Week 7: Fieldwork Intervention Assignment

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EDUU 677-OL1: Autism Spectrum Disorders: Programming and Strategies II

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February 26, 2023

Introduction

The procedures used and the results obtained from a project to identify and implement an evidence-based practice, in the areas of instruction or communication and language, for a individual with ASD are presented below.

Description of Learner with ASD and the Instructional Need

Melvin, not his real name, is a 12-year-old student in the 6th grade at a middle school in Southern California. Melvin comes from a military family and moved several times when younger, but has been at his current school for three years. He was identified as eligible for special education services just before his third birthday and has received services since that time as an individual with autism.

Currently, Melvin attends all general education classes except for one period of study skills. He easily engages in conversation on preferred topics, but has difficulty attending to classroom instruction and following assigned procedures. When not directly engaged by the classroom teacher, Melvin will skip attending to teacher instruction. Instead, he'll glance quickly or read without understanding supporting materials, and start to work on the class assignments. Melvin opens his laptop as soon as he is settled in a classroom and will often have multiple windows open and switch back and forth between an assignment and other pages of interest. When not actively engaged Melvin will whistle or hum. If he is asked to stop whistling or humming, Melvin will respond that he has autism and that whistling or humming help to keep him focused. For this reason, Melvin is sometimes seated away from the front of the room and permitted to work independently on his laptop so that his whistling or humming won't disturb the class.

A paraprofessional, or teaching assistant, sits next to Melvin in his math class to assist him with correctly completing his work. This usually entails asking Melvin to slow down, redirecting him to listen to the teacher's instruction, or to review his notes. Regularly, Melvin

completes his homework and classwork assignments before arriving to class with minimal success, 0%-25% correct, and during independent work time the paraprofessional reviews Melvin's work and helps him make corrections.

Interviews with Melvin and his parents regarding Melvin completing his classwork and homework ahead of instruction have revealed the impression that Melvin is afraid of falling behind in class and that he is bored during teacher instruction unless he is directly engaged. However, Melvin can also be uncomfortable being put on the spot in class when he is asked a question to which he doesn't know the answer. When called upon, Melvin will smile and give an answer. If he is correct he will stay engaged for 5-10 minutes. If Melvin's answer is incorrect he will return to working on his laptop independently unless he is engaged by the teaching assistant.

Description of Specific Objective

Melvin will complete both math classwork and math homework after instruction is received with 75% or greater accuracy on his first attempt, with gradually fading supports. He will do this by 1) attending to teacher directed instruction; 2) taking notes and asking questions during instruction; 3) checking for his own understanding after each problem is solved; and 4) using peer support, paraprofessional support, teacher support, and family support to confirm that he is solving a problem correctly (supports). Support will initially be requested for each math problem, with gradual fading of support until Melvin is able to complete his work independently with no more than 2 supports per assignment.

Selection of EBP

I first considered using the evidence-based practice (EBP) of peer-mediated interventions because Melvin likes it when peers initiate communication with him and Melvin has demonstrated an inclination to follow peer guidance if it looks to bring him closer with his peers. However, I was unable to find any peers who wanted to work with Melvin on improving his

math performance and the time to complete this assignment was limited. I considered the EBP of self-management alone, but decided against this strategy because previous attempts to get Melvin to monitor his timeliness to class and on-task behavior have not been very successful. Melvin has received strong support from both his family and school to be aware of his strengths and to advocate for himself as an individual on the autism spectrum. As a result, when Melvin is counseled for arriving tardy to class his response is that he has autism. When Melvin is counseled to attend to teacher instruction, Melvin responds that he has autism and learns best on his own.

Cognitive Behavioral Intervention (CBI) was selected as a method to assist Melvin in examining his own thoughts and emotions, recognizing when fatalistic thoughts and emotions stand in the way of his academic success, and taking action to change his thoughts and emotions. Melvin's thoughts and emotions directly affect both his academic performance and his communication with others in the classroom. Assisting Melvin in changing his thoughts and emotions regarding class instruction and communication within class instruction through CBI is the first step toward any significant performance change.

Cognitive Behavioral Intervention

CBI is an evidence-based practice having met the criteria with "3 group design and 1 single case design studies" (Wong, et al., 2014). I have not previously used this intervention with this learner.

CBI "can be used effectively to address: social, communication, joint attention, school readiness, play, vocational, and academic outcomes" (Mussey, et al., 2017). There is evidence to support the use of CBI in the areas of Social, Communication, and Cognitive at both the Elementary (6-11 years) and Middle (12-14) ages, and in the area of Behavior at these areas and also the High (15-22 years) age (Mussey, et al., 2017).

CBI involves cognitive restructuring through teaching learners how our thoughts and emotions can lead to behaviors which stand in the way of reaching our goals. By teaching better ways of thinking and emoting, CBI can lead to improved behaviors which can support any number of desired replacement behaviors.

My rationale for implementing CBI with Melvin is to help him change his thoughts and emotions regarding the importance of attending to teacher instruction and of using newly acquired knowledge, memorialized in his notes or refreshed through other resources (i.e. study guides, checking with supports), before beginning his math classwork or homework. I will measure the effectiveness of CBI by observing Melvin's completion of self-management records and the percentage of correct answers on future assignments. Self-Management is another EBP, but not the primary focus of my intervention (Wong, et al., 2014). The EBPs of Prompting and Reinforcement will also be used (Wong, et al., 2014).

Implementation Procedures

Melvin possesses the prerequisite skills for CBI, including cognitive developmental level and expressive and receptive language skills above approximately 6 years (Mussey, et al., 2017). His reading level is consistent with the level of written materials (Mussey, et al., 2017). While Melvin is "group ready" for many classroom activities, I'm going to present CBI instruction to Melvin individually for the reason that he often sees his way of thinking to be related to his ASD and, therefore, unchangeable. If I had other learners with ASD similarly situated I would do group instruction, but I believe instruction provided alongside his peers with learning disabilities might highlight Melvin's differences and not, necessarily, build confidence in his ability to change his thinking.

For purposes of this intervention, I am well familiar with Melvin's needs and skills and further assessment will not be conducted beyond a review of his grades on classwork and

homework and observations in Melvin's math class and interviews with Melvin and the paraprofessional who works with Melvin in math (Mussey, et al., 2017).

I have considered Melvin's learning styles. While Melvin loves to talk and can retain some details which he hears only once, he has difficulty with planning and comprehension of multistage information which he only hears. Melvin has challenges with executive functioning, listed by Mussey, et al. as possibly including "weak organizational skills, trouble with initiation, weak planning/sequencing skills, and difficulties with flexibility, …, [and] transitions" (2017). Mussey, et al. also lists "cognitive shifting" as a possible weakness related to executive functioning (2017). I expect this intervention to shed light on the ease with which Melvin can make cognitive shifts.

After assessing Melvin's readiness skills for CBI and identifying his needs and skills, the next step is choosing a pre-prepared CBI instructional program or creating one specifically for Melvin. I elected to create a brief program to use with Melvin which included the following steps:

1. Discuss with Melvin the reasons why he is completing his classwork and homework before receiving instruction. Our discussion will include Melvin's scores on classwork and homework assignments, his own words and those of his parents about his fear of falling behind in class. The conclusion of this discussion is intended to be that Melvin's current plan is not working and his actions are actually increasing the time he spends on assignments and leading him to fall behind.

2. Identify positive reasons for Melvin to attend to teacher instruction during class before beginning classwork or homework, and provide assurances that he will be supported not to fall behind.

3. Teach new thinking skills (i.e. I can do this!) and introduce the self-monitoring checklist to guide Melvin in his new thinking and behaviors; and

4. Provide reinforcers for following the plan and demonstrating improvement, including praise for his new courageous behaviors.

The training sessions would be implemented individually with Melvin during study skills class which Melvin attends for two hours each week. After two hours of training sessions, Melvin would be observed and data would be collected in his math class which Melvin attends for four hours and 13 minutes each week.

Implementation Fidelity

The "[e]vidence supporting the use of CBI strategies for learners with and without ASD is built upon high fidelity of implementation" (Mussey, et al., 2017). The implementation fidelity for this CBI intervention is a result of the education and training I've had in CBI and how faithfully I implement CBI according to the guidance I've found. An IRIS module section on implementing a practice or program with fidelity includes the objectives of being familiar with the key components of an EBP, recognizing the importance of gathering and preparing needed materials, and understanding the risks of making adaptions to EBPs (Peabody College Vanderbilt University, n.d.).

As training for CBI, I completed the AFIRM Module on Cognitive Behavioral Intervention (Mussey, et al., 2017) and reviewed two journal articles. Hassan, et al. describe a four-part strategy for implementing CBI consisting of 1) instruction, 2) modeling, 3) rehearsal, and 4) feedback. After teaching the learner the new way of thinking, feeling, and acting, the instructor models the new behavior, has the learner rehearse the new behavior, and then provides feedback to the learner on progress made (2017). Karnezi and Tierney motivated learners to replace fears with courageous action through the use of fictional stories wherein the learner plays out a heroic role to save the day (2022).

I modeled implementation from both the Hassan, et al. and the AFIRM Module methods. Karnezi and Tierney's cognitive behavior drama model was the most interesting, but I didn't

believe I had the time to create a full new program to use with Melvin. I created an

individualized program for Melvin which comes with some risk and I'm not using a program that

has been successfully implemented previously. Nevertheless, I have created a program that

includes the major aspects of fully-developed programs and my training sessions for Melvin will

include the four Hassan strategies to increase implementation fidelity.

Data Collection

Data collected will include observations, work samples, and Melvin's self-monitoring

worksheet which will include frequency data on how often Melvin engages in new thinking, new

emotions, and new behaviors. Here is my design for Melvin's self-monitoring worksheet:

New Math Thinking: I can complete my work after teacher instruction! I am Listening and Learning. I am taking good notes! I am using support to check my work after every problem until I'm sure they are correct. <u>I'll mark only the areas I'm working on</u>.				
Date: _____	Assignment: _____			
Set Your Watch Timer!	1st 10 minutes	2nd 10 minutes	3rd 10 minutes	4th 10 minutes
I waited to start my work until after instruction?	Yes No	Yes No	Yes No	Yes No
I am listening and learning?	Yes No	Yes No	Yes No	Yes No
I am taking good notes?	Yes No	Yes No	Yes No	Yes No
I am checking my work after every problem?	Yes No	Yes No	Yes No	Yes No

The purpose of Melvin's self-monitoring worksheet is to help Melvin remember to follow

his new plan. During the implementation assessment week, Melvin will be observed during

three 54-minute periods and one 90-minute block day period. Melvin will use two self-

monitoring worksheets on his block day. I will be able to tell if CBI is working by examining

Melvin's monitoring worksheets, examining his classwork and homework grades, and through

observations and interviews. If CBI is working it will continue and, possibly, be expanded to

other classes. If CBI is not working I will look at the reasons why and consider changes to the

CBI intervention or trying other EBPs.

Collaborating Partners

Collaborating partners will include Melvin's math teacher, the paraprofessional who supports him in math, and Melvin's parents. I will familiarize each with the principles of CBI, the intervention which I will be presenting, and what Melvin will be asked to do in his math class and at home. At home, parents will be asked to help Melvin to not do his homework before instruction is provided at school and receive assurances that we are monitoring Melvin's progress to make sue he doesn't fall behind. Melvin has indicated that he loses privileges at home if he doesn't do his homework. I'll coordinate with parents to ensure that reinforcers at home support the CBI implementation.

Actual Implementation

Because of particular circumstances at my school, I am unable to implement this intervention in vivo. I have discussed this situation with my instructor for this course. As a work-around solution my reflection for this assignment will include three scenarios. The implementation of this intervention might be 1) strongly effective, 2) partially effective, or 3) ineffective. For each scenario I will discuss possible circumstances and implementation procedures which may have contributed to the objective being achieved, or not achieved, and what changes I might make to the intervention in the future to obtain improved results.

Reflection

1. <u>If Data Indicates the Intervention was Strongly Effective.</u> The specific objective for Melvin is that he complete both math classwork and math homework after instruction is received with 75% or greater accuracy on his first attempt, with gradually fading supports. I've prepared and provided Melvin with a self-monitoring worksheet that summarizes some of the new thinking I've worked to teach Melvin during instructional sessions held during his study skills class. These include that he can complete his work after teacher instruction, not before he has received instruction, that he is capable of listening and learning, and that he can take good notes. I'll observe Melvin and have the paraprofessional who works with Melvin observe him to see if

his marks on his worksheet match what is actually happening. I'll work with Melvin's math teacher to spice up instruction to better engage Melvin as he begins the self-monitoring of his progress. If Melvin's self-monitoring worksheet indicates that he is practicing what he has learned, observations support this, and Melvin's performance on classwork and homework are improving this will be strong evidence that the CBI intervention is working well. In this case, we will continue with the intervention.

2. <u>If Data Indicates the Intervention was Partially Effective.</u> It may be that Melvin has difficulty completing his self-monitoring worksheet, but observations and work samples indicate that progress toward his goal of 75% accuracy or better is being made. If this is the case, the self-monitoring worksheet might be simplified or become a monitoring worksheet completed by the paraprofessional instead of Melvin. Other adjustments may be necessary.

3. <u>If Data Indicates the Intervention was Ineffective.</u> This CBI may fail at the onset. Melvin may not be receptive to the instruction, may fight against attending to instruction and refuse to complete the self-monitoring worksheet. Or Melvin may attempt to participate but become frustrated or anxious. If so, CBI may be stopped and a different EBP implemented.

The chief weakness of my CBI plan is the instructional material. I'm hoping that with a willing and able learner the instructional material need not require extensive planning. I would like to have more time and the opportunity to use Karnezi and Tierney's cognitive behavior drama model (2022). Not only would it be fun for me to write the story, I think Melvin would enjoy having a fictional overlay to improving his performance in math and that the story would stick in his brain better which would increase the likelihood of generalizing new thinking, emotions and behaviors to additional classes.

Then again, creating a fictional story might lead to further off-task behaviors and discussions of the made up characters and their lives. More shall be revealed!

References

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