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FABRIC ART: REPORT OF A SUCCESSFUL PRACTICE IN SPECIAL EDUCATION

ARTE EM TECIDO: RELATO DE PRÁTICA EXITOSA NA EDUCAÇÃO ESPECIAL

ARTE EN TELA: INFORME DE UNA PRÁCTICA EXITOSA EN EDUCACIÓN ESPECIAL

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ABSTRACT
This article describes a pedagogical practice carried out in the Multifunctional Resource Room (SRM) of the Capitão Silvio de Farias State Full-Time High School in Rondônia, aimed at students with special needs. The activity consisted of creating a toiletry bag using cutting and sewing techniques, with the goal of promoting the development of motor, cognitive, social, and emotional skills. Analysis of the results, based on theoretical frameworks on integrative methodologies and inclusive education, revealed significant improvements in the participants' autonomy, motor coordination, and social interaction, reinforcing the importance of manual practices in the inclusive educational process.

Keywords: Special Education. Integrative Practices. Sewing. Motor Skills. School Inclusion.

RESUMO
Este artigo descreve uma prática pedagógica realizada na Sala de Recursos Multifuncionais (SRM) da Escola Estadual de Ensino Médio em Tempo Integral Capitão Silvio de Farias, em Rondônia, voltada para estudantes da Educação Especial. A atividade consistiu na produção de um nécessaire por meio de técnicas de corte e costura, com o objetivo de promover o desenvolvimento de habilidades motoras, cognitivas, sociais e emocionais. A análise dos resultados, à luz de referenciais teóricos sobre metodologias integrativas e educação inclusiva, evidenciou avanços significativos na autonomia, coordenação motora e interação social dos participantes, reforçando a relevância de práticas manuais no processo educativo inclusivo.

Palavras-chave: Educação Especial. Práticas Integrativas. Costura. Habilidades Motoras. Inclusão Escolar.

RESUMEN
Este artículo describe una práctica pedagógica llevada a cabo en el Aula de Recursos Multifuncionales (ARM) del Liceo Estatal de Tiempo Completo Capitão Silvio de Farias en Rondônia, dirigida a estudiantes con necesidades educativas especiales. La actividad consistió en la creación de un neceser mediante técnicas de corte y costura, con el objetivo

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de promover el desarrollo de habilidades motoras, cognitivas, sociales y emocionales. El análisis de los resultados, basado en marcos teóricos sobre metodologías integrativas y educación inclusiva, reveló mejoras significativas en la autonomía, la coordinación motora y la interacción social de los participantes, lo que refuerza la importancia de las prácticas manuales en el proceso educativo inclusivo.

Palabras clave: Educación Especial. Prácticas Integrativas. Costura. Habilidades Motoras. Inclusión Escolar.

1 INTRODUCTION

In contemporary society, marked by rapid and constant changes, it is essential to promote the inclusion and belonging of people with Special Educational Needs (SEN) to the various social and educational spaces. In this scenario, the Capitão Silvio de Farias Integral School, through the Multifunctional Resource Room (SRM), develops actions aimed at strengthening students' skills and abilities, seeking to achieve educational inclusion in a broad and meaningful way.

According to the National Policy on Special Education in the Perspective of Inclusive Education (MEC, 2008), Special Education aims to ensure access, participation and learning for students with disabilities, global developmental disorders and high abilities/giftedness. To this end, the adoption of integrative methodologies has gained prominence, since it favors educational experiences that transcend the limits of traditional curricular content.

Among these methodologies, manual practices, such as sewing, stand out for articulating cognitive, motor, affective and social aspects, favoring the overall development of students (Santos; Oliveira, 2021). In addition, such practices promote autonomy and self-esteem, which are fundamental for the integral formation and construction of the identity of individuals.

In this context, this article aims to report the experience developed in SRM through the making of a toiletry bag, analyzing how this activity contributed to the development of motor, cognitive, social and emotional skills of the participating students. The study also dialogues with the literature that discusses integrative methodologies and inclusive practices in education.

2 THEORETICAL FOUNDATION

2.1 MULTIFUNCTIONAL RESOURCE ROOM

The implementation of Multifunctional Resource Rooms (SRM) in Brazil represents a milestone in public policies for Special Education and school inclusion, especially after the enactment of the National Policy on Special Education in the Perspective of Inclusive Education (BRASIL, 2008). This advance reflects the commitment of the Brazilian State to guarantee Specialized Educational Service (SES) as a right guaranteed to students with disabilities, global developmental disorders and high abilities/giftedness, reinforcing the concept of education for all.

However, the analysis of recent studies, such as those by Mendes (2019) and Bueno (2021), reveals that resource rooms, although expanded in number and scope, still face significant challenges in their consolidation as effective pedagogical spaces. Among them, the need for continuing education of teachers, the curricular integration of SEA with regular education and the adequacy of material and technological resources that meet the specificities of students stand out. Without these elements, there is a risk that the resource room will be seen only as a space for school reinforcement, and not as an environment for the construction of autonomy and global development.

Another central issue raised by researchers such as Carvalho (2020) is the articulation between educational policies and pedagogical practices. Although the legislation establishes inclusion as a guiding principle, the realization of this right requires that the resource room transcends the welfare character and starts to act in an integrated way with the school's political-pedagogical project . This implies collaborative action between SEA teachers, common room teachers, managers and families, in order to ensure pedagogical coherence and continuity in the learning process.

In addition, contemporary literature points to the urgency of producing and disseminating knowledge about successful experiences in resource rooms (SANTOS; OLIVEIRA, 2021). Case studies, action research, and reports of successful practices can support more effective public policies, guiding teacher training and the definition of innovative methodologies that promote meaningful learning.

However, when considering the resource room as a pedagogical device, it is understood that its role goes beyond individualized care. It is a space that should dialogue with the school curriculum, articulating strategies that develop students' cognitive, motor, social, and emotional skills, as advocated by authors such as Pletsch and Glat (2019). In this sense, the current challenges lie not only in the expansion of the number of classrooms, but in the qualification of their performance, in order to consolidate school inclusion as a daily and effective practice.

2.2 FINE AND GROSS MOTOR COORDINATION

Motor coordination, as highlighted by authors such as Gallahue and Ozmun (2005), is one of the pillars of child development, since it is directly associated with the child's ability to interact actively and independently with the environment around him. The division between gross motor coordination — responsible for broad and wide-ranging movements — and fine

motor coordination — focused on delicate and precise movements — allows us to understand how different motor skills are interconnected throughout growth, forming the basis for the acquisition of cognitive, social and academic skills.

The work of Rodrigues (2024) contributes significantly to this field by proposing the creation of a transportable kit with devices aimed at the development of fine motor skills. The proposal dialogues with research such as those by Santos and Ferreira (2018), which highlight the importance of manipulative materials to stimulate dexterity, bilateral coordination and precision of movements, especially during early childhood education, a critical phase for neuromotor development.

In addition, the results obtained reinforce the notes of Case-Smith (2013), who highlights how planned and playful interventions can enhance essential skills for daily activities, such as tying shoes, writing and handling objects safely. The use of a portable kit becomes even more relevant when considering educational inclusion, allowing children with special educational needs to also be contemplated with strategies adapted to their specific demands.

Another relevant point is the association between fine motor skills and cognitive and emotional aspects. Research by Cameron et al. (2016) shows that children with greater fine motor skills tend to have better performances in reading, writing, and problem solving, in addition to having greater autonomy and self-esteem. Thus, projects that involve practical activities, such as the one described in this work, not only favor motor coordination, but also contribute to the child's overall development.

In view of the above, it is noteworthy that the analysis stage of similar products and the generation of project requirements follow principles of user-centered design, as defended by Norman (2013), which guarantees the functionality and pedagogical effectiveness of the devices created. This alignment between theory, practice, and applicability demonstrates the project's potential to be incorporated into diverse educational contexts, strengthening active and meaningful learning.

3 REPORT OF PRACTICE

The experience took place with students who are the target audience of Special Education, involving the use of a sewing machine to produce a toiletry bag in honor of Mother's Day. The steps included:

3.1 FAMILIARIZATION WITH THE MACHINE: LEARN HOW TO RUN THE LINE AND CONTROL THE FOOT PEDAL

In this stage, the students Before starting to use the sewing machine, the students received simple instructions on how to pass the thread through the machine's cursors. It was not a challenge to teach students how to run the line through the machine. This process involves several steps, from the top thread guide to threading the needle. Using sewing thread of the shade of the chosen fabric and guidance on how to guide the thread on the cursors and it was possible to make the process more visual and accessible. The student was instructed to follow the steps sequentially, which worked not only on manual skill, but also on attention and sequential memory. When the student was able to pass the line through all the cursors independently, it was a significant victory, evidencing the evolution of perseverance and attention to detail.

The next step was how to position your feet on the pedal and your hands on the fabric. With the machine's pedal placed under the dominant foot, the student was instructed to press it gently to adjust the speed of the sewing. The pressure on the pedal was gradual, according to the motor control of each student, but before starting the pedal movement, the pressure that should be exerted on the pedal with their hands was worked on so that they had a sense of strength and pressure.

The importance of correct posture was highlighted, ensuring that students felt stability, without haste, observing the movement of the machine with maximum concentration. The hands were positioned on the fabric, the left hand guiding lightly, while the right hand kept the fabric aligned. This initial gesture helped improve hand-eye coordination.

With the previous stage finished, it was started how to position the hands on the machine, often complex, it was approached slowly and repetitively, to create an environment of trust and patience, as it involves a piercing object that is the needle and some students showed fear of getting hurt, to lose the fear the needle was removed from the machine and worked on the position of the hands through a sewing exercise on sulfite sheet.

Figure 1

Students in the initial phase of positioning their hands on the sewing machine

Source: From the Authors

3.2 MOTOR SKILLS: CUTTING FABRICS, ALIGNING PIECES, SEWING WITH PRECISION

Once the stages of the sewing machine operation were completed, we started the project with the choice of fabric, where some fabrics of varied colors and prints were made available and the student was guided to choose the one he liked best, having chosen the fabric, the measurements of the main fabric, lining and acrylic mat were passed, items necessary to make the toiletry bag, The student was instructed how the measurements would be marked on the fabrics and after the measurements were scratched and demarcated on the fabric, the cut was made following the markings, some students had difficulties in being able to cut the fabric, because they did not apply adequate pressure with scissors, which made it difficult to make the cut. After the fabric was cut, it was time to make the marking for the metalassê that would have on the piece, this was used as a detail and also to fix the acrylic blanket. Once the demarcations of the metalassê were finished, the students put into

practice the skills previously worked on when we started the presentation of the project, such as positioning the hands and foot on the pedal. When starting to sew the fabric, the students were anxious, but attentive to the teacher's guidelines.

Figure 2

Demonstration of motor skills development

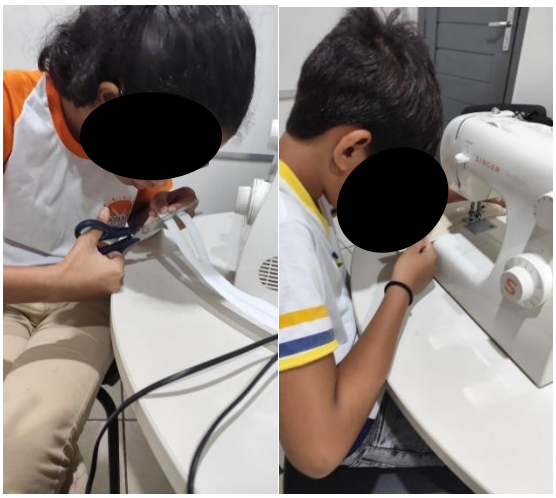
Source: From the Authors

3.3 COGNITIVE SKILLS: FOLLOWING SEQUENCES, SOLVING TECHNICAL PROBLEMS

Some seams came out crooked, but for some who had never had contact with the machine before, it was already expected that this would happen. A seam was made around the piece, fixing the sides of the blanket to the fabric and then the students were guided by the markings previously made on the main fabric. Finishing sewing this step, the students went to the next step, sewing the zipper to close the piece and after placing the lining and closing the sides of the fabric to finish the piece.

Figure 3

Demonstration of cognitive skills in solving technical problems



Source: From the Authors

Emotional and social skills were also developed: working in groups, dealing with frustrations, persisting in the face of difficulties.

The project adopted a practical and adaptive methodology, respecting the individual rhythm and valuing each achievement of the students.

4 DISCUSSION

The results corroborate the findings of Rocha and Pereira (2021), who highlight how manual practices favor the integral development of students, especially in Special Education. Sewing required attention, patience and precision, aspects that, according to Gonçalves (2018), contribute to emotional self-regulation and strengthening self-confidence.

In addition, group work enabled social interaction and cooperation, in line with Vygotsky's (1991) perspective on the importance of the social context in learning.

Studies by Vygotsky (1991) emphasize that learning occurs in interaction with the social environment and that practical activities help in the construction of higher psychological functions, such as attention and memory.

The practice showed significant gains in **fine and gross motor coordination,** as observed by Carvalho, Souza and Almeida (2019), who highlight how handicraft activities contribute to the refinement of movements, both fine and wide. For Rodrigues (2024), The development of fine motor coordination is important at all stages of life, but when we are children this improvement has greater impacts on our interaction with the environment and other people

The process required clear **planning and problem-solving**, in line with Ferreira and Silva's (2020) considerations about the importance of sequencing steps in a logical and adaptable way to the needs of students.

The activity also promoted **creativity and aesthetic expression**, consistent with what Rocha and Pereira (2021) discuss about the potential of manual practices to stimulate aesthetic appreciation and artistic creation.

Finally, it was possible to observe the strengthening of **autonomy and emotional self-regulation,** especially in challenging situations, reinforcing Gonçalves' (2018) statements about the ability of manual activities to promote emotional control and independence in the learning process.

Authors such as Papert (1994), when discussing constructionism, reinforce the importance of "learning by doing", defending practices that provide the student with protagonism in the learning process.

5 FINAL CONSIDERATIONS

The present study showed that the practice of sewing, developed in the Multifunctional Resource Room, proved to be an extremely effective pedagogical strategy for the integral development of Special Education students. The execution of the project allowed not only the acquisition of technical skills related to sewing, but also favored the development of cognitive, motor, social and emotional skills, demonstrating the importance of pedagogical practices that promote meaningful and contextualized learning.

From the motor point of view, a substantial improvement in fine and gross motor coordination was observed, which is essential for the performance of daily and academic activities. The students had the opportunity to manipulate fabrics, operate the sewing machine, adjust the pedal and coordinate hands and eyes, experiences that consolidate not only manual skills, but also spatial perception, motor precision and functional autonomy. This practical learning reinforces the relevance of educational interventions that articulate theory and practice, allowing the student to be the protagonist of their own learning (RODRIGUES, 2024; CASE-SMITH, 2013; CAMERON et al., 2016).

In the cognitive aspect, the practice required attention, sequential memory, planning and problem solving. The students had to follow structured steps, interpret instructions, take measurements, cut fabrics with precision and apply sewing techniques, developing logical reasoning and organizational skills. This articulation between practical action and cognitive

processes reinforces constructionism, according to Papert (1994), showing that learning is enhanced when the student "learns by doing" and experiences the concepts taught in a concrete way.

From a socio-emotional perspective, the project provided significant opportunities for interaction, cooperation, and strengthening of self-esteem. By working in groups, students shared responsibilities, exchanged experiences, helped each other and experienced the importance of empathy and collaboration. In addition, overcoming fears and challenges, such as the fear of the sewing machine needle, showed emotional growth, the ability to deal with frustration and the development of perseverance. Such elements are essential for the formation of autonomous and confident individuals, prepared to face both academic and everyday challenges (GONÇALVES, 2018; ROCK; PEREIRA, 2021; VYGOTSKY, 1991).

Another relevant aspect was the appreciation of aesthetics and creativity. The project encouraged students to choose fabrics, define colors, apply decorative techniques and customize their products, promoting artistic expression and identity construction through manual art. This aesthetic and creative dimension contributes not only to cognitive and motor development, but also to emotional well-being, stimulating the perception of personal achievements and reinforcing the student's role in the learning process.

In addition to individual impacts, the project highlighted the importance of inclusive and integrative pedagogical practices in the school context. The Multifunctional Resource Room proved to be a strategic space for the promotion of effective inclusion, articulating with the school curriculum and strengthening the relationship between Specialized Educational Service and regular education. The experience reinforces the need for public policies that guarantee resources, continuous teacher training and innovative methodologies, enabling each student with SEN to have access to meaningful learning and experiences of full development (BRASIL, 2008; PLETSCH; GLAT, 2019; SAINTS; OLIVEIRA, 2021).

In summary, the practice of sewing has become a multifaceted pedagogical tool, capable of integrating cognitive, motor, social and emotional aspects, promoting not only technical learning, but also the integral formation of students. It is recommended the continuity and expansion of similar projects, incorporating other areas of knowledge and involving the school community, in order to consolidate inclusive education as a daily, meaningful and transformative practice. In this way, it is possible not only to meet specific educational needs, but also to form autonomous, creative, socially engaged and emotionally resilient citizens.

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