

Xadrez escolar e possíveis articulações com o Atendimento Educacional Especializado (AEE) de alunos com deficiência visual na rede municipal de Novo Hamburgo¹

School chess and possible articulations with the Specialized Educational Assistance (SEA) of visually impaired students in the municipal network of Novo Hamburgo

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Resumo

O Atendimento Educacional Especializado (AEE) é garantido por lei, contudo, percebe-se como é difícil e desafiador atender a todas as demandas que a educação inclusiva requer. Este artigo pretende identificar os benefícios que o xadrez possa trazer para quem o praticar; relatar a experiência de enxadristas com deficiência visual e a relação destes com essa atividade lúdica, bem como, discutir a possibilidade de integrar o xadrez no atendimento de alunos com deficiência visual da rede escolar municipal de Novo Hamburgo. Para isso, primeiramente, esta pesquisa investiga como a Secretaria Municipal de Educação (SMED), de Novo Hamburgo, Rio Grande do Sul, Brasil, usa o xadrez com seus alunos e como funciona o AEE no município. Em segundo lugar, apresenta, através de referências, alguns dos benefícios do xadrez para quem o pratica. Após isso, relata as narrativas de três enxadristas com deficiência visual e as possíveis articulações destes com o AEE. Finalmente, sugere o xadrez como ferramenta pedagógica.

Palavras-chave: Xadrez. Deficientes visuais. Atendimento Educacional Especializado (AEE).

Abstract

Specialized Educational Assistance (SEA) is guaranteed by law, however, it is known how difficult and challenging it may be to meet all the demands that inclusive education requires. This article aims to identify the benefits that chess can bring to those who play the game, to report the experience of chess players with visual impairment and their relationship with this playful activity, as well as to discuss the possibility of integrating chess in the care of students with visual impairment in the municipal school network of Novo Hamburgo. For this, firstly, this research presents how the Public Department of Education (SMED), in Novo Hamburgo, State of Rio Grande do Sul, Brazil, uses chess with its students and how the SEA works in the municipality. Secondly, introduces, through references, some of the benefits chess can bring to those who practice it. Thirdly, reports the narratives of three visually impaired chess players and possible articulations with the SEA. Finally, suggests chess as a pedagogical tool.

Keywords: Chess Game. Visually Impairment. Specialized Educational Assistance (SEA).

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1 Introduction

The inclusion of students with some type of disability in educational spaces is guaranteed by Law, however, just by entering a classroom one can see the challenges that many teachers say they face in their daily routine. It is common among teachers to state that only having the knowledge about certain disabilities is not enough, besides that they also want to know how to act effectively to promote the education of these disabled students. However, there is no ready formula. Any teacher who works in the perspective of Inclusive Education understands that each case has its specificities, therefore, different strategies can assist in the development of students with special educational needs. That said, chess can be an applied tool as a way of contributing to the development of students with certain disabilities, especially students with visual impairment or low sight.

The Municipal Department of Education (SMED) of Novo Hamburgo maintains and administers 34 kindergartens, 52 elementary schools and 05 pedagogical spaces, which are: Carlos Alberto de Oliveira Art School (Carlão), Ernest Sarlet Environmental Education Center (CEAES), Pedagogical Support Center (NAP), Open University of Brazil (UAB) and the Municipal Center for Educational Informatics (CEPIC). Within this framework, the Municipality offers three educational programs: - Movements Program and Experiences in full-time Education (MOVE), Projeto Educação Fiscal e Financeira (Fiscal and Financial Education Project), and Programa Municipal de Gestão Financeira na Escola (PMGFE) – (Municipal Program for Financial Management at School), the latter being under construction.

Within the MOVE program there is the *Além do Xaque-mate* (Beyond Checkmate) program, which is a proposal of the Municipal Education Network integrated into schools' educational projects as a pedagogical tool to assist in learning.

According to the Pedagogical Technical Advisor, responsible for the school chess projects at the Municipal level, who was contacted by e-mail, chess in the public schools of Novo Hamburgo is integrated into the project proposed by SMED called *Além do Xaque-mate* (Beyond Checkmate), which is applied to evening or day school shifts, in the teachers' projects working hours who are responsible for the project in their schools. There are no visually impaired students participating in the project, but SMED encourages the project teachers to include students with sight impairment and other disabilities. In October 2018, the first Municipal Paralympics was held and chess was integrated as

one of the competitive modalities.

According to the coordinator of the Specialized Educational Assistance (SEA) of Novo Hamburgo, there are 86 municipal schools that serve 24.000 students, from kindergarten to youth and adult education (EJA). There are currently 607 students with different disabilities and disorders attended by the Municipal School Network. In addition to broadening the perspective on Inclusive Education, the project already has measurable results such as: 45 multifunctional resource rooms; about 400 students in the Pedagogical Support Center (NAP); continuous teachers training; creation of the 1st School Paralympics; acquisition of two adapted vehicles; hiring 400 undergraduate trainees and participation of over 100 students in projects such as Swimming and Equine Therapy.

Based on this information, it is possible to understand the possibility of bringing chess closer to the Specialized Educational Assistance (SEA). Therefore, this research is justified in discussing the chess game as an option to AEE, since the Municipal coordination also reported that 24 students with low sight and 05 with visual impairment were attended by AEE in the city of Novo Hamburgo in 2018.

The objectives of this research are as follows: to recognize the benefits of chess for those who practice it; to present reports from visually impaired chess players on their relationship with the game, as well as to discuss the possibility of integrating chess as a pedagogical tool in the care of visually impaired students.

This research was conducted between May and October 2018 and used a qualitative approach with exploratory objective. The adopted modalities were literature review and field research (TOZONI-REIS, 2010).

The research took the following steps: consult the Novo Hamburgo city website to review the survey site, contact, by email, those responsible for the game of chess and AEE, regarding the students in the Municipality, to obtain information about its operation. After that, interviews were conducted using WhatsApp (messaging application) audio features with three visually impaired chess players to collect their experiences and reports on how playing chess might have helped them and, therefore, changed their lives.

The question used as a script for researching these narratives was: "Introduce yourself and report what chess represents to you." From these narratives, clippings that expressed what chess play represents to the respondents were included.

Finally, bibliographic research was conducted in articles and books to identify the existence of benefits for the chess player, and the legal documents that guarantee the AEE for students with visual impairment were also analyzed.

The reports from the chess players were stored in an audio file, held by the author, and will be kept for a period of five years, being accessible, at any time, within this period, by the interviewees who will have their identities kept confidential. In the same way, the e-mails that were received by the Pedagogical Technical Advisor, as well as the Coordinators of the Specialized Educational Assistance, will be kept for five years and can be accessed at any time by the respondents, which will also have their names preserved.

It is important to highlight that this research has not made any kind of test neither with students nor groups, and it will remain open for further applications of its recommendations and to deepen its possible effectiveness in relation to the use of chess with students with visual impairment.

2 Development

2.1 Historical evolution of chess game

The origin of chess probably dates back to India. Born out of the Indian game *chaturanga* before the 600s AD, it was spread throughout the Asian continent mainly by Buddhists. In Persia, around the year 625, the game was called *Chatrang*. The Arabs banned gambling, but they called chess *Shatrang* and chess was allowed because it was considered a war game and many caliphs fell in love with playing it (CASTRO, 1994).

The game was already widespread in Europe around the year 1000 and in many places was adopted by the Viking, Balkan and Christian peoples. In Russia, it arrived around the 9th century by the Caspian-Volga route. Around 1475, the Arab chess game underwent changes in its rules that are still present today (CASTRO, 1994).

In Brazil, the first tournaments appeared in 1927, and the first champion was doctor João de Souza Mendes. The first female champion was Dora de Castro Rúbio, in 1960 (PORTAL EDUCAÇÃO, 2018).

Currently, in Brazil, chess for the visually impaired has its own federation and status. It was founded in Porto Alegre on July 1, 1999, under the name of Braille Chess League (LBX), but today it is called the Brazilian Chess Federation for the Visually Impaired People (FBXDV), supported by the Gaucho Chess Federation and the Metropolis Chess Club. In 2013,

ABXDV became the Brazilian Chess Federation for the Visually Impaired (Brazilian Chess Federation for the Visually Impaired - FBXDV). FBXDV is a non-profit civil entity, unaware of any philosophical, religious or partisan political issues, and its ultimate goal is to reward visually impaired players for their promotion, encouragement, development and good chess practice in integration with good eyesight chess players (FEDERAÇÃO BRASILEIRA DE XADREZ PARA DEFICIENTES VISUAIS, 2013).

Chess has been considered by many as a developer of motivation that improves various skills: concentration, fraternity, competitiveness, organization, and strategy. Therefore, thinking of chess as a tool for students with disabilities, who often go through a state of suffering to realize the difficulties of the world with which they interact, is an option made by many professionals from different areas (MCDONALD 2008).

2.2 Chess Game Benefits and Specialized Educational Assistance (SEA)

Some considerations have been made to try to understand the benefits of chess to its practitioners and one of them was published by the Journal of Nursing of the Federal University of Pernambuco (UFPE). In the survey, Alessandro Coura states:

However, in addition to physical and sports activities, other leisure activities are important in establishing the health promotion of this population, considering that, in the present study, the ability to play card games and/or chess game was associated with Fasting Capillary Blood Glucose (GCJ). The detection of this phenomenon highlights the need to create healthy spaces for the visually impaired people in order to enable the development of the practice of leisure activities and the consequent prevention of diabetes and hypertension, as well as the promotion of health and quality of life (COURA *et al.* 2013, p. 784).

The importance of using games in education has already been discussed by many theorists. According to Vygotsky (1994), a constructivist theorist, playing can have a fundamental role in the child's development. According to Cristiano Alberto Muniz:

[...] the game is conceived as an important instrument to favor the learning in the child and, consequently, the society must favor the development of the game to favor the learning [...] (MUNIZ, 2010, p. 13).

According to Santos, it can be added:

To prove it actually was a sport, the sport underwent through IOC (International Olympic

Committee) tests. Studies have been conducted showing that playing chess is a physical activity, and the heartbeat of players were monitored when they were playing rapid chess games (preset time limit less than 15 minutes for each player), and the result was amazing. At the height of the contest, some players showed heart rate levels compared to a runner at the end of a race. High levels of brain activity, increased blood circulation, hormonal release and movement, especially of the upper limbs, require the player to have good physical and, above all, motor skills (SANTOS, 2009, p. 68).

Dr. Robert Ferguson did a survey with several groups of students and only one of the groups added chess game to the research. According to the author:

The first aspect evaluated in this study is that of critical thinking. The average annual increase in the chess game group was 17.3%, as measured by Watson-Glaser Critical Thinking Appraisal. The second aspect tested is that of creative thinking. While the whole chess game group had superior gains over the other groups in all areas of creativity, the dimension that the most significant growth showed was that of originality (MCDONALD, 2008, p. 06).

We must take into consideration that one way or another visually impaired students should be assisted in the AEE and this is supported by Law, especially by the Law of Directives and Bases of National Education (LDB) # 9.394/96. Following are some laws that support Specialized Educational Assistance (SEA).

It was at the time of the Empire that care for people with visual impairment began with the establishment of the Imperial Instituto dos Meninos Cegos (Imperial Institute for the Blind Boys), current Instituto Benjamin Constant (Benjamin Constant Institute) - IBC, and the Instituto dos Surdos Mudos (Institute for the Deaf and Mutes), nowadays called Instituto Nacional da Educação dos Surdos (National Institute for the Deaf Education) - INES (BRASIL, 2008).

Act # 4.024/61, Lei de Diretrizes e Bases da Educação Nacional (Law of Directives and Bases of National Education) - LDBEN, indicates the right of the "exceptional people" to education, preferably within the general education system (BRASIL, 1961), and Act 5.692/71 amended LDBEN of 1961 establishing special treatment for students with disabilities (BRASIL, 1971).

In 1973, the National Center for Special Education (Centro Nacional de Educação Especial - CENESP) was created by MEC. During this period,

designing special policies to address the education of students with disabilities has remained a priority (MEC/SECADI, 2008).

It is important to mention that in Article 205, the Federal Constitution of 1988 brings education as a right for everyone and, in Article 206, it states that "Teaching shall be taught based on the following principles: I - equal conditions for access and permanence in school". (BRASIL, 1988).

Act # 8.069/90, which establishes the Statute of the Child and the Adolescent, it is written that "It is duty of the State to assure children and adolescents: [...] III - specialized educational assistance to the disabled, preferably in the regular school system". (BRASIL, 1990).

In its introduction, the Salamanca Declaration attests:

[...] We, the delegates of the World Conference on Special Needs Education representing ninety-two governments and twenty-five international organizations, assembled here in Salamanca, Spain, from 7-10 June 1994, hereby reaffirm our commitment to Education for All, recognizing the necessity and urgency of providing education for children, youth and adults with special educational needs within the regular education system, and further hereby endorse the Framework for Action on Special Needs Education, that governments and organizations may be guided by the spirit of its provisions and recommendations [...] (ORGANIZAÇÃO DAS NAÇÕES UNIDAS PARA A EDUCAÇÃO, A CIÊNCIA E A CULTURA, 1994).

Still in its introduction, the Declaration states: "The guiding principle of this Framework is that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions". (ORGANIZAÇÃO DAS NAÇÕES UNIDAS PARA A EDUCAÇÃO, A CIÊNCIA E A CULTURA, 1994).

In 1996, the LDB established in its Article 59 that education systems should assure learners with disabilities: "specific curriculum, methods, techniques, educational resources and organization to meet their needs". (BRASIL, 1996, Art. 59, Line I).

Resolution CNE/CEB # 2 of 2001 stipulates that education systems should enroll all students and that schools should be organized to serve students with special needs. In its text, Article 2 states the following:

Education systems must enroll all students, and it is up to the schools organize themselves to meet the students with special educational needs, ensuring the necessary conditions for quality

education for all (BRASIL, 2001a, Art. 2).

Decree # 3.956/01 promulgates the Inter-American Convention on the Elimination of All Forms of Discrimination against People with Disabilities and in its text states that “[...] people with disabilities have the same human rights and fundamental freedoms. than other people [...]”. (BRASIL, 2001b). MEC itself emphasizes the importance of this Decree in Education:

This Decree has important repercussions on education, requiring a reinterpretation of special education, understood in the context of differentiation, adopted to promote the elimination of barriers that prevent access to schooling (BRASIL, 2008, p. 4).

In 2003, The Ministry of Education (MEC) implemented the Inclusive Education Program, the right to diversity:

In order to support the transformation of education systems into inclusive education systems by promoting a broad process of training managers and educators in Brazilian municipalities to guarantee the right of access for all people to schooling, the provision of specialized educational services and the guarantee of accessibility (BRASIL, 2008, p. 4).

In 2004, the Federal Public Ministry, in order to promote inclusion, publishes *O Acesso de Estudantes com Deficiência às Escolas Comuns da Rede Regular* (The Disabled Students’ Access to the Regular Network Common Schools), reaffirming the rights and benefits of students with and without disabilities in classes of regular education (BRASIL, 2004).

Decree # 6.094 was published in 2007 in order to implement the Plano de Desenvolvimento da Educação - PDE (Development Plan for Education), establishing the guidelines of the Compromisso de Todos pela Educação (Everyone’s Commitment to Education), the guarantee of access and permanence in regular education and the assistance for students with disabilities (BRASIL, 2007).

The document *Política Nacional de Educação Especial na Perspectiva da Educação Inclusiva* (National Policy on Special Education from the Perspective of Inclusive Education), published in 2008 by MEC, is of great importance and aims to constitute public policies that promote quality education for all students, as stated in its own introductory text:

[...] the Ministry of Education/Department for Continuing Education, Literacy, Diversity and Inclusion presents the *Política Nacional de Educação Especial na Perspectiva da Educação*

Inclusiva (National Policy on Special Education from the Perspective of Inclusive Education), accompanies the advances of knowledge and social struggles, aiming to constitute public policies that promote quality education for all students (BRASIL, 2008, p. 1) [author’s emphasis].

Finally, there is Resolution # 4 of 2009, which establishes Atendimento Educacional Especializado (Specialized Educational Assistance). In its Article 4, it states that:

For the purposes of these Guidelines, the following are considered to be AEE target audiences: I - Students with disabilities: those who have long-term physical, intellectual, mental or sensory impairments (BRASIL, 2009).

In this case, students with poor sight or visual impairment are considered AEE public. In Article 5, it also adds to its text the following: “AEE is carried out as a priority in the school’s own multifunctional resource room or in another regular school, in the reverse of schooling, [...]”. (BRASIL, 2009). Based on this Law, we can state that specialized education for the visually impaired people is guaranteed and, therefore, the use of chess game as a tool to develop these students’ life quality is a possibility to be explored.

It is also noteworthy that according to the Ministry of Education (MEC) Type 2 Multifunctional Resource Rooms, is the one that has assistive technology for visually impaired students (BRASIL, 2010).

3 Results and discussion

Next, we will analyze narrative excerpts collected from the three visually impaired chess game players, trying to understand the value of chess game for each one of them and how AEE could be intertwined in their experiences. Chess players will be featured as Interviewee 1, Interviewee 2, and Interviewee 3 to keep their identities confidential.

Interviewee 1, currently 39 years old, lives in the city of Itajaí, State of Santa Catarina. At age 17, he had a degenerative disease called optic neuromyelitis, which resulted in the loss of his vision and about 16 years ago it also resulted in the loss of his legs movement, making him wheelchair bound. In 2010, he got acquainted with the adapted chess game and, even though he knew how to play since he was a teenager, he began to study more and ended up falling in love with the game. In his words:

In two thousand ten, the teacher introduced me to the adapted chess game board and with that I started some classes and, knowing a little about

chess game from my teens, the moment I found myself facing my disability, I got even closer to chess and fell even more in love with the game (Interviewee 1, 2018).

In this narrative, it can be seen that at the age the Interviewee 1 acquired his disease he was still a teenager. It turns out that there was a period of 14 years until he got in contact with chess game again. However, commenting on the Federal Constitution and Specialized Educational Assistance, Mantoan (2003) states that:

In Chapter III - Education, Culture and Sport - Article 205, the Constitution prescribes in its Article 208 that the State's duty to education will be effected by ensuring [...] *specialized educational assistance to persons with disabilities, preferentially in the regular school system.* The "preferentially" refers to "specialized educational care", that is, what is necessarily different in teaching to better meet the specificities of students with disabilities, encompassing primarily the tools needed to eliminate the barriers that people with disabilities naturally have to relate to the external environment, such as teaching Brazilian Sign Language (Libras), Braille code, use of computer resources, and other tools and languages that need to be available in so-called regular schools (MANTOAN, 2003, p. 22-23).

This means that the Educational Specialized Care may suggest pedagogical tools for the development of the student. Thus, Interviewee 1 could have had contact with chess game if it had been used as a tool in his school environment.

It is currently impossible to predict how much Interviewee 1 might have developed if he had had contact with the game at the onset of his disability. Obviously, it is necessary to consider that Interviewee 1 might not have had the same responsiveness to the game as he did in his adulthood, however, it is curious to think that Interviewee 1 could have developed, in his youth, various skills which he came to develop later with the practice of the game.

In his testimony, the skills that Interviewee 1 attributes to his chess game practice are: greater emotional and psychological balance, better concentration on everything he does, everything around him is related to people, environments and situations (?). Interviewee 1 also believes that playing chess helps him to increase his clarity, because he says that chess helps him solve daily problems. He also states:

[...] chess game today, with my disability, has brought me more balance. I mean emotional and psychological balance. By focusing more on everything I do, everything around me related to

people, environment, situations, the fact that you improve in such a focused game brings your life a whole new balanced perspective. I find myself like this. You can live in the dark physically, but emotionally it enhances clarity. You can go further in your goals. Then you can mentalize more the situation you are experiencing. You can solve more problems [...] (Interviewee 1, 2018).

This research considers the fact that these achievements that Interviewee 1 attributes to chess game may be fictitious and that he believes in their existence simply because he likes to practice chess game. However, we cannot measure the possibilities generated if Interviewee 1 had articulated with chess game when he was a teenager, mainly through a qualified AEE teacher and with appropriate pedagogical practices to his needs.

Interviewee 2 had total vision loss due to diabetes. Currently, he is transplanted from kidneys and pancreas, having only visual impairment. This Interviewee got to know chess game about a year ago through a friend who is also visually impaired. Interviewee 2 has also participated in the founding of an association for visually impaired people in the city of São Bento do Sul, in the State of Santa Catarina. The purpose of the association is for people with visual impairment to regain their autonomy and, for this reason, the execution of daily sports and educational activities are prioritized. Nevertheless, as there are people who cannot perform certain sports activities, chess game joined the association as a suggestion to contemplate this public.

In the statement of Interviewee 2, the idea of chess game is perceived as a tool to bring autonomy to the student, since, in his own words, the association in which he participated as a founder also aims at educating individuals. Thus, it is possible to see that there is a group of visually impaired founders - so, it is the speech of the visually impaired themselves - who thought it would be interesting to add chess game to their activities aiming at the development of their associates, and thus, reinforcing the importance of thinking chess as a tool in AEE. In his narrative, Interviewee 2 stated:

Chess game came into my life about a year ago. A friend of mine who is also disabled played a lot, played a lot of chess game, had a participation with us in our association. We set up an association. He founded the association of the visually impaired here... in our projects there are many goals to make the visually impaired autonomous again. And the things we aim at are: sports, rehabilitation in daily life, education, and then that idea came about, a sport for people who can't do

physical exercises, or can't do certain physical exercises and could be doing a different sport. Then this friend of mine, who has this ability, showed us the chess game (Interviewee 2, 2018).

Also according to Interviewee 2, chess is a tool that helps him integrate and develop autonomy. He believes that chess is an instrument that improves his self-esteem because it presupposes the ability to do something. In his statement, he also points out that chess encourages the practitioner to perform certain tasks and is an egalitarian sport, because both who can and who cannot see may play under the same conditions. In his words:

It is a way of being integrated and chess game also provides very interesting logical reasoning. This mental activity is very important for us disabled. We have little contact with some things that the psychic person has and develops through examples and looking at the world (?). So we really need a lot of stimulation to develop certain things that are at a standstill and chess game has been doing it, both for me and my friends here... I realize that chess is a way for you to integrate and become more autonomous... it is a fair sport, whether you are mentally or visually impaired, both can equally play, so it is not only for the visually impaired. Anyone can play chess in any situation. And then we feel alike. This is very interesting (Interviewee 2, 2018).

From the speech of Interviewee 2, it is possible to notice his belief that playing chess provides him with a stimulus to his own conduct in life. It is important to mention that his narrative coincides with Vygotsky's claims, according to whom:

[...] every rule game contains an imaginary situation. Playing chess game, for example, creates an imaginary situation. Why? Because the knight, the king, the queen, etc. can only move in certain ways; because protecting and eating pieces are purely chess game concepts. Although in chess game there is no direct substitution of real-life relationships, it is undoubtedly a kind of imaginary situation. (VYGOTSKY, 1994, p. 64).

The last line to highlight is that of Interviewee 3, who became visually impaired at the age of 12 from sulfa poisoning, because he is allergic and his family was unaware of it. He lost his skin, his hair and his ability to produce tears. However, later, his skin and hair grew back again, but not the tears, reason for why he became visually impaired.

He went through a grieving process because of vision loss and stayed practically at home from the age of 12 to the age of 19, playing the guitar, listening to music and, according to him, cheering for his

soccer team, Porto Alegre Grêmio Football Club. He claims:

[...] I'm 63 years old now. I became visually impaired at the age of 12 from sulfa poisoning. I'm allergic to sulfa and no one knew it. I was medicated and was administered an antibiotic with sulfa which gave me this allergic reaction... I got blisters all over my body, I lost my hair, I became visually impaired, I have no tears anymore. The hair came back, the skin came back, only the tears didn't, not the sight. Only one in a thousand survives. I had 70% of the body surface exposed to the infection... that condition would surely lead to death. And the doctors said that if I escaped alive, it was only for a miracle, and surely I would be mentally ill because the fever was very high, forty-two degrees (107,6 Fahrenheit). It even burst the thermometer. But, I managed to rehabilitate. It took me a while, I went through a grieving process because of vision loss and if the family is unprepared it is even more difficult because overprotection limits more than the limitation itself. I stayed from the age of 12 to 19, mostly at home, playing the guitar, listening to music, supporting Grêmio football team (Interviewee 3, 2018)

An important fact to be noted is that in his adolescence the obligation for a young person to attend school was not established as it is today, and, therefore, it is essential that the educational system is prepared and suitable for adverse situations like the one of Interviewee 3, who faced a long period of "mourning" (?).

After this period, Interviewee 3 decided to go back to school and sought to enter the job market. He entered the school for visually impaired people in the city of Pelotas, State of Rio Grande do Sul, where he learned the Braille system, walking guidelines and daily activities. He finished his studies in the Supplementary School and graduated in Physiotherapy. He Postgraduated in Sports Medicine and before graduating he had taken a Massage Therapy course. He reported that on graduation he faced various difficulties such as taboos, architectural difficulties and, above all, prejudice from people who were inconvenient towards his disability (Interviewee 3 did not report what these inconveniences were). He is currently retired but continues to teach Massage Therapy to people with disabilities. In his statement he shared:

After overcoming my traumas I had to gather all the energy I could to study and to work. I ended up going to school for the visually impaired people in Pelotas... I met the school principal there and learned Braille. I learned how to get around. I learned daily life activities and

decided to go back to school and finish High School. I hadn't finished Elementary School because I only had Primary School at that time. I completed Elementary and High School with the Supplementary School. I went to a Physiotherapy College and it was very difficult. Overcoming prejudice, taboos, architectural barriers, and attitudinal barriers [sic] at College was the worst thing ever and in a certain way it still is. After college, I still did a Postgraduate course in Sports Medicine and before College I had done a course in Massage Therapy. I am retired today, but I am still working. I teach Massage Therapy to people with disabilities (Interviewee 3, 2018).

Interviewee 3 got to learn how to play chess when he was on the beach around the year of 1987. In his words:

Chess game came into my life when I was around 30 years old, in the year of 1987. I have a son, he was 05 years old at that time. I decided to spend 10 days at the beach that summer. Being aware that sometimes it rains for over a week during this period, I thought that it would be very good if I had something to play with my son at the hotel. I went to buy a checkers game and wanted an adapted board. At the store, they only had chess game. So, I said, "Then I'll come later". The saleswoman said: "Hey! The price will go up. It is better you take it now." I bought 2 games, a chess game and a checkers game. I played 05 games with my son. At the time I had a cousin sleeping here at home and she taught me how to play chess, so I could play with her family and I never quit playing chess (Interviewee 3, 2018).

He participated in the founding of the Braille Chess Game League (LBX) - Liga Braile de Xadrez), serving as president and organizing several tournaments that even extended to cities in the countryside. He also participated in the International Chess Games Olympics for the Visually Impaired in Brazil, where he needed to nationalize the League, because he was the only one in Brazil registered with the International Blind Chess Games Association (IBCA), the institution that promoted the event. It should be noted that LBX has been changing its scope over time and today it is known as the Brazilian Chess Game Federation for the Visually Impaired (FBXDV).

In the opinion of Interviewee 3, playing chess helped him in the matter of touch, in spatial location, made him more reflective when managing the tensions of everyday life, to be more fraternal due to the tradition of greeting the player before and after the match even when losing. He believes that chess is a sport that exercises the mind and, therefore, is

a remedy against Alzheimer's disease. He also commented that it is common for visually impaired chess players to have the ability to play blind chess (in which the player does not use a board, but the game is based on memory only and bids are audibly announced according to the board's column and row). According to him:

Playing chess helps me a lot with touching, spatial localization and even with training for everyday life. We become more reflective... In times of stress we manage life better, day by day, professionally, walking on the street, chess helps with all of this, because it makes us more reflective. This chess game craze of greeting the athlete before and after the match... it makes people more fraternal, providing players with the opportunity to make good friends. I've made a lot of friends in these thirty years through this wonderful sport. We study, study and know that we know nothing. It is always necessary to learn more strategies. It is a game, it is a sport, it is an art, it is everything! It stimulates you to play mentally as well. We, blind people, exercise our minds quite a lot. And yes, people play to prevent Alzheimer. Chess is much more, we work a lot with the mind. There are people, great masters who play blinded, and we blind people can play it, too. We can play chess game without the board, only mentally up to the end of the game. (Interviewee 3, 2018)

Considering the contribution of chess to the Interviewees, it can be seen that along with several other tools, chess can be an alternative to be considered by the AEE teacher when planning his lessons to students with visual impairment.

Given the experiences of the interviewed chess players, it is important to analyze some basic needs, such as accessibility. Interviewee 1 reported that he is also a wheelchair user. Interviewee 2 even participated in the founding of an institution with the dream of contributing to the autonomy of visually impaired people. Interviewee 3 mentioned his period of bereavement at home and later his desire to make progress in life when he needed to learn again how to socialize and to perform some daily activities. This information addresses Mantoan's concerns about accessibility and school inclusion:

[...] for those who advocate school inclusion, it is imperative that schools eliminate architectural barriers and adopt teaching practices that are appropriate to the differences of students in general, offering alternatives that address diversity, as well as teaching resources and specialized equipment that *meet all* educational needs of learners, with or without disabilities, but without discrimination (MANTOAN, 2003, p. 25).

It is important to note that Interviewees motivate chess players to participate in a swapping messages app group and that tournaments are promoted virtually. This also reinforces that chess as we know it today already has technological resources that can assist in the development of a visually impaired student at AEE.

4 Conclusion

Following the discussion of the many benefits that the game of chess can offer, considering the legal requirements of AEE and integrating the discussion based on the testimonials of visually impaired players, it is still suggested that AEE teachers make a more in-depth analysis of the application of chess.

Chess can be applied as a very useful tool, but to do so it requires the integration of AEE into the school chess game. However, it is not possible to make a fixed rule that works in all contexts, because, frequently, the visually impaired person presents a framework in which other necessities need to be met. Therefore, the conversation between the AEE teacher and the chess teacher about a specific student is critical in order to choose the best way to use chess as a pedagogical tool.

It is also necessary to register the students' own interest in the game of chess, because some students already bring prior knowledge of the game rules but are not supportive in practice. It is, therefore, important that the game of chess is not only seen as a game, but as a tool that will assist the practitioner in its development. The student should be instructed that even if he/she uses touch, memory and obeys the rules of the game, the game is not only used as entertainment but as a means to achieve the development of learners' skills.

Chess can be used once a week or every two weeks in chess workshops or in the Multifunctional Resource Room in partnership with the chess teacher. It is necessary to add here the need of an adapted chess game for the visually impaired people so that poor sight students can use it.

Joint planning between the chess teacher and the AEE teacher should also address the number of times students will play the game and the ideal space to play, as chess teachers instruct other students in their workshops and usually do not have the training to work with visually impaired students as AEE teachers do. Therefore, the need for this joint work and the attempt to foresee possible difficulties, the teachers might encounter, are justified.

Finally, it should be highlighted that AEE teacher may suggest that students participate in associations

that promote chess for the visually impaired, as these associations, besides having people who also have visual impairment, will assist and integrate poor sight students in the various activities promoted by them, whether with the use of technological or classroom resources, since these integrations are important to the development of students' autonomy.

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