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Implementation of STAR to Support Students with Disabilities

Lexis Barkema

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Implementation of STAR to Support Students with Disabilities

Lexis Barkema

Capstone Project: A School Improvement Plan

Northwestern College, Orange City, Iowa

Abstract

This paper examines the use of a comprehensive autism program in a school district, looking specifically at an elementary school in North Central Iowa. The school does a great job of providing support and interventions for students with autism, disabilities, and specific learning needs with the resources they currently have available to them. This school improvement plan provides a detailed outline of using a comprehensive autism program to better serve and meet the needs of students in their specific need areas. The plan will provide professional development, support, and resources for teachers and paraprofessionals who are implementing the program.

Keywords: STAR program, support, interventions, autism, disabilities

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Implementation of STAR to Support Students with Disabilities

The Strategies for Teaching based on Autism Research (STAR) program was developed in 1997. The program was comprised of evidence-based practices of discrete trial training, pivotal response training, and teaching functional routines for children with Autism. In the 2018-2019 school year the average percentage of students with disabilities, ages 6 to 21, identified with autism was almost 11%. The percentage of students with disabilities identified with autism has increased from 4.97% in the 2008-2009 school year to 10.51% in the 2018-2019 school year (U.S. Department of Education, 2020). It is important to note that this data is a few years old, and is the most recent data from the Office of Special Education Programs. The Centers for Disease Control and Prevention reported in 2020 that 1 in 36 children in the U.S. have autism. Researchers have studied methods, supports, and services for students with autism and how they can be further supported in the classroom (Nthibeli et al., 2022; Safi et al., 2021; Hart Barnett, 2018). The problem is that students with autism can have a lack of focus, speech and language deficits/disorders, developmental delays, and narrow interests that can affect their learning.

The purpose of this school improvement plan is to implement the STAR program in classrooms that serve and support students with autism. The plan would be proposed to support student's learning in a manner that works best for them and their specific needs. Currently, the percentage of students with an Individualized Education Plan (IEP) in the West Fork School District is 11%, which is 88 students in the district from three-year-old preschool to twelfth grade (P. Craighton, personal communication, September 18, 2023). At least 11% of the students in the West Fork School District would benefit from a program to better meet their learning needs and to develop skills that will last them far after their educational career. This school improvement

plan is to show the opportunity and benefits of implementing the STAR program for students with autism, as well as those who have disabilities.

Research for this school improvement plan's literature review was gathered through the DeWitt Library at Northwestern College, in Orange City, IA, and Google Scholar. The literature is comprised of research studies and peer-reviewed journal articles. Most of the articles that were gathered are peer-reviewed and all were published in the last ten years. I focused on finding research connected to autism and disabilities. I was primarily focused on finding studies that included early childhood or elementary education. Since West Fork serves preschool to twelfth grade, research was needed to evaluate programs and practices for the youngest students to aid them through the rest of their educational career. The scope of the sequence included young early childhood learners to upper secondary and post-secondary students. This large scope of research allowed the author to consider several different approaches and supports for students with autism in a wide variety of educational stages.

I believe that there are three main areas of research that are highly effective in supporting and teaching overall outcomes in students with autism (Pellecchia et al., 2015). These three areas are discrete trial training, pivotal response training, and teaching functional routines. I believe that when these practices are put into place at West Fork School District, students with autism will improve their overall outcomes in the classroom. Teachers will implement practices on a one-to-one basis or in small groups with students to support their growth in needed areas. Growth in their overall scores in the classroom, as well as behaviors in the classroom, will improve positively.

I organized the literature review by key themes and practices that have been found to be effective in supporting students with autism. The literature review will begin with different

strategies and interventions to be used in classrooms to support students with disabilities and students with autism (Hart Barnett, 2018; Young et al., 2016). Next, the literature review will cover the importance and the benefits of early intervention for young children with autism. The use and benefits of using inclusive classrooms to support students with disabilities will be focused on next in the literature review (Banks et al., 2022; Nthibeli et al., 2022; Sinai-Gavrilov et al., 2020). Then the literature review will explore the long-term benefits and outcomes for individuals with autism (Fein et al., 2013). Finally, the literature review will focus on the importance and benefits of applied behavior analysis interventions and how they can be used in the classroom and in education (Heath et al., 2020; Kingsdorf & Karel Pančocha, 2020).

Review of the Literature

Throughout the literature review, a wide variety of different studies will be presented to show five key sections that are relevant to the research. The five sections that will be explored will be interventions and strategies for students with disabilities, benefits of early intervention, inclusive classrooms, long-term benefits and outcomes, and applied behavior analysis. Within each section, several studies will be examined as well as counterarguments to the author's findings and conclusion to give a wide range of arguments for and against the findings. Interventions and strategies will be discussed as a support need for students with disabilities and those with autism. These interventions and strategies look different in each study but show how such supports can be beneficial for students with disabilities and for students with autism. The authors and studies give support for the school improvement plan but also provide a gap in research.

Interventions and Strategies for Students with Disabilities

Students with autism and disabilities have a variety of different needs. These needs require professionals to provide and implement interventions and strategies for students to be successful throughout their educational career, their early childhood, and into adulthood. Researcher Juliet (2018) found that there are three evidence-based strategies that can be used to support students with autism spectrum disorder, and more specifically strategies that support students' social skills and play with peers. Juliet found that the three strategies that were more effective were visual scripts, video modeling, and embedding choice into the classroom activities. Juliet's beliefs and the findings she gained from other researchers align with another study by Satsangi et al. (2019). In this study, researchers studied three females in secondary education who were identified as having a learning disability. They were researching if there was a correlation between students with learning disabilities in math who received the intervention (either through video modeling or explicit instruction and their percentage of accuracy in solving geometry word problems. They implemented interventions in math where they received five sessions of video modeling and five sessions of explicit instruction. Satsangi et al. (2019) found that all students scored 80% higher with both video modeling and explicit instruction interventions. For two of the three students, explicit instruction scored higher on average for overall accuracy in solving geometry word problems.

Both studies by Juliet (2018) and Cardinal et al. (2017) show the use of different interventions and strategies in being successful in supporting students with disabilities. Juliet also noted the importance of supporting social skills and play with young children with autism in her article. She states that while most children acquire social and play skills naturally, it needs to be explicitly taught to children with autism. Juliet (2018) also says that while the skills are very useful in the early years of childhood and education, developing social and play skills

“establishes lasting relationships with others and a higher quality of life outcomes” (Juliet, 2018).

The use of video modeling was also discussed in the study done by Cardinal et al. (2017). In their research, Cardinal et al. (2017) explored the use of web-based video modeling to teach paraprofessionals how to use discrete trial training interventions with students with autism. They studied four different paraprofessionals who were paired with one student with autism and an IEP. They researched the four students and paraprofessionals to determine the feasibility, effectiveness, and social validity of teaching professionals a new educational practice using web-based video modeling. Like Juliet (2018) and Satsangi et al. (2019), they found that video modeling is an effective strategy. Cardinal et al. (2017) reported all four paraprofessionals reached 90% fidelity. While this study examined the training paraprofessionals encountered in using discrete trial training, it also highlighted the use of discrete trial training as a support for students with autism. Cardinal et al. (2017) describe discrete trial training as one-on-one instruction to teach targeted skills that are “planned, controlled, and systematic and give students positive reinforcement when correct skills are shown.” Little research has been found to counter the argument that video modeling is an effective strategy to teach students with and without disabilities, as well as professionals.

Juliet (2018), Satsangi et al. (2019), and Cardinal et al. (2017) all studied and noted the use of video modeling as a strategy for supporting students with disabilities. In addition, a study done by Safi et al. (2022) examined another strategy for supporting students with autism, with the use of digital social stories. Safi et al. (2022) studied two children ages 10-12 who had a diagnosis of autism. They were studied for four weeks and looked to answer the following two questions 1) What is the impact of digital social stories in improving nonverbal communication

and 2) what is the impact of using digital social stories in improving playing and sharing toys with peers (Safi et al., 2022). Considering there were only two students in the study, Safi et al. (2022) found that both students showed improvements in their targeted behavior and skills. This led Safi et al. to the conclusion that digital social stories were effective for students with autism in improving their targeted behavior and social skills.

Benefits of Early Intervention

Implementing interventions for students with needs or disabilities but Vivanti and Dissanayake (2016) researched the use of early intervention with students and found they have higher outcomes compared to the children who do not receive intervention as early. The study included 32 children ages 18-24 months and 28 children ages 48-62 months who were researched for one year. The purpose of the study was to determine 1) what is the difference in outcomes in children younger than 48 months compared to those older than 48 months who receive the Early Start Denver Model and 2) what is the relationship between age and degree of language delay after the intervention (Vivanti & Dissanayake, 2016). They found that the younger children, ages 18-24 months, had higher outcomes in their overall verbal outputs compared to the old group. This led Vivanti and Dissanayake (2016) to the conclusion that early intervention has a positive impact on children's language skills and delays. It was noted that for future studies it would be important to include a larger sample size would be beneficial to ensure the same results were concluded.

Colombi et al. (2018) implemented the Early Start Denver Model with children with autism. They researched the effectiveness of the Early Start Denver Model for young children with autism and the feasibility of its implementation. The study included 22 children with autism, who received interventions, and 70 children who did not receive any interventions. These

children were researched for six months. In the six month time period, interventions from the Early Start Denver Model were given to the 22 children with autism and the 70 other students received treatment as normal, they did not receive any interventions. After the six month time frame, Colombi et al. (2018) found that the 22 students who received interventions with the Early Start Denver Model showed more and higher gains in their overall development and language, including their adaptive skills. Compared to the Vivanti and Dissanayake (2016) study, Colombi et al. (2018) studied students' overall development rather than just examining their language skills and their growth. Another difference worth noting is that Vivanti and Dissanayake (2016) did not research children with autism.

In a study done by Eapen et al. (2013), they researched the use of early intervention being integrated into a community-based preschool group setting. The question they sought to answer was what is the effectiveness of the Early Start Denver Model intervention for preschool-age children in a community-based group setting?" (Eapen et al., 2013, p. 2). Twenty-six children with autism participated in the study, with a mean age of 49.6 months old. Eapen et al. (2016) researched for 9-10 months in Sydney, Australia where they gathered quantitative data to implement the Early Start Denver Model intervention and examine the students' outcomes after that time. They found that the 26 children who received the Early Start Denver Model interventions had significant gains in the clinical outcomes areas, with the most gains in the receptive language and communication areas. Eapen et al. (2016) identified that it would be important for future research to have a control group in order to accurately test if there were any cognitive improvements in students who received the Early Start Denver Model interventions. Similar to the study done by Vivanti and Dissanayake (2016) they found increases in the child's language and communication skills.

Similar to Eapen et al. (2016), Sinai-Gavrilov et al. (2020) researched the use of the Early Start Denver Model being integrated into preschools that serve children with autism. This study took place in Israel communities and had twice as many children participate in the study. Within the study, there were 26 students with autism who received interventions through the Early Start Denver Model and 26 students with autism who received interventions through a multidisciplinary approach. Unlike Eapen et al. (2016), Sinai-Gavrilov et al. (2020) had a control group of students who did not receive the Early Start Denver Model Interventions so they were able to compare the outcomes. They researched the students have an 8 month timeframe where interventions were given 44 hours a week in their preschools Sinai-Gavrilov et al. (2020) looked to answer the following three questions with their research 1) whether children will show significant gain in their cognitive development and adaptive skills after interventions, 2) whether the preschool-based Early Start Denver Model group will show more gains in their receptive and expressive language, in adaptive communication, and socialization skills compared to the multidisciplinary developmental intervention group, and 3) whether high-treatment responders will have a lower pre-treatment autism symptom severity and high cognitive and adaptive abilities compared to low responders. Their results were that students who received the intervention through the Early Start Denver Model had made much more gains in their overall cognitive function, and receptive and expressive language compared to the students that only received multidisciplinary interventions.

Results from all four studies indicate that early intervention has a positive impact on a child's development and the development of skills for children with autism. However, a study done by Lee (2015) researched the use of early intervention with children who have Individualized Family Service Plans (IFSP). They found that family participation varied greatly,

which impacted the child's overall outcomes. Lee (2015) also found that the requirements that service providers were required to follow can have a negative impact on the quality of family participation as well as limit the family's opportunities for quality services. Lee suggested that the use of early intervention services for students with an IFSP and support given to families should be a practice that is rethought on its implementation.

Inclusive Classrooms

The use of inclusive classrooms has been researched a lot in the last few years. A study done by Nthibeli et al. (2022) researched the level of inclusion of learners with autism in three different schools in Johannesburg, South Africa. They looked to understand teachers' experiences in teaching students with autism in inclusive classrooms. Nthibeli et al. (2022) looked at seven different teachers across three different schools. Two teachers came from a mainstream school, three teachers came from full-service schools and two teachers came from a special school. Two questions were asked for this study 1) "What are the teachers' experiences of teaching learners with autism inclusively in the classroom and 2) what strategies have led to teachers' success in teaching learners with autism in the three schools?" (Nthibeli et al., 2022, p. 5). The data was gathered through interviews that were comprised of ten questions that lasted for roughly 30 minutes for each interview. Nthibeli et al. (2022) found that teachers had a wide range of strategies they used for students with autism in inclusive classrooms. Some of these strategies included differentiation, scaffolding, use of visual cues, group work, and collaboration.

Including peers in support and interventions is another way to support students with disabilities and autism and that is what Young et al. (2016) researched. Their research topic was using peers to implement discrete trial training for students with autism. Young et al. (2016) looked to answer the following two research questions 1) Are peers able to learn the

implementation process of discrete trial training and 2) can peers generalize the knowledge behind discrete trial training to other students? The research was comprised of two different studies. The first study had three students with autism that ranged in ages from 4-7 and six typical developing peers to be peer tutors in 4th-6th grade. Peers learned about discrete trial training, how to implement it, and how to teach it to students. In the first study, Young et al. (2016) found that peers can be trained to implement discrete trial training and they were able to learn the protocol for discrete trial training.

The second study that Young et al. (2016) carried out was also made up of three students with autism that ranged in age from 4-7 with 5 of the 6 peers from study one. The findings of the second study were that peers can effectively generalize the protocol for discrete trial training to others and promote their skills as well. Young et al. (2016) noted that future research could be beneficial to see if furthering the generalizing effect of peer-mediated discrete trial training with other populations and age groups shows the same results. It would also be helpful in future studies to collect more data points in order to see the progress over a longer period of time.

Yoro et al. (2020) also researched the use of inclusive classrooms but they examined the level of understanding and experience of newly qualified teachers in their ability to accommodate and support learners with neurodevelopmental disorders in inclusive classrooms. Six teachers, comprised of five females and one male, who were all newly qualified teachers participated in the study for six months. They studied the teachers' knowledge and understanding of neurodevelopmental disorders, the nature and kind of neurodevelopmental disorders, and the support strategies used by teachers in their classrooms for students with neurodevelopmental disorders. Yoro et al. (2020) gathered data through interviews, observations, and critical incident reports. Throughout the six-month research, they found that generally newly qualified teachers

have a good understanding of learner support and can accommodate and support learners with neurodevelopmental disorders in an inclusive classroom with a variety of different supports.

Yoro et al. (2020) concluded that even though the teachers were newly qualified, they still had adequate knowledge and skills in place in order to support and accommodate students with neurodevelopmental disorders within their classrooms.

A fourth study also examines the use of inclusive classrooms but looks at the child's experiences and perspective. Banks et al. (2022) researched the experiences of inclusion for children with disabilities in Malawi, Africa. They looked at the perspectives of children and their caregivers on barriers and enablers of inclusion from their own experiences. The three questions and topics that were asked by Banks et al. (2022) in the interviews were about family background, the child's impairment, abilities, and general health, and the child's education. 37 children with disabilities participated in the study, as well as 61 caregivers, and 13 teachers. Banks et al. (2022) spent about a month in each school district, the first district was in Ntcheu and the other was in Mangochi, both in Malawi, Africa. Their findings after their interviews were that children with disabilities had many barriers when it came to their participation and benefits from education, which impacted and affected their learning and social experiences at school. Banks et al. (2022) also noted in their findings that the school districts of Ntcheu and Mangochi lacked the resources for inclusive education, they had inaccessible teaching materials, inadequately trained teachers, and negative attitudes toward disabilities. They noted that future research would be needed in the school districts to see the links between health, education, and poverty among children with disabilities.

Unlike the studies done by Nthibeli et al. (2022), Young et al. (2016), and Yoro et al. (2020), Banks et al. (2022) did not find positive benefits from the use of inclusive classrooms. It

is important to note that the study done by Banks et al. (2022) only examined the use of inclusive classrooms in two school districts. Further research in many more schools and school districts would be needed in order to further prove the impact and effect on students who receive inclusive education. Another counter-argument against inclusive education came from Sevier (2022) in which she found that students with more serious learning and behavior problems needed a much higher level of intensity of intervention. This high level of intervention is not offered in many general education classrooms.

Long-Term Benefits and Outcomes

Health et al. (2021) examined the use of applied behavior analysis with children with autism. They studied their communication skills and how they improved through the use of applied behavior analysis. Health et al. (2021) had a variety of questions that they sought to answer throughout their study and research 1) What are the current approaches to training non-clinicians in naturalistic applied behavior analysis methodologies, 2) what are the current evaluation strategies for assessing fidelity to implementation for individuals learning naturalistic applied behavior analysis methodologies, 3) what are the potential barriers potential trainees encounter that prevent access to training and support resources, 4) what are the costs for clinicians that restrict the amount of training and support they can provide, 5) what the current advances in computer science that could alleviate costs and barriers restricting training and support resources, and 6) how can these technologies be applied to create an automated data analysis and feedback system for non-clinical implemented naturalist applied behavior analysis. Health et al. (2021) examined several different studies and articles done previously to gather their data and information. Through this data collection, they found that the use of technology can lessen the cost of training and supporting individuals, as well as the cost of evaluating

fidelity. Health et al. (2021) concluded that because of these lessened costs, would allow more individuals to receive support from applied behavior analysis techniques, which would then allow for more students to receive the benefits of applied behavior analysis and have long-term benefits.

In a recent study done by Rothman and Graham-Holmes (2022), they researched young autistic adults and their views on healthy and unhealthy friendships and relationships. The intended research question that led their research and interviews was what skills or topics would be (or would have been) beneficial to learn or have (Rothman & Graham-Holmes, 2022). They interviewed 25 autistic individuals who ranged in age from 16 to 22 across the United States. The participants were asked the following questions in their 30-60 minute interview “1) Do you have some friends, tell about them, 2) what do you like doing together, how do you get to know them, how often do you get together, and 3) what does being a friend mean to you, how do you know someone is your friend?” (Rothman & Graham-Holmes, 2022, p. 162). Through their research, Rothman and Graham-Holmes (2022) found that there is a need for new and effective interventions that can further support healthy relationships and friendships for individuals with autism. They noted the following areas that youth with autism struggled with: 1) staying motivated and maintaining friendships, 2) overcoming anxiety about making and continuing relationships (some because it is rooted in bad experiences), 3) taking emotional risks, 4) cultivating reciprocity in relationships, and 5) indemnifying, communicating, and respecting sexual or emotional boundaries. Overall, Rothman and Graham-Holmes (2022) concluded that interventions are needed at a younger age for individuals with autism in order to have healthy relationships and friendships as they move through their lives.

Young et al. (2015) researched the benefits students with autism gained from a comprehensive autism program in classrooms. They compared two programs that served young students with autism. The study went on for three years and they examined three cohorts of students. Involved in the study were 84 teachers and 302 students with autism as well as their parents from 78 public school districts in Oregon and Washington states. 15 schools participated in year one, 47 schools in year two, and in year three 16 schools participated. 41 schools were assigned to carry out a comprehensive autism program and 37 schools were instructed to carry out a business-as-usual classroom and program. Young et al. (2015) compared the schools that implemented two different programs, a comprehensive autism program, and a business-as-usual program, and evaluated the results through surveys and interviews. Through their surveys and interviews, Young et al. (2015) found that students in both groups made improvements in all areas, except for problem behaviors. Problem behaviors stayed the same in the classes that implemented a comprehensive autism program and the business-as-usual classrooms. Young et al. (2015) also noted that they found in the classrooms that used a comprehensive autism program that the students grew in their receptive language and social skills. Like Rothman and Graham-Holmes (2022), Young et al. (2015) concluded that the use of early interventions and comprehensive autism programs benefit and create a positive impact on students' receptive language and social skills.

Fein et al. (2013) studied individuals with autism or those with a history of autism to find what is the optimal outcome for individuals with autism. 112 total individuals participated in the study. Among the 112 individuals, 34 were individuals who had a history of autism but no longer met the criteria for having autism, 44 were high-functioning individuals with autism and 34 were individuals who were typical developing peers. All the individuals ranged in age from 8 years to

21 years old. Fein et al. (2013) conducted interviews with the participants in Ontario, Canada, and North East United States. Through their interviewing, Fein et al. (2013) found that students who had a history of autism and those who were typical developing peers showed little to no difference in the areas of socialization, communication, or face recognition. It was also noted that the students who had a history of autism had shown milder symptoms earlier in their development compared to the individuals with high-functioning autism.

Applied Behavior Analysis

Applied behavior analysis is a practice that has been used by clinicians to teach and support students, especially those with autism. Kingsdorf and Pančocha (2022) researched what it looked like to teach applied behavior analysis to pre-service teachers, and looked more specifically at teaching them in their non-native language. There were a total of 15 undergraduate students that participated in the study, which included 10 students from the Czech Republic, 2 students from Greece, 2 students from Mexico, and 1 student from Slovakia. It is also important to note that all the students spoke English as a second language. Kingsdorf and Pančocha (2022) researched the 15 participants for one semester, which was 14 weeks. They looked to investigate how an applied behavior analysis curriculum could be implemented into an undergraduate course for English-speaking learners in pre-service teacher programs. They then compared the presentation of instruction of in-person and online recorded lectures. Kingsdorf and Pančocha (2022) found throughout their 14 weeks that teaching using a mixed method of in-person and online lectures did not impact the students' learning. They also found that participants' views and opinions on the way the material was presented did not align with their learning.

Applied behavior analysis can be implemented for students with disabilities or autism. Young-Pelton and Dotson (2017) researched where there were any ethical issues with implementing applied behavior analysis in rural programs. The three areas that they sought to answer through their surveying were to 1) investigate behavior analysts' perceptions concerning the 12 ethical issues and the difficulties in presenting the resolutions, 2) determine if there are any differences in ethical issues faced in rural areas compared to metro or urban areas, and 3) discover ethical issues that are challenges for both urban and rural behavior analysts. Young-Pelton and Dotson (2017) had 75 behavior analysts participate in the study and surveying. In the surveys, Young-Pelton and Dotson (2017) asked 10 questions about the types of ethical issues they faced in rural practice and how issues were resolved. They found in their research that there were no major differences between rural and urban areas in the ethical issues that they faced. Both rural and urban, groups had environmental conditions that interfered with the implementation that gave an ethical challenge.

Donaldson and Stahmer (2014) wrote an article on a team collaboration approach to best serve students with autism. Though there was no research done in their article, Donaldson and Stahmer (2014) gave a tutorial on how and why speech-language pathologists and behavior analysts should use the strategies outlined to create a successful collaboration team for students with autism. Their tutorial pulled information from a variety of different empirical studies on the use of applied behavior analysis interventions in school settings with students with autism. The purpose of their tutorial was to show the need for a team collaboration approach between speech-language pathologists and behavior analysts in order to best serve and support students with autism. Throughout their tutorial and gathering information from other studies, Donaldson and Stahmer (2014) concluded that there is a need for collaboration among speech-language

pathologists and behavior analysts. They stated that given the high number of children with autism and the higher cost that comes with serving these students, “the need for effective, comprehensive services, and efficacy within teams is crucial. Ensuring that there is communication, mutual understanding, and the recognition of common ground among all team members, more specifically speech-language pathologists and behavior analysts, can lead to the most success and collaboration” (Donaldson & Stahmer, 2014, p. 273).

One study looked at each of the components of the Strategies for Teaching Based on Autism Research (STAR) program. Pellecchia et al. (2015) looked to answer the question of, what is the fidelity, intensity, and accuracy of each component of the STAR program. Within the study, there were 54 teachers and 191 students ranging in grades from kindergarten to second grade in autism support classrooms, who participated in the study for three years. This specific study looked at the third and final year of the study as it was the only year where intervention intensity data was collected. Pellecchia et al. (2015) examined the child’s outcomes and overall change in their cognitive ability or IQ throughout the experiment. Pellecchia et al. (2015) found that the fidelity to pivotal response training showed a more significant increase in the student’s cognitive ability after just one academic school year. This led Pellecchia et al. (2015) to conclude that pivotal response training was more effective than discrete trial training in improving a child with autism outcomes and overall cognitive ability and IQ.

Throughout all the research presented, studies showed a variety of different interventions and strategies that can be beneficial and successful for students with autism and disabilities. Applied behavior analysis was one type of practice reference in several studies on how it can be used to support and teach students with autism. While a variety of research was done on interventions and strategies being implemented for children with autism, research was also

presented on early intervention. Research regarding early intervention shows how providing support for children earlier can aid and promote higher outcomes and overall gains. Inclusive classrooms are one type of strategy that can be used with students with disabilities and autism to support them. When strategies, interventions, and early intervention were implemented for students, studies showed the long-term benefits and outcomes that are possible.

School Profile

Community Characteristics

West Fork Elementary School is part of the West Fork Community School District. The elementary school is located in a rural, north-central town in Iowa. The town it is located in, Rockwell, IA, has a population of 1,044 (US Census Bureau, 2023). The US Census Bureau also reported in 2021 that over 80% of Rockwell's population was white and Hispanic or Latino, some other race, and two or more races made up the other less than 20%. The median household income was just over \$50,000 in 2021 (US Census Bureau, 2023).

The community is made up of several small businesses that work to support the school and the district. West Fork Elementary is the only school building in the town. Community members worked with the school to help identify key areas for a Portrait of a Graduate. Throughout this process, members helped to decide on the more important areas, as well as helped to define the characteristics. They gave their input on how and why these skills were important for students to develop in order to graduate and become active, successful members of the community in the future. Community members are invited into the schools as guest speakers, readers, student partners, and chaperones for field trips, as well as substitutes within the school.

District Characteristics

The district is composed of two buildings, an elementary building and a middle school and high school building. In 2022, there were 692 students enrolled in grades kindergarten through twelfth grade (Iowa Department of Education, 2022). It was reported that 91.9% of the students were white, 3.2% Hispanic, 2.5% multi-racial, and 1.4% black/African American (Iowa Department of Education, 2022). The Iowa Department of Education also reported that 36.4% of students were of low socio-economic status and received free and reduced lunch.

The mission of West Fork School District is to be dedicated to creating successful learners, citizens, and leaders. At the start of 2021-2022, West Fork School District started their work for Portrait of a Graduate. The six competencies for West Fork's Portrait of a Graduate are respect, communication, persistence, adapting, thinking critically, and collaboration. The Portrait of a Graduate competencies align with the mission statement well. In order for the school district to create successful learners, citizens, and leaders, the district and community collaborated to identify these six competencies that they thought were most important to be successful learners, citizens, and leaders. Portrait of a Graduate work is done in all grades, preschool through twelfth grade. Each grade level works together to identify what the competency would look like with their students and grades. From there, lessons and language are created to teach the students about each competency.

School Building Characteristics

West Fork Elementary School is composed of students in grades preschool, pre-kindergarten, kindergarten, first grade, second grade, third grade, fourth grade, and fifth grade.

The district goals for the school year 2023-2024 are:

- By May 2024, ISASP will show 80% of students in grades 3-11 as proficient in literacy, and 70% of students in grades 3-11 as proficient in math.

- By May 2024, students will know what the 6 Portrait of a Graduate competencies are, how to demonstrate them, and believe they are important to future success.
- By May 2024, an infrastructure will be in place for each tier of MTSS in social-emotional learning in order to work towards the fidelity of district referral data. 80% of students will respond to universal supports in the area of social-emotional learning instruction.

The Iowa Department of Education reported that in the 2022-2023 school year, there were 345 students enrolled in West Fork Elementary School. Within the elementary school, there are the following sections at each grade level: three sections kindergarten, first grade, second grade, third grade, and fourth grade for the 2023-2024 school year, there are only two sections of fifth grade due to lower students in the grade. There is also one section of pre-kindergarten, two sections of three-year-old preschool, and three sections of four-year-old preschool. Each class section ranges from 15-22 students, aside from three-year-old preschool for 2023-2024 there are 9 students in each section.

In the elementary building, the Iowa Department of Education reported the following demographics in 2022. 91.9% of students are white, 3.2% are Hispanic, 0.3% are Native American, 2.9% are multi-racial, 1.4% are African American, and 0.3% are Asian. Of the 345 students from kindergarten through fifth grade, 53.9% are male and 46.1 are female. 9.3% of students have a disability or have an Individualized Education Program. Of the students, there are 0.3% that are English Language Learners. The last demographic area that was reported was 36.2% of students are have low socio-economic status and receive free and reduced lunch.

At the elementary level, there are several different programs offered for students, based on their needs. The programs that are offered in the school are for Title, special education, and high-achieving learners (Talented and Gifted or TAG). Every student has access to receive

physical education, music, library, art, and guidance. There are a wide variety of different services and accommodations that West Fork has in place for students when they may need further support. Some of these services and accommodations are having a sensory room that all students have access to, calm-down areas in each classroom, options for flexible seating, access to sensory tools during instruction times, and inclusive classrooms.

Curriculum, Instruction, and Assessment

West Fork Elementary has different curriculums for each subject area. Preschool utilizes Creative Curriculum for all areas including, literacy, math, social-emotional, physical, language, cognitive, science, social studies, and arts. Kindergarten through fifth grade adopted Bridges for their math curriculum in the 2021-2022 school year. In the 2023-2024 school year, kindergarten through fifth grade piloted a few different literacy curriculums.

In the 2022-2023 school year, the elementary has started to move to standards-based grading. Last year and this year, 2022-2024, grade-level teams have been working through subject areas to move to standards-based grading one subject area at a time. In the work to move towards standards-based grading, grade-level teams have been working to create common assessments in each standard, especially the standards that are reported to parents on report cards. In the work to move to standards-based grading, and creating common assessments, grade-level teams have also worked to reevaluate and adjust student report cards in order for them to convey the information in a clearer, simpler way for parents and families to understand.

Each grade level kindergarten through fifth grade has a what I need (WIN) part of their schedule. During WIN time, the grade level is broken down into small groups of students 10 or less. Grades have WIN 4 days a week, where one day a week is spent teaching Second Step, the social-emotional curriculum utilized at West Fork, one day is spent teaching literacy

interventions based on student needs and one day is spent teaching math interventions based on student needs. For literacy and math interventions, students are split into small groups of 10 or fewer. Students are split into groups based on their specific needs and areas in which they need further support in regard to math and literacy.

Positive Behavior Interventions and Supports (PBIS) is implemented at West Fork Elementary to encourage positive behaviors and create a means to teach expectations to prevent behaviors. Pre-kindergarten through fifth grade utilizes PBIS, while preschool does not. Preschool does not participate in PBIS because a lot of the practices done within PBIS are being taught for the very first time in preschool. In preschool, the teachers and paraprofessionals get the students ready to be able to learn through a PBIS model in kindergarten and on. Through the PBIS model, teachers track student behaviors, and data is used by the school counselor and principal to make decisions based on what students need. Teachers also use links in order to track and encourage positive behavior. Students can receive a link when they have exhibited a behavior that is desired. Once students have a set number of links they get to choose a prize. Classes will also create class goals to receive so many links to have a class-wide PBIS award. There are also school-wide PBIS goals that the whole school works to achieve, and again rewards are given. Some examples of awards are bowling, roller skating, movie day, etc. Expectations are taught school-wide through our SOAR program, which stands for safe, outstanding citizen, accountable, and responsible. Once expectations are taught school-wide, further interventions and support are put in place for students who may need it.

Student Performance

In 2022, the Iowa Department of Education reported that West Fork Elementary was rated as needing improvement. West Fork Elementary received a score of 49.17 out of 100, with

the state average being 54.65. A score of 50 or higher would have given West Fork School a rating status of acceptable, so it is important to note that the school was just 0.83 away from an acceptable status. Even with the rating status of needs improvement, the Iowa Department of Education states that no support was required for ESSA. Both areas have been met in the ESSA performance categories which are comprehensive status and targeted status, and no support is required for ESSA.

Based on ISASP scores for West Fork Elementary, scores fell slightly below the state average. In the Language Arts, elementary scores were reported at 49.23, with the state average is 50, of the scores 72.44% of students received a proficient score. 50 is also the state average for mathematics and students at West Fork Elementary scored 47.48, with 55.13% of students receiving a proficient score. West Fork Elementary is slightly below average in scores for both language arts and mathematics when reported in 2022.

Needs Assessment

When examining the school profile for West Fork Elementary, there is no set support system in place for students with disabilities or with autism. West Fork Elementary is doing some great things for its students and community and is working to continue to support and meet the needs of different students. While West Fork is supporting students in what they have, they lack strategies, resources, and lessons to support students with autism and students with disabilities based on their specific needs. Within special education, they are given accommodations and support through specially designed instruction. All of West Fork's teachers are qualified and more than capable of teaching and supporting students in the district, but not all staff members have the knowledge, means, or resources to support students with more advanced needs.

The building and district have adopted Bridges Mathematics curriculum for grades kindergarten through fifth grade. They are also in the beginning stages of adopting a new literacy program, as they are piloting a few different curriculums throughout the 2023-2024 school year. The programs that they are currently piloting are SuperKids for grades kindergarten to second grade, Collaborative Classroom (being a reader and being a writer) and Wit and Wisdom for third to fifth grade, and Core Knowledge Language Arts (CKLA) for grades kindergarten to fifth grade. Through the adoption process of both math and literacy curriculums, teachers have been given training and support on how to carry out a new curriculum and how to support students in the new curriculum. While teachers have been given support in the new math and literacy curriculum, especially on professional development days at the beginning of the year and throughout the school year, there has not been training and support for staff on how to support learners with more diverse and specific needs.

West Fork Elementary School received a rating in 2022 of 49.17 from the Iowa Department of Education in their overall school performance, which gives a status of needs improvement. It is important to note that a score of 50 would've given an overall performance status of acceptable. West Fork Elementary is scoring below the state average, which was 54.65 in 2022. Along with the rating, no ESSA support is required for West Fork Elementary. With more support and interventions in place for students with more specific needs, the school could work to close the gap and improve their performance scores.

The focus of the school improvement plan is on serving and supporting students, especially students with autism and students with disabilities. The mission of West Fork School District is to be dedicated to creating successful learners, citizens, and leaders. Through the school improvement plan of bettering serving and supporting students with autism and

disabilities, West Fork can ensure they are carrying out their mission of creating successful learners, citizens, and leaders for all students, whether they have autism, or a disability, or not. The plan will give professionals in the school building the support they need in order to support students with autism and disabilities.

Since West Fork adopted the Bridges math curriculum in the 2021-2022 school year and is in the process of adopting a new literacy curriculum, the options being SuperKids, Collaborative Classroom, or CKLA, it would be inappropriate to create a school improvement plan regarding math or literacy. It is important to give the new curriculums a few years to become established and give students the chance to build their skills and carry them over from year to year. By creating a school improvement plan based on specific student needs and implementing supports and interventions for students with autism and disabilities, West Fork will be able to better serve students who are not being supported by universal supports. With the implementation of the STAR program at West Fork, the hope would be the district could better serve and teach students with autism and disabilities specific skills and areas they need.

Data Analysis

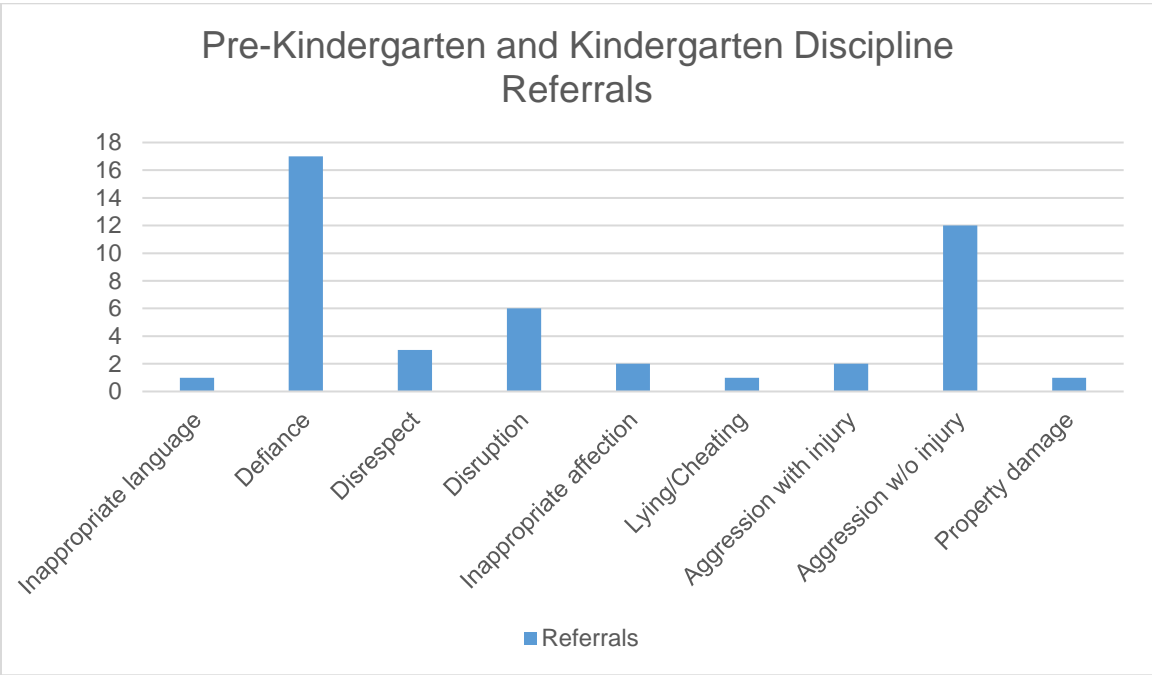
The area of need is providing supports for students with autism and students with disabilities, and the data that will be examined has to come from several different areas and sources. Students with autism and disabilities need support in a variety of different areas, for a variety of different reasons, and the STAR program is a tailored program that allows you to teach the child based on their specific needs, whether it be academics, language, behaviors, etc. The data that supports the need for the STAR program comes from student's math and reading scores, as well as PBIS data that includes discipline referrals. The data that will be analyzed will be pre-kindergarten through fifth grade, excluding preschool since preschoolers do not take state

tests and are not included in discipline referrals. All of the discipline data referrals come from the West Fork Schools JMC record system and examine the referrals between August 23rd 2023 to October 24th 2023 (J. Schmitt, personal communication, October 2023).

From August 23rd, 2023 to October 24th, 2023, there were 45 discipline referrals for pre-kindergarten and kindergarten. Of those 45 referrals, one was for abusive/inappropriate language, 17 for defiance, three for disrespect, six for disruption, two for inappropriate display of affection, one for lying/cheating, two for physical aggression with injury, 12 for physical aggression without injury, and one for property damage (see Figure 1 below). Most of the problem behaviors took place in the classroom, which is to be expected since that is where students spend the majority of their day. Kindergarten has the most referrals out of all the grades, which can be slightly concerning and can show that further supports need to be put into place for students and for problem behaviors (J. Schmitt, personal communication, October 2023).

Figure 1

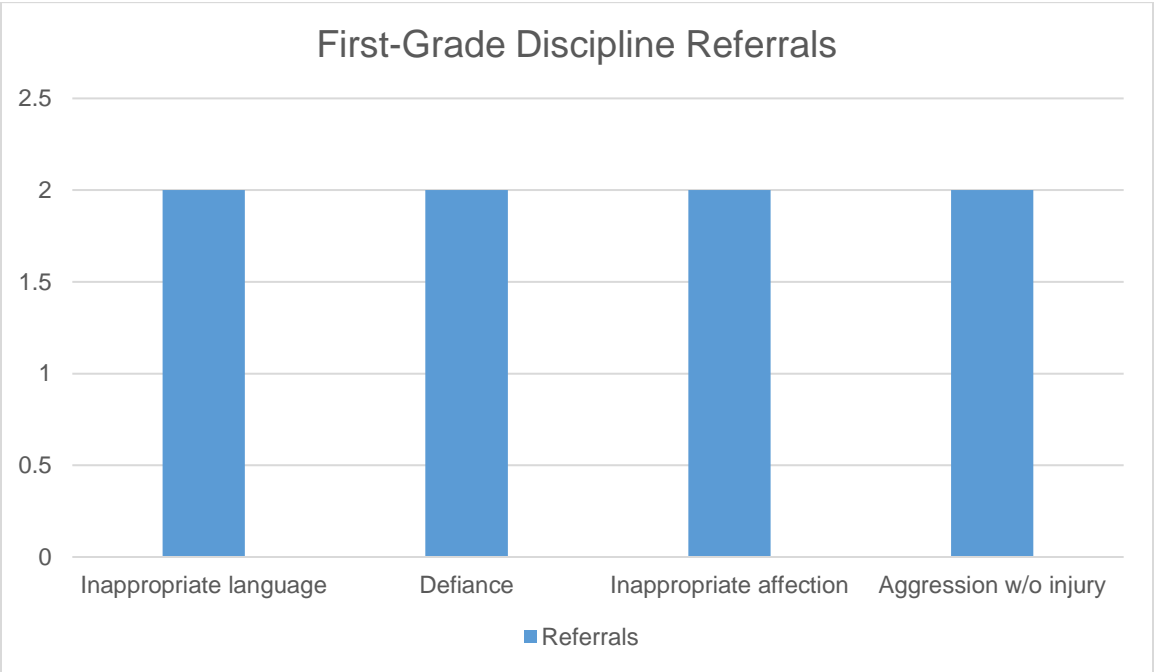
Pre-Kindergarten and Kindergarten Discipline Referrals



For first graders from August 23rd, 2023 to October 24th, 2023, there were 8 discipline referrals (see Figure 2 below). Of those eight referrals, two were for abusive/inappropriate language, two for defiance, two for inappropriate display of affection, and two for physical aggression without injury. Again most of the problem behaviors were in the classroom (J. Schmitt, personal communication, October 2023).

Figure 2

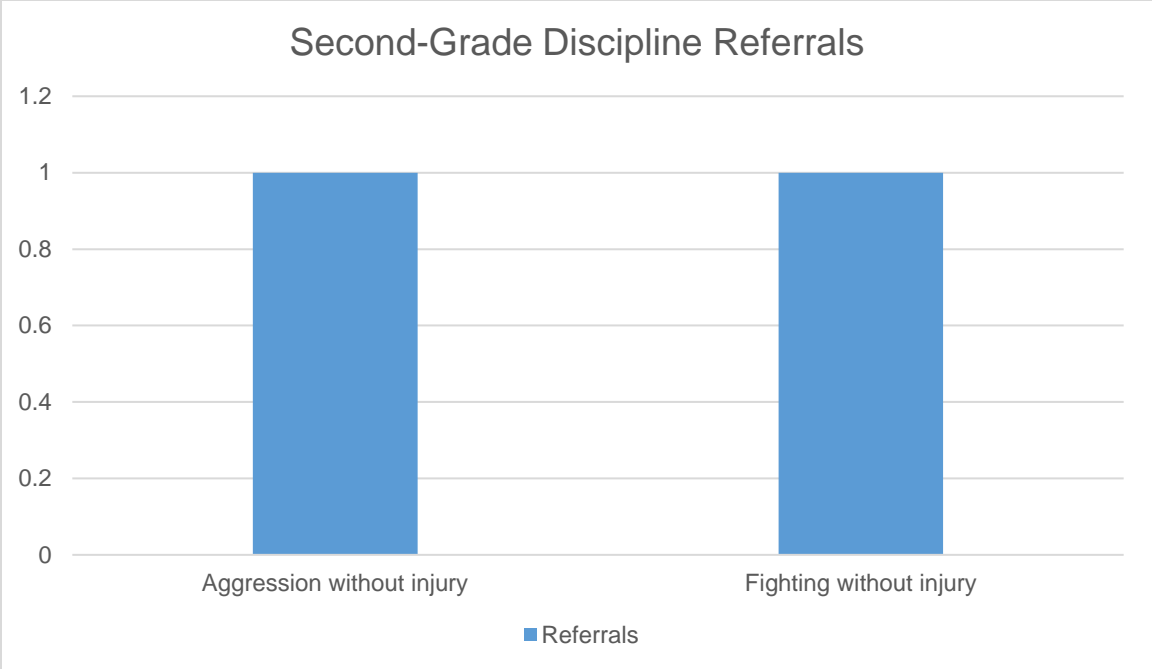
First-Grade Discipline Referrals



In second grade, there were only two referrals from August 23rd, 2023 to October 24th, 2023, as shown in Figure 3 (below). One of the referrals was for physical aggression without injury and the other referral was for physical fighting without injury. One of the problem behaviors happened on the bus and the second one happened in the gym (J. Schmitt, personal communication, October 2023).

Figure 3

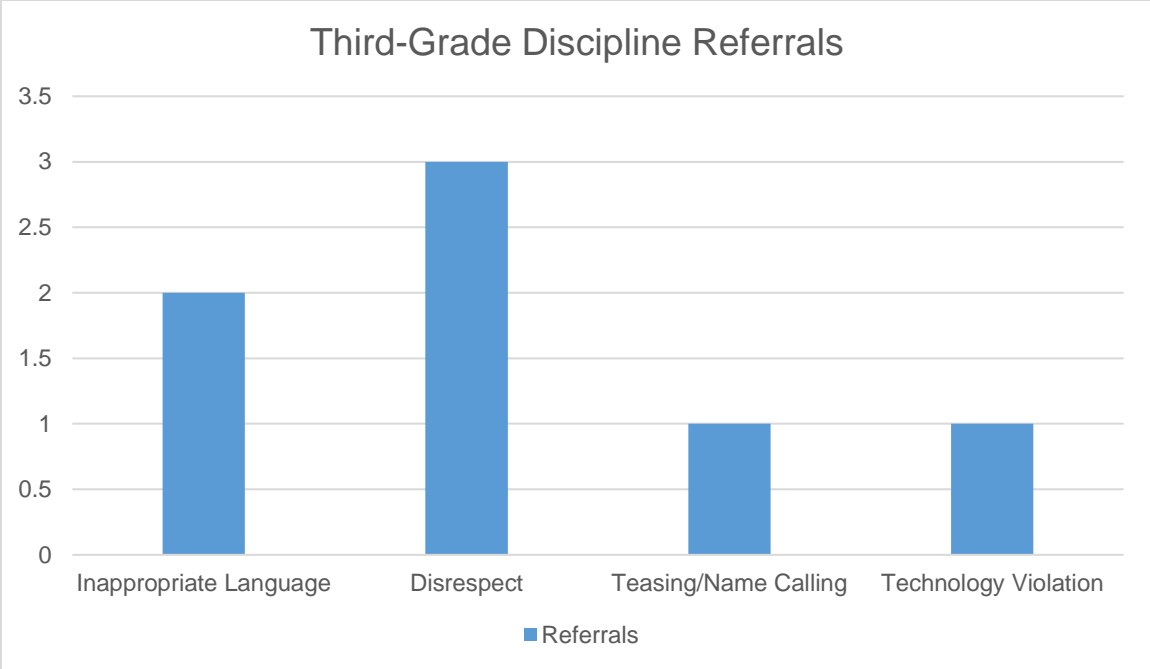
Second-Grade Discipline Referrals



Seven referrals were made for third grade from August 23rd, 2023 to October 24th, 2023. Third graders had two referrals for abusive/inappropriate language, three for disrespect, one for teasing/name-calling, and one for technology violation (Figure 4 below). Three of the referrals happened on the bus, two in the classroom, and two on the playground (J. Schmitt, personal communication, October 2023).

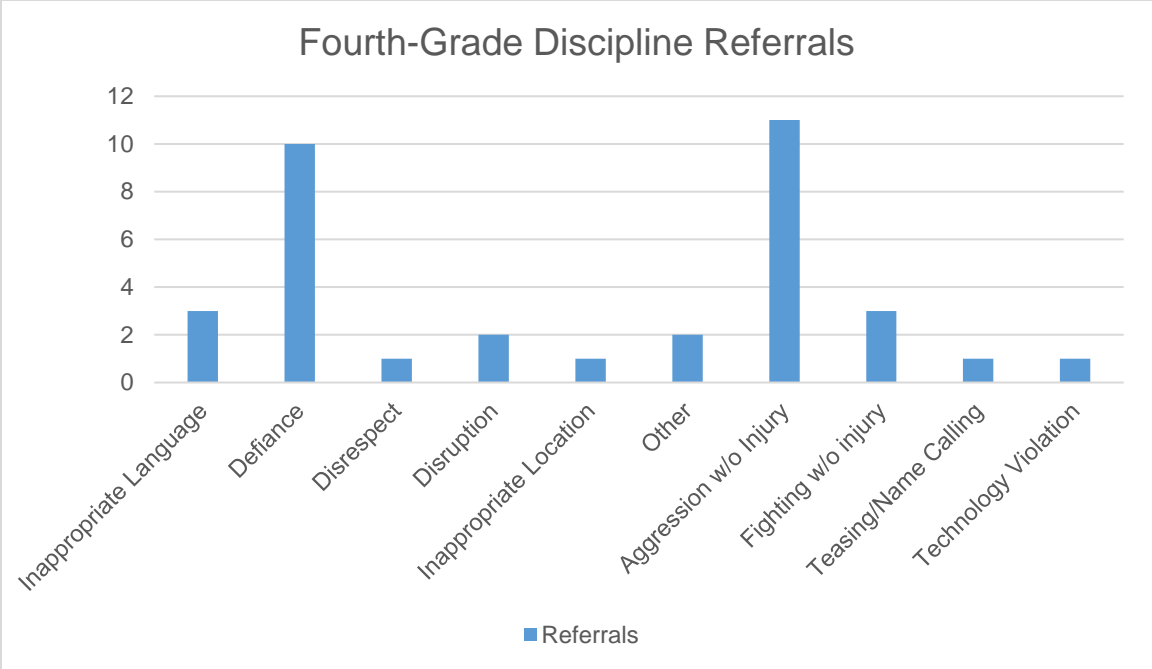
Figure 4

Third-Grade Discipline Referrals



From August 23rd, 2023 to October 24th, 2023, fourth grade had a total of 35 referrals made. Figure 5 (below) shows of the 35 referrals, three were for abusive/inappropriate language, ten for defiance, one for disrespect, two for disruption, one for inappropriate location, two for other, 11 for physical aggression without injury, three for physical fighting without injury, one for teasing/name-calling, and one for technology violation. Seventeen of the referrals happened in the classroom, which is to be expected since it is where students spend the majority of their day (J. Schmitt, personal communication, October 2023).

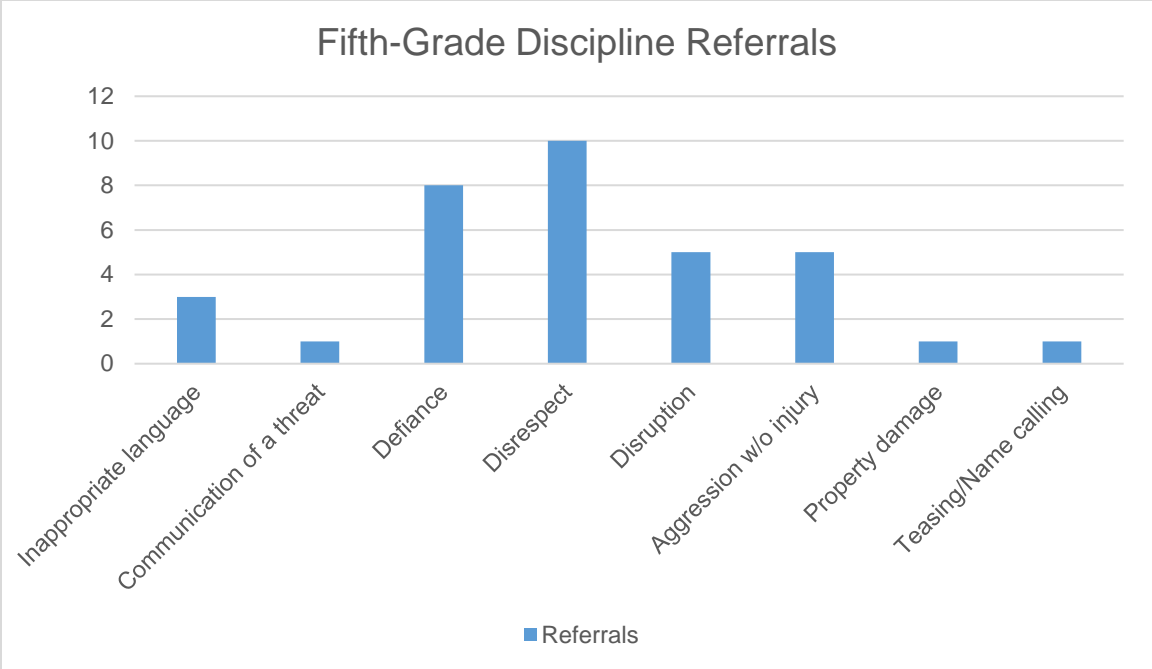
Figure 5
Fourth-Grade Discipline Referrals



In fifth grade, there were a total of 34 discipline referrals from August 23rd, 2023 to October 24th, 2023 (Figure 6 below). Three were for abusive/inappropriate language, one for communication of a threat, eight for defiance, ten for disrespect, five for disruption, five for physical aggression without injury, one for property damage, and one for teasing/name-calling. The two highest locations for referrals for fifth grade happened in the classroom and the gym with nine referrals in each (J. Schmitt, personal communication, October 2023).

Figure 6

Fifth-Grade Discipline Referrals



Looking at the FAST data (Figure 7 below) for pre-kindergarten and kindergarten students for the school year 2023-2024, there were 59 students assessed and 83% of the students were at benchmark, meaning they were proficient in literacy. First-grade FAST literacy scores showed that of the 51 students assessed only 59% were at or above the benchmark in being proficient in the fall screening of the 2023-2024 school year (see Figure 7 below). First grade is the lowest grade in their literacy scores with only 59% of students being proficient in literacy. It can be concluded that students in first grade need further support in literacy areas in order to ensure that at least 21% of students move from below benchmark to above benchmark. In order for students to make that type of growth, supports and interventions need to be put into place for students to gain more knowledge and skills. Second grade had an overall literacy score of 67% of the 55 students assessed were proficient in the FAST literacy assessment in the fall screening of the 2023-2024 school year (Figure 7 below). Second grade is also below the goal of 80% of students being proficient in literacy with only 67% of students being proficient in literacy. This data says that second-grade students need further support as well for their literacy skills to meet

the goal of 80% of students being proficient by the end of the 2023-2024 school year (FAST Bridge, 2023).

FAST math scores were nearly the same for the second-grade students where 65% of students were proficient or at benchmark as shown in Figure 8 (below). Second grade is the only grade that is below the 70% goal of proficiency by the end of the year. This is important to note that both literacy and math are below the benchmark and goal for 23-24 years. This tells us that support and interventions are needed for students in second grade. Figure 7 (below) shows that for the 55 third-grade students, the FAST literacy scores in the fall of 2023-2024 showed that 73% of students were proficient. FAST Literacy scores for fourth grade were at 72%, as noted in Figure 7 (below), in the fall of 2023-2024 out of 63 students screened. Fourth-grade students are doing pretty good overall in the area of literacy with 72% of them being proficient, above the benchmark, in the fall. Fifth-grade FAST literacy scores, in the fall of 2023-2024, were 66% proficient for the 45 fifth-grade students screened (Figure 7 below) (FAST Bridge, 2023).

Fifth-grade students are also significantly lower than the 80% goal of proficiency for students, including support and lessons for students to support their literacy skills is important to boost their overall score. With only 66% of students being proficient, there are at least 14% of the fifth-grade students that need to move up to being proficient in literacy by the end of the year in order to meet the goal of having 80% of students proficient. While only 14% of the students would need to become proficient to meet the 80% goal, it is ideal that all students are proficient. With only 66% of students being proficient, that means 34%, one-third, of the students are not proficient. Support needs to be put into place in order to better serve those students to be proficient (FAST Bridge, 2023).

Figure 7

FAST Literacy Scores for All Grades, Pre-Kindergarten to Fifth Grade

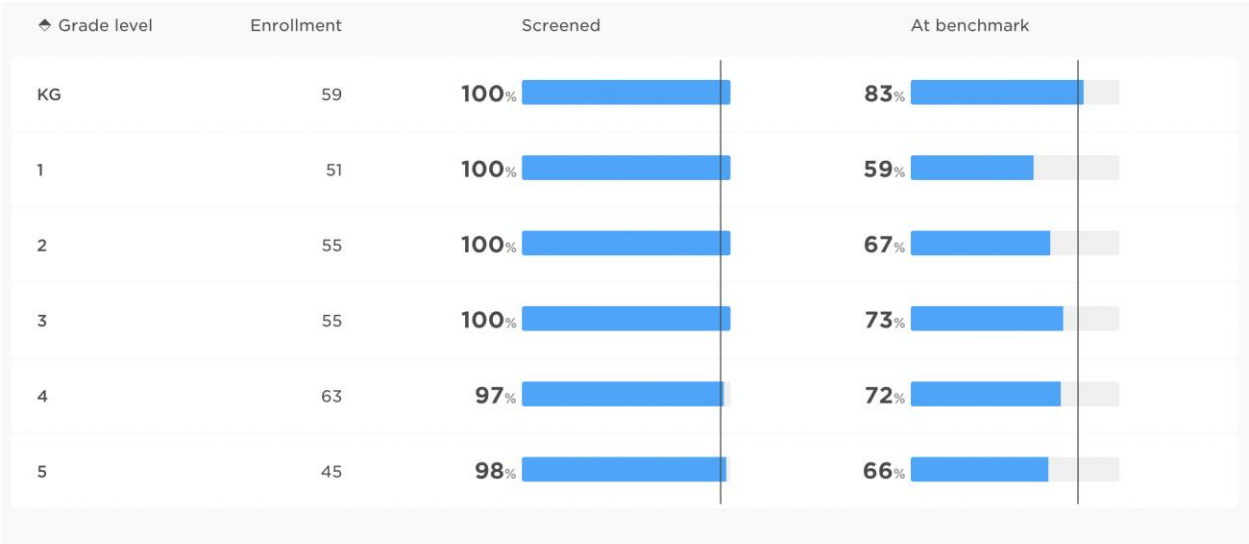
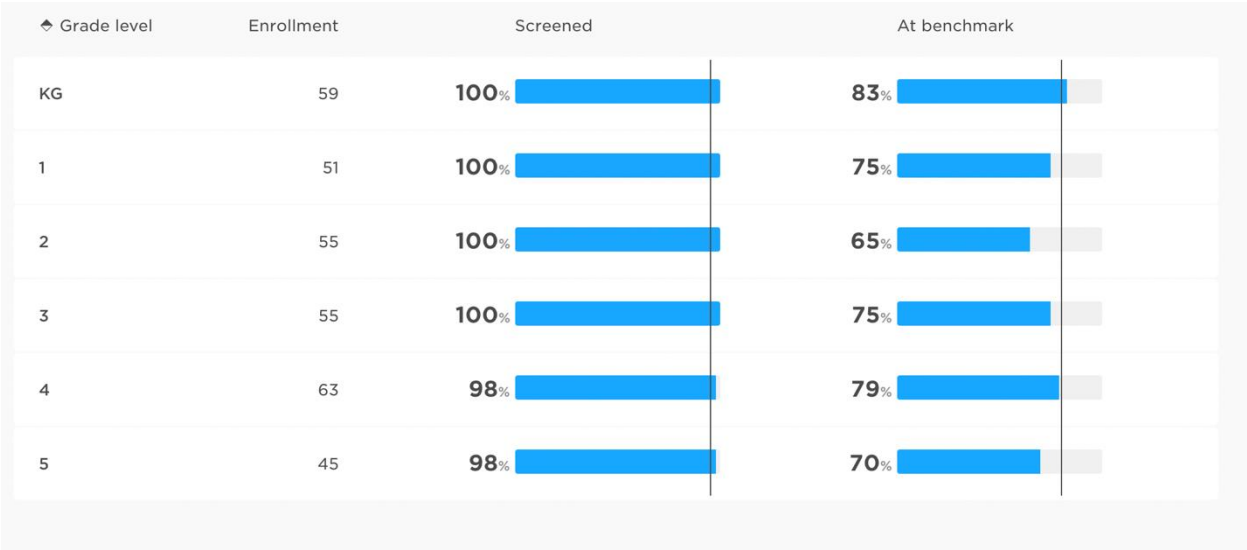


Figure 8 shows math, again 59 pre-kindergarten and kindergarten students were assessed and 83% were proficient at benchmark. As you'll see in Figure 8 (below), it shows that 75% of the first-grade students were proficient on the FAST math screening, which is significantly higher than the literacy scores. Second-grade FAST math scores were nearly the same for the second-grade students where 65% of students were proficient or at benchmark as shown in Figure 8 (below). Second grade is the only grade that is below the 70% goal of proficiency by the end of the year. This is important to note that both literacy and math are below the benchmark and goal for 23-24 years. This tells us that support and interventions are needed for students in second grade. FAST math scores are nearly the same in third grade, as shown in Figure 8 (below), but slightly higher at 75% for third grade. Figure 8 (below) shows the math FAST scores for fourth grade. Of the 63 fourth graders, 79% were at or above the benchmark for math in the fall as well. Fifth-grade FAST math scores are shown in Figure 8 (below), where the fifth-grade students were higher at 70% proficient at or above the benchmark (FAST Bridge, 2023).

Figure 8

FAST Math Scores for All Grades, Pre-Kindergarten to Fifth Grade



The data for each grade's literacy, math, and discipline referrals shows that there are areas of weakness in several areas, several grades and there is room for growth. The data shows that not all of the student's needs are being met in the area of literacy, math, behavioral referrals, or social-emotional learning. Second-grade data could be the most alarming since those students are below the benchmark and the goal in both literacy and math areas. This tells us that there are students in second grade that are needing further support in order to be proficient in literacy and math areas. Students with autism and students with disabilities can have a wide variety of needs and areas where support is needed. There is no one specific area that is affected because of an autism diagnosis or a disability, any and/or many areas can be affected. Implementing a program that would support student's specific needs and allows educators to create and choose lessons based on what they need. When students' specific needs are examined and addressed, scores in all areas, including literacy, math, and behavioral referrals will show a positive increase.

Looking at all the data for literacy, math, and behavioral discipline referrals we can conclude a variety of different things. The biggest that can be concluded is that students need support in order to function better in the classroom and to do better on state assessments, such as

FAST. In order for either of those things to happen, a supportive program needs to be in place for teachers to teach specific skills that students need. It can also be concluded that there are probably more areas of need that students have aside from data shown on literacy and math assessments and behavioral discipline referrals. Having a program in place that meets students where their current level is to get them to the next level and beyond will not only help with boosting literacy and math scores and decreasing the number of discipline referrals, but it will also help students on a daily basis with activities, assignments and minor behaviors that come throughout the school.

Action Plan

The STAR program teaches students a variety of skills through three different evidence-based practices. The three components of the STAR program to teach students are discrete trial training, pivotal response training, and teaching through functional routines (Pellecchia et al., 2015). After reviewing relevant and necessary literature, a few themes emerged in supporting this school improvement plan for adopting the STAR program to support students at West Fork Elementary. The themes that emerged were the need for early intervention, training and support for professionals, and the use of different interventions and strategies to support student needs. It is important that staff is adequately trained and receives support throughout their implementation process. Having a mentor, either on-site at West Fork or remotely, will be important in supporting West Fork teachers and professionals in carrying out the STAR program.

The first step will be having the district purchase the STAR program. The STAR kit comes from each level of the program. There are three levels in the STAR program, which can serve all ages of students at West Fork from 3-year-old preschool students to twelfth graders. Within each level, there is a master book for the level, a set of lessons taught in the level, and a

set of manipulatives or card sets. STAR also offers add-on options for educators to purchase as well. Some add-on options include token boards and access to a digital media center.

The second step in implementing the school improvement plan is to ensure that teachers and staff are adequately trained in teaching the STAR components and practices. When staff is trained in the STAR program, they receive knowledge about teaching students using discrete trial training, pivotal response training, and functional routines. The local Area Education Agency (AEA) offers STAR training which typically consists of two training days and a half-day ZOOM session. Professional development days could be used to complete these trainings. The ZOOM sessions falls a few months after the initial training days, which allows staff to start implementing the program and practices and ask questions for clarification if or as needed. It is important that all staff, both teachers and paraprofessionals who work with students with autism or disabilities attend the training to gain knowledge on how best to support their students. The staff that should be a part of the training is anyone working with students with autism or those with disabilities. Including paraprofessionals in the training is very important, as they spend a lot of time with the students who would receive the STAR program. By having them be a part of the training, they can also implement the practices and lessons with the child. Some staff may already have some knowledge of the STAR program and the practices used, but it will be important for everyone to have a common understanding, knowledge, and skills around the STAR program.

After the initial training, it will be important that the teachers and paraprofessionals receive or have access to ongoing support and open communication as they continue to implement the STAR program. This ongoing support and communication can come from a mentor onsite at the school or remotely through the AEA. Cardinal et al. (2017) identified the use

of technology and web-based training and support with paraprofessionals carrying out discrete trial training. This type of remote access to support will be important for the teachers and paraprofessionals at West Fork Elementary. It will allow the professionals to stay in the classroom more and not travel to training centers, as well as ask more individualized questions on how best to support their specific students using the STAR program.

It was identified that the need for early intervention to support students is critical. Colombi et al. (2016), Eapen et al. (2013), Sinai-Gavrilov et al. (2020), and Vivanti and Dissanayake (2016) all found in their studies that the implementation of early intervention has a positive outcome and significant gains in a variety of different developmental areas. It will be especially important that the professionals serving the youngest students in the building, like three and four-year-old preschool, pre-kindergarten, and kindergarten, are trained in the STAR program in order to carry out early intervention with students. Colombi et al. (2016), Eapen et al. (2013), and Vivanti and Dissanayake (2016) found in their research that early intervention had a strong impact on student's communication and language development. Knowing this, it will also be important that professionals who support students with language impairments are included in knowing, understanding, and implementing the STAR program.

After all the staff is trained and has knowledge of the importance of early intervention, and knowledge of the STAR program and its practices, the next step will be implementing the program in the classrooms and with students. Using the program, teachers will be able to identify which level and lessons students need in order to build their skills and knowledge in the area they need. Lessons are pre-made to meet student's needs and can range in areas from pre-academic and academic skills, language skills, play skills, and social-emotional development.

Through the implementation of the STAR program, data is collected throughout the lessons and can aid in guiding which lessons the student may need next.

Once the program is purchased, staff has been trained, and the program is implemented, the plan will be complete. Data should start being collected in order to monitor student progress as they move through different lessons and skills in using the STAR program to learn. As mentioned previously, it will be important that staff has access to someone very knowledgeable in the STAR program to be a mentor and a resource for support as they continue their work with implementing the STAR program.

Implementation of School Improvement Plan

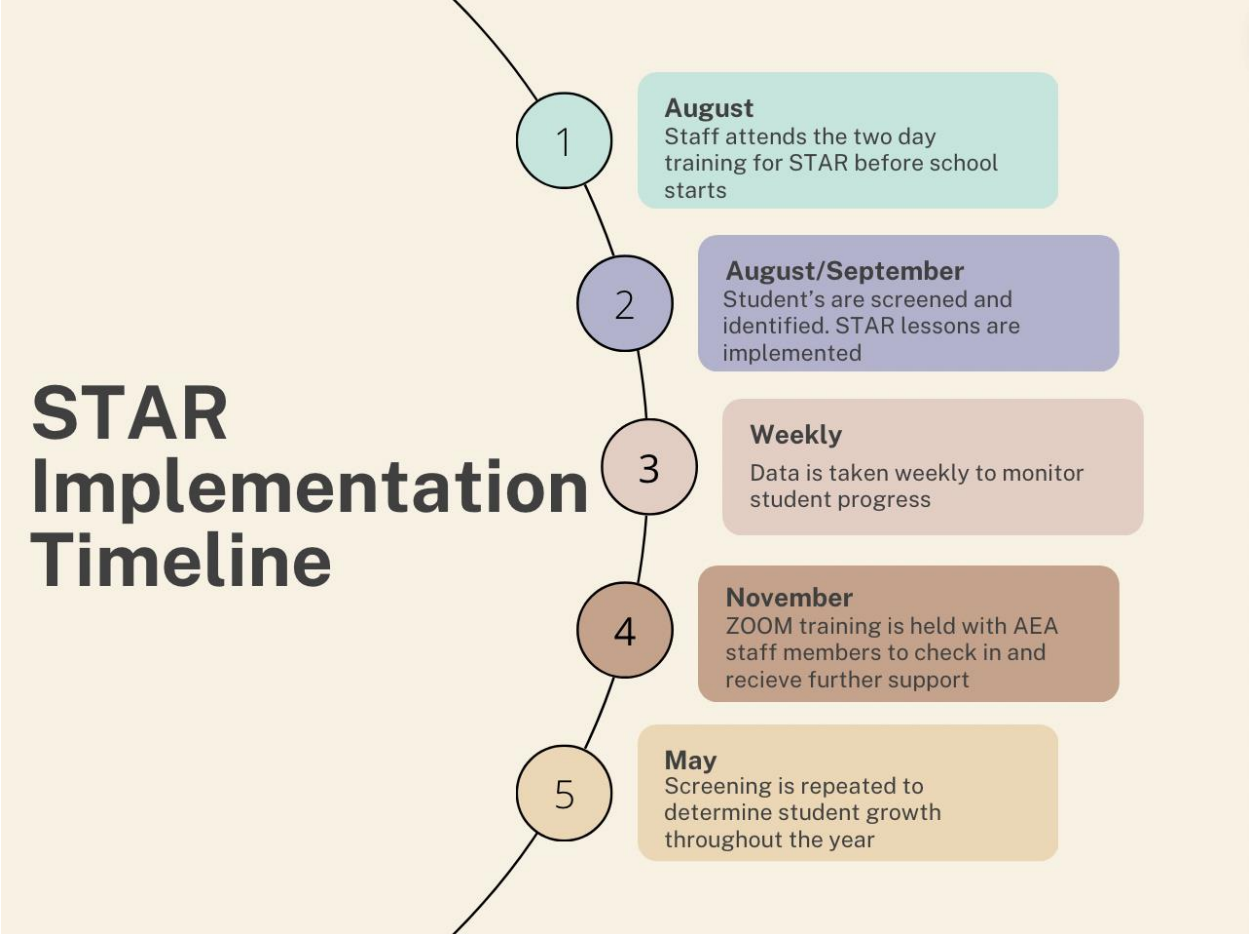
Timeline

This school improvement plan will begin before the school year starts in which the professionals are educated about the plan for the year and in the STAR program. By starting the plan before the school year starts, professionals can be better equipped to have the knowledge of the plan to better plan for the school year and how to best support their students. Figure 9 (below) gives an overview of the time for the school improvement plan. The professional development will be led by the AEA staff that is either assigned to West Fork Elementary or is assigned to lead the professional development in regard to the STAR program. The administration should plan for staff members to attend two days' worth of training for STAR before the school year starts. Once the school year starts, professionals will work through screening their students and identifying which students will use the STAR program as a means for learning the skills needed. When students are screened and identified, lessons will be implemented into the school day. Data will be taken weekly to monitor student progress as they progress throughout the year and lessons. A supportive ZOOM training will be held in

November to check in with staff members, give further support, and be a resource for questions in implementing the program. Students will then be rescreened in May, at the end of the year, to determine student growth throughout the year will the STAR program in place.

Figure 9

Overview of Implementation Timeline



Resources Needed

West Fork Elementary has access to great resources that can be used to additional supports for students with autism and disabilities, but the STAR program will be essential to purchase in order to best support these students. With the purchase of the STAR program, educators not only get access to a wide variety of premade lessons, materials needed to teach the

lessons, and online resources to support educators. It will also be important that in addition to the purchase of the program, educators are properly trained and supported throughout the implementation process. AEA staff that is assigned to West Fork Elementary will also be a good resource for support and knowledge in implementing the program. This support can come in a variety of different ways like observations, video-modeling, hands-on learning, or asynchronous learning. As Cardinal et al. (2017) stated in their study about training paraprofessionals using video-modeling, they are able to serve and support more staff at once. Time will also be another resource needed to implement this plan for success. It will be crucial that time is given for learning and understanding the program, time for the lessons and support to be put into practice, time for results to be seen, and time for educators to meet and collaborate. It would also be beneficial for West Fork to have access and support from other school districts and professionals who have implemented the STAR program as a resource for success in implementing the plan.

Responsibilities

Trained Staff Members

Trained staff members will be comprised of any staff members that were trained in the STAR program and will be carrying out and teaching the lessons to students. The responsibilities of these staff members will be to implement the STAR program into the classroom and with students who need it or would benefit from the program. Through their implementation, they will identify the students that will receive STAR, as well as the lessons that they will benefit from. Staff will also carry out the daily tasks of teaching the lessons to the students and collecting data. They will also participate in regular, monthly meetings. These meetings will be used to check in with each other, and provide support and resources for better implementing the program and lessons. Monthly meetings will be scheduled during one Wednesday PLC time a month from

2:30-4:00. Staff will be encouraged to talk to each other on a weekly basis as needs and questions arise, but they will meet as a whole team once a month to further collaborate.

Support Staff

People who will be considered support staff are instructional coaches and AEA staff. The role of instructional coaches and AEA staff will be to provide resources and support to staff implementing and carrying out the STAR program and lessons. Their responsibilities will include observing staff implementing the program, asking questions, and providing alternatives and accommodations for staff and students who are struggling. They will also be expected to attend the monthly meetings. In these meetings, instructional coaches or AEA staff may talk about specific difficulties they are seeing through their observations and ways to work through them or they may open up the meeting for general questions. The AEA staff will be able to support staff with an outside perspective and aid in answering questions about the implementation of STAR.

Administration

The role of administration will be a little bit more unique, and an as-needed resource. Administration is encouraged to attend the monthly meetings, as well as observe the program and lessons in place to gain a better understanding of the program and how it supports students. The role will also be to aid in answering any difficult questions staff members may have in regard to specific students and situations. It would also be beneficial for them to attend the monthly meetings to answer more difficult questions if they arise, especially those about changes in policies or dealing with more difficult behaviors.

Barriers and Challenges

A couple of potential barriers or challenges to implementing the school improvement plan would be changes and meeting dates. One barrier could be more for veteran teachers/staff members, or staff members that still believe their way of teaching is good enough. It will be important for these teachers and staff members to learn the evidence-based practices in the STAR program and why they are effective. Another potential barrier or challenge for the plan could be meeting monthly for meetings. PLC times on Wednesdays are utilized for many different things. On most Wednesdays, it is used for PLCs to meet, discuss students, look at data, as well as many other things. But PLC times can also be used to have special education meetings, curriculum meetings, staff meetings, etc. Given all the things that are happening on a Wednesday during PLC time, it could get difficult to plan monthly meetings for support and resources. It could be beneficial to plan all the meeting dates at the beginning of the year, to ensure they have top priority and have the meeting dates for all attendees.

Monitoring for Success

Monthly meetings will be held for staff members, AEA members, and administration to check in on the implementation process and progress of STAR. Through these meetings, staff will gain accountability in their implementation and be able to more easily seek resources and support for ensuring the success of the STAR program for students. If lessons are not successful with students, the team, including trained staff members, AEA staff, instructional coaches, and administration, will discuss and make decisions about what other supports, interventions, accommodations, or lessons the student may need to be successful. For the staff members that are implementing the STAR program, it will be new and unfamiliar so they may need extra support and resources in order to carry out the plan with fidelity.

The plan will be seen as effective when students' skills are increased in the different areas that are assessed. Specific student skills will differ from student to student, as every student receiving the STAR program will have different needs and lessons they are working on. The evidence that will be used to see if students' skills have increased will come from the weekly data collection, IEP goal data if they have an IEP, assessment scores, classroom observations, and classroom assessments. Comparing the data from the start of the year to the end of the year, as well as student growth in their need area will give the administration and professionals a further understanding of how the plan was successfully implemented and how well the professionals understood the program.

Conclusion

The STAR program is comprised of three evidence-based practices that are used to support students with autism and students with specific needs and disabilities. The three evidence-based practices used within STAR are discrete trial training, pivotal response training, and teaching through functional routines. Within the program, specific lessons can be tailored to meet student's specific needs in regard to their learning and education. The specific use of discrete trial training is used to teach targeted skills to students that are "planned, controlled, and systematic and give students positive reinforcement when correct skills are shown" (Cardinal et al., 2017). Research has shown the use of evidence-based practices in the classroom, as well as their use in early intervention and how it benefitted and supported students, as well as the use of a variety of different strategies and supports for students.

Currently, West Fork does not have a specific program that is being utilized to support students with autism to support areas of concern that they may exhibit. The purpose of the school improvement plan is to implement the STAR program in classrooms at West Fork to support and

teach students with autism, as well as students with disabilities or those with specific learning needs or areas of concern. Within the plan, teachers and paraprofessionals will be trained on the implementation of the STAR program and gain knowledge of how it supports students in learning a variety of different skills. Through the implementation, staff members will have access to a variety of different resources and support to successfully implement the plan to support and teach students with different and specific learning needs. Research done by Donaldson & Stahmer (2014) noted that support and resources are important in better supporting students, it is also extremely important that the use of a team collaboration leads to the most success for students.

Looking at the data for West Fork Elementary, there are areas of growth that are needed in all areas for a variety of different grades from pre-kindergarten to fifth grade. It is important to note that the data does not include three and four-year preschool, and those students will be important candidates for implementing the STAR program. As the research suggests, early intervention and supports have had a great deal of success and impacts on the student's overall development. Four different studies done by Colombi et al. (2016), Eapen et al. (2013), Sinai-Gavrilov et al. (2020), and Vivanti and Dissanayake (2016) show the benefits of early intervention and the strong impact it has on students overall development. For grades pre-kindergarten to fifth grade, there are many students who are not proficient in literacy or math, and some grades have a higher percentage of discipline referrals. The data tells us that there is a need for stronger supports and interventions for students who have more specific needs. With this school improvement plan, teachers and paraprofessionals can work together and with students to increase their skills, knowledge, and development for students' assessment scores to increase and discipline referrals to decrease.

The STAR program is designed to meet the needs of all learners through the use of evidence-based practices and lessons that are made through progressions and work together to build student's skills. Due to the lack of programs and resources provided to the state and to the district, West Fork Elementary does not have the adequate support and resources to give the proper support to students with autism or students with disabilities. With the adoption of the STAR program, the district could better serve and support all students, no matter their abilities or specific needs.

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