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ADDRESSING AUTISM SPECTRUM DISORDERS IN THE SECONDARY
WORLD LANGUAGE CLASSROOM

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ABSTRACT

Students with Autistic Spectrum Disorders (ASD) make up a rising percentage of the students in secondary general education classrooms (Zager, Wehmeyer & Simpson, 2012). Despite this growing precedent, there remains little research and discussion on effective methods for addressing the need of these students in the secondary classroom environment. This paper, examines some of the research relating to students with learning difficulties in an effort to apply the data to the reality of students with ASD in the secondary world language classroom. Also discussed are common world language teaching methodologies, in order to assess their potential effectiveness when addressing students with ASD in the secondary world language classroom.

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Chapter 1: Introduction

In a world where the diagnosis of Autistic Spectrum Disorders (ASD) is on the rise, there is an increasing amount of pressure for general education classroom teachers to employ diverse and inclusive strategies in their teaching methods. Due to the nature of ASD it can be difficult to identify and implement one specific strategy that can be used to reach these individual students. As a world language instructor it can be challenging to address the needs of these students in an effective way. However, by looking at strategies and methods used in other classrooms and with students with other disabilities we can determine strategies that could be effective for students with ASD

World language education is on the rise in the United States. As the world progresses to a more globalized economy it is becoming more common for students to be taught a second language and taught earlier (Lightbrown & Spada, 2003). However research has also been done into the question of the cognitive consequences of learning a second language. In past decades it has been assumed that studying a second language can have negative consequences on a person's cognitive ability. However, more recent research has determined that learning a second language has considerable cognitive benefit. Specifically, Raluca Barac and Ellen Bialystok (2011) state that bilingualism has positive effect on the executive function of our cognitive processes, the area that deals with attention, selection, inhibition, shifting and flexibility as it relates to higher thought. When considering students with ASD in the secondary world language classroom this is particularly interesting because it suggests that these students may benefit from learning a second language.

Besides cognitive benefits there are a number of other positive consequences that learning a second language holds, specifically for students with ASD. In many world language classrooms, students participate in a variety of activities that model communicative events. In this

way students with ASD have the opportunity to practice and internalize communicative strategies and actions that better their communicative abilities in their native language. Another aspect to consider in the secondary world language classroom is the role of culture. Exposing students with ASD to different cultural events and activities could also be beneficial to their development.

The first step to addressing the presence of students with ASD in the secondary world language classroom is to gain a better understanding of the students themselves. We need to understand the challenges that students will be facing as well as any strengths that are present, so as to better address them in the classroom. Specifically, we need to think critically about the how these challenges and strengths will manifest in the classroom.

As an educator, it is important to be aware of current research regarding teaching strategies and methods. By staying updated and familiar with such research we increase our own effectiveness within the classroom. However, this can be a difficult task considering the sheer volume of literature available. In this paper I will attempt to compile and synthesize past and current research relating to students with ASD in the classroom. I will also attempt to bridge the “gap” that is sometimes present between educational researchers and classroom teachers. The resulting document will be a valuable aid to classroom educators as they approach the reality of students with ASD in their classrooms.

In the following pages I will give a general overview of the primary characteristics of students with ASD. I will discuss common impairments and strengths that these students manifest in the classroom setting. After this brief overview, I will discuss some of the past literature dealing with ASD, learning disabilities and the secondary world language classroom. Finally, I will discuss common world language methodologies and special education approaches. Specifically, I will outline the fundamental characteristics of these approaches and how they can be adapted and implemented to effectively teach students with ASD.

Chapter 2: Understanding Students with ASD

Students with ASD exhibit a number of identifying characteristics. Social impairments are, perhaps, the fundamental characteristics of ASD. Students with ASD often have very limited knowledge of social interactions and exchanges. These students may also lack an understanding of many social cues and emotional expressions. This becomes more evident as the students progress through the education system and are confronted with social scenarios. Students with ASD rarely engage in standard play activities with other children, preferring self-isolation and solitude. These students will also display a poor interaction skills including failing to recognize/interpret facial expression and a reluctance to initiate and participate in personal interactions. This last example relates closely to another characteristic prevalent in ASD, poor communication skills (Ben-Arieh & Miller, 2010).

Communicative difficulties are a very common symptom of ASD. Those students with ASD often have difficulty understanding how things like turn taking occur within communicative events (Prior, 2003). In young students, language acquisition is oftentimes affected, impairing the student's ability to internalize and retain new words. These difficulties with communication can also manifest in a variety of other ways. For example, students with ASD may lack an understanding of non-verbal communication, causing them to misuse tools like eye-contact and facial expression (Ben-Arieh & Miller, 2010). In most students with ASD interpret words and phrases literally which can cause problems with figurative language and sarcasm.

Many students with ASD also exhibit sensory processing issues. These issues occur in varying degrees in one or more of the sensory modalities: auditory, visual, tactile, olfactory and vestibular (Ben-Arieh & Miller, 2010). Students with ASD can experience either hypersensitivity or hyposensitivity in any of these modalities, manifesting a variety of symptoms. These

symptoms can include a lack of response to various auditory and visual stimuli, such as the buzz and brightness of florescent bulbs, sensitivity to odors and touch, lack of coordination and insensitivity to pain. These sensory problems are closely tied to ritualistic behaviors that are also characteristic of ASD.

The final identifying characteristic of students with ASD is their behavior, specifically, the repetitive behaviors that result from a need for structure and continuity in their environments (Ben-Arieh & Miller, 2010). Students with ASD often have rituals that they perform as a part of certain tasks. This need for repetition can also cause certain amounts of distress when aspects of an environment or schedule are changed without warning for the student with ASD (Prior, 2003). These behaviors, as well as the difficulties mentioned above—communicative, social and sensory—can manifest in a thousand different ways, each unique to the individual. However, in the secondary education environment these manifestations will be somewhat limited.

Generally, we can expect to see students with high-functioning ASD in the secondary general education classroom. These students manifest most of the characteristics of Autism but in a less severe way than other students with ASD. The impairments that these students will face will fall into three general categories (Wire, 2005). The first general impairment deals with the students' communicative skills (Wire, 2005). The way that this specific impairment manifests itself can take many forms. For instance, students may have difficulty regulating the volume of their voice in certain situations while other students may have difficulty speaking at all. Many will have problems making eye contact with other individuals, which could cause difficulties when students are asked to model communicative events. The second category of impairments deals with the students' social skills (Wire, 2005). Many students diagnosed with ASD have difficulty participating in common social interactions and have a general dislike of speaking and working with groups of people, causing them to isolate themselves from other students. Again, when faced with a class period that is structured around communicative and social interactions,

students with ASD could experience significant distress. Finally, the last group of impairments deals with a resistance to change (Wire, 2005). Students with ASD often exhibit a lack of flexibility in a variety of ways. Often simple changes like a substitute teacher, new seating arrangement or altered routine cause a significant amount of stress for these individuals. Understanding these impairments and preparing for their manifestation in the secondary world language classroom is a sizeable undertaking, but understanding the challenges is the first step to developing the methods that can help these students thrive.

The second step is to understand that students with ASD have an array of strengths that can be used within the secondary world language classroom. In many cases some of the characteristic impairments listed above can have a positive impact on the classroom. For example, the lack of flexibility and resistance to change can be used to build up their knowledge base. In learning any language there is significant research to support the benefit of repetitive, meaningful practice (Lightbrown & Spada, 2006). A love of repetition, order and lists can be a powerful tool to a secondary world language educator. Such practices enhance long-term retention of the material by helping students to synthesize and internalize the vocabulary and concepts of a language. Along the same lines, students with ASD often focus on a specific subject of special interest. This can be challenging in the sense that it becomes difficult to draw the student away from this topic to the topic at hand. Unless, of course, an effort is made to include the topic of interest into the secondary world language lesson, either by incorporating the vocabulary or the topic of interest as a general theme. Overall, students with ASD come with challenges, but they also have strengths and interests that can be valuable tools to a world language educator (Wire, 2005).

Chapter 3: Review of Literature – The State of World Languages Education and Learners With Special Needs

The primary issue that arises when attempting to answer the question of ASD in the secondary world language classroom is a general lack of research and study. As more students with autism are put into mainstream educational programs the emphasis shifts from functional skills to more academic concerns (Breakey, 2006). However, the theoretical work has not yet caught up with increase of students with autism in mainstream academia. While the research is limited there are still sources that can be of immense value to the world language educators. Considerable research has been done into other difficulties in the secondary world language classroom, specifically dealing with learning disabilities (e.g. Ganschow, Sparks & Javorsky, 1998; Arries, 1999) By analyzing and synthesizing the problems and solutions discussed in these studies we can better approach the challenge of ASD in the secondary world language classroom.

Learning Disabilities and L2 Instruction

Richard Sparks and Leonore Ganschow are two researchers that have done considerable inquiry into learning disabilities and the role they play in the secondary world language classroom. In 1989 Sparks, Ganschow and Pohlman introduced the Linguistic Coding Differences Hypothesis (LCDH). The LCDH is notable for a variety of reasons. The LCDH was one of the first attempts at identifying and classifying learning disabilities in the secondary world language classroom. Derived primarily from native language research of the time, the LCDH addresses second language (L2) learning difficulties as a continuum, with learners ranging from very good to very severe and disabilities that range from mild to severe. Secondly, the LCDH was notable because of its characterization of L2 learning disabilities. The hypothesis uses students' native

language skills as an indicator of their L2 ability, that is, students who had significant difficulties in learning their native language (i.e. students with dyslexia) would again experience these difficulties in the secondary world language classroom. Furthermore, Sparks and Ganschow (1989) found that students with such disabilities would primarily experience phonological and orthographic difficulties when learning a language. Sparks and Ganschow concluded that a student's native language strengths and weaknesses, whether phonological/orthographic, syntactic (grammar) or semantic (meaning), would form the foundation of their L2 abilities.

With this foundation, researchers then turned to addressing these disabilities in the secondary world language classroom. In a 1991 study Sparks and Ganschow, along with Silvia Kenneweg and Karen Miller, observed the effectiveness of a specific approach to dealing with these language processing problems in the secondary world language classroom, called the Orton-Gillingham Approach. The approach requires learners (and educators) to break down the core structure and sounds in the language system into its phonological roots. When put into practice this approach creates a very specific classroom structure: the lesson will be taught entirely in the L2 is highly structured and contains frequent review.

The researchers go on to outline specific activities that can be employed in such a classroom (Sparks et al., 1991). The activities were designed to fill a full lesson in such a way as to address a variety of L2 concepts, with a primary focus on phonological roots for students with dyslexia. In practice, such a lesson would begin with blackboard drills focusing on phonology and grammar before progressing to oral sound drills that would review the sounds learned at the blackboard. After these introductory activities the students would then progress to grammatical concept and vocabulary instruction before moving into communicative activities where students would practice communicative events in the L2 (Sparks et al., 1991). Clearly, this classroom archetype presents a rigid and repetitive structure. While this approach was designed and implemented in an effort to address learning difficulties such as dyslexia in the foreign language

classroom, this approach also has the potential to be beneficial to other special needs students, such as those with ASD.

Students with ASD that enter secondary education classrooms will most likely be classified as high functioning (Prior, 2003). However, they will still have a variety of impairments that will have to be addressed within the classroom setting. Such impairments can easily include native language difficulties. Knowing this and with an understanding of the LCDH, theorized by Sparks, Ganschow and Pohlman, we can reasonably expect to see similar language difficulties as the students begin to study a L2. By understanding the idea that students who experience difficulty in their native language often experience similar difficulties in their L2, we can better determine the nature of the difficulties that these students with ASD may face. Using a student's native language abilities as a foundation, we can determine the area(s) in which a student may experience difficulty, whether phonological, orthographic, syntactic or semantic. With this knowledge we can better design and implement effective interventions in the foreign language classroom.

Sparks and Ganschow (1989) also provide significant insight into a specific area of difficulty relating to the confusion and misinterpretation of phonologic and orthographic structures. In the course of their research they focused on students with dyslexia and other, similar learning disabilities. This focus lead them to investigate strategies that could be employed in a classroom that would benefit students that had significant difficulties with the phonological/orthographic aspect of a L2. While the Orton-Gillingham Approach was originally studied for its effectiveness with students with learning disabilities, there are certain aspects that could be beneficial for students with ASD. The Orton-Gillingham Approach focuses primarily on learning and reinforcing the basic phonological constructs of the L2. Adapting the instruction of the secondary world language classroom to incorporate this approach would restructure the lesson format in a way that is both repetitive and methodic. Such a shift would directly address certain

needs of students with ASD. For those students with high functioning ASD that require firm and structured learning environments such an approach would be extremely beneficial, providing them with clear expectations and roles.

Another successful aspect of the Orton-Gillingham Approach was its emphasis on multisensory structured learning. The approach relies heavily of multiple modalities throughout the learning process. Students are simultaneously engaging in auditory, visual and kinesthetic learning. The Orton-Gillingham Approach, as employed by Sparks, Ganschow Kenneweg and Miller (1991), uses multisensory instruction in a very specific way, establishing a firm classroom structure that reading and writing skills with visual, auditory and kinesthetic stimuli.

ASD and Language Acquisition

Over the past decade ASD has become a much more widely researched and discussed topic. One of the major areas of research and discussion has been language acquisition in students with ASD, as language impairments are one of the primary characteristics of students with ASD. When contemplating the reality of ASD in the secondary world language classroom, this research dealing with the native language acquisition of these students with ASD can be immensely valuable to world language educators. By understanding the difficulties that students with ASD experience when learning their native language we can better facilitate their acquisition of an L2.

In a recent article, group of researchers reviewed some of the current and past literature relating to language acquisition in students with ASD (Eigsti, de Marchena, Schuh & Kelley, 2011). Language impairments are fundamental when discussing students with ASD; in many cases a delay in certain language milestones is the first warning sign when identifying students with ASD (White et al., 2012). While these dramatic delays occur early in childhood there is little agreement as to how the language abilities of a student with ASD progress as they age. The overarching area of deficiency is pragmatics or the communicative function of language (Eigsti,

2011). This is not surprising as it relates closely to a second impairment in students with ASD, their social inabilities. Students with ASD commonly have difficulties negotiating the communicative events that language involves. However, students with ASD also have difficulty mastering other areas of their native language, including syntax, morphology, semantics and phonology.

When discussing native language difficulties in students with ASD there has been a considerable amount of disagreement among researchers (Eigsti, 2011). In regards to syntax, an individual's ability to combine words and phrases, past research has indicated that ASD has no impact in this area. However, more recent literature indicates that there is some slight incongruity in students with ASD (Eigsti, 2011). Specifically, students with ASD tend to use a more rigid set of syntactic structures, combining words in a less complex way than their neuro-typical peers. In terms of semantics, the meaning of words and phrases, the impact of ASD on native language acquisition is less severe. Indeed, researchers concluded that one of the few areas of difficulty that students with ASD faced was their ability to determine the meaning of abstract words that related to another person's cognitive function (e.g. think, remember). Likewise, in terms of phonology, the sounds of a language, students with ASD experienced little difficulty in their native language. The researchers only noted that issues in phonology arose in very low functioning students with ASD.

Overall, research into native language acquisition of students with ASD is broad, yet disjointed. Perhaps the main cause of this difficulty is the nature of ASD. Individual students with ASD each manifest a unique set of impairments. This remains true with their language abilities as well, it is difficult to derive and define overarching characteristics in students with ASD due to the broad nature of this spectrum of disorders. However, there are still pieces of research that are beneficial to world language educators. By acknowledging the difficulties mentioned above we can better ensure the success of students with ASD in the secondary world language classroom.

Multisensory Instruction

In their essay *Multisensory Instruction*, Louisa Moats and Mary Farrell (1999) examine the research and methodologies relating to multisensory education and learning disabilities. The authors begin by outlining and clarifying definitions and conceptions of multisensory education. In the past the term multisensory has been loosely defined, often referring to the use of multimedia implements (i.e. video/audiocassettes) or the use of “hands on” activities that engage the tactile modality. Moats and Farrell (1999) define multisensory instruction, as it relates to the education of students with special needs, as instruction in language concepts and association that usually incorporate “hand-kinesthetic” components that relate to language structure. Such teaching strategies can include teaching letters of the alphabet using three-dimensional forms or structuring a paragraph using model implements. While methods such as these have long been used in educating students with learning difficulties and disabilities the authors go on to explore the theoretical basis of this approach.

There is considerable research that supports the idea of multisensory instruction. In terms of retention, Moats and Farrell review several neurological studies, including Richard Wagner’s review of theories relating to memory (1996) and the work of Seyed Mousavi, Renae Low and John Sweller on reducing cognitive loads (1995). These studies support the idea of engaging multiple senses in the learning process. Overall, the studies examined concluded that, while certain processing mechanisms (i.e. phonological or visiospatial) remain separate within the brain, students that have difficulty retaining phonological units greatly benefit from a variety of activities—reading, writing, listening, speaking, and kinesthetic. This variety of activities, while processed in separate centers of the brain, increases chances of retention as attention is drawn to multiple distinguishing features of phonological units. By engaging a students mind with multiple stimuli (i.e. visual, auditory, kinesthetic etc.) the separate processing mechanisms each identify a

piece or feature of the phonological unit and then work together to provide a complete representation. There is considerable theoretical support for the implementation of multisensory approaches that link standard language skills—reading, writing listening and speaking—with visual, auditory, kinesthetic and tactile modalities and its use in the general education classroom.

Before the 1990's multisensory, structured language education (MSLE) occurred primarily with self-contained learning environments. However, in the past few decades there has been a paradigm shift (Maskel, 1999). Students with special needs are more often mainstreamed with the general population and because of this there is a greater push general education classroom teachers to know and implement MSLE approaches within their classrooms.

MSLE approaches and implementations can take many forms in the general education classroom. There has been a notable amount of study into MSLE programs that focus on transitioning students from the self contained learning environments mentioned above into general education classrooms (Wood, 1992). In such approaches constant communication and collaboration between the general classroom teacher and the special education instructors are essential for success. However, more commonly general education classroom teachers are expected to be familiar with and implement MSLE approaches and methodologies independently. In these cases, where the general education classroom teachers are expected to address the distinct learning abilities present within their classroom there are several key steps that should be taken (Maskel, 1999). As in any classroom, the first step is planning. When accommodating any students in their least restrictive environment (LRE) planning and evaluation are critical. It is important to plan for and implement appropriate accommodations within the learning environment, making alterations to the lesson in order to incorporate time considerations and additional resources. The second step shifts the emphasis on preparation from the educator to the student, requiring them to understand their personal strengths and weaknesses. This step generally includes some type of formal assessment that serves to identify the specific learning styles of the

individuals. Raising a student's self-awareness, in terms of their learning, helps to increase the receptiveness within the classroom (Maskel, 1999). The final step focuses on instilling a sense of autonomy and self-advocacy in which the students themselves become independent learners, completing transference of responsibility from the teacher to the student. In establishing self-advocacy an educator is not removing himself or herself from a student's learning but engaging the student in his/her learning. In this way, the educator is ensuring a student's success beyond the classroom. These steps provide general outlines to address various learning disabilities within the secondary education classroom (Maskel, 1999). Other practical adaptations include: Extending/reducing assignment length or duration, pairing students with learning disabilities with a peer or cooperative learning group, developing study tools/guides and developing a contract for both classwork and homework (Maskel, 1999). The above list is not exhaustive but merely meant to provide concrete examples of reasonable accommodations.

The aforementioned adaptations are all specifically designed so as to maintain integrity of the assignment or scenario. Too often educators are ill prepared to modify their curriculum for students with special needs (Maskel, 1999). When dealing with students with learning disabilities the emphasis is placed on making adaptations that do not alter the substance of the work being done (White, Smith, Smith & Stodden, 2012). The same holds true when applying adaptations to classrooms that contain students with ASD. Much of the above research, guidelines and strategies relating to MSLE can be beneficial to students with autism.

One of the key characteristics of students with high functioning ASD is that they are quite intelligent but have difficulty demonstrating their ability in the normal classroom setting (White et al., 2012). One of the reasons for this discrepancy lies in how these students learn. Many students with ASD learn in a distinct way, using a specific modality. Oftentimes students with ASD are strong visual learners (2012). Knowing this can be a powerful tool for the world language educator because we can apply certain aspects of MSLE in the classroom. The

fundamental characteristic of MSLE is its use of multiple modalities in teaching reading, writing, listening and speaking skills. While it was originally intended for teaching basic language skills in a student's native language, it can also be used to address issues and difficulties in the secondary world language classroom. Pairing phonemes and graphemes, in the L2, with tactile, visual or kinesthetic stimuli could increase retention in students with ASD as it has in students with dyslexia.

Indeed, some research has already been done into this area (Chong 2008). In a functional language skill study conducted in China, a 6 year old boy with autism, Ming, was experiencing significant difficulty communication in his native language (Mandarin). In an effort to improve communicative abilities a researcher, Renee Chong, introduced the Picture Exchange Communication System (PECS) as an alternative method of communication. However, the pictures that the Ming used to build his communication skills were all associated with his L2, English. Using the PECS and pairing words and phrases with visual representations Chong was able significantly increase Ming's communicative skills to the point where he was able to communicate effectively, in his L2, without the pictorial references. This study demonstrates how incorporating non-traditional modalities into language instruction can benefit students with ASD.

Ming's success and the other accommodations and approaches mentioned above suggest that there is a place for students with ASD in the secondary world language classroom. However, the research and practical studies are still scarce when addressing the problem of ASD in the secondary world language classroom. What little literature there is seems concentrated in the area of addressing learning disabilities with the secondary world language classroom. There are lessons that can be applied to ASD in the secondary world language classroom, taken from these inquiries, as mentioned above.

Chapter 4: Adapting Instruction for Students With ASD – Methods in World Languages Education

Having established a foundation of knowledge and practices relating to students with special needs within the secondary world language classroom we must now turn our attention to the task of specifically addressing ASD. There are several notable methodologies employed by secondary world language classroom teachers and in this section I will review those outlined by Claudine Kirsch in her book *Teaching Foreign Languages in the Primary School*. (2008) While the text is concerned with L2 instruction for elementary-aged students, the methodologies and strategies discussed are still applicable in the secondary world language classroom. It is also important to note that these methodologies are most effective when used together (2008). No one methodology is completely effective in the secondary world language classroom.

Grammar-Translation

The first method that Kirsch discusses is known as Grammar-Translation. This method was primarily used in the late nineteenth and early twentieth century. At this point in time L2 instruction was focused on classical languages (i.e. Latin and Greek) and limited due to the lack of travel option and media available today (Kirsch, 2008). These limitations resulted in an emphasis on acquiring vocabulary and grammatical concepts through translating L2 material in written form. Grammatical accuracy was expected but not the ultimate goal of this approach. Rather the students were intended to use their interpretation and translation to develop cultural understanding and to discover values such as truth and beauty. In the modern era, students are presented with texts that exemplify or illustrate grammatical structures or literary concepts. The emphasis remains on using translations for learning, however. This approach has several

shortcomings, the most obvious being an almost complete disregard for listening and speaking skills.

The primary problem with Grammar-Translation in the world language classroom is its lack of application. Today, L2 instruction focuses on developing students that have proficient reading, writing, listening and speaking skills in the L2. Because of its limited application with mainstream students it has few applications for students with ASD.

Direct Method

The Direct Method, the second method outlined by Kirsch, focuses on making direct associations between objects or concepts and words in the L2, downgrading the role of grammar in L2 instruction. This move away from grammatical concepts represents a shift in the purpose of language to one to communication (Kirsch, 2008). Additionally, this method requires an extensive use of the L2 to communicate within the learning environment. In this regard, when students lacked the ability or vocabulary to articulate in the L2 they would be forced to rely on props, pictures or gestures in order to communicate effectively. As with Grammar-Translation this method has a significant drawback. This method addresses the idea of language as a mode of communication. Due to this conceptualization, the method focuses on the use listening and speaking skills to the exclusion of reading and writing skills (Kirsch, 2008). One other difficulty that arises with the use of the Direct Method is its focus on the commonplace words and phrases. It is difficult to engage students in conversation using abstract terminology because the students have no frame of reference on which to scaffold their understanding.

Another significant drawback arises when we consider education students with ASD in the secondary world language classroom. Due to its heavy emphasis on communicative interactions in the classroom, students with ASD may experience significant distress when faced with the prospect working with the instructor or their fellow students. While this represents a

challenge, it is not an insurmountable obstacle. By implementing strategies like consistently pairing a student with ASD with the same peer or slowly and incrementally building up their participation in communicative exercises we can use the Direct Method effectively with students with ASD.

Using the Direct Method to teach students with ASD has some possible benefits. The Direct Method relies on using objects, pictures and other physical representation to enhance a student's knowledge of L2 vocabulary and phrases. This resonates well with Renee Chong's use of the PECS to help her student with Autism, Ming. One of the Direct Method's drawbacks is its exclusive use of the L2 in communicative events. Providing students with ASD with physical representations of key words and phrases has been shown to improve their communicative abilities (Chong, 2006). The Direct Method has potential to be effective at teaching students with ASD words and phrases in the L2.

Audiolingualism

Audiolingualism was developed around the time of World War II and the invention of Morse code, radar and the computer. These events factor into the development of the Audiolingualism because the United States was suddenly presented with need for competency in a number of languages (Kirsch, 2008). Audiolingualism arose from military programs designed to "teach" languages in a new way and is based on the following two premises: language occurs through the formation of habits and language learning requires the ability to use and combine the fundamental units of a language. Taking these premises into account Audiolingualism relies on repetitive drills whose ultimate goal is error-free production of the L2. The underlying assumption of the Audiolingual approach is that language can be considered a behavior, and is therefore greatly affected by continual practice of L2 words and phrases (Kirsch, 2008). Some

weaknesses of this approach included a lack of meaningful and authentic communication in the L2 and a heavy emphasis on error-free production, lest the errors be internalized (Hall, 2001).

Incorporating Audiolingualism into a secondary world language classroom may be beneficial for those students with ASD than the neuro-typical students. One major objection to Audiolingualism is its heavy emphasis of repetitive, regimented practice, or its “drill-and-kill” nature. However, when we reflect on the characteristics of ASD, specifically the need for structure, repetition and consistency, the possibility arises that Audiolingualism could be quite effective when applied to students with ASD. However, the primary concern with Audiolingualism remains: maintaining meaningfulness with the repetition.

Total Physical Response/Total Physical Response-Storytelling

Total Physical Response (TPR) is a method that assumes that a learner acquires their L2 the same way that they acquire their native language (Neupane, 2008). That is, learners receive a variety of stimuli, visual, auditory, kinesthetic etc., that is paired with elements of the target language. As learners receive and interpret these stimuli their language skills will develop in a specific way. Listening and comprehension skills will be the first skills that a learner internalizes, and these skills will eventually lead to production of the target language (Neupane, 2008). Keeping this in mind, TPR relies heavily on input from the instructor and often pairs L2 prompts or command with physical actions or movements (Kirsch, 2008). In this way students are engaged in a kinesthetic activity that enhances their retention of the material. This method requires the instructor to produce the language in an imperative form and, after a “listening period” requires the students to physically act on the stimuli. Students are not forced to produce the L2, rather they are gradually prompted and requested to use their L2 abilities. In this way, the students develop their listening comprehension and will, eventually, progress to producing the L2 themselves. TPR is an effective method in the secondary world language classroom because it

allows the students to develop their L2 abilities in a non-traditional way. This divergence from more traditional methodologies allows students to experience a much higher rate of success in the classroom, which in turn increases confidence and comprehension of the L2.

Total Physical Response-Storytelling (TPRS), a variation of TPR, is characterized by its interactive nature and its ability to incorporate a wide range of topics. This method relies on an overarching story that is able to incorporate a number of topics, concepts and vocabulary items in a single activity (Marsh, 1998). Free movement, as well as student participation is key to its implementation. TPRS is also a valuable method because of its ability to incorporate the learners themselves in the learning process. This interactive requires students to participate and engage in the activity by producing L2, providing an action based on a cue given in the L2 or even correcting intentional errors that the instructor incorporates into the story. The high-energy, dynamic nature of TPRS helps to address a wide variety of learning styles that can be present in the world language classroom. TPRS is most successful when students are able to hear, see and act out portions of the story so that they are interacting directly with the material. Because student interaction is so crucial to this method it is also important that the story be engaging. There are two primary issues that arise with TPR and TPRS. The first issue is the fact that TPR/TPRS are very teacher centered approaches to language instruction. There is a great deal of emphasis and reliance on the instructor as the primary producer of the language, which makes it difficult for students to develop as autonomous learners. The second issue that arises with these methods is the limited language use that is present during its implementation. TPR/TPRS are excellent methods when it comes to vocabulary and phrases, as they are able to include an immense variety of material. However, these methods become weak and ineffective when dealing with the more complex grammatical structures and communicative events of advanced L2 instruction.

TPR and, to a greater extent, TPRS could be very helpful with teaching students with ASD in the secondary world language classroom. These methods naturally address the visual

auditory and kinesthetic learners, making them valuable to world language instructors. Students participating in a TPRS activity, at the very least, are engaging their auditory and kinesthetic modalities. Such activities can also be altered to include other modalities (i.e. visual or tactile). By addressing a variety of modalities with a single learning scenario, world language instructors can enhance the exposure and retention of the material presented using TPR/TPRS. This is true both for neuro-typical students, as well as students with ASD. However, when implementing TPRS in a secondary world language classroom containing students with ASD there are additional considerations that should be taken. Keeping in mind the characteristics of students with ASD, specifically their need for structure and order within the learning environment, a TPRS activity may do more harm than good. The dynamic, non-traditional nature of this approach could be the cause of a certain amount of distress for a student with ASD. This possible distress does not mean that we have to disregard TPRS as a method to employ with students with ASD but rather a warning that we must be aware of the reality. With proper planning and forewarning, TPRS could be immensely engaging and instructive with students with ASD.

Communicative Language Teaching

Communicative Language Teaching (CLT) is a more recent methodology that arose in the 1980s, following the development of the idea of communicative competence, which suggests the L2 competency requires knowledge of the L2 as well as the ability to effectively employ it (Hall, 2001). This approach, like the Direct Method, is founded on the assertion that the primary function of language is communication. With this idea in mind researchers and educators began to reexamine L2 instruction and its emphasis on grammatical acquisition. CLT in the classroom focuses on preparing students for communicative events in the L2, with a focus on use and meaning rather than grammatical accuracy (Kirsch, 2008). This concentration means a very low level of error correction. While theoretically sound the practical implementation of CLT has

been slightly problematic. Using this approach educators provide students with phrases and formulaic language that are used in role-plays and small group activities meant to simulate authentic communicative events. However, these activities often lack authenticity and students often lack the abilities to move on to more advanced language skills.

CLT may pose a significant amount of difficulty for students with ASD because of its focus on modeling communicative interactions. As with the Direct Method, CLT relies heavily on interactions in the classroom. Initially, this may result in a certain amount of frustration, both for the students and the teacher. However, by anticipating this eventuality the secondary world language can gain control of the situation. By understanding that communication and social interactions do not come naturally to students with ASD an instructor can use CLT to better prepare a student with ASD for such interaction both in the L2 and his or her native language. CLT provides the opportunity to practice and critique role-playing and social interaction scenarios. By understanding the initial challenges presented by a students with ASD, a world language educator teach skills the will be beneficial inside the classroom and beyond.

Form-focused Instruction

The lack of grammatical instruction in CLT prompted a “pendulum swing” back to a focus on form approach. Form-focused Instruction (FFI) shares many characteristics with traditional methodologies such as Grammar-Translation and Audiolingualism (Kirsch, 2008). Indeed, the key feature that differentiates FFI from these traditional approaches is its incorporation of “meaning-based” activities, activities that contain real world applications. Instruction only shifts to the formal aspects of the L2 when the instructor or the students notice significant amount difficulty with the meaning-based activities. When these gaps or discrepancies arise instruction shifts to grammatical constructs, so as to better enable the students to succeed. In this way grammar instruction is incidental, as compared to the traditional “form-focused”

approaches. One of the primary difficulties that arise with this approach is its emphasis on meaning. In its practical implementation FFI can easily lose this tie to authenticity, reverting to an Audiolingualism or Grammar-Translation approach.

FFI shares many features with methodologies that have already been discussed. We must take these similarities into account when attempting to use this approach with students with ASD. FFI is most closely related to the traditional approaches, Grammar-Translation and Audiolingualism. These similarities make it impractical for students with ASD. Within FFI there are few ways to implement multisensory strategies that would be beneficial to students with ASD.

Task Based Instruction

The final methodology that Kirsch (2008) addresses is Task Based Instruction or TBI. As its name suggests TBI involves a task that students must complete by using some aspect of the L2. The task presented to the students needs to have several key characteristics in order to be beneficial to the students learning. These tasks must contain a problem solving element that forces students to engage their higher level thinking skills. Additionally, these tasks should be culturally relevant, so as to maintain their meaning and authenticity (Hall, 2001). Often such meaning based tasks will require students to employ all four language skills—reading, writing, listening and speaking—in a meaningful, authentic way. Such task-based activities can be tailored to a variety of L2 skill levels, requiring the students to make use of their native language, the L2 or a combination of the two in order to negotiate the tasks presented to them. Examples of effective TBI activities include debates and discussions, role-play scenarios and communication games.

TBI is beneficial primarily to learners with more developed language abilities in the L2. Its focus on the task, specifically the meaning of the task, makes it a valuable approach in the world language classroom. Indeed, TBI often does not employ instructive techniques where

the L2 is addressed specifically. Rather it presents a challenge to the learner that forces them to engage in and manipulate the target language in order to achieve success with the task that has been presented to them (Nunan, 2004). This “challenge aspect of TBI resonates with Krashen’s Input Hypothesis. In this hypothesis Krashen stated that in order for learners to acquire and internalize a language they must be exposed to the language in a specific way. The input that a learner receives in the target must follow the $i+1$ model. When we dissect this model, the “ i ” refers to elements of the target language that the learner has already acquired, while the “ $+1$ ” refers to elements that are new and challenging, but still attainable (Lightbrown & Spada, 2006).

Another beneficial aspect of TBI is its emphasis on meaning. The “tasks” presented in a TBI lesson all share a common aspect, they focus on meaning rather than form. In this sense, TBI shares some characteristics with CLT, mentioned above. In CLT the focus of the instruction is producing students who are able to effectively communicate in the L2. TBI is capable of achieving this goal by presenting students with tasks, activities and opportunities to communicate in meaningful and authentic ways. TBI then focuses on providing opportunities for the students to employ and negotiate the L2 in ways that are authentically engaging (Nunan, 2004). In this way TBI differs from certain implementations of CLT. CLT, when implemented in a world language classroom can sometimes contain habitual, repetitive practices that lose their meaning and authenticity. However, in TBI meaning remains a dominant and vital characteristic to producing competent L2 speakers.

There are possible benefits when implementing TBI in a secondary world language classroom that contains students with ASD. This method has the potential to be very effective with students with ASD. One of the greatest possible benefits of employing TBI in a secondary world language classroom is the sheer variety of activities or tasks that can be used to develop a student’s understanding of the L2. Keeping this in mind, a world language educator could employ tasks and activities that connect a variety of the sensory modalities with the L2. By allowing the

opportunity for students with ASD to activate multiple senses within the activity, secondary world language educators encourage the participation and success of these students. Another important aspect of TBI that could be effective with students with ASD is its focus on developing effective tasks that facilitate learning. As mentioned above, TBI tasks tend to follow Krashen's Input Hypothesis, using the target language in a way that is attainable but still challenging to the learners. With this consideration of one learner or even a group of learners TBI develops learning scenarios that are effective in engaging the learners. When considering students with ASD in the secondary world language classroom, this deliberate conscientious approach may ensure the success of these students. Finally, the emphasis on meaning, which TBI places on instructional activities, may be beneficial to students with ASD. The authentic nature of the activities and instruction in TBI meets the need to structure, order and purpose that many students with ASD require.

As mentioned above, the best practice with a secondary world language classroom is a mixture of these approaches. The same holds true when taking students with ASD into account. No one methodology will be effective in the classroom. This is especially true with students with ASD. Due to the wide range of impairments and difficulties that these students present, it is impractical to focus on a single methodology to address their needs in the secondary world language classroom. The most practical technique for dealing with students with ASD in the secondary world language classroom emphasizes the individual students. It is essential to consider the specific needs and challenges of students with ASD in a secondary world language classroom and then determine how to adapt the methodologies and strategies already in place in the classroom.

Chapter 5: Adapting Instruction for Students With ASD – Lessons From Special Education

In the pages above we have explored several common world language methodologies and how they can be adapted and applied to the reality of students with ASD in the secondary world language classroom. Now, we must consider this reality from a different perspective. One of the major issues that secondary education professionals face when dealing with students with special needs in their classrooms is a lack of knowledge. This can simply be an inability to identify students with special needs from the impairments that they manifest. However, this lack of knowledge can also contain the inability to adapt or implement learning approaches in order to meet the needs of these students in the classroom. With this idea in mind we will begin to explore some special education approaches to educating with students with special needs and how they can be applied specifically to students with ASD in the secondary world language classroom.

Strategic Instruction

Strategic Instruction is an interesting approach that focuses on the instruction of specific learning strategies and skills in order to better prepare students with special needs for success in the general education classroom. One of the primary underlying principles of Strategic Instruction is the assumption that the students with special needs lack certain skills necessary to be successful, our job as educators is to provide students with the opportunity to succeed by teaching these skills in our classroom (Reid & Lienemann, 2006). Effective Strategic Instruction approaches all share common characteristics. These approaches are meant to aid instruction; they act in a way to better student understanding. They also need to be presented as necessary for or essential for success. Finally, such approaches require deliberate effort on the part of the students;

the students need to understand that applying and using these strategies requires time and labor on their part. That is to say, students should understand that Strategic Instruction requires a change in their normal educational practices and routines. These changes will require time and energy on behalf of the students in order to be effective.

When implementing a Strategic Instruction approach it is important to keep the characteristics mentioned above in mind. However, when put into practice Strategic Instruction has several other focal points. In order to successfully implement such an approach it is important for educators to recognize that the strategy that is taught needs to be directly linked to the requirements of the task at hand (Reid & Lienemann, 2006). Successful Strategic Instruction approaches usually contain a series of ordered steps used when approaching difficult tasks. These approaches also devote a significant amount of time to teaching methods for processing information, in order to increase retention. These methods can include chunking strategies or mnemonic devices. Lastly, such approaches focus on metacognition, teaching students to understand their own learning in order to better prepare them for future tasks.

A common, practical approach that incorporates these principles of Strategic Instruction is the Self-Regulated Strategic Development (SRSD) Model (Reid & Lienemann, 2006). The primary goals of this model are as follows: to teach students when and how to employ a specific strategy, monitor the effectiveness of the strategy and to develop the student's confidence in and use of the strategy. The ultimate goal of the SRSD model is to develop a self-regulated learner; the process involved in developing this self-regulated learner contains five steps. The first step is to develop and activate the student's background knowledge relating both to the task or skill and possible strategies that could be implemented. The second step involves discussing the strategy with the student. This step is crucial because it is at this point that the learner either accepts or rejects the strategy, so it is important to get the students involved and invested in the strategy so that they can see and understand its effectiveness. The next step involves modeling the strategy so

a student can understand how it is applied and implemented to the tasks at hand. The fourth step involves supporting the and how it relates to the material. This step involves a great deal of scaffolding, scaffolding both the task that is being addressed and the strategy that is being taught alongside the task (Katims & Harmon, 2000). The final step is the logical extension or goal of the previous step. If we are focusing on scaffolding a student's skills then the final result should be independent performance. The ultimate goal of this approach is to develop self-regulated, autonomous learners.

While the bulk of the research done concerning Strategic Instruction has focused on including students with mild disabilities in the secondary education classroom (Tralli, Colombo, Deshler & Schumaker, 1996), it has the potential to be effective with other groups of students as well. When discussing the issue of students with ASD in the secondary world language classroom, these students will most likely fall into the category of students with mild disabilities, along with students with learning disabilities. There are a number of aspects of this approach that can be beneficial for students with ASD. One such aspect is the focus of this approach on the individual. A Strategic Instruction approach emphasizes metacognition, an understanding of how an individual learns and internalizes material. With this idea a secondary world language educator can help to prepare students for difficult concepts and skills in the L2, whether they relate to grammar, syntax or semantics. This assumption that that each student is an individual with specific needs and strengths encourages better classroom practices, such as methodologies and lessons that address and incorporate multiple learning styles. Another major aspect of this approach is the important role that scaffolding plays in its implementation. There is heavy emphasis building students knowledge and skills incrementally making extensive use of their prior knowledge (Reid & Lienemann, 2006). These strengths are not exclusively beneficial to students with ASD or even students with mild learning disabilities. Rather, this approach and its

strengths have the potential to be beneficial to every student in the secondary world language classroom.

Explicit Instruction

A second special education approach that can be applied to the secondary world language classroom is Explicit Instruction. This approach is very structured and systematic in nature, deriving a lot of its support from Constructivist research (Archer & Hughes, 2010). Due to its ordered and systemic nature, Explicit Instruction relies heavily on scaffolding as students are guided through learning process, using clear, direct statements. The use of Explicit Instruction in developing a new skill relies heavily on extensive demonstrations and explanation and a wide variety of supported practice. These characteristics help incrementally advance a students' understanding of the material.

The development and implementation of Explicit Instruction is supported by several underlying principles. The most obvious is that educators should scaffold instruction. Also, we should promote high levels of success in order to incorporate the students as active participants in our teaching. Another principle deals with recognizing different forms of knowledge (Archer & Hughes, 2010). For example, students must first understand what an object is, such as a hammer. Once the students understands what a hammer is, they can learn how to use and eventually when to use. By understanding this progression in the forms of knowledge educators are better able to facilitate and scaffold instruction. The final principle deals with optimizing the time devoted to each lesson, which is done by establish a firm routine within the classroom. These underlying principles of Explicit Instruction can be seen clearly in the fundamental elements of its implementation.

There are six fundamental elements in implementing Explicit Instruction within the general education classroom. These elements are very direct and regimented in order to help

facilitate the scaffolding of a student's learning. The first element deals with review, specifically, reviewing past knowledge and skills that are relevant to the current material in order to establish a foundation to work from. The next step focuses on the presentation of the new material.

Following an Explicit Instruction approach, new material is presented in a specific way. Lesson objective should be outlined at the beginning of the lesson, new information should be presented in incremental steps and procedures need to be modeled effectively, using numerous examples.

Also, during the presentation of the new material it is important for the educator to use clear precise language, free of digressions. After the presentation of the new material its import for the students to participate in guided practice that requires a high frequency of response as well as ensuring a high rate of success. The next element, corrective feedback, is an extension of the previous element. At this point the educator should be providing feedback and prompts and, if necessary, reteaching key points. At this point students should progress to independent practice, where the educator will monitor the students as they work in order to determine when the students are prepared to progress to additional material. After the students have sufficiently mastered the material at hand, it is important to incorporate the final element, regular review, so that the students maintain their abilities and have a source to draw from when they engage in more complex concepts (Archer & Hughes, 2010).

Implementing an Explicit Instruction approach in an effort to support students with ASD in the secondary world language classroom could be beneficial. This approach focuses primarily on scaffolding instruction in the classroom. This deliberate, measured approach has the potential to be very beneficial for students with ASD. Students with ASD that enter the secondary world language classroom may be lacking certain skills, whether social, communicative or academic. If such a situation occurs and Explicit Instruction could be very effective, as it places a heavy emphasis on engaging a students prior knowledge and encourages participation with high levels of success. Another aspect of Explicit Instruction that could be helpfully when teaching students

with ASD is its systemic nature. This approach is regimented with clearly defined roles and routines. For students with ASD, who have a need for structure and familiarity in their schedules this ordered sequence of events could serve a calming purpose.

Structured Teaching

Structured Teaching is a special education approach designed specifically for students with ASD. As with the strategies mentioned above the ultimate goal of this approach is to develop students with ASD into confident competent learners (Mesibov, Shea & McCaskill, 2012). The fundamental principles of the Structured Teaching approach are very similar to some of the principles discussed in the approaches mentioned above. The first principle of the Structured Teaching approach is an emphasis on the individual. A Structure Teaching approach recognizes that every cases of autism is unique, so every students with ASD will manifest their own individual set of impairments. This is an important principle because it admits strategies and implementations will be different for each student with ASD. The second principle is to provide external organization and structure of the classroom environment, schedule of events and tasks. Students with ASD often exhibit a need for structure and continuity in order to succeed, so Structured Teaching incorporates this idea into its planning. The third principle focuses on language and communication, using visual supports to supplement and/or substitute verbal language. The final principle engages a student's special interest in order to engage them in the learning process.

Implementing a Structured Teaching approach in the classroom takes all of these fundamental principles into account. However, in its practical implementation, Structured Teaching focuses, primarily, on organizational aspect in order to ensure the success of students with ASD. Most Structured teaching approaches focus on organizing the physical environment of the classroom, creating defined schedules and routines and developing structured work systems

and processes in order to better facilitate the learning of students with ASD (Mesibov et al., 2012). By developing these systems and approaches and implementing them in the secondary world language classroom educators can better ensure the success of students with ASD.

An important aspect to note from all of the approaches mentioned above is their potential to be effective for a wide range of students. While each of the three approaches discussed was designed and implemented with certain learning difficulties and disabilities in mind, the approaches themselves can be effective with neuro-typical students as well. Students without learning disabilities or ASD can become stronger students when taught with a Strategic Instruction approach. The same students can benefit from a methodic, scaffolding approach, as with Explicit Instruction. These educational approaches could be effective when teaching students with ASD in the secondary world language classroom but they also have potential value with mainstream students as well.

Chapter 6: Conclusions

The United States Center for Disease Control estimates that that 1 in 80 to 100 children are born with some form of ASD (White et al., 2012). This number is troubling to consider and has resulted in a significant amount of research into the subject. ASD is not the mystery that it used to be, thankfully. Researchers have focused their efforts on identifying the signs of ASD early on in childhood and developing and implementing effective strategies for teaching these functional skills (i.e. communicative and social skills) so as to better integrate these students with their neuro-typical peers at an early stage in their education. However, there remains a notable lack of research and inquiry into the fate of students with ASD in the secondary general education classroom. As many high functioning students with ASD are mainstreamed in general education classrooms at the secondary level, there is a remarkable need for teaching strategies and paradigms that focus on academic areas (i.e. math, social studies, world language etc.) rather than functional skills.

In the pages above several studies regarding learning disabilities in the secondary world language classroom are reviewed in an effort to apply their finding to the reality of ASD in the general education classroom. There are two focal points of that research that are applicable to addressing ASD in the secondary world language classroom. The first comes from the use of the LCDH and the Orton-Gillingham Approach in the secondary world language classroom. From this area of research we derive one fundamental idea. In students with learning disabilities, native language skills are a major predictor of L2 skills (Sparks, Ganschow & Pohlman, 1989). Students that have difficulties in their native language have very similar difficulties in their L2. This is very applicable to students with ASD in the secondary world language classroom because many of them will have communicative impairments in their native language, making it important to

acknowledge and address these impairments in the secondary world language classroom. The second point evidenced by the research reviewed is that multisensory instruction is an effective tool when dealing with students with learning difficulties (Moats & Farrell, 1999). The material dealing with multisensory instruction, discussed above, focuses exclusively on students with learning disabilities. However, material gives evidence to the idea that by engaging the multiple modalities during the learning process we greatly enhance students' retention. By acknowledging this fact secondary world language educators can employ strategies and methodologies that give students with ASD the chance for success inside the classroom.

Also listed above are seven fundamental language methodologies that are used in the secondary world language classroom (Kirsch, 2008). Each methodology or approach has its benefits and drawbacks when employed with neuro-typical students. The same is true when attempting to use them in a classroom with students with ASD, although a certain amount of additional consideration should be taken. Many of these methodologies offer effective approaches that could be beneficial to students with ASD.

Ultimately, there is a notable lack of empirical research relating to students with ASD at the secondary level. While research into the teaching of functional skills remains a necessity when confronting the reality of ASD, a shift may be necessary. As we progress with our ability to teach students with ASD functional skills, this progress increases the number of high functioning students with ASD that will be present in secondary general education classes, taught by instructors who may lack the knowledge or skills to address the specific needs or impairments of these students. Clearly, we need to develop the resources available to these instructors by modifying our research efforts to include students with ASD in the secondary education classroom.

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