society. Recently, researchers have determined students who are taught skills that directly relate to normalized community participation will succeed more than students taught with traditional methods when placed in that situation (Nietupski, Hamre-Nietupski, Donder, Houselog, & Anderson, 1988).

Although community-based instruction is an invaluable component in the education of the mentally handicapped, funding for these trips is generally lacking. Westling and Floyd (1990) reviewed 27 current studies and compared the generalization of classroom training, in several skills needed to function effectively in society, to actual on site community training. Students were trained in the areas of restaurants, vending machines, grocery stores, banks,

automated banking machines, pedestrian skills, bus riding, and recreational settings. In addition, Westling and Floyd (1990) addressed the issue of single community sites versus multiple community sites and were unable to determine if one was more effective than the other.

Generalization is characterized as "appropriate responding in untrained situations" (Westling & Floyd, 1990, p. 388). Students must perform a task in the community just as they were taught in the classroom situation. Classroom based training of community skills may be effective for generalization; however, in most settings community-based instruction proved more beneficial (Westling & Floyd, p. 388). Furthermore, various researchers have called for the use of multiple settings to ensure appropriate training in the community; however, evidence exists to demonstrate that single setting training may be sufficient (Westling & Floyd, 1991).

An important aspect of functioning in society is maintaining a functional survival vocabulary. Most studies investigating the learning and retention of sightword vocabulary take place in the school setting utilizing words on flash cards according to Cuvo and Klatt (1992). A disadvantage to this method of teaching, is that it does not promote generalization. The flash cards are an artificial representation of natural textual discriminative stimuli and, thus, do not promote generalization to the natural stimuli (Cuvo & Klatt, 1992).

Cuvo and Klatt (1992) compared the use of community-based, videotape, and flash card instruction in teaching functional sight words to children with mental retardation. The results indicated that in each method of training all students quickly learned the meaning of the sight words in less than six sessions; however, students retained the information longer when taught with video tapes and while in the community setting (Cuvo & Klatt, 1992). As Cuvo and Klatt (1992) describe, community-based instruction proves more beneficial in learning functional sightwords because children can use naturally occurring cues and consequences to aid in the learning process. This, in turn, eliminates the need to generalize.

In a study performed by Browder, Snell, and Wildonger (1988), simulation and community-based instruction of vending machine use with time delay procedures was addressed. Researchers evaluated the use of a simulation as an adjunct to community-based instruction to determine its effectiveness in the use of vending machines (Browder, Snell & Wildonger, 1988). In the simulated trials two vending machines were constructed in the classroom by the teacher for this study. Students inserted money into a cardboard slot on the machines, whereas, in vivo, students went to a local bowling alley to purchase items from a real vending machine (Browder, Snell & Wildonger, 1988).

The results indicated that concurrent training of a skill in the classroom and in vivo was effective and

economically efficient (Browder, Snell & Wildonger, 1988). Students were able to use a vending machine effectively in the community after concurrent training occurred. However, as yet unknown is whether or not generalization would have occurred if there had not been weekly in vivo probes or vice versa (Browder, Snell, & Wildonger, 1988).

Time Delay Procedures

The time delay procedure is a response prompting strategy in which stimulus control is transferred from a controlling response prompt to a target stimulus. Constant time delay involves the simultaneous presentation of the controlling prompt and stimulus. The time between the stimulus and prompt is at a fixed interval (Wolery, Ault, Gast, Doyle & Griffin, 198).

In a study performed by Wolery, Ault, Gast, Doyle, and Griffin (1991), students were taught a chained task in dyads. The students were each taught a different portion of a chained response in addition to observing the other students during their learning trials (Wolery, Ault, Gast, Doyle & Griffin, 1991). The procedure used a total task format. The purpose of the study was to determine if constant time delay was effective in teaching observational learning of a chained task. In addition, Wolery, Ault, Gast, Doyle, and Griffin (1991) intended to prove that constant time delay is an effective and efficient tool in teaching students in a small group setting.

The results indicated that constant time delay is an effective method for teaching chained tasks. Students taught using constant time delay improved in all tasks evaluated including portions learned through observational learning (Wolery, Ault, Gast, Doyle, & Griffin, 1991).

In a study performed by Frederick-Dugan, Test, and Varn (1991), students with moderate mental retardation were trained to use a calculator to purchase various items from a store. The purpose of this study was to determine whether a time delay system taught while in the school setting would be generalized to community-based instruction.

Using a calculator and a set amount of money, students were required to determine if they had enough money to purchase a predetermined list of items. While in the school setting, students were presented with instructions on how to compute this type of problem using a time delay method of instruction. Once students had mastered four consecutive training trials they were taken to a local department store for community probes. Time delay was not used during the community sessions.

The results indicated that with a time delay method of instruction students were able to master purchasing skills. In addition, students maintained this skill while in the community setting (Frederick-Dugan, Test & Varn, 1991). According to Frederick-Dugan, Test, and Varn (1991), there is a definite relationship between the instructional use of time delay and the use of a calculator to make purchases.

As described by Schuster and Griffen (1991), it was not until 1987 that constant time delay was used successfully with chained tasks. Since that time many studies have been conducted researching the effectiveness and efficiency of constant time delay in the school setting (Schuster & Griffin, 1991). However, little research has been conducted on the use of time delay techniques in community-based instruction. Although studies have proven that constant time delay is effective in generalizing from the school setting to community-based instruction, to date there has been little research in the use of constant time delay while in the community setting (Schuster & Griffin, 1991).

In a study performed by Chandler, Schuster and Stevens (1993), students with mild mental retardation were taught employment skills using a constant time delay procedure. Four students participating in this study were individually taught three chained tasks. Subjects were taught to use a copy machine, a duplicating machine and to refill a drink machine. Students were initially taught with a 0-second delay, which was changed to a 5-second delay following the first training session (Chandler, Schuster & Stevens, 1993).

Constant time delay was highly effective in teaching the four students three job skills. Students ranged from 92% to 100% accuracy in the three job skills (Chandler, Schuster & Stevens, 1993). In addition, two students maintained these skills at high rates up to 11 months after training sessions were completed (Chandler, Schuster &

Stevens, 1993). This study added to current research on constant time delay in several areas. " It extends the application of constant time delay with chained tasks to job skills, it extends the constant time delay chained task literature to individuals with mild mental disabilities, and it expands the time delay literature in its evaluation of long term maintenance and generalization" (Chandler, Schuster & Stevens, 1993, p.162).

In a study performed by Kratzer, Spooner, Test and Koorland (1993), two students with severe multiple disabilities were taught requesting skills using a constant time delay approach. Students were given a choice of something to eat or something to drink and were given a command to choose. Students were only trained during breakfast. A 5-second time delay method was used to train the students to press an "I want eat" or "I want drink" button on a communication board (Kratzer, Spooner, Test & Koorland, 1993).

Few studies have been performed on subjects with severe disabilities using a constant time delay. Kratzer, et al. (1993) hoped to prove that constant time delay was effective in teaching children with severe handicapping conditions. Although results did not conclude that a functional relationship exists, they did indicate a potential relationship between time delay and increases in students' requests (Kratzer, Spooner, Test, & Koorland, 1993). In addition, students were able to generalize across settings.

Students used the communication board at lunch and snack which was not part of the training.

Wolery, Ault, Gast, Doyle and Griffen (1990) performed a study comparing constant time delay and the system of least prompts in teaching children with moderate mental retardation the chained tasks of setting a table, setting a work station, folding a napkin, folding a shirt, packing a suitcase, and packing groceries. Students were taught all six tasks using both constant time delay and the system of least prompts.

Both constant time delay and system of least prompts were effective in teaching students chained tasks; however, constant time delay was more efficient on all measures (Wolery, Ault, Gast, Doyle & Griffen, 1990). In addition, the authors determined that for students with maladaptive behaviors in instructional situations where demands are high and errors are made, the constant time delay procedure may be the more desirable strategy (Wolery, Ault, Gast, Doyle & Griffen, 1990). The students made fewer errors when a constant time delay method of instruction was used.

In a study comparing constant time delay and most-to-least prompting in teaching laundry skills to students with moderate mental retardation, Miller and Test (1989) determined, in terms of instructional time and errors, constant time delay was superior to the most-to-least prompting strategy. When comparing total errors, Miller and Test (1989) concluded that on the average three times more

errors were made when trained in a most-to-least prompting strategy. For students who do not function well when errors are made, it seems, constant time delay is an efficient method of training.

Similarly, four students were trained to select a lower-priced grocery item using an adapted number line and a five second constant time delay procedure (Sandknop, Schuster, Wolery & Cross, 1992). Training took place in the school setting, whereas, actual testing took place in a local grocery store. Thus, generalization was also a factor in this study.

Data indicated a near errorless acquisition of the purchasing skill (Sandknop, Schuster, Wolery & Cross, 1992). In addition, students were able to generalize. Students were as successful in the community setting as they were in the school setting (Sandknop, Schuster, Wolery & Cross, 1992). Students were able to maintain this skill for up to 14 weeks following the conclusion of the study (Sandknop, Schuster, Wolery & Cross, 1992).

In a study performed by Griffen, Wolery and Schuster (1992) three students with moderate mental retardation were taught chained food preparation using a constant time delay method of instruction. In this study each subject was taught and performed one task while the other two watched. Griffen, Wolery and Schuster (1992) determined constant time delay was an effective method of training for chained food preparation. In addition, the two students who were

observing were also able to complete the task of preparing the food item. The results extended previous research where chained tasks were taught in dyads (Griffen, Wolery & Schuster, 1992).

In a study performed by Schuster and Griffen (1991) students with moderate mental retardation were taught to prepare a drink using a picture and word recipe card. A 5-second constant time delay procedure was used to teach the students this process. There were five subjects participating in the study and each was taught on a one-to-one basis (Schuster & Griffen, 1991).

Schuster and Griffen (1991) concluded the students acquired the recipe following skills following the implementation of a constant time delay method of training. All students maintained this skill for up to two months following the training session (Schuster & Griffen, 1991). In addition, two students were tested the following year and were able to complete the task with 81% and 94% accuracy respectively (Schuster & Griffen, 1991).

A constant time delay method of instruction has been proven effective across various levels of disabilities as well as across many settings (Wolery, Ault, Gast, Doyle & Griffen, 1990). Students tend to perform tasks more efficiently and effectively when taught with this method. In addition, students are able to generalize more often, as well as retain information for longer periods of time, when

taught using constant time delay (Sandknop, Schuster, Wolery & Cross, 1992).

Statement of Purpose

Community-based training is an excellent method of instruction for students with mental retardation. Students with mental retardation have a more difficult time than peers generalizing from situation to situation (Westling & Floyd, 1990). When a community-based instruction program is implemented an extra variable is removed, thus improving a student's ability to function (Westling & Floyd, 1990).

Time delay has been proven to be an effective method of instruction in the classroom setting. However, to date, little research has been done on the use of time delay while in the community setting.

A major goal for students with mental retardation is to provide a functional curriculum based on current and future domestic environments (Sandknop, Schuster, Wolery & Cross, 1992). In order to achieve this goal students need to learn as many life skills in as many settings as possible.

Community-based training is a very important aspect of a student's curriculum. Therefore, the purpose of this study was to investigate the effectiveness of constant time delay, while in the community setting, on the ability of students with moderate mental retardation to purchase items at local fast food restaurants and convenience stores.

Method

Experimental Design

This study used a multiple probe design across settings.

Subjects

Two subjects, 12 and 13 years old, with moderate mental retardation were used in this study. Both students were enrolled in a self-contained classroom for the trainable mentally handicapped. Both subjects were ambulatory and able to communicate orally. The subjects took part in a community-based training program on a regular basis. Learning to make purchases in the community setting was a part of each student's Individualized Education Plan.

Both subjects were able to recognize and count the numbers 1-20. In addition, both subjects could attend to a task for 30 minutes without disruptive behaviors. Students were able to use a calculator, in the school setting, and read prices from left to right. Students recognized all coins and were able to give the amount of each. In addition, the students were able to recognize and add bill denominations up to \$20.00.

Setting

Subjects were trained to make purchases while in the community setting. Community probes took place at local fast food restaurants and a convenience store on a weekly basis.

Dependent Variable

The dependent variable in the study was the percent correct on the purchasing task analysis on community probes. A response was considered correct if it was initiated within 5 seconds and completed within 20 seconds without an instructor prompt.

Materials

Materials included index cards, a pencil, varying denominations of money and a vertical number line. In addition, various products from fast food restaurants or a convenience store were selected by the students. The items purchased by the students served as reinforcers.

Procedure

Students participating in this study remained anonymous and unnamed. Students participated voluntarily with school division and parental permission. All results are confidential.

Baseline

Baseline took place at a local convenience store and a local fast food restaurant. Students had enough money, in various paper denominations (i.e., several 1's, a 5, a 10), to purchase two snack items or a lunch. In addition, students had a vertical number line, a pencil and an index card. Students were given the prompt, "Purchase the items you would like". Students were allowed to continue until an error was made. At that time students were praised for

attempting to perform the task. See Appendix A and B for a task analysis.

Training Sessions

Students were trained at a local convenience store and later at local fast food restaurants. Students selected snack items from the convenience store and a meal from the fast food restaurant. The same procedure was used in both settings. A constant time delay method of instruction was used. A 0-second delay was used for the initial trial. The teacher provided the task request and immediately provided a prompt which included a model as well as a verbal description. A 5-second interval was used during all other trials. After presenting the task request, "Purchase the items you would like.", the teacher waited 5 seconds (Note: Seconds were counted silently 1000-1, 1000-2, 1000-3, 1000-4 and 1000-5). If a student response had not occurred, a controlling prompt was provided by the teacher.

There were two types of correct responses during probe sessions. Correct anticipations were defined as initiating a step before the controlling prompt and correctly completing the step within 20 seconds. Correct wait responses were defined as initiating the correct step of the task analysis within 5 seconds after the controlling prompt and completing it within 20 seconds. Students were given verbal praise for all steps completed correctly.

There were three types of error responses during probe sessions. Non-wait errors were defined as errors made by

students initiating a response incorrectly before a controlling prompt. Wait errors were defined as errors that occurred when a student initiated a response within 5 seconds after a controlling prompt but failed to complete the step within 20 seconds. No-response was defined as students failing to initiate a response within 5 seconds after a controlling prompt had been delivered. All errors resulted in the teacher saying "Stop" and providing a controlling prompt.

Results

The probe and instructional data for both students in the fast food setting are shown in Figure 1. The probe and instructional data for both students in the convenience store setting are shown in Figure 2. The percentage of task analysis steps completed correctly per session are represented on the ordinate while the experimental sessions are numbered along the abscissa. Correct anticipations are represented with closed circles while correct wait responses are represented by open triangles.

In the fast food setting at baseline both subjects were performing 20% or fewer steps independently and correctly before the time delay method was introduced. Neither student acquired the target skill during the training trials. Subject 1, who had a 20% success rate for correct anticipations at baseline and a 10% success rate for correct waits, made some improvements. Subject 1 at the conclusion of the fast food study performed 40% of the task with correct anticipation. In addition, there were not any correct wait responses at the conclusion of this study. Overall, Subject 1 made 27 no wait errors, 13 wait errors, and 7 no response errors for a total of 47 errors during the 7 sessions. The data, number and percent correct, and number and percent error for subject 1 in the fast food setting is shown in Table 1.

Subject 2, at baseline, had 10% correct anticipation responses and 0 correct wait responses. At the conclusion of the study Subject 2 had 20% correct anticipation responses and 20% correct wait responses. Overall, Subject 2 had 20 no wait errors, 20 wait errors, and 12 no response errors for a total of 52 errors during the 7 sessions. The data, number and percent correct, and number and percent error for Subject 2 in the fast food setting are shown in Table 2.

In the convenience store setting at baseline Subject 1 had 0 correct anticipation responses and 40% correct wait responses. After all trials were complete Subject 1 had 90% correct anticipation responses and 0 correct wait responses. Overall, Subject 1 had 12 no wait errors, 0 wait errors, and 16 no response errors for a total of 28 errors during the 7 sessions. The data, number and percent correct, and number and percent error for each student in the fast food setting are shown in Table 3.

At baseline Subject 2, in the convenience store setting, had 10% correct anticipation responses and 40% correct wait responses. Upon completion of the study, Subject 2 had 70% correct anticipation responses and 20% correct wait responses. Overall, Subject 2 had 11 no wait errors, 6 wait errors, and 13 no response errors for a total of 30 errors during the 7 sessions. The data, number and percent correct, and number and percent error are shown in Table 4.

Discussion

A five-second constant time delay procedure was effective in teaching students with moderate mental retardation to purchase snack items at a local convenience store; however, the procedure was not as effective in teaching purchasing skills at local fast food restaurants. This study is consistent with previous research in several ways. First, subjects improved their purchasing skills when taught using a constant time delay method of instruction. Constant time delay has been proven effective in teaching students with moderate mental retardation; however, there has been little research in the community setting. Acquisition of the target skill in the convenience store setting was quick and accurate as found in past research.

Past research using a constant time delay method of instruction has found it to be an extremely quick and effective method of teaching students specific skills. In the present study, this was found to be true in the convenience store setting; however, little improvement was made in the fast food setting. When the subjects were required to speak to the attendant, they became overly nervous and, therefore, were unable to complete few, if any, of the remaining steps involved in purchasing fast food items.

Although this study had some important results, it also had numerous limitations. Due to time and monetary constraints the study did not have a lengthy baseline phase nor enough trial sessions to be an effective measurement of the subjects' ability to learn the targeted skills. Because all trials took place during school trips, the number of trials was limited due to funding for the program. In addition, a trial was delayed due to weather and ultimately had to be rescheduled after a lengthy holiday. An additional limitation would be that the present study can not determine if the subjects will generalize from one convenience store to another in the future. All trials took place at one location due to its easy accessibility. Students were able to locate desired items with ease and became very familiar with the cashiers after only a few sessions.

Although important results were obtained through this study, subjects will not be able to shop or dine out independently with the information gained through this study. Subjects were given a controlled amount of money for each trial. In reality, when purchasing items at a fast food restaurant or in a convenience store, money amounts will vary and students may not always have the next dollar up amount. This is an issue that needs to be addressed in the future.

In addition, subjects will need assistance with what is on the menu. For the most part the subjects are unable to

read and will always need some type of assistance in determining what is available. During this study, subjects were given enough money to cover all purchases; however, in an uncontrolled setting subjects will need to determine how much money can be spent prior to making purchases.

Future research should focus on determining a method to improve students' generalization skills across community settings. In addition, using a constant time delay method of instruction has been proven effective in the school setting and should be investigated further in community based instruction. Furthermore, a study using more subjects would provide additional information as to the effectiveness of constant time delay in the community setting.

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Appendix A

Purchasing Task Analysis for Convenience Store

Purchasing Task Analysis for Convenience Store

1. Select items to be purchased.
2. Take items to cashier.
3. Wait for cashier to give total for items.
4. Orally repeat the total price of the items.
5. Look at the dollar amount due to cashier.
6. Look at number line.
7. Find dollar amount due to cashier.
8. Look at the next dollar up on number line.
9. Count next dollar up amount to cashier.
10. Wait for change.

Appendix B

Purchasing Task Analysis for Fast Food

Purchasing Task Analysis for Fast Food

1. Select items to be purchased.
2. Order your meal.
3. Wait for cashier to give totals.
4. Orally repeat the total price of the items.
5. Look at dollar amount due to cashier.
6. Look at number line.
7. Find dollar amount due to cashier.
8. Look at the next dollar up on number line.
9. Count next dollar up amount to cashier.
10. Wait for change.

Appendix C

Longwood College Consent for Participation in Social
and Behavioral Research

Longwood College
Consent for Participation in
Social and Behavioral Research

I, _____, consent to allow my child to participate in the research project entitled: Teaching Purchasing Skills Through the Application of Constant Time Delay to Students with Moderate Mental Retardation During Community-Based Instruction.

I acknowledge that the purpose of this study, the procedures to be followed, and the expected duration of my child's participation have been explained to me. Possible benefits of this project have been described to me, as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding this research project, and that any questions I have raised have been answered to my full satisfaction. Further, I understand that my child's participation in this research is voluntary, and I am free to withdraw my consent at any time and to discontinue participation in this project without prejudice. I understand that no information will be presented which will identify my child as the subject of this study unless I give my permission in writing.

I understand that if I have concerns or complaints about my child's treatment in this study, I am encouraged to contact the Office of Academic Affairs at Longwood College at (804) 395-2010.

Finally, I acknowledge that I have read and fully understand this consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: _____ Signed: _____
(Parent)

Date: _____ Signed: _____
(Witness)

Appendix D
Letter to Parents

Dear Parents,

I am currently working on my Master's Degree in Special Education. In order to complete the requirements I must write a thesis. I have chosen purchasing skills as the topic of my study.

I have written a proposal that involves teaching purchasing skills in the community setting using a constant time delay method of instruction. Students will select items from a convenience store or fast food restaurant and pay for the items using the next dollar up strategy (i.e. If the price is \$3.84, students will give the cashier \$4.00). This study will be completed by December 15, 1995.

I would like to use your son as one of my subjects. I want to assure you he will remain anonymous as all students in the class will be taught using the same method. The training will take place on our community trips. I will be paying for the items that he purchases as he will need several denominations of bills.

I have enclosed two consent forms from Longwood College. If you agree to have your son participate please return one copy and you may keep a copy for your records.

If you have any question or would like a copy of my proposal please do not hesitate to contact me at school or home. Home (804)266-0254.

Thank-You,

Jennifer L. Hueston

Tables

Table 1
Subject 1 - Fast Food Setting

<i>Baseline</i>	11	1	1111	1	11	CA - 20% CW - 10%
Trials 1	1	11	11111	1	1	CA - 10% CW - 20%
2	1	11	1111	11	1	CA - 10% CW - 20%
3	11	1	11111	11		CA - 20% CW - 10%
4	111		1111	11	1	CA - 30% CW - 0
5	1111		11	111	1	CA - 40% CW - 0
6	1111		111	11	1	CA - 40% CW - 0
	Correct Anticipation	Correct Wait	No Wait Error	Wait Error	No Response	

Table 2
Subject 2 - Fast Food Setting

<i>Baseline</i>	1		1111111		11	CA - 10% CW - 0
Trials	1	11	11	1111	11	CA - 20% CW - 0
	2	11	11	1111	11	CA - 20% CW - 0
	3	11	11	1111	11	CA - 20% CW - 0
	4	11	1	1111	1	CA - 20% CW - 10%
	5	11	11	11	11	CA - 20% CW - 20%
	6	11	11	111	1	CA - 20% CW - 20%
	Correct Anticipation	Correct Wait	No Wait Error	Wait Error	No Response	

Table 3
Subject 1 - Convenience Store Setting

<i>Baseline</i>		1111			111111	CA - 0 CW - 40%
Trials	1	1111		1111		11 CA - 40% CW - 0
	2	111	1	1		11111 CA - 30% CW - 10%
	3	1111	11	1		111 CA - 40% CW - 20%
	4	111111		1111		CA - 60% CW - 0
	5	111111111		1		CA - 90% CW - 0
	6	111111111		1		CA - 90% CW - 0
		Correct Anticipation	Correct Wait	No Wait Error	Wait Error	No Response

Table 4
Subject 2 - Convenience Store Setting

<i>Baseline</i>	1	1111	11	11	1	CA - 10% CW - 40%	
Trials	1	111	1	11	1	111	CA - 30% CW - 10%
	2	111	1	1	11	111	CA - 30% CW - 10%
	3	111	1	11	1	111	CA - 30% CW - 10%
	4	11111	1	11		11	CA - 50% CW - 10%
	5	111111	11	1		1	CA - 60% CW - 20%
	6	1111111	11	1			CA - 70% CW - 20%
		Correct Anticipation	Correct Wait	No Wait Error	Wait Error	No Response	

Figures

Figure 1
Subject 1 - Fast Food Setting

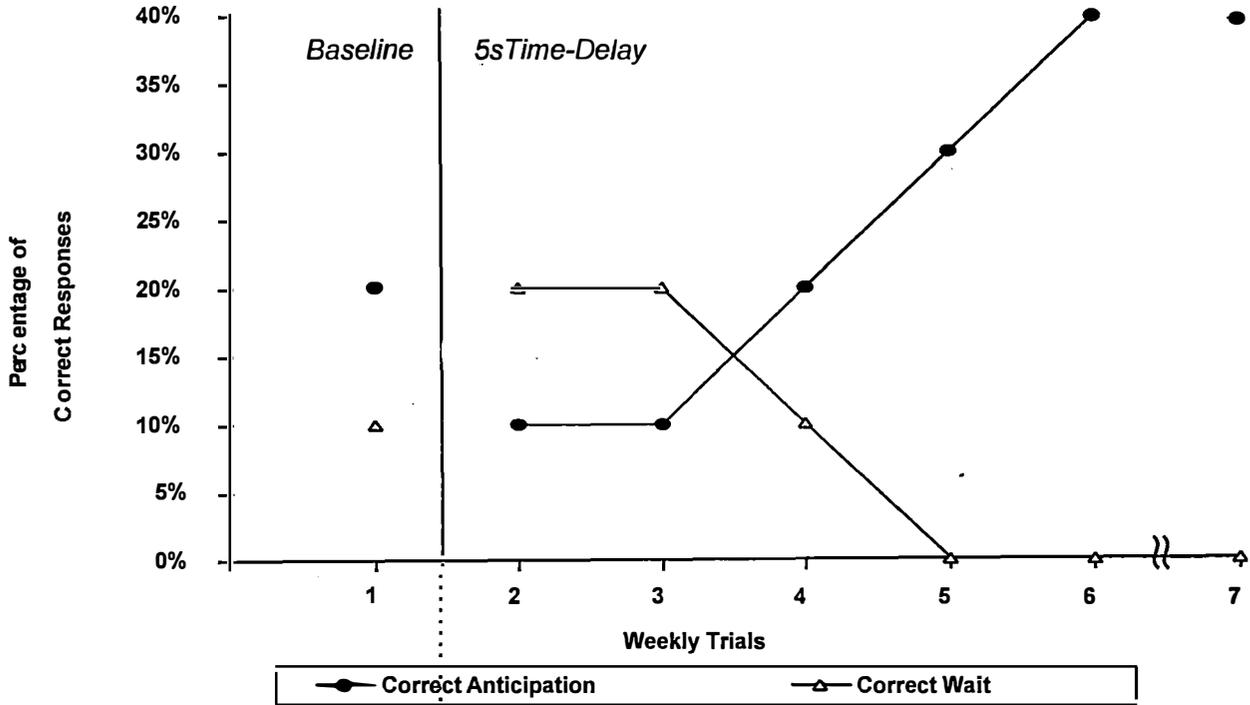


Figure 2
Subject 2 - Fast Food Setting

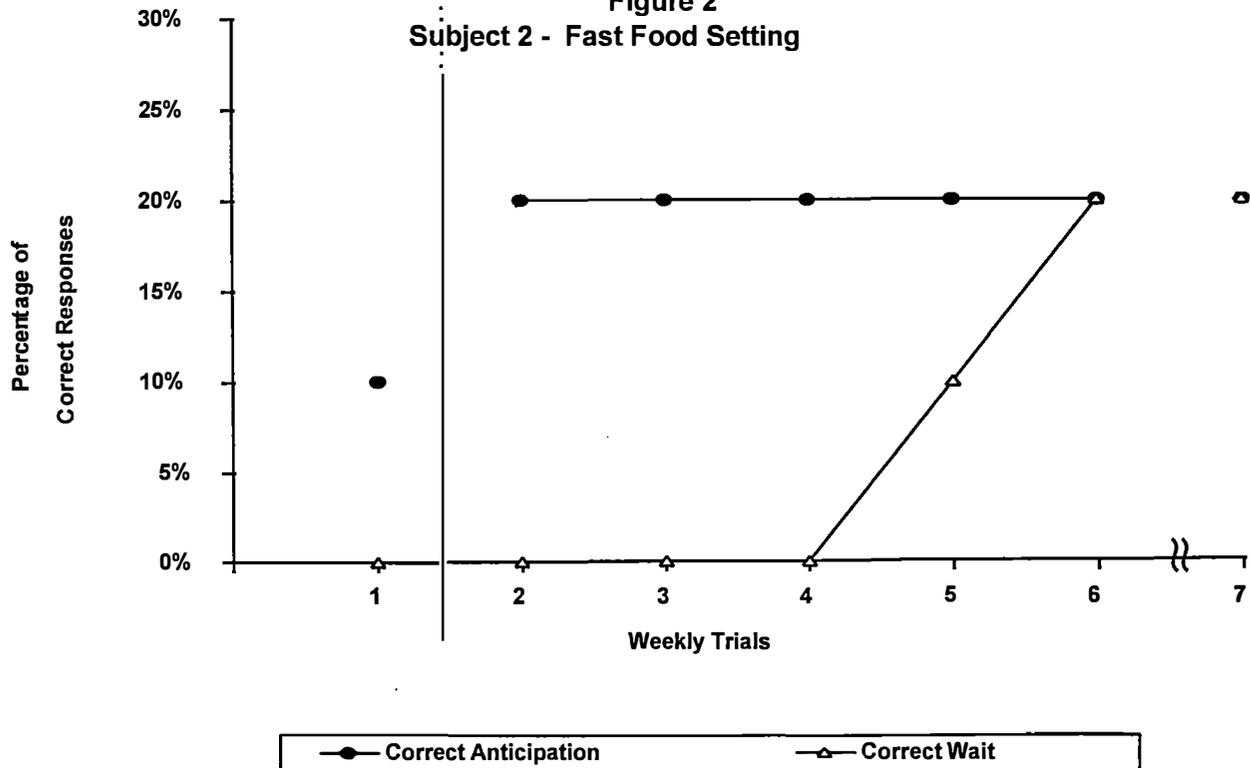


Figure 3
Subject 1 - Convenience Store Setting

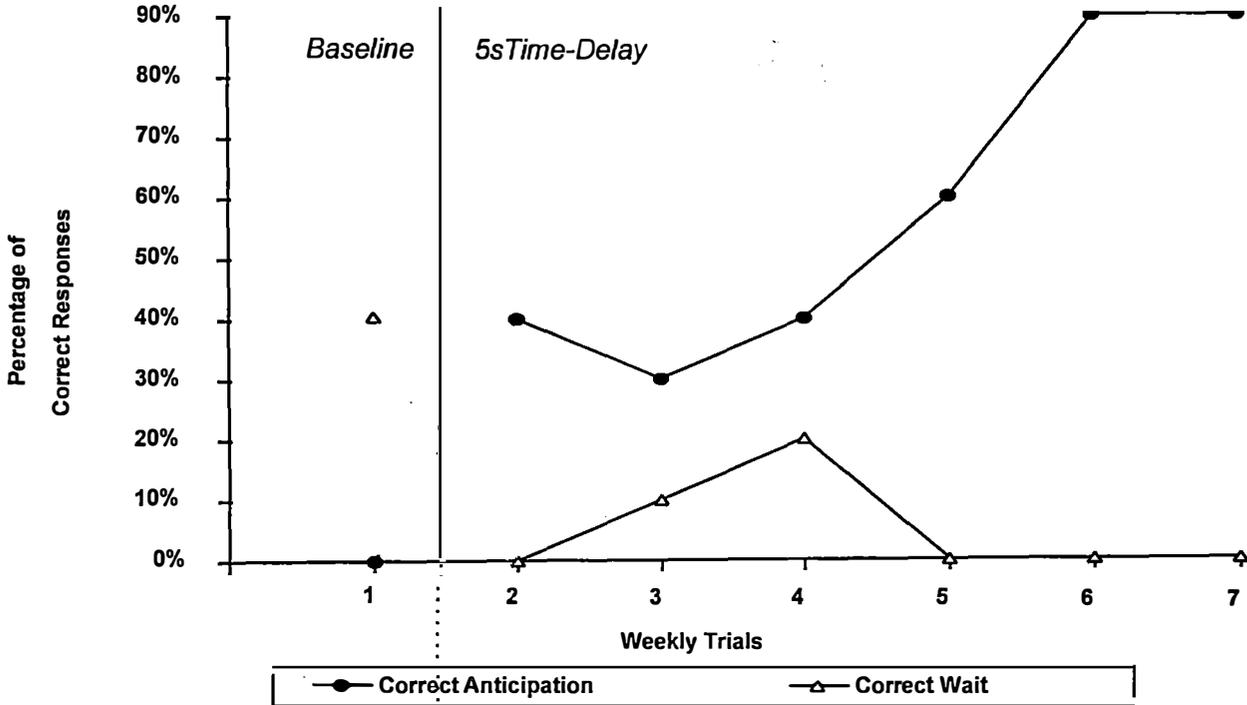


Figure 4
Subject 2 - Convenience Store Setting

