



International eLearning Approach on Teaching Strategies for Inclusion of Students with Autism

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Content

Autism Spectrum Disorder: a Comparative Analysis of Parental Perspective from Spain and Germany <i>Katrin Maria Obermeier & Serxio Estévez Souto</i>	1
Autism Spectrum Disorder – Perspective of the people affected by ASD – Insider Perspective <i>Tamara Laura Louis</i>	8
Working with Families of Children with Autism Spectrum Disorder – Teachers Perspective <i>Elisa Kast & Alba Chaparro Antunez</i>	15
Challenges of inclusion of autistic children in mainstream schools <i>Miriam Farokhfar</i>	20
Functions, Triggers and the Causes of Challenging Behaviours: Teachers and Parents Perspective <i>Theresa Marquart & Paula Sánchez Crespo</i>	29
Strategies the teachers can use to overcome critical situations in the classrooms <i>Lara Sánchez Méndez and Nora Tabea Styrsky</i>	45
TEACCH <i>Melanie Wellenhofer</i>	56
Augmentative and alternative communication: The use of AAC among special school and regular school teachers in Bavaria <i>Cornelia Reinhardt & Maria Mandl</i>	63

Preface

Autism Spectrum Condition (ASC) is a neurodevelopmental disorder that usually manifests its first symptoms in early childhood and is characterised by difficulties in communication and social interaction, as well as by repetitive behaviour, unusual stereotyped and sensory interests that affect the normal course of an individual's day-to-day life. An estimated prevalence of ASD at age 2 is 0.8% (Nygren et al., 2012)¹ and even higher at age 8 (1 and 5%) in developed countries (Lyll et al., 2017)².

This implies that, throughout their professional career, teachers are likely to have students with ASC, so it will be necessary for them to have sufficient knowledge about autism to understand the complexity of behaviour in the classroom and to be able to make appropriate adaptations in the teaching processes, as well as to modify the curriculum and the learning environment to facilitate social inclusion and participation (Ravet, 2018)³.

Teachers in the mainstream schools have so far been underprepared to help pupils affected by ASC because the teacher training programs directed at the unique needs of special needs pupils have not been required. For pupils on the spectrum, school can be a particularly challenging hurdle, especially when teachers are unaware of how to work with them (Charman et al., 2011)⁴.

We must make it our priority to enable teachers around the world to learn to utilize different teaching styles that fit the strengths of children on all areas of the spectrum.

Chair of behavioural disorders, Autism and inclusive Education (Prof. Dr Reinhard Markowetz) at LMU is the only university teachers training offering additional qualification for teachers in teaching pupils with ASC since 2015, and is besides the University of Halle the only Chair in Germany including comprehensive autism content in the specialised teacher training for special and regular teachers (start winter 21/22).

This expertise played an important role (coordinating and advisory) in the development of Bavarian Autism Strategy - as a first autism strategy to be made on the national level.

Since Autism is a very complex condition a multidisciplinary collaboration is a very important factor in the teachers training as well as a critical skill for today's tempestuous times. Supporting this collaborating and intercultural perspective, Chair of behavioural disorders, Autism and inclusive Education concluded and ratified cooperation agreements with selected universities ever since 2017 (MOU).

The aim is to fill the academic relationships with life and to intensify the (virtual) mobility of students and lecturers with other cooperating Universities. The focus is on the opening learning opportunities but especially on closely supervised digital learning environments, which contribute to the development of 21st century competences in students.

The project International eLearning Approach on Teaching Strategies for Inclusion of Students with Autism (SUCCESS-TEASD) aiming at a multilateral transfer of knowledge can promote inclusive school development and inclusive teacher training in the light of the UN Convention and the SDGs of the 2030 Agenda.

¹ Nygren G, Sandberg E, Gillstedt F, Ekeröth G, Arvidsson T, Gillberg C. (2012). A new screening programme for autism in a general population of Swedish toddlers. *Res Dev Disabil.* 33(4):1200-10. doi: 10.1016/j.ridd.2012.02.018.

² Lyll K, Croen L, Daniels J, Fallin MD, Ladd-Acosta C, Lee BK, et al. (2017). The changing epidemiology of autism spectrum disorders. *Annu Rev Public Health* 38:81-102.

³ Ravet, J. (2018). 'But how do I teach them?': Autism & Initial Teacher Education (ITE). *International Journal of Inclusive Education*, 22(7), 714-733. <https://doi.org/10.1080/13603116.2017.1412505>

⁴ Charman, T., Pellicano, L., Peacey, L.V., Peacey, N., Forward, K., Dockrell, J. (2011). What is good practice in autism education? The good practice report. Centre for Research in Autism and Education (CRAE), Department of Psychology and Human Development, Institute of Education, University of London

The project (SUCCESS-TEASD), started in winter semester 21/22 with 16 Students (9 LMU Students and 7 Students from University of Salamanca) contributed to promotion of high-quality education for all participants based on the existing network, experience and infrastructure.

SUCCESS-TEASD promoted an action learning and sharing of challenges and good practices in the field of educational intervention programs for children with ASD. Through the cooperative work the participating Universities provided a support for all participating students considering their national contexts to plan and develop an action research in order to actively learn to understand the perspectives of different groups: Families and children's with ASD; lecturers in the teachers training and teachers in service (schools).

The results of the cooperative, action research and learning of the students, future teachers from both involved Universities are to be found in this publication.

Teacher as researcher, action research, school-based research– these ideas have been discussed and proposed in education for many years, with a logical notion - it makes sense that people who teach or administer teachers in schools would want to learn from their personal experiences, evaluations, *and* research and would then make improvements based on what they learned.

However, although action research and internal evaluation may be more frequently practiced in some schools, the predominant focus of inquiry in education continues to be by people from outside of schools– by professional researchers and external evaluators who use schools as their data sources and write to one another about what they find.

For research and evaluation to have a lasting influence on educational practice, educators have to be involved in *doing* studies too – that was the main aim of the SUCCESS – TEASD Project. Teachers and other educators are better learners if they are also working toward being good inquirers. This publication is intended to substantiate and expand that claim.

The book is organized around works about several student teachers who explore the idea of making the school system Autism friendly and more inclusive, using qualitative inquiry concepts and strategies, while engaged in various activities of education.

These stories are intended to demonstrate that there are many different ways to use qualitative inquiry while conducting studies and simultaneously doing the work of schooling. This should inspire confidence in readers that they too can learn and inquire *while* they educate!

Project Team

Autism Spectrum Disorder: a Comparative Analysis of Parental Perspective from Spain and Germany

Katrin Maria Obermeier & Serxio Estévez Souto

Abstract

The family is the child's first socialization environment. Within it, the first steps of their cognitive, emotional, and social development take place constituting, therefore, the fundamental pillar, with the school, on which they will base their physical and mental evolution during the first years of life. When it comes to talking about children diagnosed with Autism Spectrum Disorder, the importance of the family in achieving their well-being is even greater, which is why it also entails a higher level of attention, care and responsibility, factors that generate stress and strain in families with autistic children (Dissanayake, McStay & Trembath, 2015). Through the following comparative study, it is intended to analyse the parental stress factors proposed by Abidin (1995) in the Parenting Stress Index (PSI) presented in two families (a Spanish and a German). For data collection, an interview based on these factors was used to observe the similarities and differences between both cases.

Keywords: Autism Spectrum Disorder, Family, Parents, Development, Stress.

My child has Autism: “kein Problem” and “no hay problema”?

Accepting an autism diagnosis of own child is not easy for any parent. The fear of what is to come and how to provide appropriate support for the autistic child can be daunting. These fears are globally the same and connect the parents in their concerns all around the world. The following paper presents an honest and pure perspective of the parents of an autistic child in Germany and in Spain. What these parents have got to say? What are the similarities? Where can the differences be found? Finally, the purpose of this paper is not only to let the voices of parents in Germany and Spain be heard but also to help understand the burden, the parents have to carry and cope with every day. Additionally, how could parents be appropriately supported, and how can they receive the support on an international or general basis, will also be discussed in this paper.

Theoretical background

The family is, without a doubt, the most influential factor in the first years of a child's growth. It is the first environment where it receives and interprets external influences and where it is developed in all aspects: physical, cognitive, socio-emotional, psychomotor, and linguistic (López & Guiamaro, 2016). The great importance of the family background is to be found in the responsibility for the well-being of the children, as it will be the agent that will guide and support them during a large part of their lives.

When talking about families of children diagnosed with Autism Spectrum Disorder (ASD), we have to consider numerous factors that, in families of children without this condition, either do not take place or occur in a less intense way. The characteristics of autistic children considerably influence the way in which parents assume and understand their parental role (Brioso, Pozo & Sarriá, 2014). Some of these characteristics,

that have the most severe effects during the process of assimilating the diagnosis are communication difficulties, difficulties in establishing social relationships, stereotyped and repetitive behaviours, challenging behaviour or existing limitations in terms of imaginative play (Ailing & Magiati, 2012; Ainhoren, Castro & Alves, 2015). Numerous studies have indicated that levels of stress, anxiety and depression are higher in these families than in families with children without autism (Baker-Ericzén, Brookman-Fraze & Stahmer, 2005; Hastings et al., 2005; Feldman et al. 2007), being even more intense than in parents of children with other developmental disorders, intellectual difficulties, or physical disabilities (Abbot et al., 2009).

Despite the negative factors, families of children diagnosed with ASD are known to be more resilient and stronger due to the varied experiences with their child.

In addition, parents develop problem-solving capacities and negotiation skills, they have an increased self-concept and confidence in their role as parents (Towsend & Puymbroeck, 2017), being able to take the experience as a source of learning, of happiness and fulfilment, of strength and family cooperation and as an opportunity for personal growth and maturation (Gragg, Kayfitz & Orr, 2010). It should be noted that, according to the cited authors, many of these factors are more manifested by mothers than by fathers, as mothers are regularly more affected due to the intensive child care.

Beyond stress, anxiety or depression, different (above mentioned) studies show, that there are also other issues to consider in families with children diagnosed with ASD. Abidin (1995) divides them into eight items in the Parental Stress Index (PSI): depression, parental competence, parental attachment, social isolation, couple relationship, health,

financial and restrictions generated by the parental role. The item "*Depression*" refers to the feeling of emotional limitation of the parents towards the child due to depressive emotions and perceptions. "*Parental competence*" refers to the doubts of parents regarding their parental competencies as such.

"*Parental attachment*" is related to the stress perceived by the parents due to the attachment that the child feels towards them. "*Social isolation*" is related to low social support due to insufficient interaction with a social network. "*Couple relationship*" regards the stress produced by lack of support between the two parents. "*Health*" is understood as the physical and/or psychological consequences resulting from taking care of a child with ASD. "*Restrictions generated by the parental role*" includes the restrictions imposed by parents on themselves due to the high demand of their parental role and the "*Financial*" aspect refers to the economic and bureaucratic burden that the care of the child entails (Rabsahl, 2016).

Method

Due to the delicate matter of the possible stress factors, mentioned above, researching the impact of having a child with ASD on the personal life of the parents, had to be conducted cautiously. The sensitive nature of the questions demanded a personal interaction; therefore, a qualitative approach using an interview guide was chosen. For this purpose of this study a systematic literature research was conducted in Spain and in Germany. The findings of this research constituted the basis for the construction of the interview guide. The semi-structured interview with ten questions was mostly based on the Paternal Distress subscale (Abidin, 1995). To compare the answers on the stress factors of having a child with ASD one mother

was interviewed in Spain and one father in Germany. Important criteria in choosing these parents was the age of the child (not older than 11, in order to ensure that the puberty does not interfere with the analysis) and that the child is diagnosed with autism spectrum disorder. The interview guide was translated into the native language of the parent. The German parent was a 33-year-old father, and the Spanish interview partner was a 26-year-old mother.

The interview guide allowed asking questions in a slightly different order, to make it more spontaneous, making the interview a semi-structured one. Analysis of the data was done qualitatively. The answers were compared to each other and to the theoretical background conducted beforehand. The quality criteria for a qualitative approach were complied with. The parents were informed about the different steps of the study, as well as about the aims and objectives of the interview. The answers were transcribed, compared and analyzed.

Results and comparison

The transcribed and analyzed answers, will be compared showing both perspectives (Spanish and German), based on the Parental Distress elements, subscale in the Parental Stress Index.

The Spanish perspective presents the perspective of a 26-year-old mother of a 3 years old autistic boy. The German counterpart was a 33-year-old father of an eight-year-old boy (the mother of the only child is deceased).

The first question *"How long ago was your child diagnosed with ASD? What was the reaction?"* the Spanish mother commented as despite getting a diagnosis at 14 months,

she had already noticed "behaviours" in her child, that she considered strange or worrisome during the first year, which occurs in 17% of cases in this specific period, and in 96% in the first 5 years (Chester et al., 2016).

According to the results, the main signs that usually attract the attention of parents include delay in the initiation of speech, difficulties in social relationships, repetitive and obsessive behaviour, fixation with objects, difficulty in developing meaningful play and challenging behaviour. These correspond to some of the observations cited by the mother (repetitive behaviour or difficulty in developing meaningful play).

The answer of the German father was similar. He perceived the autism diagnosis as a mixture of sadness and anxiety but also relief, for having an "justification" for the behavioural abnormalities he noticed in the child. The father also described that the grandparents of the boy were having difficulties to understand what the diagnosis would mean in the beginning. Generally, he and his second wife receive a lot of support from their parents.

The question *"As a parent, did you ever doubt about your parental competences? How do they affect your life?"* answered both of the parents relatively similar. Mother was "constantly" doubting her parental competences, making her "too demanding with herself", which lead her to a high level of stress and insecurity regarding her role, an issue that can be supported by the results of other studies as well (Abbot et al, 2009; Falk, Norris & Quinn, 2014; Cornish et al., 2018).

The interviewed father also talked about having doubts constantly, especially after his wife got sick, as she was the main focus and care giver of the child. He commented about

his fears of not being able to “give the boy enough attention, because he is working fulltime.”

Furthermore, the father discussed the effects of these doubts on his day-to-day life, from sleeping disorders to losing weight after his first wife died because he was not looking after himself enough.

Similar perspective is to be found in the third question as well - *“Do you feel physical repercussions because you take care of your child with ASD?”*. Apart from the sleeping disorders the father talked about getting ill more frequently. Similarly, the mother pointed out to the lack of sleep, origin of “tachycardias and hallucinations” and constant fatigue “due to the need for movement of the child”, consequences already collected in other studies along with headache or gastrointestinal and respiratory problems (Cantwell, Gallagher & Muldoon, 2014).

On the question *“Do you feel like you aren't emotionally available for your child because of depressive perceptions?”* the mother replied that “it is hard” to observe her child growing without developing certain aspects. She highlighted her concern of not fully understanding how he feels at every moment because of his mutism. The German father pointed out to depressive phases, when his first wife was terminally ill, and the son was talking less and less. Father felt helpless, which had a serious impact on his mental health. After the death of his first wife, he had to seek the therapeutic help and is doing much better now. He also pointed out to the tremendous support from his social network and the relief as his son started talking again.

When asked *“Do you feel like the parental attachment of your child affects your day-to-day life?”* mother pointed out that the

attachment that her child shows towards her is not overly exaggerated. Additionally, the mother emphasizes that her child “has some difficulties” establishing relationships with strangers, but she does not consider this to be a worrying fact, as the child is still very jung. Some studies point out to the different perception of the child attachment between the parents, showing that child attachment is sometimes being perceived as a stress by fathers (Gray et al., 2016).

Father talked about the tight bond his son shared with his deceased mother in the first place. After two years of mutism, father describes the relationship between him and his son as “strong and healthy”.

The answers to the question *“Do you feel like taking care of your child caused social isolation? What effects does it have on your life?”* were slightly different between the interviewed father and mother. Mother pointed out to the serious problem of feeling socially isolated as she deprives herself of going to many social gatherings (family meals, meetings with friends, etc.). She has a feeling that attending social events will harm her child due to his hypersensitivity to noise, in particular and to other external stimuli. This opinion is generally documented in different studies (e.f. Gutiérrez-Ruiz, 2019).

Father has often pointed out to the significance of his social network, so it was to expect, that this perspective is going to be slightly better. On the other side, pointed out that in the beginning having a child with ASD felt very isolating.

The question *“Does your relationship suffer from having a child with ASD? How?”* was similarly answered by both parents.

The mother indicated that the condition of her son has significantly affected her relationship mainly for one reason: the lack

of “couple-time” due to the profound support needs of the child and the fathers tight work schedule.

Similarly, the German father talked about the impact the care for his autistic son had on his relationship.

This, along with other aspects, supports the fact that couples with children diagnosed with autism spectrum disorder have a lower level of satisfaction than couples with typically developed children (Freedman et al., 2011).

German father also pointed out to the positive side of having an autistic child - his marriage got even stronger due to the shared responsibility in the child care and support.

To the question *"Does your personal life suffer from the high demands of your parental role?"* both interview partners assured that their life has been strongly affected in different ways.

The question *"Do you feel financial repercussions, because your child has ASD?"* was the only one with significant differences between the Spanish and German perspective.

The mother pointed out to the “costs of the medication against sleeping disorders” and the costs of her therapy, which are both essential for the wellbeing of the son. Furthermore, she adds that she "had to stop working" to be able to take care of her son. This question was also treated by Freedman et al. (2014) discussing that 24% of these families must reduce their working hours or directly leave their work to be able to maintain the levels of care required by their children (Gnanasekaran et al., 2009). Also, other challenges related to the economic aspect are, as in this case, the lack of coverage by social care system, the cost of psychological therapy that the child receives, pharmacotherapy, adaptations in the spaces

of the home, etc. (Freedman et al., 2014). Another issue the mother talked about is the hope of getting a dog specifically trained to support the child with ASD. This method proved to be effective in the long-term for the development of the child, the improvement of the family environment and for the reduction of parental stress (Hall et al. 2016). According to the mother the costs of an assistant dog are too high (around 20,000€), still she considers it as a medium-long-term objective.

On the other side, the father pointed out to the financial shortcomings prior to the confirmation of autism diagnosis. After the diagnosis his son started receiving occupational therapy and psychotherapy, both covered by the insurance. He also attends a private school, where he gets the care and education he needs, the tuition is paid by a private sponsor. Getting new prescriptions is also not a problem in this special case, but the father stated that other parents of children in autism spectrum often have to cope with this issue as well.

The father is also able to pursue his profession and work a full time job, because of the support from his family. The grandmother is taking care of his son in the afternoons, after the school day care ends.

Finally, regarding the question *"What positive things would you say your child brought to your life?"* the mother talked about some of the positive aspects already mentioned in the theoretical framework of this paper, such as: decision-making ability, resilience, self-confidence, the acquisition of new perspectives or the great support from the family and the reinforcing of her relationship with her partner.

Similarly, the father pointed out that his ability to adapt is stronger. Also he learned to appreciate more “the small things in life”.

Finally, he stated that the unconditional love he has for and receives from his son is still his highlight and is even more appreciated because of the struggles they went through.

Conclusion

Both case studies, presented in this paper, are concurrent in the most aspects with other international studies. The eight items in the Parental Stress Index were also perceived as stress factors for the interviewed parents in other larger studies. Both participants in this study confirmed the issues caused by feeling overwhelmed, due to the social isolation, the burden on the marriage or relationship, the toll it takes on the financial aspects or the health of the parents.

In combination with the further confirmation of these items as possible stress factors by other studies, allowed the conclusion, that these items are internationally related to causing parents’ stress.

Knowing about the severity and universality of the stress the parents of children with ASD are exposed in everyday life, may allow for an international answer.

Shared experience, as a project to bring the parents together, could be the key for the solving the problem of the social isolation many parents are experiencing because of the unique situation they are in. Furthermore, the conclusion of these specific stress factors being an universal problem allows them to be the basis for many studies, that are focussed on building better resources for the parents, as they are the most influential factor in the first years of a child's growth and should therefore be supported in the best way possible.

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Autism Spectrum Disorder – Perspective of the people affected by ASD – Insider Perspective

Tamara Laura Louis

Abstract

All the people perceive individually. Perception, processing, interpretation, and expression differ from person to person. Regardless of explanatory approaches to the development of autism, ranging from heritability over pre- and perinatal factors to neuroscience, the individuality of each person is undeniable. To gain a deeper insight into the diversity of people and thus an understanding of their perceptions, it is necessary to take the subjective perspective into account in order to stimulate a general change of perspective and initiate action. Diversity must be seen as an added value for society, an enrichment for everybody. Based on this thought a survey was designed, which focuses on the intersection of human existence: social interaction and communication in the range of the autism spectrum in relation to people and their experiences at primary school age. For this purpose and based on already existing individual experience reports of autistic people, a questionnaire was developed, consisting of two scales (social interaction and communication) with corresponding items, in order to measure in which domains or situations elementary school was challenging regarding to the mentioned items and to what extent perception, processing, interpretation and expression are shown.

Keywords: Autism Spectrum Disorder; Insider Perspective; Diversity

Introduction

In contrast to the formerly differentiated types of autism in early childhood autism and Asperger syndrome in the classification systems ICD - 10 (Dilling et al., 2015) by the World Health Organization, according to the current state of research in the ICD - 11 an autism spectrum is assumed (Autism Spectrum Disorder (ASD)). ASD is further categorized as a profound developmental disorder and is represented in a total of eight manifestations (ASD, 6A02 - 6A02.Z). The autism spectrum is characterized by qualitative impairments in reciprocal social interaction such as communication and limited repetitive and stereotyped behavior patterns, interests, and activities as well as motor stereotypes (Müller et al., 2020).

Although already Hans Asperger (1906 - 1980) in 1944 recognized similarities between his 'autistic psychopathy' and the 'early childhood autism' described by Leo Kanner (1894 - 1981) in the 1940s, he continued to focus on the profound differences. It was Lorna Wing who firstly or already in the 1980s assumed the 'Asperger Syndrome' as a part of the autistic spectrum (Hippler & Klicpera, 2008).

Decades passed on, until change occurred because of increasing criticism on the traditional view of autism, especially in the last 20 years.

Finally, the focus was shifting from the differences to the commonalities.

These commonalities mainly concern the areas of social interaction, repetitive behaviors, striving to maintain the same environment, and perceptual peculiarities. Likewise, results from neuroscience, with respect to gray matter of the brain, point to commonalities in terms of general and local distribution as well as developmental processes. Consequently, the new categorization of features and symptom descriptions in classification systems occurred (Theunissen, 2020).

The prevalence of children with autism spectrum disorders is estimated to be around 1 - 2 %. Since there has been an increase in the prevalence of autism spectrum disorders in children in recent years (Müller et al. 2020), it seems essential - to be able to provide generally competent preventive and interventive action - to develop an improved awareness and expanded knowledge of ASD, especially for the institutionalized education sector.

Therefore, one of the identified essential commonalities in the social interaction was referred to. Since social interaction is often considered as one of the first salient characteristics and serves as an essential factor of connection to the direct environment to make human interaction possible, this area was focused on in this research. After closer examination of this commonality in the autism spectrum, the interdependence of social interaction with communication emerges inevitably. Since this is a complex phenomenon of interpersonal exchange involving many aspects of verbal transmission (non-verbal, para-verbal, verbal) on different levels (speaking, writing, listening), multimodal methods of inquiry are necessary.

Above all, the subjective experiences regarding perception and expression are essential to enable a better understanding of the personal perspective of autistic people.

From various affected persons' reports, weaknesses, strengths, and challenges in the domain of social interaction emerge immediately. Especially children at a young age are dependent on informed, appropriately trained and thus attentively aware persons who, if possible, proceed with an understanding view out of respect for the individual being, an appreciative view of 'autistic intelligence' for resource- and context-oriented interaction, and most especially a functional view of behavioral peculiarities (Theunissen, 2020).

To highlight concrete experiences in the field of communication and social interaction of autistic people, the survey was conducted targeting adult autistic individuals and focusing on experiences at primary school age in the context of school.

Methods

Research objective

The aim of this survey is:

- to highlight possible challenges of autistic people in relation to experiences from the primary school years,
- to be able to generate a better understanding and thus a different perception on communicative and interactive behavior and cognitive aspects of autistic individuals.

Sample

The sample was recruited in collaboration with: Autismkompetenzzentrum Oberbayern; Autismus Oberbayern e.V.; Eureka! Autism Research Forum; Regens-Wagner Foundation and psychotherapists.

The sample was non-probabilistic.

The study included adult participants who exclusively were diagnosed with autism spectrum disorder (regardless of the classification systems valid at the time of diagnosis and the corresponding diagnosis of early childhood autism or Asperger's syndrome) at least at primary school age.

Furthermore, all participants attended primary school. The participants were preselected with support of named collaborating organizations, foundations or centers.

The independent participation and legal age were essential and basic requirements for participating in the survey.

Total number of participants was $n = 31$, of which 20 have been processed and analysed entirely, because the data was complete.

Personal data were not collected.

Research design

To answer the research question - How do autistic people experience communication and interaction at primary school age? - an online survey was designed.

A questionnaire based on the DSM 5 (Falkai et al., 2020) classification criteria in addition to

the personally described problems of autistic people was used.

Instruments

The online survey is a self-designed single questionnaire to be completed online. Focusing on social communication and interaction, it targets difficulties that autistic individuals encounter in their everyday school-life.

The qualitative survey refers to personal experiences of autistic adults in elementary school.

The written survey was chosen due to the low level of reactivity and the higher degree of anonymization (Hussy et al., 2013).

The survey instrument was designed considering the theoretical constructs that are difficult to capture. It is aimed exclusively at autistic people.

The questionnaire consists of 16 questions relevant for analysis.

It is not possible to skip questions. The first questions serve as a warm-up for the topic and are not evaluated. The questions on interactive and social aspects are designed as closed questions and are preferred to the open question format due to their higher objectivity.

80% of the questions are to be answered with the answer alternatives 'Yes' and 'No' for better visibility 20 % are in a closed question format with the option to answer a maximum of 4 answer alternatives.

The questions of each item are designed as closed questions and are preferred to the open question format due to their higher objectivity (Bortz & Döring, 2006).

Procedure

The questionnaire was translated, and pretests were conducted in two stages to identify possible problems in answering. In the first stage, problems encountered and suggestions for improvement regarding relevance and usability were reported back by 7 persons and implemented in the form of a questionnaire revision.

The quantitative pretest tested the final version under real conditions on a group of people that did not overlap with the first pretest-group (5 persons) and provided information about the trouble-free process of data collection.

Data collection took place from November 30th, 2021, to December 13th, 2021. The survey was accessible online for a total of 13 days. The questionnaire was completed in a not controlled environment.

The online questionnaire was accessible, and password protected. The link was sent digitally to a controller supervising participating persons.

Data protection

None of the questions collected personal data like age, gender, type of school and grade level. Device detection and referrer were not applied. The questionnaire was password protected and was therefore only available to the research participants.

Furthermore, an informed consent was provided and was confirmed by the participants. Provided information: purpose and legal basis of the processing, the processing activity, the name and contact details of the responsible person, the duration

of the storage of the personal data, the rights of the data subjects and the right of withdrawal in case of consent were indicated.

Data Analysis

The data was analyzed with the integrated software on lamapoll.de.

16 different items in two dimensions (social interaction and communication) were used to research and understand the experience of autistic persons in everyday school life.

Item 1 in the questionnaire was Question number 5 in the online survey (sequential number following). The two dimensions are 'Communication at primary school age' and 'Interaction in elementary school'.

Each question was a binary question with the answer alternatives 'Yes' and 'No', except question number 7 (Item 3) with following answering options: *Sarcasm, Irony, rhetorical questions, jokes*, and question number 5

(Item 1) with the answer options '*above average*' and '*below average*'.

Results

Table 1. shows all the questions/items in the online questionnaire and the results.

Question	Answer
<i>In elementary school, compared with peers my spoken language was...</i>	82,61% above average 17,39% below average
<i>In elementary school, I often repeated words or phrases for no apparent reason to outsiders.</i>	No 86,36% Yes 13,64%
<i>In elementary school, I did not understand the following linguistic features or understood them only with a time delay:</i>	Rhetorical Questions 30,36% Sarcasm 26,79% Irony 25% Jokes 17,86%
<i>In elementary school I often talked about special topics that were not interesting for other children.</i>	Yes 66,67% No 33,33%
<i>In elementary school, it was difficult to follow conversations in class.</i>	Yes 66,67% No 33,33%
<i>In elementary school, I found it easier to express myself in writing than orally.</i>	Yes 90,48% No 9,52%
<i>In elementary school, my ability to speak, my ability to express myself, mainly depended on my social environment and surroundings.</i>	Yes 65% No 35%
<i>In elementary school, I often sought contact with other individual classmates on my own.</i>	Yes 65% No 35%
<i>In elementary school, I usually knew how to contact individual classmates.</i>	Yes 25% No 75%
<i>In elementary school, social contacting with individual classmates was a significant barrier.</i>	Yes 60% No 40%
<i>In elementary school, I generally felt safe in my class.</i>	Yes 35% No 65%
<i>In elementary school, I was able to follow social interactions in groups most of the time.</i>	Yes 20% No 80%
<i>In elementary school, I usually was able to infer intentions and expectations in conversations.</i>	No 90% Yes 10%
<i>In elementary school, most of the time actions of other classmates were understandable.</i>	No 90% Yes 10%
<i>In elementary school, I was able to understand emotional moods in conversations most of the time.</i>	Yes 25% No 75%
<i>In elementary school, my perception, and my ability to express myself linguistically when interacting with classmates differed strongly.</i>	Yes 65% No 35%

Table 1. Items and Results in the Online Questionnaire

Discussion

The present study focused on the life experience of autistic persons. Therefore, is person-centered and a personal insight into the experience of those who must cope on a daily base with the barriers that the existing society has helped to create and still preserves, of the utmost importance.

Since the scientific research as basis for this study is focusing on the commonalities and not on the differences in the autism spectrum, participants of various ages, schools and social backgrounds were asked to attend, independent from their status and quality of experience in school time.

Furthermore, as already mentioned, the autism spectrum is characterized by qualitative impairments in reciprocal social interaction such as communication and limited repetitive and stereotyped behavior patterns, interests, and activities as well as motor stereotypes (Müller et al. 2020).

Communication and social interaction normally take place in everyday life and are the first link to society, whether written, spoken or sign language. This assigns a very high value to communication and social interaction and explains the necessity of researching the individual's subjective perspective. The data collected in current research correspond with previously documented responses from autistic individuals (Theunissen, 2020).

The research data are based on a digital online questionnaire to be completed independently. This requires developed reading and writing skills as well as an awareness of school years and the associated perceptions.

A high degree of reflection is also expected. Consequently, the present survey can be assumed to be conducted by high-functioning autistic people. This in turn means that the

majority of people interviewed had less difficulties in communicative 82,61% and more difficulties in interactive everyday school life (80%).

Problems here are not single-dimensional, but rather multi-dimensional with diverse facets in many areas of everyday life.

Specifically, above-average verbal expressiveness (82,61%) indicates no causal relationship with the ability to engage in emotional reflection and expression (75%), still less interactional exchange (80%).

Consequently, increased attention to the issue must be directed to promote a conscious sensitivity that develops a perspective that, when realized, leads to more constructive and knowledgeable interactions among all people involved.

For example, further educative measures can be considered for all pedagogical, medical, psychological and, at best, other sectors, which promote raising awareness through knowledge and thus form the basis for practical fields of action.

In interdisciplinary exchange with the affected people themselves, solutions can be found for frequent areas of conflict. Concluding with the resulting increased support, not only support for autistic people but also professionals and classmates/friends.

Then better understanding always means decreased inner tensions and better reflective consciousness.

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Working with Families of Children with Autism Spectrum Disorder – Teachers Perspective

Elisa Kast & Alba Chaparro Antunez

Abstract

Everyday school life with children with autism spectrum disorders does not only include teaching and the pedagogical organisation of the day within school hours, but also the cooperation with the children's parents as well as other professionals working with the pupil. Parents are considered experts when it comes to their children. The parents experience the children outside the school and class context, know their peculiarities and preferences and often know the triggers and ways of calming down in stressful situations. Teachers can profit from this expertise. In the following work we wanted to find out how the cooperation between teachers and parents of children with ASD looks like and if there are any differences to the parent work with parents of healthy children or children with other special needs. In addition, we wanted to discuss what the teachers want from the parents, what the parents expect from them and what is needed for a successful cooperation. Based on our previous school experiences, we developed an interview guideline, on the basis of which we interviewed teachers in Spain and Germany who already have experience in teaching children with autism spectrum disorder.

Keywords: ASD; Working with Families; Teachers perspective

Introduction

"Autism is a complex and multifaceted neurodevelopmental disorder. Often, autism or autism spectrum disorders are also referred to as disorders of information and perception processing that affect the development of social interaction, communication and behavioural repertoire" (autismus Deutschland e.V.).

Autism is defined in the ICD 10 as well as in the diagnostic criteria of the WHO. Autism can be divided into early childhood autism, atypical autism and Asperger syndrome. However, since the classification can be complicated, the collective term autism spectrum disorder (ASD) is often used.

Characteristics are permanent impairments in communication and social interaction as well as limited interest and stereotypical behaviour. (Amorosa, 2010).

Schirmer (2016) dedicates a whole chapter in her school guide Autism Spectrum to the topic "Working with Parents". Within the teacher training programmes is often talked about the necessity of collaborating with parents, however, the teacher training curriculum does not include how this works in concrete terms.

Collaboration with parents or working with parents could be done in different ways. These include parents' evenings, letters to parents,

door-to-door talks, learning progress talks and joint excursions or activities within the classrooms.

Parent work can be planned, but it can also happen spontaneously, as in the case of the door-to-door talk or a telephone call in a difficult situation.

Working with parents considers two sides, teachers and parental side – and both parties work together and engage jointly in the activities necessary for the pupil's wellbeing in both contexts – school and home. Therefore, a collaborative nature of this work is to be highlighted.

Different studies point out to the “special needs” of the families of pupils in autism spectrum. Solely the diagnosis can be quite a shock and places a certain burden on the family life.

Depending on how intensively the child needs to be cared for, the family's financial situation may change. It happens quite often, that one of the parents has to give up on their profession in order to stay home with the child.

Where other parents are proud of their "healthy" children, parents of children with ASD sometimes experience feelings of shame or even guilt, often having the feeling of disturbing others when meeting the family or other events with their autistic child (Greenspan, Wieder, 2006). In addition to “social” isolation due to increased support needs or the child's discomfort in society, these feelings can be a burden for the marriage and lead to a breakdown of the parents' relationships.

These and other limitations cannot be generalised. They depend on the degree of the autism spectrum condition and the way of dealing with the effects, which varies from family to family.

Nevertheless, when dealing with parents, we should be aware that everyday life with the child involves different challenges, that all parents perceive and show in an individually

different way (cf. Schirmer, pp.133- 140). A successful cooperation between teacher and parents, a so-called “educational partnership” (BayEUG: Art. 74), with the common goal of the optimal education and upbringing of the child, should always be in the focus of teacher-parent work.

According to Markowitz (2020), the aspects of transparency, motivation, an appreciative attitude, willingness to adopt a perspective, observance of the rules of conversation as well as patience and openness are the basis for the realisation of an educational partnership.

Transparency means that both the teacher and the parents give the other party an insight into their wishes, plans and actions regarding the child. Motivation plays a role especially when the goal still seems to be out of the immediate reach. Where transparency concerns both parties, motivation is probably more a matter of the teacher supporting the parents.

An appreciative attitude should be a matter in every context. But it is especially important in parental work. Many teachers feel they have to cope with parents. Moreover, parental work is often seen as an annoying appendage to an already exhausting workday.

But when both parties become defensive, the focus on the child is quickly lost.

Yet an appreciative attitude is not that complicated to show. Just a proper greeting, a look in the eye during the conversation, providing drinks and stationery during the meeting and a few encouraging words at the end of the conversation can already make a lot of difference.

The willingness to take on a perspective also means understanding the difficult situation in which the parents find themselves, as described earlier (cf. Markowitz, 2020).

Problems that can arise in parental work are often caused by low mutual understanding, a different understanding of norms and values as well as the teacher's feeling that the parents are not interested in the work of the educators.

These problems negatively influence successful collaboration and should therefore be prevented.

For this purpose, it is advisable as a teacher to think about what the parents should do, what reasons there are for doing so and how to make them understand before a discussion (cf. Schirmer, 2016).

For communication problems due to language barriers, an interpreter can be called in. The teacher should give regular feedback to the parents on the children's progress and encourage the parents to accept offered support.

As already mentioned, educational goals should be made transparent. Teachers should work in a resource-oriented way and not hold parents responsible for the children's actions. Cultural values and norms of the families should be respected as well.

Methods

Sample and Instrument

The semi-structured interview guide, considering manifestation of ASD; Relationship; Cooperation; Challenges; Wishes and Suggestions from own Experience, was used for the purpose of this research. To compare the answers on the teacher-parents collaboration five teachers from Spain and two from Germany were interviewed. Important criteria in choosing these teachers was the experience of working with the child in autism spectrum.

The interview guide allowed asking questions in a slightly different order, to make it more spontaneous, making the interview a semi-structured one. Analysis of the data was done qualitatively. The answers were compared to

each other and to the theoretical background conducted beforehand.

The teachers were informed about the different steps of the study, as well as about the aims and objectives of the interview. The answers were transcribed, compared and analyzed.

Results

In the beginning of the interview teachers were asked about their experience in working with pupils in autism spectrum.

The Spanish teachers had less experience, since they were teachers in a public school and the German teachers were working in special schools – having the special teachers training.

Manifestation of ASD

When asked about the main characteristics of children with ASD all interviewed teachers answered that it is impossible to define autistic children in only one way, as each one of them has different personal characteristics and manifestations of autistic symptoms.

German teachers pointed out that many of the autistic pupils are acting according to what they exclusively want, and refuse to carry out activities which do not make any sense for them.

Spanish teachers pointed out that the most characteristic feature of children with ASD is the rigidity and the need for routine. Changing this often triggers discomfort for all of them, although each one expresses it in a different way.

Relationship

When talking about the relationship between families and teachers, all teachers agree that the relationship is positive and is closer than

with other parents. They also state that the parents of these pupils are usually very committed to get in touch with the teachers on the regular basis and communication between them is quite regular.

Cooperation

When it comes to working with families, Spanish teachers point out to the difficulty to establish a common system of cooperation for the whole centre as each child has different needs. What is done whenever there is an ASD pupil in the classroom is a meeting of teachers and support professionals. In this meeting a common guideline is to be set, so that everyone knows how to act with the child.

There is no special cooperation system at the two schools in Germany. However, the teachers reported a regular exchange with all those involved in the care of the children.

In Spain a very characteristic figure is the support teacher, who, depending on the needs of the child, spends some hours on the support within or outside of the school context. If parents consider that their child should have support in all subjects, they could bring in external staff and have them support child in the centre's own classroom.

In order to start working with a pupil with ASD in the classroom in Spain, an initial assessment is carried out, taking into account the reports from other courses (if there are any) and the information given by the parents about the pupil. The aim of this assessment is to get to know the pupil as much as possible and from there, the pupil's progress is monitored throughout the course.

Challenges

Both in Germany and in Spain all the families are very cooperative with the school as they like their child to be included in the classroom, but two of the problems that the interviewees expressed were: the lack of understanding with

the inexperience of the teachers and the lack of honesty in admitting that their children have meltdowns that can result in violent or disruptive acts in the classroom.

Wishes

When asked about their wishes, the Spanish teachers stated that they wish understanding and guidance from the parents, as they need to know as much as possible about the pupil in order to be able to support the pupil in the school context.

German teachers focused more on parents being aware of what it means to have ASD and what their child's diagnosis is, as well as being willing to accept the advice they can get to make their day-to-day life easier.

Suggestions from Experience

All the interviewees agree that families are happy that their children are included in the classroom and what they demand most is personalised attention to their children.

Furthermore all the teachers pointed out to the importance of the good communication, both parties respectfully communicating on all relevant aspects. Additionally they also think that teachers need to understand the situation of the family, as sometimes families can be overwhelmed by the whole situation with the child. They recommend being especially attentive and receptive, so that they understand that you are going to work with their child in the best possible way. German teachers also thought that Parents would first have to fully accept that their child is different and has to deal with everything in a different way as other children. Teachers should point out to these differences, but at the same time pointing out to the many competences and abilities of the children.

The Spanish teachers also recommended a lot of patience and adaptability, as each child requires different things. On the other hand, they also believe that teacher training is

essential. Currently, teachers are not specialised in special needs, so each of them had to learn about the disorder on their own. It can be a slow process of adaptation, but all the interviewees agree on how satisfying it is for them to learn from the children and to be trained every day to deal with pupils with ASD.

Similarly the German teachers pointed out that it is essential to learn a lot about ASD, but also that more and more information is becoming available.

Furthermore, they pointed out that acceptance of all family members as they are, and working with focus on strengths and not weaknesses but also to have a calm attitude and a good sense of humor as the factors of the utmost importance for everyday school work.

Conclusion

According to the results from this research one can conclude that the cooperation between teachers and parents in both countries is perceived from the teachers as quite positive.

Above all, the importance of attitude in conversations with parents was mentioned here and further training on the topic of autism was recommended.

Even though there are no special schools for children with special needs in Spain, the pupils receive in a mainstream school a lot of support through special cooperation programmes.

At the German schools there was hardly any difference between the cooperation with parents of children with ASD or with parents of children without / with other disorders.

In the Spanish schools, the main difference is the cooperation system mentioned above.

Overall, one positive perception was that all the teachers perceive the collaboration with parents as very important and describe their collaboration.

Despite the different school systems, in these two countries the perceptions and experiences of the teachers were very similar.

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Challenges of inclusion of autistic children in mainstream schools

Miriam Farokhfar

Abstract

The inclusive education of autistic children and youth in mainstream schools poses challenges to teachers, parents, autistic individuals and all stakeholders involved in the process. Social integration and emotionality play a crucial role for the success of inclusion, as they represent a door opener for the autistic person to classroom interventions, school learning opportunities and experiences, and pedagogical instruction. In addition to that area, the general conditions of the school and extracurricular system as well as the personal competencies and characteristics of the teachers play an essential role. In a qualitative study by means of a semi-structured podcast interview, a teacher of the Mobile Special Education Service was interviewed about the everyday school life of an autistic boy in the 6th grade of a middle school in Germany. The questions targeted the area of social integration, which in turn was differentiated into the areas of "communication," "contact with peers," "relationships with teachers and peers," and the area of "emotionality." The study draws attention to the need for personal support through professional school assistance, which supports in school and extracurricular matters and thus facilitates the participation of the autistic person in the classroom and in society. The willingness of teachers to include autistic pupils is the basic prerequisite, yet the study shows that teachers are reaching their capacity limits. For the future, therefore, the focus on support instances arises.

Keywords: Mainstream Schools; Autism; Inclusive Education

Introduction

Inclusion of autistic children and youth is the responsibility of all schools (BayEUG: Art. 30b Inclusive School - Citizen Service, 2021) and thus concerns all people working within this system. Autistic children and youth as all other children have the right to be included in school. The percentage of autistic people in the population is increasing (Markowetz, 2021), which also makes the school inclusion of autistic pupils increasingly relevant. Experts disagree on the exact prevalence of autistic people in the population but assume a prevalence of between 1 and 3 percent. In figures, this means that there are, approximately, between 10,000 and 17,000 autistic pupils in Bavaria (ibid). Thus, for

inclusion to succeed, the autism-specific characteristics and their impact on everyday school life must be in the focus of educational and research efforts. Still, the number of studies on inclusion of autistic pupils in schools in Germany is lagging behind other European and world countries. Federal association autismus Deutschland e.V. is trying to support the research in this field and initiated and supported two important still non-representative studies in the field. The federal association is composed of 58 regional and state associations. In the first study, 624 parents the members of the autism associations were asked about the autism characteristics of their autistic child, the diagnosis, the type of school, the type of

schooling, personal assistants, etc. in the period from 15.09.2016 to 17.10.2016 (Czerwenka, 2017.) 129 children attended elementary school, 194 secondary school, 91 a high school and 207 a special school. One third of them attended a special center, while 44 of them were Asperger's autistic. Furthermore, 132 of the respondents had already been excluded from school once in their lives. The reasons for this were complex: absence of personal assistance, excessive demands on the teachers, etc. (ibid.). Even though this is not a representative study, the result arouses negative attention and calls for research and elimination of the causes. This results have been confirmed in a later study on behalf of federal association autismus Deutschland e.V. done by the University Halle-Wittenberg (2019).

Both studies called for action related to the changing the general conditions in the schools in order to make the inclusion of autistic pupils possible and sustainable.

Also Zirnak (2014), special educator, consultant, supervisor, coach, lecturer, and therapist from Berlin emphasizes the need for a limited number of pupils per class, citing the maximum number of 18. Furthermore, personal assistants is indispensable. According to Zirnak, it is also important that the regular school teacher knows the child's prerequisites so that he or she can feel comfortable. According to this, the teacher should be a reference person and do relationship work. He criticizes the school system regarding its suitability for inclusion of autistic people in terms of framework conditions such as personal resources and general as well as special concepts. The development should be the focus and the measures necessary for this, which at the same time enable self-directed learning. He also complains that the schools set tasks and expectations for the child that overwhelm him or her. According to these

statements one cannot speak about inclusive schooling of autistic pupils in Germany (Zirnak, 2014).

Challenges of inclusion on different levels

School inclusion comprises several levels that influence success. These include the autistic person themselves, their parents, the school environment, and the personal characteristics and competencies of the teacher.

School instance and the prevailing framework conditions

Preparation for the schooling

The Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the "Länder" take the following position: "Teaching children and youth with autism is basically the task of all schools. The suitability for this task requires open-mindedness and ability for the special challenges of the special focus autistic behavior. In pedagogical-psychological and didactical-methodical respects, the needs of autistic pupils must be taken into consideration. Regular participation in - if necessary, also transnational - advanced training events is required." (Recommendations on education and teaching of children and adolescents with autistic behavior, 2000, p. 20). Requirements for the teachers emerge from this resolution.

Therefore, it is the responsibility of the teachers to make preliminary considerations to meet the needs of the autistic child in the class. This includes the preparation for social and emotional integration, adjustments and considerations regarding the specifics of autistic behaviors, individual needs of the autistic person, etc.

In a representative FORSA survey, in which 2,127 teachers at general education schools were asked about their opinions, attitudes and experiences with school inclusion, one in five said that teachers who taught an inclusive learning group could only prepare for it for a maximum of five weeks, almost 50% of the respondents said that there was no accompanying in-service training and one in three respondents said that there was no special in-service training.

No experience could be gained about joint teaching. 44% of the respondents rated the in-service training as poor or insufficient. The work in schools with inclusive learning groups was rated positively.

More than half of the respondents stated that they had weekly discussions about the difficulties of inclusive teaching (Beckmann, 2020).

The Bundesverband autismus Deutschland e.V. calls for a cooperative support plan that includes the resources as well as challenges of the autistic pupil and is discussed with the autistic pupil, as well as the provision of materials if the performance level is below that of the classmates (Guidelines for Inclusive Schooling of Students with Autism Spectrum Disorders, 2013).

Cooperation and contact persons

Beckmann (2020) presented the results of the FORSA representative survey in which 97% of 2,127 regular schoolteachers were in favor of the need for cooperative teaching (regular school teacher/special education teacher) in inclusive schools. "Special educators with in-depth expertise in autism should be part of the teaching team in all classes where pupils with ASD are taught. [...]" (Guidelines for Inclusive Schooling of Students with Autism Spectrum Disorders, 2013, p.3).

School support (personal assistance) has a crucial role in this process. This support applies not only to profoundly affected autistic pupils, but also to pupils with so called high-functioning autism. Especially the girls are to be taken into consideration, as they often "fall through the cracks" due to their abilities to mask the symptoms and adjust.

The personal assistance takes over several responsibilities: It provides support during lessons, but also in extracurricular contexts, such as breaks. It accompanies, assists, advises, supports in communication and social interaction. Personal assistance prepares the autistic pupil for cooperative learning, structures the learning process, helps manage stressors manifested by meltdowns and/or shutdowns, etc.

Above all, it should be part of a multi-professional team at the school.

In many cases, school-based support is essential to enable school attendance in the first place. In addition to the advantages, there are also downsides of this type of support: no special training is required for this support (Kroker, 2019), unless qualified school support is used.

Furthermore, there is a risk of dependency (Vero, 2020). In this context, the Mobile Special Education Service (German: MSD) as well as the Mobile Special Education Service for Autistic Pupils (German: MSD-A) represent another school-based support.

The MSS provides support with one to two lessons per week and per pupil and usually in a separate room. The MSD-A is specifically responsible for autistic pupils and their parents and teachers. MSS is part of a multi-professional team (consists of other MSS, psychological and medical specialists, youth welfare offices, etc.) (Heimlich et al., 2008). On the one hand the MSD as well as the MSD-A carry an important function, on the other hand

this form of support is in many cases not sufficient, if one thinks of the problems that can result from autistic behavior. According to Markowitz, "what we would need in schools is a greater presence of educators who know how to deal with autistic children and youth, and especially why they behave so unusually and how to encourage and support them in school." (Markowitz, 2021, p.1).

Premises/classroom

Large classes can cause stress for the autistic child as well as for the other children and the teacher. For autistic individuals, the stress can become so great due to their altered perceptions that the body reacts by fleeing, fighting, or freezing. The mere presence of people can cause discomfort in the autistic child- the prolonged stress leads to negative consequences such as: poor school performance, anxiety, aggressive behavior, school refusal, etc. (Vero, 2020).

Solutions could include sound-proofed classrooms and rooms for small group work as well as for individual work, but also for the rest and relaxation. The former is available in only 14% of schools, the latter in not even 50% (Markowitz, 2021). This problem points out to the necessity for change.

Regular school teachers

A study from Berlin, which was conducted by the Autism Research Cooperation, surveyed 85 teachers from 4 secondary schools, 33 teachers at a school with a special educational focus and 49 people from the general population in 2011.

The aim of the survey was to find out what knowledge about autism spectrum disorder do the teachers have. This revealed that teachers with a special educational focus knew

significantly more about autism compared to the general population.

In contrast, teachers without a special education focus differed little from the general population. In terms of knowledge about autistic people's strengths, the three groups hardly differed-they underestimated strengths equally (Kirchner et al., 2011).

Knorr (2010) found out that 60% of teachers were overwhelmed when dealing with autistic individuals. The data may suggest that autism is underrepresented in teacher education and/or that teachers are not receiving adequate in-service training.

The question of in-service training and the quality of teacher education would be an appropriate field of research in the context of improving school-based inclusion. Namely, there is a need for adequate concepts and confidence in dealing with autistic pupils, knowledge about the conditions with children with early childhood autism, knowledge about the conditions for a pleasant atmosphere in the areas of learning, working and social life.

If this is not given, anxiety increases, which leads to learning failure associated with drop in performance.

Readiness and motivation

A positive relationship between teacher and pupil is a basic prerequisite for pedagogical, professional, and didactic instruction to flourish (Zirnak, 2014). This builds on the teacher's willingness and motivation to face the challenges of inclusion and to recognize it as a valuable experience and resource. Without the teacher's willingness to address the individual needs of the autistic child, inclusion cannot and will not succeed (Rodríguez et al., 2012).

Since the winter semester 2021/22, the additional study course "Pedagogy in Autism Spectrum Disorder (P-ASS) is offered at the Ludwig-Maximilians-University in Munich. The first cohort of the students encompasses 65 students studying different (regular and special) teachers trainings , which can be evaluated as a positive development.

The fact that the program is officially offered is a statement to the urgency and need to provide more knowledge about autism.

Furthermore, the great willingness could be an indication that there is a recognized need among teachers to acquire knowledge specifically within the autism spectrum and/or that some still feel overwhelmed in dealing with it.

The FORSA representative survey showed that more than half of the teachers who work in schools with inclusive learning groups discuss the challenges of inclusive teaching at least weekly. The figure was 70% at elementary schools and 34% at high schools (Beckmann, 2020).

Autistic pupil and his classmates - Social and emotional situation

In stressful situations, autistic people often show anger, resentment, irritability. The affect-driven behavior is challenging for teachers and classmates because it is often unexpected.

A misinterpreted statement by a classmate, can subsequently produce an outburst of rage with consequences that endanger others.

Therefore, in everyday school life it is difficult for the teacher to avoid every challenging situation completely - especially because the often monotonous facial expression of the autistic child is difficult or impossible to

interpret for other people (Schuster & Großmann, 2020).

In this case, the same applies as for all other stressors the autistic child/adolescent is confronted with: identify stressor(s) and, if possible, avoid them.

Stimuli that cannot be eliminated should be habituated to the autistic child step by step (Vero, 2020). Furthermore, autistic pupils often struggle with low frustration tolerance, low self-esteem, and demotivation regarding homework (Girsberger, 2021).

Emotional stability is a prerequisite for integration and inclusion. Even non-autistic people feel more comfortable in a community when they are emotionally stable, meaning they rarely if ever face anxiety, experience a sense of achievement, laugh, have fun, and feel part of a community.

Thus, the motivation in the areas of: learning, communication, socializing, etc., are encouraged. Even though an autistic person usually faces more fears due to the change in perception, it is possible and necessary to minimize them.

Inclusion means breaking down barriers – and this applies to the field of emotionality as well.

To do this, it is essential to protect the autistic child from teasing and bullying and, in this context, to reduce prejudices with which autistic people are often confronted (Zeibig, 2017).

The teacher has a great responsibility to ensure a pleasant classroom climate in which all pupils feel comfortable, whether autistic or non-autistic. "We create a positive atmosphere and make a connection and relationship building possible" as psychologist and director of the Autism Institute in Hamburg Barbara Rittmann states (Langosch, 2017, p. 31).

Methods

Qualitative research, which is applied in this work, in contrary to quantitative research and strives to "[...] capture particular properties and characteristics [...] as precisely, differentiated, and close to the object as possible [...] and [wants] to understand what is happening in their respective object domain" (Raithel, 2006, p.8).

On the other side the quantitatively oriented research aims to "[...]test correlations between different variables against reality (ibid.).

A semi-structured expert interview was chosen for the survey.

The aim of qualitative research is to map reality according to the subjective view of the interviewee.

Openness is a characteristic of qualitative research - the evaluation is interpretative (Röbken & Wetzel, 2020).

Aim

This qualitative research was aimed at researching how are autistic children included in mainstream schools and what measures are taken to reduce barriers to inclusion?

Sample

The interviewee - a special education teacher who works as an MSD at a middle school in Munich, was recruited for the purpose of this research.

MSD received the interview guidelines a week before recording of the podcast in order to be able to discuss them together with the class teacher of an autistic pupils.

Instrument

An interview guide was prepared in advance for conducting the podcast interview.

This was divided into four parts: Communication, Peer Contact, Relationships with Classmates and Teachers, and the Emotional Domain.

Questions were formulated for each area, but these were used solely for guidance. The aim of the interview was to generate a deep insight into the everyday school life of the child, to learn about the measures for inclusion on the part of the class teacher, MSD and the classmates.

The aim was to elicit the current state, namely in the four areas, for each of which some questions were asked. Because time did not allow for all levels of inclusion to be addressed in the podcast recording, the focus in the podcast was on the social inclusion. The reason for the selection is the relevance of this indicator for the success or failure of inclusion.

Interpretation of the results

In this section, the results will be presented and interpreted in order to prepare for an attempt of answering the research question and draw the conclusion.

The results refer to the autistic pupil "Leo" attending the middle school in Munich.

Although work behavior was not specifically asked about, this was a crucial aspect during the interview as it affects inclusion:

Leo remains cognitively below his capabilities and needs detailed explanations in conflict situations: MSD support is not sufficient.

For the future, a personal assistance (possibly a male person) would be useful to support him in his work behavior through structure and order,

possibly explaining the material and the work assignment if the teacher's instructions are not formulated precisely enough.

Conflict situations could be clarified immediately, which would minimize misunderstandings and thus lead to less escalation and subsequently to more emotional stability, which in turn would be reflected on the school and relationship level.

With regular support, his strengths and skills could be further developed. Cognitive underachievement causes discomfort, triggers stress, and thus negatively impacts emotionality.

Autism is not addressed: MSD thinks that autism "outing" in class could result in teasing and labeling. According to MSD it is not the responsibility of the school to address this issue, without consultation with parents and Leo.

In relation to this statement, one can bring the contrary position in and state that the communication is the key. The question is how to address this issue in the classroom. Raising the issue could relieve pressure, reduce prejudices, and create more understanding for Leo's autistic behavior.

Positive aspects of dealing with Leo and boundaries: The school or teacher is concerned about detailed explanations and interventions in conflict situations. But the staff situation makes it impossible to fully support Leo. Cognitively, he remains below his level. With clear rules and structure, Leo can regulate himself better. Presumably, these also have a positive effect on his stress level. Conflicts usually arise in chaotic and unclear situations, such as breaks, change of hours, etc.

According to this it can be concluded that it would be useful to get used to unstructured phases and at the same time generally practice

calmer and less abrupt transitions with the entire class.

Knowledge of the teacher: was not directly addressed, but is nevertheless relevant for successful inclusion, as already explained in the introduction.

Obviously, in the beginning the teacher did not know how to deal with Leo's behavior, she gave him reprimands and imposed sanctions, but they had no effect.

At this point she knows better how to deal with his behavior, but still "punishes" him in the same way as his classmates. She knows that he very often needs detailed explanations and that he needs the help in conflict situations, which he does not ask for on his own.

It was not clear if the teacher feels left alone in dealing with this issue.

MSD felt that he should actually be treated differently from the other pupils in the class, which suggests that an adequate way of dealing with Leo has not yet been found - at least from MSD' point of view.

It seems that the teacher is searching for the way how to deal with pupils' autism through trial and error.

It was also obvious that the teacher cares about the pupil because she knows that he would be capable of much more if she would find a way to support him properly.

Conclusion

According to the results of the interview one can conclude that the staff factor in the schools seems to be the biggest barrier to successful inclusion.

Therefore, is the rethinking of the general teachers training of the utmost importance –

not just for meeting the needs of autistic pupils in the schools.

A trained, professional personal assistance could also reduce barriers to inclusion of autistic pupils significantly.

Above all, a regular exchange between the personal assistance and the teacher as well as the parents would be very helpful.

It is important to note that not just the knowledge of the autism spectrum is one of the key factors to being an effective teacher of a pupil with autism.

Teacher attitude and understanding of the actual experience of being an autistic pupil were found to be very important. Using of the medical model or deficit theories of the autism spectrum by teachers was found to hinder the provision of opportunities for these students. In contrast once teachers developed an understanding of a range of lived experience anecdotes and evidence, they were more able to see the potential of autistic pupils and therefore provide appropriate opportunities for these students to make progress (Goodall, 2014).

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Functions, Triggers and the Causes of Challenging Behaviours: Teachers and Parents Perspective

Theresa Marquart & Paula Sánchez Crespo

Abstract

Challenging behavior in people with autism spectrum disorders can cause many difficulties for the environment. However, the environment must pay attention – including families and teachers of those affected – to the fact that challenging behaviors such as aggression, tantrums, social withdrawal or self-injurious behavior always entail causes, functions and triggers. Challenging behavior does not occur to provoke others, but is usually shown when no alternatives are available in terms of communication.

Methods and interventions have been developed to deal with and prevent challenging behaviors in children and adolescents with autism both at home for parents and at school for teachers. It is important, for example, to apply methods of supported communication or to enable those affected to have structure and independence in everyday school life and everyday life at home.

In the following work, the topic is dealt with from both the Spanish and the German perspective. In a guideline-based interview, a Spanish and a German parent of children with autism were interviewed.

One German and one Spanish teacher were also interviewed on the subject. The work shows that there is already a lot of expertise and support, but there is still a lot to be done in research and practice to support people with autism spectrum disorders – both in Germany and Spain.

Keywords: Challenging Behaviour; Function; Triggers

Introduction

Behavior of students with autism spectrum disorders (ASD) can confront teachers with many challenges, and it requires a lot of empathy and competence (Markowetz, 2020, p.29). But if people with ASD had functioning alternatives to express themselves and communicate, some behaviors would not even have been used (Fröhlich, Castañeda & Waigand, 2019, p. 15ff; p.77).

Challenging behaviors can be for example running away, social withdrawal, disinterest, aggression, or denial of performance in the school context. Especially in inclusive teaching, teachers face major challenges when it comes

to students with autism spectrum disorders (Markowetz, 2020, p.25f; Fröhlich et al., 2019, p.11f). Children with ASD also have another developing in their social interaction. Playing and interaction with those can be sometimes challenging and complex (Pinchover & Shulman, 2016, p.644). Challenging behaviors and associated conditions have a disruptive impact on the daily activities of people with ASD. They exhibit varying degrees of irritability, destructiveness, aggression, withdrawal, lethargy, uncooperative behavior, hyperactivity, repetitive behaviors and self-harm. Many studies have shown that challenging behaviors are more common

among children with ASD than in children with intellectual disabilities (McClintock et al. 2003; Tonge and Einfeld 2003, as cited in Rattaz, Michelon, Munir & Baghdadli, 2018, p.638), with a prevalence estimated at 56 to 94% (Matson et al. 2007; Matson and Nebel-Schwalm 2007; Murphy et al. 2009; Mazurek and Kanne 2010; Matson and Kozlowski 2011; Kozlowski et al. 2012, as cited in Rattaz et al., 2018, p.638).

The term challenging behaviors is therefore a global description that includes several different behaviors.

Many challenging behaviors do not belong to core symptoms of ASD, but often occur at the same time such as hyperactivity or self-harm. In particular, self-harm has been shown to be related to the cognitive level and syndromic severity of ASD.

Other challenging behaviors that are less common but are also associated with individuals with ASD are alienating behaviors.

On the other hand, challenging behaviors occur within the framework of ASD core symptoms: these often include repetition, stereotyping, and social withdrawal under the limited, repetitive, and stereotypical patterns of behavior, interests, or activities' described in ICD-10. However, whether this behavior can be declared challenging remains unclear.

Some types of repetitive behaviors (e.B. an early interest in letters, staring longer at objects) serve to process sophisticated information and do not need to be prevented (Rattaz et al., 2018, p.638f).

Causes of challenging behaviour

People with ASD do not perceive some stimuli or perceive them differently. Their very individual perceptions can sometimes cause panic states and avoidance behavior (Markowetz, 2020, p.15).

People with autism have disorders in the field of Theory of Mind. The Theory of Mind assumes that students with ASD can hardly or not at all make assumptions about the feelings, thoughts and (knowledge-) perspective of other people. They cannot adopt the perspective of others and the cognitive processes of others are incomprehensible to them.

Other person and one's own behavior and experience is often not recorded, understood, predicted or communicated (Markowetz, 2020, p.15).

Similarly, people with autism spectrum disorders have difficulty in executive functions. These include cognitive processes that are responsible for planning and controlling actions. They are often rigid and not very flexible in their behavior, and often show a low tendency to adapt and change (Markowetz, 2020, p.16).

Often, people with ASD have a local processing of stimuli. They do not perceive individual stimuli in an entire context, but concentrate and divide perceptions into individual details.

If this classification in an overall context is missing, we speak of a lack of central coherence (Markowetz, 2020, p.16).

Teachers and especially class leaders are very important in ensuring that, for example, the inclusion of students with autism spectrum disorders succeeds.

A positive environment and a conducive class climate must be maintained. Structured processes and routines, individual support and assistance and differentiated play, learning and work offers are also very important.

Attention must also be paid to compensation for disadvantages and the provision and cooperation with personal assistance (Markowetz, 2020, p.28).

Triggers & Functions

From a functional point of view, such behaviors are an individual's response to environmental conditions or other circumstances.

For individuals with poor communication skills, challenging behaviors may be the most efficient way to express a need or discomfort. Chiang et al. (2008, as cited in Rattaz, Michelon, Munir & Baghdadli, 2018, p.638) have shown that a high proportion of children with ASD with speech problems use challenging behavior as a form of expressive communication. Stereotypical behaviors are used to maintain control in new situations or when disorientation is present.

School substitution hours or spontaneous changes can sometimes cause escalation (Fröhlich et al., 2019, p.36ff; Matzies-Köhler, 2015, p.89ff). Behaviors such as jumping around can serve regulation, a possible trigger can be an increased state of arousal (Fröhlich et al., 2019, p.44ff).

Also misunderstandings caused by the lack of Theory of Mind and difficulties in language comprehension are able to trigger "provocative" behavior (Fröhlich et al., 2019, p.30ff). Behavior such as refusal, running away or pushing can also be the expression of rejection.

For example when needs do not want to or cannot be implemented. It can also be possible that too many steps are required for a task and that could be hard because of a lack of executive functions (Matzies-Köhler, 2015, p.24ff p.125ff; Fröhlich et al., 2019, p.29f).

Some behaviors like "stimming" are used for self-stimulation because satisfaction is necessary or the individual is bored (Fröhlich et al., 2019, p.42f).

Behaviors such as making noises or self-injurious scratching often serve to overlay unpleasant perceptions. Qualitative or quantitative sensory overload can be the

trigger for that behavior (Fröhlich et al., 2019, p. 40f).

Challenging and aggressive behaviors can be used to demand a specific object or person (Fröhlich et al., 2019, p. 27f).

Intrusive behavior can also be used to trigger effects (Fröhlich et al., 2019, p.25ff). Such behavior can help to establish contact or gain attention (Fröhlich et al., 2019, p.33ff).

Outbursts of anger, flight or solidification can be an alarming expression of a crisis. It is caused by an "overload" after internal or external sensory overload. It can be followed of an outburst of anger - "meltdown" - or complete social withdrawal – the "shutdown" (Fröhlich et al., 2019, p.50ff, Matzies-Köhler, 2015, p.48ff).

A function of challenging behavior, which is often assumed by people, is provocation. But provocation in autism spectrum disorder is rather unlikely.

Because of the lack of Theory of Mind people with ASD can't really imagine how to provoke another person from her point of view (Fröhlich et al., 2019, p.23f). Challenging behaviors can grow if the environment doesn't align with the person's needs, for example, due to lack of daytime activity or sensory overload or understimulation.

In addition, challenging behaviors can occur due to the lack of appropriate interventions and services.

Medical comorbidities, epilepsy, pain, sleep or gastrointestinal disorders are a common cause of challenging behaviors in individuals with ASD.

Communication disorders often lead to the fact that medical problems are not shown or expressed and thus there can be a lack of care by physicians (Rattaz et al., 2018, p.638).

Caregivers operational guidelines: teachers and parents perspective

In addition to the above, it is important to differentiate between the two perspectives: families and teachers.

First, from a family's point of view, the needs of parents with children with ASD are: information assistance in relation to the services provided, helpful strategies and pautes to deal with challenging behavior and more time for self reflection and parents mental health and stability. Families experience more stress and have more health costs compared to families of childrens without disabilities. Identification of similarities between the perspective of mothers and teachers can also bring about better cooperation and interventions can be developed that are suitable not only for the child but also for the caregiver (Pinchover & Shulman, 2016, p.660).

Second, from an academic perspective The Education Act for Individuals with Disabilities of 2004 (IDEA 2004) requires the use of evidence-based practices within the school environment. Previous interventions, function-based reinforcement interventions and punishment have been shown to be effective in reducing challenging behavior in people with autism spectrum disorders (Rivera, Gerow & Kirkpatrick, 2018, p.2). As far as effectiveness in the school context is concerned, interventions are partly influenced by factors such as the time required to prepare and implement the interventions, as well as skepticism about effectiveness and feasibility. In addition, the social validity and feasibility of the intervention can affect the extent to which it can be implemented in natural settings such as schools. If a teacher has difficulty implementing interventions in school environments, it can affect outcomes in children. Like the differences between clinics and schools show, the effectiveness of the

feasibility of interventions for adolescents with autism spectrum disorders in schools is important (Rivera, Gerow & Kirkpatrick, 2018, p.2; Goldman, 2019)

High levels of challenging behavior are exhibited in educational and home contexts. School-home communication becomes an issue for families as they argue there is no appropriate content and frequency and their children's lives are characterised by less quality than it should. Research shows that targeting this problem and attending ASD from a children's perspective can be beneficial for individual growth and development. From the educational field, students with ASD receive concrete services and support to satisfy their needs. From a parental perspective, these supports do not satisfy their demands causing, in some cases, that the relationship between parents and teachers result in negative impact. Even though there are some intervention programs that focus on improving not only the children's skills but also the links between both figures, caregivers still have difficulties engaging in reciprocal and developmental episodes with ASD childrens (Pinchover, S. and Shulman, C., 2016, p.645)

Person needs an alternative to existing behavior. All behaviors with a communicative function can only be avoided by giving the person a different means of communication. Alternative behavior must not require too much time or be too strenuous, but then "only" be accompanied by the same result: alternative behavior must receive the same, but better still more attention than the challenging behaviour; this is the only way to learn a new behavior that makes sense for the person. Success that person learns to regulate when challenging behavior is triggered by an increased level of arousal only in this way further crises are avoided.

In this way, the table will illustrate different types of interventions parting from both perspectives:

INTERVENTIONS BASED ON THE TYPE OF BEHAVIOUR	
TO PROVOKE	<ul style="list-style-type: none"> • Counteract relationship work • Complaining must be allowed, and for this person needs appropriate vocabulary
TO DEMAND SOMETHING	<ul style="list-style-type: none"> • Communication by looking, showing, leading attention to it and taking it seriously before challenging behavior occurs. • Decisive for the reduction of challenging behavior is expansion of communication possibilities • Caregivers must set an example of how to communicate with the UK Modelling • Person can be supported by various methods to understand how to demand something.
TO REJECT SOMETHING	<ul style="list-style-type: none"> • Adapt the requirements of the task so that the person can also create it TEACCH approach (especially box tasks, tray tasks and Velcro folders) • Mark the current step for work instructions • further method: Video Modelling • Place task in "Ready Box" • Table with symbols
TO ATTRACT ATTENTION	<ul style="list-style-type: none"> • pre-empt • Use alternative overviews of how a contact can succeed or go wrong • little books to tell a (social) story
TO MAINTAIN CONTROL	<ul style="list-style-type: none"> • Making situations manageable: Ideas of the TEACCH approach for structuring time and space • Visualize processes with plans • If something fails, it is visualized as an exception and planned alternative is hung next to it • Announce the transition from one situation to the next (time-timer) • Observe the person closely • Behavior map with desired behavior • Communication board for asking questions
TO OVERLAY UNPLEASANT PERCEPTIONS	<ul style="list-style-type: none"> • Hearing protection for acoustic hypersensitivities • when buying clothes, take the person with you and have them tried on • Working materials: detecting inclinations • Privacy screen in case of visual overload • in case of balance difficulties, chairs with armrest, stool for rocking • Alternative overviews Aids can have a positive effect
TO EXPRESS DISCOMFORT	<ul style="list-style-type: none"> • Routine checks at the doctor must be regular • Vocabulary for expressing sensitivities and showing in the pictured body where it hurts Pain scale with body schema to localize pain • Knowing about bodily functions, diseases and the effects of medications can help a person to develop a greater sensitivity to themselves and their body

Table 1: own elaboration (Sources: Fröhlich et al., 2019; Matzies-Köhler, 2015; Markowitz, 2020).

Country comparison of ASD practices

To start with the section, this paper will take the case study of Spain and Germany as different territories where the care system differs and the institutions change in relation to ASD students as an important part of the general population.

General Situation in Spain

Starting from the Spanish case, generally speaking, and following the relevant legislation in relation to ASD students, students must be enrolled in a mainstream school in all cases except those in which the student's needs are not optimally met. Likewise, the values of inclusion, non-discrimination and normalisation prevail in all centres.

The main information to consider is that there are many schooling possibilities described as follows:

Ordinary centres for preferential schooling:

- Full-time mainstream classroom
- Regular classroom combined with a therapeutic pedagogy or hearing and language classroom.
- Specific classroom/special education for students with special education needs: they share learning spaces and times in open classrooms that cover the specific needs of the students.
 - Cyl classrooms → Communication and language units. Experimental in nature, designed to meet the needs of students with Mixed Receptive- Expressive Language Disorder (MLD) or General Developmental Disorder (GDD). They provide more possibilities for interaction in a normalised context than special education centres. In addition, they have a flexible and inclusive methodology that enables pupils to function better thanks to specific strategies such

as personalised timetables. This methodology, also called structured teaching (TEACCH), seeks to prioritise structured spaces in classrooms by regulating four basic dimensions:

1. physical structure
2. event structure
3. organisation of tasks through visual clues
4. connection of the above dimensions in relation to a certain sequence of activities.

Specific special education centres: schooling may be extended up to the age of 21. It is characterised by the creation of groups according to the age of the pupils, although within the group, individualised treatment is provided according to needs by means of a specific adaptation of the classroom programme. The maximum number of pupils per group is eight. All of them receive individualised curricular adaptations and are cared for by two professionals. On the one hand there is a professional in therapeutic pedagogy and, on the other hand, an educator in special education. The academic activity is developed transversally within a very routine and scheduled timetable that allows the pupils to adapt to the different learning styles and rhythms.

- general
- specialised for ASD students

Combined schooling: special school and mainstream school.

General situation in Germany

According to studies, there is a prevalence of 0.04–0.05% of autism spectrum disorders in children in Germany. This means that 4 to 5 out of 10 000 children have an autism spectrum disorder. Presumably, however, the number of unreported cases is higher, currently a share of

the total population in Germany of 0.6-1% is assumed (Markowetz, 2020, p.10f). In Germany, measured by the general population of 81.3 million people, there are probably from 400 000 to 800 000 people affected (Markowetz, 2020, p.11).

The "Recommendation on the education and teaching of children and adolescents with autistic behaviour" (KMK 2000) is the result of the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) of 16.06.2000 indicates that the term "funding priority" is still avoided (KMK 2000, as cited in Markowetz, 2020, p.21).

In Germany, according to the KMK 2018, students with autism spectrum disorders are awarded special educational needs, but there are no specific schools for children and adolescents with autism spectrum disorders, as in other countries.

In Germany, students with ASS attend both special schools and mainstream schools.

A survey by autismus Deutschland e.V. by Czerwenka (2017) indicates that one third of students with ASD attend a special education support center and two thirds are schooled at mainstream schools. In contrast to other funding priorities, the inclusion rate for students with ASD is high, but it also points out that students with ASD are taught by teachers at general education schools. According to Markowetz (2020, p.21f), however, the statistical recording of this group of students is not yet sufficient (Markowetz, 2020, p.21f).

Referring to the group of students with ASD, studies by Trost (2010) suggest that 79% of children and adolescents diagnosed with "early childhood autism" and 70% of those with autistic traits go to a school with a focus on mental development. Students with Asperger's syndrome, on the other hand, often attend a school for educational assistance – according to this study 35.2% (Markowetz, 2020, p.22f).

"Autismus Deutschland e.V." published a survey on the school situation of children and adolescents with autism.

Questionnaires from parents of autistic children were evaluated. In the 2016/2017 school year, 129 were attended at primary schools, 194 at secondary schools, 91 at grammar schools and 207 special schools.

This corresponds to an inclusion rate of about 66%, but the parents of children at special schools stated that schooling at the special school was necessary because of many school changes.

These could be indications that the conditions at mainstream schools are not yet sufficient for the success of inclusion. It is also questionable whether pupils with ASD are actually supported and included in mainstream schools in such a way that they can make a profit from it (Markowetz, 2020, p.23).

The study by Czerwenka (2017) also shows a high number of school exclusions with 132 mentions.

In Bavaria, six school exclusions of three days to six months were reported by the 58 participating pupils during the study period. In two cases, the children were temporarily trained for several months at a child and adolescent psychiatry (Markowetz, 2020, p.23f). Students with ASD have the right to get compensation for disadvantages at school (KMK 2018). These include, for example, the extension of working and examination times or the didactic reduction of tasks in class work (Markowetz, 2020, p.37f).

Well-founded support diagnostics and the creation of individual support plans are also indispensable, which is why teachers in mainstream schools must be supported by special educational expertise and competences. However, the diagnosis of "autism" can only be carried out by physicians and psychologists who are guided by the interdisciplinary S3 guidelines for the diagnosis of autism spectrum disorders in childhood, youth and adulthood (AWMF 2016). The use of standardized test procedures, including intelligence tests, is indispensable. Standardized test procedures are, for example,

the ADOS (Diagnostic Observation Scale for Autism), the FSK (Questionnaire on Social Communication) and the ADI-R (Diagnostic Interview for Autism – Revised) (Markowetz, 2020, p.39). In order to gain more information about everyday school life, for example, an "understanding support diagnostics" is recommended. For the detection of possible abnormalities with autism spectrum disorders in everyday pedagogical life, for example, observations methods like the ASAS ("Australian Scale for Asperger's Syndrome" (- Melfsen et al. 2005) can be used. If parents suspect autism in their child, they can use, among other things, the EEFA (Parent Exploration Scheme for Early Childhood Autism). However, this is not a substitute for a medical diagnosis (Markowetz, 2020, p.39f). As a screening method for use in a pedagogical context under the supervision and guidance of a special education teacher, for example from the MSD-A, the Autimus estimation scale CARS (Childhood Autism Rating Scale) can be recommended (Markowetz, 2020, p.41). Likewise, diagnostic tests and specific procedures such as school performance tests, intelligence tests, development tests and personality tests can be used (Markowetz, 2020, p.42).

In the support planning, it must also be ensured that each child with ASD follows its own developmental logical plan and that funding goals must be well justified. The starting point is strengths and not weaknesses. It is important to record in support plans exactly what students with ASD should achieve individually and how this can be promoted (Markowetz, 2020, p-34, p.45ff).

In the context of autism spectrum disorders, networking is very important. This includes the cooperation of parents, teachers, school psychologists, disability representatives as well as the "Mobile Special Education Service – Autism" ("Mobiler Sonderpädagogischer Dienst - Autismus" in German, short: MSD-A) and the responsible autism competence centers (AUTKOM) (Markowetz, 2020, p.33).

Although school attendants are often poorly or not at all qualified, they are an important resource to enable students with ASD to successfully attend school (Markowetz, 2020, p.33). School companions can be supportive and make everyday school life easier. Here, however, a good cooperation with teachers, as well as a cooperation between youth welfare and school is indispensable (Markowetz, 2020, p.51). An important support is the "Mobile Special Education Service" ("Mobiler Sonderpädagogischer Dienst" = MSD). The MSD has for example the tasks of advising teachers, guardians and pupils on questions regarding the support of special educational needs in the context of the school career, as well as the diagnosis of the state of development and learning requirements, the recommendation and, if necessary, the implementation of individual special educational support measures (Markowetz, 2020, p.52). By the way, students with ASD do not have their own curriculum that adapts to special school learning content or personal development tasks. For schooling in an inclusive setting, exclusive support hours of special education teachers of the Mobile Special Education Service – Autism (MSD-A) can also help (Markowetz, 2020, p.52).

Cooperation with parents is also indispensable. They are often the best experts when it comes to their own child's competencies and habits. This also includes, for .B, the order in which to put on and take off, steps during and after eating. This can also be transferred to the school context (Markowetz, 2020, p.53ff).

So far, there have been no exclusive chairs for pedagogy for autism in Germany. Since the winter semester 2021/22, however, it has been possible to study the extension course "Pedagogy for Autism Spectrum Disorders" at LMU Munich for all teaching positions. Previously, LMU had the additional qualification "Pedagogy for Autism Spectrum Disorder" for students of special education, but this did not complete the new extension course with its own state examinations (Markowetz,

2020, p.21; Bayerisches Staatsministerium für Unterricht und Kultus (2021).

Method

The qualitative method used in this study is a set of interviews to collect data from two different countries (Germany and Spain) in order to have a clear view of the differences and similarities on working and knowledge from this topic in countries where there are cultural disparities and they are widespread throughout the European continent. This section will consist of a representation of the questions. There are two parts in which the main interviewed persons would be the parents in the first one and teachers in the second one.

Instrument

For the purpose of this research an interview guideline was used. The questions are adjusted to different target groups and translated in two languages (Spanish and German).

Participants

As the teachers and Parents perspective was in the focus of this research, parents and teachers from Germany and Spain were interviewed.

Results

Parents interview

Nationality:

S: Spanish (Vasque Country)

G: German

Person who completes the questionnaire (relationship to the child, e.g. mother, father, caregiver, teacher, etc.)?

S: Father. They are part of a private association in collaboration with monetary funds from the government (Apnavi).

G: Mother

Child/person's with ASD age (in years)?

S: 18 years old.

G: 13 years old.

What grade is the child in?

S: 1º ESO. (Compulsory secondary education).

G: 6. Klasse (sixth class)

What kind of school does the child visit?

S: Ordinary high-school (public). Stable class.

G: Special school

Does the child receive classroom support?

S: Receives help from three auxiliary professionals (pedagogue).

G: Personal assistance

Are there behaviors of children with ASD that are particularly challenging or difficult? Do they have certain recognizable triggers?

S: There are many difficulties, he finds it challenging to understand some things, he does not understand many dangers, reading, writing, singing, expressing feelings, among others. The most recognizable triggers happen when he doesn't understand and if you take him out of his routine too quickly.

G: There are behaviors that are often difficult and strange. My son was noticed early on by the fact that, for example, he avoids or does not hear eye contact. First we did a lot of hearing tests with him, until then the diagnosis

of early childhood autism was made. Sometimes he doesn't respond to his name or when you address him directly. Even situations in which he is not allowed to do something or something is dangerous, you have to explain to him again and again. Likewise, he often talks for weeks about the same things as light, water, screwdrivers or certain action figures from computer games or series. He also needs me a lot, wants to cuddle a lot and is then completely irritated when I am not available and, for example, today the dad or aunt pay attention. What I think is most difficult is when he gets a tantrum in public because, for example, the waiter brought the food too late or one trip is too much for him. Then he yells at me and you get all the attention from the people. Here you always have to be very strong and learn not to pay attention to what strangers think of you. What is also very "challenging" is his "tick" under stress to constantly go up and down in the room and jerk on the doorknob. Triggers for difficult situations are often changes or even situations when you leave. Whether it's for shopping or at work. The current pandemic with new regulations, homeschooling and so on are also very overwhelming for him. Likewise, the start of school again after the holidays must be announced again and again so that he can prepare for it. If another sandwich is taken at school, for example because the whole meal bread runs out, this must be announced and announced in a big way. That's also one thing: food. The same food is always eaten. Whole wheat bread, nuts, lots of fruit and yogurt. No sweets or pasta.

Are there methods that are applied to avoid triggers so that challenging behavior does not occur in the first place? If so, what helps? What exactly do you need (e.g. do you have enough resources to handle critical situations?)

S: What we, as parents, do is try to calm him down and try to make him understand. To keep him calm, we tell him those things that are

helpful for him before doing them so that he can assimilate them. He needs a pattern of behaviour in order to create the mental maps required to act in different situations. Yes, we have most of the resources to handle that situations as if we are not able to have control over the situation, we appeal to the association that we are part of and they lend us their resources to ensure Javi's well-being.

G: In the beginning I was at home a lot and never left him alone. I've only been working again since my son is in fifth grade. I had the feeling that I always had to be on call – for example, when he had to be picked up from school. Since the fifth grade, however, he has been at a support center and the schooling works quite well. They are small classes and he gets along very well with the teacher. The school attendant also does a great job, without it it would not work. What is very important for my son, however, is a lot of structure at home and clear instructions on how he should design his daily sound. Also, the desk must always be tidy and nothing may simply be rearranged. Above the desk I glued him a note with "Homework done?". In and of itself, I try to avoid changes in everyday life and if, for example, something extraordinary happens like a visit, then I announce it. However, changes cannot always be avoided – such as the sudden ringing of the doorbell during dinner – and this can then trigger one or the other crisis. By the way, this is something else important: fixed meal times, shower times, homework times, TV times. Both during the week and in the evening. For myself, I attend a support group for mothers with regular meetings and also inform myself on social networks such as Facebook and am there in some autism groups. This helps me personally a lot to cope well with situations and to have the feeling that I am not alone.

What is done if challenging behavior nevertheless occurs?

S: NO RESPONSE

G: If he gets angry, for example, it helps him if he hugs very tightly and nothing is said during this time. I also always try to have his favorite cuddly toy with me, a small whale. He doesn't need it to cuddle as he used to, but he presses it tightly to himself, apparently it's very reassuring. He then also allows strangers to touch, he somehow needs it to be "pressed" by him. The real cuddling is then only with me, with strangers or the teacher I often say, it is enough, for example, if you just press your hand.

Do children with ASD experience more exclusion situations or similar difficulties? What do you do in these kinds of situations and what helps?

S: The truth is that Javi has never had a single problem wherever he has been, on the contrary, he is very much loved by their classmates. However, it's truth is that many children with ASD suffer several situations from which they are excluded only by this condition.

G: My son doesn't like to stick to his peers and usually finds adults interesting. At school, he often finds no connection. However, he is not actively excluded from others.

When is it necessary to cooperate with teachers of your child?

S: Most of these children in the centers are under the supervision of professionals and monitored at all times if there were any problems with them, the tutors and the rest of professionals would take action and the center's management would be informed. We contact the teachers or they contact us if we see any abnormality in their condition or behavior out of the ordinary.

G: It is always important to talk to the teacher about what is happening at school and where there are difficulties. Joint discussions with the

school support must also take place regularly. In my opinion, there are no situations where it is "particularly" important, as it is always important.

What do you wish for in the future?

S: What we wish for him would be the cure but we are aware that it is impossible no matter how much progress there is. So we are satisfied with his happiness and the ability to be able to carry out the daily tasks and perform as an independent boy.

G: More education about the disorder autism itself. Both in school and in the general population. Most people think of geniuses like Sheldon Cooper or film characters like "Rain Man" and work with a lot of clichés, which are then confirmed by the media. I just miss that in society. More understanding.

Teachers interview

Nationality:

S: Spanish (Bea)

G: Germany

In what kind of school does the teacher work?

S: Public School.

G: Special school for children with emotional and social disorders

What kind of profession does the teacher have (for example: regular education, special education, ...)

S: Special Education and Hearing and Speech Teacher.

G: Degree of Special education for behavioral disorders (emotional an social development)

Is the teacher alone in the classroom or does he/she have a second teacher on his/her side (or a social worker, ...)?

S: There is always at least one second teacher in the class. Likewise, two social pedagogues are permanently assigned to the class and in the adjoining room.

G: Alone in the classroom and attend to students with needs or supports students with needs in the regular classroom.

Are there behaviors of students with ASD in school that are particularly challenging or difficult? Do they have certain recognizable triggers?

S: Depending on the type of ASD. Some students do exhibit aggressive or defiant behaviors often. Others only defiant behaviors often, but others manifest them only on some occasions. There are also students who do not display any of these behaviors. Some of the most recognizable triggers for them are: approaching the school, the classroom, the mother leaving the classroom, being asked to perform school tasks, not being allowed to perform the behavior she wants, attention being withdrawn... Because they have difficulty understanding other people, what is happening around them and extreme sensitivity to different stimuli and extreme sensitivity to different stimuli. The triggers are usually unplanned changes in routines, unanticipated changes in routines, activities or environment, the presence of unfamiliar people, loud noises or bright lights, In general, any stimulus that is different from what you are used to.

G: Students with autism often exhibit difficult behaviors, but these occur in all students at an emotional and social development school one way or another. Behaviors are particularly difficult if you do not yet know the students so well and, for example, tantrums occur for no apparent reason. If you know the students

better and know what they need, you can intervene more quickly. Also, things like stereotypes or special interests, which then let the student talk permanently about the same topic, are known at some point and you can adapt to them. Weaknesses in learning behaviour and when working in the classroom can also be identified and taken into account.

Are there methods that are applied to avoid triggers so that challenging behavior does not occur in the first place? If so, what helps? What exactly do you need (e.g. do you have enough resources to handle critical situations in the classroom?)

S: For these students the fundamental method we have to use is anticipation. The student has to know at all times what is going to happen, what he/she has to do, when he/she starts and when he/she finishes the task, etc. The sequencing has to be clear and all the tasks have to be fulfilled, when the task starts and when it finishes,... The sequencing has to be clear and all that is programmed has to be fulfilled. The same applies to challenging behaviour. In this way teachers will prevent these behaviours from occurring or at least they will be less frequent. In any case, there are changes that cannot be foreseen, such as, for example, when a classmate takes an object, shouts, hits something,... and this can trigger these behaviours. The methodology followed in the ASD classroom and the strategies we use will depend on the type of pupils. It is the result of both the teacher's knowledge of autism and the daily experience working with them (which is where we learn the most). The strategies that work to control these situations, manage and extinguish these behaviours are also created by each teacher and adapted to each student. In the ASD classroom, we use pictograms to communicate, so that they can understand the information and anticipate the situation. that is to say, so that they know the order of the tasks, activities, routines,... so that they can understand what they have to do, when it starts and when it ends, thus avoiding, to a

large extent, the appearance of aggressive or defiant behaviours and increasing their understanding and increasing their understanding and performance. This entails, as well as a calm, safe and non-improvisational environment.

G: As for the triggers, they vary from student to student. Typical are, for example, situations in the class, when it is suddenly loud or aggression occurs. Then it can quickly come to sensory overload and the student is absolutely overwhelmed, puts the blanket or sweater over his head and is no longer responsive. Behaviors such as crawling under the table and wanting to build a "protective tunnel" can also occur. What can also be a trigger are physical symptoms such as illness, pain or simply fatigue. Then everything is often "far too much" and nothing works anymore. Every now and then there are also small situations such as a change in the daily routine, a postponed break, a different snack and so on. Equally difficult are trips to the school country home or excursions, which sometimes do not take place or have to be interrupted for the student.

What is done if challenging behavior nevertheless occurs?

S: People with autism learn by association, so if aggressive or defiant behaviours occur, we use extinction techniques to eliminate them. The extinction technique consists of taking away something that he likes, something that we normally use as a reinforcer when his behaviours are reinforcer. Also, when his behaviours are appropriate and when he works appropriately the person gets positive reinforcement. By taking away this reinforcer (negative reinforcement), the intensity of the aggressive behaviours will decrease, as they will associate aggressive behaviours, as they associate: "I have done well, I get something I like, I have done badly, they take away something I like". Another strategy is changing the context that has generated the defiant behaviour, go out to the playground, go for a

"walk", in this way the pupil can forget his "anger" and return to normality. It is an attempt to not to pulse the child. Consequently, in extreme cases of aggressive behaviour towards other children or teachers mechanical restraint is used to avoid harm to the person and the others inside of the context.

G: Here it is very important to know the student well and to know what he needs. This must also be discussed with the students beforehand and the parents must be initiated into it. Helpful measures can be a rage ball, a retreat with blankets and balls and pillows, certain smells or even a cold washcloth. It is always important to help the student step out of the situation, best to remove him from the class so that he can calm down again. You should avoid talking even more to the student or somehow overwhelming him. Calmly freeing himself from situations and supporting him – without reproaches or the like – is the most important thing.

Do students with ASD experience more exclusion situations or similar difficulties? What do you do in these kinds of situations and what helps?

S: Yes, their integration is more complicated, as they have great difficulties in social interactions, communication, interacting with their equals due to difficulties in understanding and expression, etc. This leads to a general rejection because people's reaction is to avoid them. When it comes to entering the world of work, there are people with ASD who are competent to perform some jobs, but most people with ASD are not. There are cases in which people with ASD cannot do any job at all: it will depend on the characteristics and abilities of each person, on the characteristics and abilities of each individual. What really helps the most is that they get to know each other from infancy, as acceptance from childhood is more likely to happen as they grow up.

G: It is difficult to say that students with autism of all people experience exclusion situations or bullying when working at a school for emotional and social development. There are so many different disorders here that many students attack each other or exclude each other. What is striking is that students with autism often need their withdrawal and are overwhelmed by social situations. Especially when it gets "loud", there is an overstrain and the students withdraw from the action. However, it often happens that the students make certain comments, for example, and the classmates are irritated and "attack verbally". These situations make it difficult for the affected students with autism to connect or endure some situations.

When is it necessary to cooperate with parents of students with ASD?

S: Family-school cooperation is very important at all times, parents often need guidelines and advice and it is essential that the rules that are worked on in the school are applied in the same way in all contexts, especially in the family. Collaboration and coordination with the familiar context is extremely important, as due to the characteristics of these pupils, the daily routines, work and communication, it is necessary to know characteristics of these pupils, daily routines, work and communication have to be carried out in the same way. On the other hand, the family may need support from the school and cooperation if they have been given external guidelines that the school should be aware of (psychological, paediatric, psychiatric, etc.) always. From the very first moment the connection should be real parting from interviews or any other way to find out what their needs are and what methodology works with the child, learn from the tools that parents give us so that we do not start from scratch in the centre. Family - school cooperation is essential as no one will know the child better than the parents.

G: Cooperation with parents is always important in any case. Parents must be

involved in school activities. Likewise, the support must also happen at home and not only at school. Teachers also have to cooperate with parents simply because they know their child best and can tell them what they need and what peculiarities they have, what kind of homework they can cope with, and so on. Advising each other on methods and measures and giving feedback (this was also very important in the situations of home schooling, for example), is always and everywhere absolutely important. It doesn't work without it.

What do you wish for the future work? (at school?)

S: Try to achieve the effective inclusion of this type of students, to find an effective method that helps them to face without problems the social relationships so important to improve their cognitive development. This could be possible with more theoretical and practical knowledge spread through the different teachers in academic institutions and, moreover, through the general society.

G: First of all, it is important to check exactly what the student really needs. Every autistic person is different and only the diagnosis alone says for a long time that, for example, headphones for hearing protection or a rest room are the right methods. Even visualized support, for example in the context of the TEACCH approach, may be helpful for one student, not for the other and confuse him even more. For future work, it would be important that disorders such as autism are taught to all teachers – regardless of the type of school – in further training courses or already during their studies. Well-founded specialist knowledge cannot only be left to the MSDA or special education teachers. It fails especially in mainstream schools because the teachers often have no idea which students are actually sitting in front of them and what it means to be "autistic". Likewise, the decision for the right type of school should be decisive. Here at the school, it was the case that the

autistic student came to my class, but they consist only of boys with behavioral problems and great aggression. This irritated the student even more and triggered situations that should have been absolutely avoided. Therefore, the decision to put the student here at school was not the right one at all. These students should and should be given more consideration and they should be taught in an appropriate, quiet learning environment with well-trained professionals. More education and more opportunities to address these students would be absolutely essential.

Interpretation of results

The survey of the teacher pointed out that teachers – in this case at special schools – have a lot of commitment and competence when it comes to schooling students with autism. Methods for structuring, stimulus reduction and the consideration of individual support needs are used to prevent challenging behaviors on the one hand, and to deal with them when they do occur on the other. Likewise, the teacher clearly points out that it is incredibly important to really know the student – not just to take the stamp of the diagnosis as orientation. Nevertheless, there is still a great need for schooling and support for students with autism.

There is a lack of expertise and understanding at all corners and edges. Especially teachers at regular schools are overwhelmed with the affected students or do not know who they really have in front of them and how they can help. There is still a lot of work to be done here for the future – both at schools, as well as at universities and in politics.

This is also confirmed by the survey of the parents from both countries: On the one hand, it shows how individual children with autism are. Habits and needs that you didn't really have on your radar before. Methods also help – and in addition to methods such as structure or school support, there is one thing above all

needed for the child: affection, attachment and understanding. Autistic people are not loners – they need people, their families, attentive teachers and other specialist staff. The interview also pointed out to me the same problem that recurs again and again: Parents of affected children often do their best, align their entire lives with it, and receive little understanding in the environment. Society knows so little about autism that it clings to clichés and film characters to the maximum. Why can't more enlightenment be done here? In the media? In schools? In further training? Why does this ignorance still prevail? Even if the Autism Network in Germany works absolutely competently and works great – the majority of society often does not know what we mean when we talk about autism.

Conclusion

There is a lack of literature relative to caregivers' perspective regarding this topic in the research field so the gap is seen as an unknown domain (Pinchover & Shulman, 2016, p.645). This could be an interesting conclusion summed with the fact that there is an unclear sight about which educational practices are efficient in controlling challenging behavior.

Some research found punishment, function-based reinforcement interventions and antecedent-based interventions as efficiency strategies but the reality is that these interventions in school context remains unclear. So again, with the information above, the main conclusion is that further study is needed in this field.

In relation to strategies with further study and research behind, prevention is considered one of the most commonly used in the school environment. Previous interventions might be best suited to this environment as they are not as intrusive and may take up few resources in the classroom. Prevention also serves to prevent challenging behaviour from occurring in the first place, which also leads to higher

acceptance among school staff. Students who received these interventions also reported that they were acceptable.

In addition, teachers and school staff were predominantly the primary implementers. They were also able to use the interventions with other students in the classroom.

According to the results of the studies, function-based interventions can already be established in vocational training for teachers and other specialists who work with pupils with autism spectrum disorders in vocational training (Rivera, Gerow & Kirkpatrick, 2018, p.13f)

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Strategies the teachers can use to overcome critical situations in the classrooms

Lara Sánchez Méndez and Nora Tabea Styrsky

Abstract

In the world of education, it is important to know the diversity that can be found in a classroom. Among these students we could find autistic students. Important aspects to overcome critical situations that may happen are knowing about the distinction of these students, also about challenging behaviour and its reasons, and the stressful situations. In addition, the behaviours and strategies to overcome those situations.

It is not yet known which are the best or worst strategies with certainty. In this way, this article gathers the strategies most used by teachers in Spain and Germany. A study using an online questionnaire as an instrument was carried out, specifically with a sample of teachers from both countries. The interpretations and discussion between each country are really interesting, there are differences but also similarities.

For easier understanding: It's always written in the masculine form (he/his) and never she/her etc., but that includes of course every time also women and girls.

Keywords: Strategies; Critical Situations; ASD

Introduction

Every behaviour has a good reason, so the challenging behaviour of autistic students has a good reason too. In this context, the students are often emotional, mental or cognitive overtaxed, the stress is too big (Meer-Walter, 2021, p. 88).

That causes the loss of self-control. Trying to get self-control back, the autistic students behave in a way, that outsiders declare as challenging behaviour (ibd.).

According to Theunissen (2021, p. 161), this challenging behaviour of autistic students can show itself in many different ways: refusing the collaboration in the lessons; ignoring instructions of the teacher; bad focusing; tantrums; leaving the working place without permission; running around in the classroom; annoying and disturbing the classmates; showing the stereotypical behavior; self-stimulating or self-injuring.

He also differentiates between four types of stress reactions (ibd., p. 144ff.):

- Simple reactions, like: Screaming loudly, running out of the classroom, hurting others, destroy objects or self-injury-behaviour
- Physical symptoms, like: sweating, breathing faster, increased motored movements, stereotyped movements
- Meltdown: a short, intense and hardly controllable outburst of rage
- Shutdown (often after a meltdown): psychically cut oneself off / social retreat with stereotype movements, emotional stiffness and/or not-being-open-to-conversation

Important to notice is, that these challenging behaviours or stress reactions, like it is described above, are not autistic symptoms. Autistic behaviour results from autistic characteristics (ibd., p. 166) – like perception-,

emotional- and intellectual characteristics, difficulties in the executive functions, etc. This autistic behaviour is not always a deficit or does not always need a therapy, it is a manner to handle with the stressful situation (ibd.).

Only if this behaviour does not correspond to the social norms, it will be described as challenging behaviour (ibd.).

Reasons of challenging behaviour

Before explaining stressful situations, it is important to go back to the reasons of challenging behaviour more in detail.

Important is, not to see the challenging behaviour and stress reaction only as a problem of the person, but as a disturbed relationship between the individual and his environment (ibd., p. 161).

The autistic students try to overcome these dysfunctions of relationship or interaction, in a way that makes sense for them (ibid.). The problem is that the solutions from autistic students often are not socially accepted, in accordance with the norms, or like the expectation of others (ibid.). The persons of the environment, declare this behaviour as odd, deviant or challenging behaviour (ibd., p. 162).

Stressful Situations

The persons with ASD have often to cope with the overstimulation in stressful situations – which relatively often end up in so called meltdowns.

When autistic persons have less control over their surroundings their challenging behaviours appear to reduce the stress. In summary, stressful situations happen in places where there is a lot of noise and people. Some examples are: Changes in their routines, traveling with family or friends, having a shower, going to the hairdresser, going to a shopping center, etc. Even at school, in this case there are moments in which there is a lot

of noise and it is important to know that they might have the capacity to do everything but it can be reduced by the stressful situations. (“M de autismo”. Las alumnas de la escuela Limsfield Grange y Vicky Martin. La estrella Azul. Autismo Ávila. 2016).

According to the latest research, 98% of adults with ASD said that stress was the major problem for them, and that it was difficult or impossible for them to find an appropriate treatment for it.

“Our study confirms that stress has a huge effect on health, especially mental health, social relationships, education and work. Parents told us that stress has led to family disintegration; people with autism told us that it governs almost every aspect of their lives” (Richard Mills, 2017).

Strategies the teachers can use to overcome critical situations

Recent literature suggests the following strategies the teachers can use to overcome critical situations:

- **Appearance and content of conversation**

To overcome critical situations with autistic students, it is important to appear calmly, because the own strain and stress would spread to the autistic student fastly (Vero, 2020, p. 133). For not overflowing the student with informations, it is important to speak in short, easy sentences (Reufel and Soll, 2021).

Using pictograms, if-then-signs and explaining the student the expected behaviour can also be a good strategy to deal with the challenging behaviour (ibd., p. 108). Intervening in a paradoxical manner, like staying humorous or irritating the student with rituals, can be helpful too, because if the autistic student laughs, the amygdala cannot send fight-, flight- or immovability-reactions (Vero, 2020, p. 56). Furthermore, the teachers can: speak to the

pupil quiet and slowly and look at him; to provide an environment with great structure and human warmth.

An important aspect is also to try to anticipate the changes that are going to take place in order to avoid critical situations. And finally adapt the demands to the levels of development.

It would be an inappropriate behaviour if the teacher uses all authority, like standing in front of the student or maintaining direct eye contact to make clear, that the behaviour of the student is not appropriate and allowed, because eye contact would activate introspection or others-perceptions and that could lead the student to self-confrontation (ibd.; Reufel and Soll, 2021, p. 108).

- **Handling with the student:**

Important is to give the autistic student the time he needs to calm down, only then, he can react adequately to the environment (Vero, 2020, p. 57). Therefore a safe room / retreat room could be helpful (ibd., p. 103), the opportunity to release his accumulated frustration in a safe way (ibd., p. 255), or give the student to possibility to use his self-help-strategies (Theunissen, 2021, p. 155). Also concentrations- and relaxation exercises can help the autistic student to calm down (ibd., p. 156). Clear rituals can give the autistic student an orientation in these critical situations (Zöttl and Diestelberger, 2018, p. 154).

In a meltdown or shutdown, physical interventions or appeals to the student to stop would not help in this situation but rather exacerbate it (Theunissen, 2021, p. 146).

- **Own behaviour:**

During a meltdown, it is important to get yourself and others to safety and clear away things that could be used as weapons (ibd., p. 145).

In critical situations it can be helpful to look for external help like colleagues, school management, school support staff, etc. and try

to identify and reduce the stress factor (Vero, 2020, p. 55f.). A good strategy, if the stressor cannot be brought out of the room, is to bring the student out of the room (ibd., p. 56), so it is not always good to clarify the situation at the place where the challenging behaviour took place.

Also closing the door during a meltdown is bad, because outside the autistic student can let off steam easier (Theunissen, 2021, p. 145).

- **Using of programs:**

There are many programs for prevention and intervention of critical behaviours, like TEACCH (1996) - Treatment and Education of Autistic and related Communication Handicapped Children. This program provides space and time with a structure.

In the program ESDM: Early Start Denver model (Rogers and Dawson, 2000) the main idea is, to integrate ADS children and develop their abilities.

The last program is ABA: Applied Behaviour Analysis (Lovaas, 1973). This one consists of modifying the behaviour through the reward and punishment.

Methods

In order to answer the following research question: "Which strategies do German and Spanish teachers use to overcome critical situations with autistic students?" an online questionnaire have been used.

The teachers in Spain and Germany received the questionnaire in their native language, and they could answer the question at any desired time.

Furthermore, the link to the online questionnaire could be spread easily, so it was easier to reach more teachers in very short time.

Sample

15 Teachers took part in online survey – 10 from Germany and 5 from Spain.

German teachers (n=10) worked in different types of schools:

- 2 special education teachers
- 1 teacher working with autistic pupils in all three types of school (regular school, inclusive schools, special needs school)
- 1 (regular?) teacher in an inclusive school
- 6 teachers worked in a regular school.

Spanish teachers (n=5) all worked in inclusive schools.

In Spain most of ASD students attend regular classes. Unfortunately, only three questionnaires from the Spanish teachers could be processed.

The pupils of the Spanish teachers were all about three to nine years old.

The pupils of the German teachers attended the grade one till 12 (age 6-18):

- 2 special education teachers worked in grade 1, 1A, and 2
- 1 teacher in the inclusive school worked in grade 1
- 1 teacher who works in all types of school worked in grade 1 -10
- 6 regular schoolteachers worked in grade 5 till 12.

As the pupils of German teachers were much older than the Spanish pupils it could be important, because it can influence how the critical behaviour is being perceived by the teachers as well as how they deal with it (what strategies they choose).

Instrument

The online questionnaire started with the general information (grade; degree of teachers

training usw) and proceeded with the questions on challenging behaviours the teachers experienced by their pupils with ASD; about strategies; dealing with the student and finally about their own behaviour.

The last part of the questionnaire, included a specific question about programs and strategies.

Finally, the teacher could give an open end answer about the behaviours they have seen and the strategies they have used.

Process

The research has been carried out using the application google forms. Once the questionnaire was prepared in English, it has been translated in German and Spanish. The last step was sending the link to questionnaire to the subjects of the study: teachers in both countries.

Data Analysis

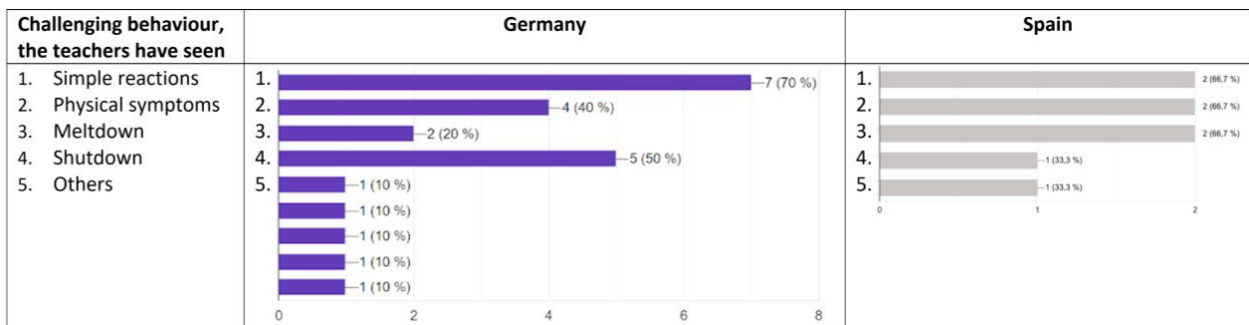
Google Forms was used to process the data – this software allows an easy way to create the diagrams for the analysis. The answers were compared with the recommendation of the described literature. To answer the research question, the diagrams had to be compared in a second step.

Results and interpretations

In this chapter, the results will be at first described objectively.

The diagrams show the percentage of teachers who answered to question. The open answers will be given in a narrative form. In a last step, the results of the German and Spanish answers will be compared to each question.

Graph 1. Challenging behaviour, the teachers experienced by their pupils so far:



Germany:

Additionally to the answers that can be seen in the Graph 1. the German teachers referred about following behaviours as well:

- the student did not do the whole task if he did not know one detail;
- the student was extremely fixed on following the rules;
- the student giggled and laughed at others and had motor tics.
- the student sang and spoke repetitive words,
- sometimes refused to work, and had the difficulties in the morning to separate from the father.

An interesting result in relation to German teachers was that more teachers saw shutdowns (5 from 10) than meltdowns (2 from 10). Usually the meltdowns are more noticeable. Presumably the students try to find a socially adequate way to deal with the stress and that is in a school context rather a shutdown than a meltdown.

Spain:

Additionally to the answers that can be seen in the Graph 1. the Spanish teachers referred about following behaviours as well:

- the students have problems and immaturity in fine and gross motor skills.

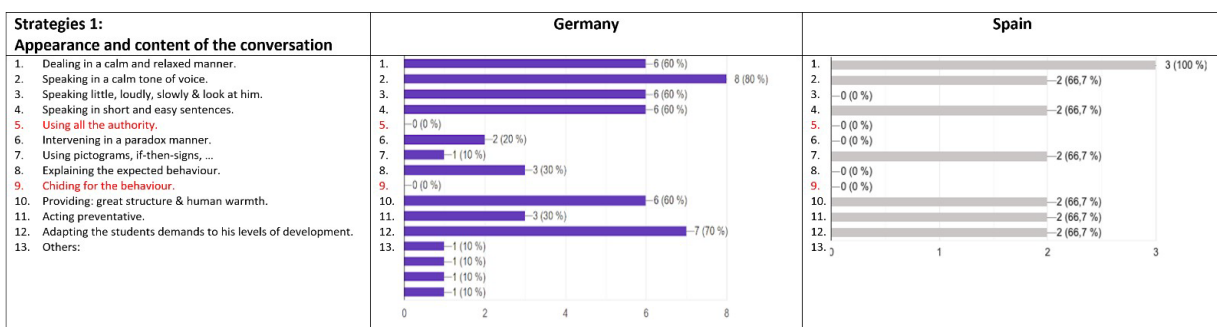
What is interesting regarding the graph is that all teachers have chosen the three first answers and also, they saw more meltdowns than shutdowns.

International comparison:

If we compare both countries, we can see that in Germany it is really different how often things were seen, while in Spain it is more similar and teachers selected the same answers.

Besides in Germany the teachers saw more shutdown than meltdown when in Spain it was quite the opposite.

Graph 2. Strategies 1: Appearance and content of the conversation



Germany:

Additionally to the answers that can be seen in the Graph 2. the German teachers referred that:

- they provide a structured environment preventively.
- some ignore the behaviour of the student but show him that he is nevertheless accepted, he also integrates the student more in group interaction (this answer comes from a special education teacher).
- they interact with the student in the critical situation in a right way,
- none of them interact in an inappropriate way, like using all authority and teasing the student for his behaviour.

The two mostly used strategies to handle the situation are:

- item 2 (speaking in a calm tone of voice: 8 from 10 teachers) and
- 12 (adapting the students demands to their level of development: 7 from 10 teachers).

Interesting is, that regular school teachers have this competence to adapt the students' demands to their level of development too and not only the special education teachers - even though they have quite more students and cannot know them that well like special education teachers who have only one class with few students.

Spain:

There is a clear preference of the first item "dealing in a calm and relaxed manner", this option have been chosen by all teachers from Spain.

The other options are well-balanced, and most of the teachers have preferences for the same strategies. None of the teachers selected the inappropriate strategies, but they did not select some of the good ones.

An interesting aspect is that no one selected the third item "self-help strategies", which is a specific strategy that is written in most of the Spanish articles related to preferred strategies and intervention with ASD students.

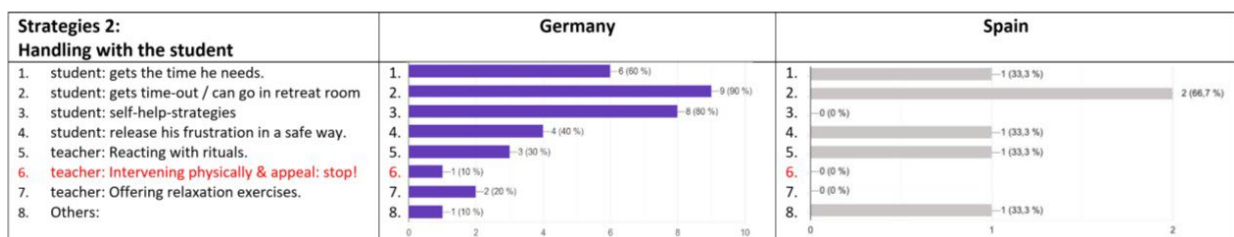
International comparison:

Some differences in the number of selections of preferred and inappropriate strategies, can be seen in the comparison of both countries.

In Germany all preferred strategies are selected and none of the inappropriate strategies was selected. In Spain not all of the preferred strategies were selected and as in Germany none of the inappropriate strategy was selected.

The similarity between the two countries can also be seen. This similarity is in the strategies regarding the way of speaking – those were equally most selected by the teachers in both countries.

Graph 3. Strategies 2: Handling with the student



Germany:

Most of the teachers deal with the student in a right way – only one teacher interacts physically and appeals to the student he has to stop (Graph 3.).

This answer comes from the teacher who is working in all types of schools.

9 from 10 teachers give the autistic student a time-out / let him go on retreat. 8 from 10 teachers make it possible that the student can use his self-help-strategies.

Interesting about these results is, that also in the regular school the teachers have chosen these structures even if there are not any special retreat rooms provided only for critical situations.

It would be interesting to know how the teachers in regular school organize this if there is actually “no room” for that.

Spain:

If one considers the answers of the Spanish teachers (Graph 3), it could be seen that the most common answer was the one referred to the second option (“gets time-out”).

One teacher referred that he gives the student sensorial material like gel balls. That could be a good strategy, one did not think of.

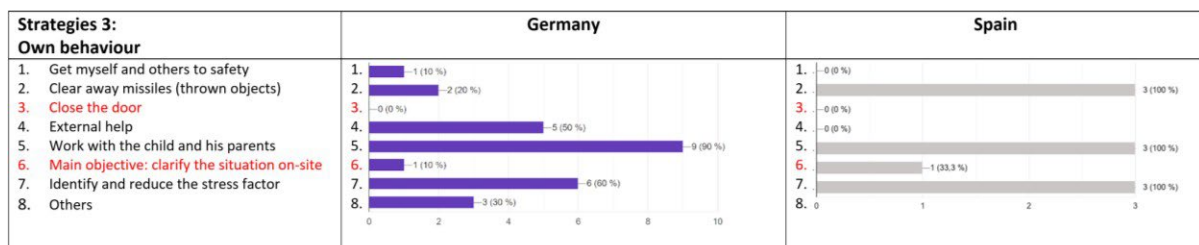
International comparison:

Similar in both countries is that the second answer is the most named answer.

A difference is that the bad strategy is one time named in Germany but in Spain not.

Also differently often named are the good strategies: in Germany all good strategies are named, but in Spain some are not named.

Graph 4. Strategies 3: Own behaviour



Germany:

Nearly all of the teachers behave in the critical situation appropriately (Graph 4.) – no one closes the door and only the teacher who works in all three types of school said his main aim is to clarify the situation at the place where the challenging behaviour took place.

9 from 10 teachers said they would work together with the parents and the student. 6 from 10 teachers said that they try to identify and reduce the stress factor. Those teachers who did not say that they try to identify and reduce the stress factor are all regular school teachers.

So, in this sample the special education teachers have a higher competence, but for teachers who did not learn anything about ASD in the university it is good, that more than half of the regular school teachers know this important strategy.

5 from 10 teachers said that they get external help. That is quite a big amount and shows that lots of teachers know that their work is teamwork and behave accordingly.

Spain:

Regarding the results of the Spanish teachers (Graph 4.) it is necessary to focus to the answers that has been chosen the most often:

All the teachers have chosen following topics: Topics 2 (clear away possible “weapons”), 5 (work with child and his parents) and 7 (identify and reduce the stress factor), meaning that every teacher thinks that those strategies are good.

On the other hand, the answers 1 (get in safety), 3 (close the door) and 4 (get external help) have not been selected by any of the teachers. The item number 3 is considered an inappropriate strategy anyway. However, the others are good strategies they could use to overcome the situations in the class.

International comparison:

Inappropriate strategies (closing the door and clarifying the situation on-site as main objective) - both inappropriate strategies are selected equally frequently.

The answer 3 (closing the door) have not been chosen by teachers in both countries and the answer 6 (clarify the situation on-site as main objective) was selected once in both countries.

Good strategies:

In contrary to Spain, in Germany, all appropriate strategies have been selected.

The frequency of the similar answers:

5 (work with the child and his parents)

→ G: 90%

→ S: 100%

7 (identify and reduce the stress factor)

→ G. 60%

→ S: 100%

Completely different answers have been found by the answer 2:

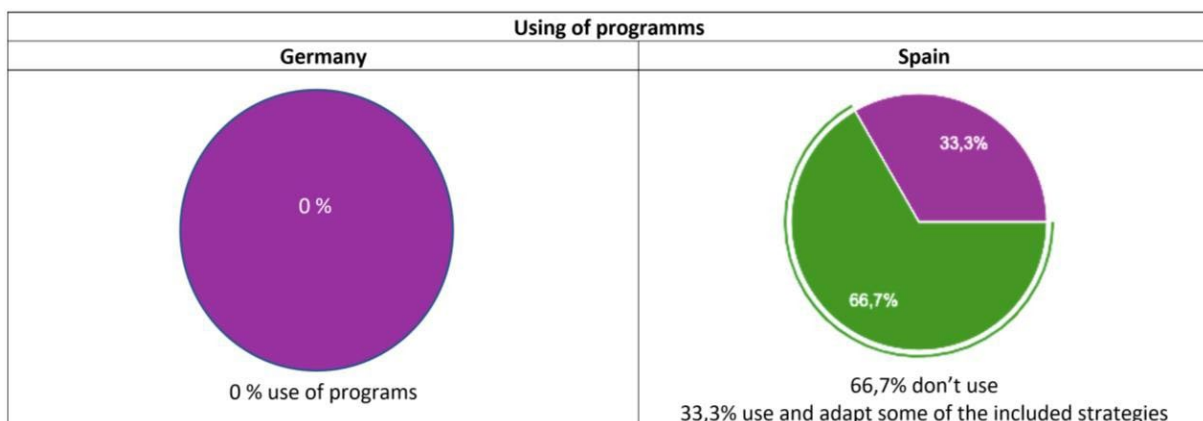
2 (clear away possible “weapons”)

→ G: 20%

→ S: 100%

An interpretation of this different picture could be that in Germany only a few teachers have seen meltdowns, so this strategy is not that important for German teachers like for the Spanish teachers who have seen a meltdown quite often.

Graph 5. Using of Programms



Germany:

None of 10 teachers use an official program – neither one of the named (TEACH, ESDM or ABA) nor others programmes (Graph 5.).

Interesting is, that not even the special education teachers use some programmes.

The questionnaire was sent to teachers from a special pedagogical support center but not to teachers from a school specially for education support – maybe the teachers who work there would use more strategies offered within these official programmes.

Spain:

As seen in the Graph 5. two teachers use a program, but only a part of the strategies explained in the programs and not a specific program.

It would have been interesting to know what strategy and what specific program the teachers use.

Description of a critical situation and use of strategies in this situation

Germany:

Two teachers did not describe a critical situation and their use of strategies, because they said they have not seen such challenging behaviour in their classrooms. All the other teachers described either only the situation, or their strategies or both of it.

The teacher who works in all three types of the school described the most critical situation of all teachers: a student threw objects through the classroom, so the teacher had to protect other students. An additional adult who is always nearby the autistic student go with him in the retreat room in such cases. Only when calmed down again and if he can adjust his perception to the group adequately, he is allowed to return to the class.

The special education teacher who has the student who giggles frequently, brought the strategy in of bringing the student out of the “funny” situation in order to calm down.

A regular school teacher described a situation wherein the autistic student could not write a book-entry in the predetermined time. As a reaction he cried, shouted, licked the sole of his shoe, clung to the table and was not open to conversation. So, the teacher got help from colleagues who went out with the rest of the class. Being alone with the autistic student, the teacher gave him his agreed picture specially for situations like this.

Comparing these three answers, one can see that in two of the situations the teachers got external help, and all teachers separated the group from the autistic student. But the way of critical behaviour of the autistic student influenced the way of separation - if the autistic student goes out of the room or the class.

Two regular school teachers described difficulties with school grades. One explained only that the test situation was difficult, but not how he deals with the situation. The other explained the handling of difficulties in oral communication - instead of oral school grades, the student gets more written marks – also with time penalty.

The last regular school teacher explained, that the critical behaviours often are in open situations, like before the beginning of the lessons or in the breaktime.

Spain:

Only one teacher answered the open question. He wrote:

“Stop socially incorrect behaviors. Provide alternative behaviors, social stories to understand the situation, work on social skills to know which are the socially appropriate behaviors and which are not.” As we can see he focuses on social competence and nothing else.

International comparison:

In Germany the teachers described critical or challenging situations regarding the communication, tests and grades in school or open situations. Explaining the strategies, they use to overcome the critical situation, they often point out to external help, retreat room and separation from the class.

In Spain, only one answer - describes a completely different strategy - supporting the student to learn social competence, which is a preventive strategy and named by none of the German teachers.

Discussion and conclusion

In the following, it is important to say, that – due to the small sample this research is based on – the results of this study could not be considered representative and can only be counted as preliminary investigation.

Before answering the research question “Which strategies do German and Spanish teacher use in comparison to overcome critical situations with autistic students?”, it is important to point out to the diversity of the answers by the German teachers in comparison with the answers from Spanish teachers, which were a quite similar. This result could also influence the answers related to the used strategies.

Therefore, a further study is recommended in order to find out, how far the perceived challenging behaviour influence the strategies the teachers use to overcome the critical situation.

Regarding the results related to the strategies it was interesting to see the difference between usage of appropriate strategies in dealing with critical situations between Germany and Spanish teachers. German teachers selected each of the appropriate strategies at least once in comparison with Spanish teachers, who selected less strategies.

At this point, it would be interesting to know, if in Spain the teachers actually do not use some strategies at all or if a larger-scaled and representative study would get different answers.

In the first section of strategies (Appearance and content of the conversation), the Spanish and German teachers both named the strategies regarding the way of speaking to ASD student as very important. In the second section of strategies (Handling with the student), the most selected strategy of both countries was to “give the autistic student a time-out / let him go on retreat”. Interesting about these results is, that also in the regular school in Germany the teachers have chosen these structures even if there are not any special retreat rooms provided only for critical situations. It would be interesting to know how the teachers in regular school organize this if there is actually “no room” for that.

Even if the programs like TEACH, ESDM or ABA are well-known and often addressed in the literature as good strategies in working with student with ASD, none of the German teachers in our sample use them in the practice. In Spain, as well, some teachers use only parts of the programmes. It would be interesting to find out, why teachers are not using these scientifically proven efficient programmes in working with pupils with ASD.

According to the results of this study, it can be concluded that the German and the Spanish teachers both use lots of good strategies to overcome critical situations. They also seem to understand, that there is no a single “receipt” to follow and although there are a number of strategies which have been proven to be successful, a careful analysis of the pupil’s learning needs must have taken place to understand how ASD will affect each individual pupil’s perspective, motivation and preferred ways of working. There are no two pupils with ASD who will be exactly alike. Therefore, it is imperative for educators to develop effective intervention strategies for students with ASD.

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TEACCH

Melanie Wellenhofer

Abstract

Autistic pupils have special characteristics in their perception and thus also in their learning behavior. They require support tailored to their individual needs in order to acquire important basic skills that, unlike students without autism, they are often unable to acquire on their own. Because autism is a complex disorder, there is no single approach to meeting the needs of all students with autism. In the context of treatment approaches for autism, TEACCH has been increasingly promoted on the international level since the 1990s. The special strategies and methods developed in North Carolina as an educational support for people with autism - especially forms of structuring and visualization - are often understood only as a method. However, TEACCH is a lot more than just a method. TEACCH is a comprehensive educational-therapeutic approach to supporting autistic individuals. This paper aims at introducing the TEACCH approach and to what extent it is implemented in schools in Germany. For this purpose, an online survey was conducted. Based on the results, it can be concluded that teachers have little to no experience with TEACCH and consequently one can presume that there is little to no use of the approach in the classroom with autistic students in this study sample.

Keywords: TEACCH; Structuring; Visualization

Introduction

Autism is defined as a profound developmental disorder characterized by qualitative impairments in interaction and communication, stereotyped and repetitive patterns of behavior (WHO, 2008). Autistic people perceive the world in a different way, they see, hear and discover the environment differently than people without autism are used to. Consequently, they also learn differently due to their different perception. Cognitive theories investigating the mechanisms that underlie these deficits include the Theory of Mind (ToM), the Executive Functions (EF) theory and the Weak Central Coherence Theory (WCC). All those who can understand this difference, can create a good learning and living environment for persons in autism spectrum.

Theory of Mind (ToM) is the ability of the individual to attribute such mental states as beliefs, intentions, desires and pretense to themselves and to others and the ability to appreciate that others may have different beliefs, intentions and desires from their own (Mitchell, 1996). These abilities are of the utmost importance for learning and development as people are constantly trying to deduce the emotional and mental states of other people, and it helps in self-organization and self-regulation, as well as in the behavior management of others. It has been claimed that this difficulty to “mentalise” is responsible for the failure of individuals with ASD to engage in “normal” social interaction (Rajendran & Mitchell, 2007).

“Executive functions” is an umbrella term that includes a wide range of cognitive processes and behavioral skills. It comprises such functions as planning, reasoning, memory, impulse control, inhibition, cognitive flexibility, initiation and monitoring of action, problem-solving, the ability to sustain attention and the ability to deal with novelty (Elliott, 2003; Hill, 2004; Chan, Shum, Touloupoulou, & Chen, 2008).

Deficits of executive functions in autists may explain some behavioral signs of autism, such as rigid behavior, need for sameness and inappropriate response to social situations.

Weak Central Coherence theory claims that individuals with ASD tend to process information in a detail-focused way, at the expense of global meaning (Frith, 1989; Frith & Happé, 1994). The original WCC theory has not been confirmed and the modern trend is for autism to be considered as a multiple deficit (Pellicano et al., 2006; Rajendran & Mitchell, 2007), combining the three aforementioned theories.

Autism spectrum disorders are also complex and manifest in a variety of observable phenomena. Therefore, the instructional strategies must be adapted to those individual needs of the student, taking into consideration available resources (e.g., support from a teacher), and the general conditions of the school environment.

Organising the school life according to the special needs of autistic pupils involves usually some "special challenges".

Autistic pupils have special characteristics in their perception and thus also in their learning behavior. They need support that is tailored to their individual needs in order to acquire important basic skills that, unlike pupils without autism, they are often unable to acquire automatically.

Considering autism a complex disorder, there is no one single approach to meeting the needs

of all pupils with autism. In this study we aim at introducing TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) as one of the comprehensive educational-therapeutic approaches to supporting autistic individuals.

The TEACCH approach (today: TEACCH Autism Program) was developed in 1972 by Dr. Eric Schopler in North Carolina (USA) and is now known in many European schools and other social institutions. This approach focuses on the people who show a special need for structuring, which could result from difficulties to plan actions, to control impulses and to react flexibly to changes in the situations.

Therefore, are objectives of TEACCH to support understanding; independence; communication and flexibility.

The approach points out to 7 important principles that underlie the pedagogical work (cf. Degner et al. 2011):

1. *Understanding the typical difficulties of people with autism* - the starting point of support is knowledge about autism and the application of theoretical models to understand individual behavior.
2. *Individual diagnosis and support* - the whole support system is tailored to the individual client. This includes individualized goals, materials, and approaches. Systematic support is provided, recorded, evaluated and goals are further developed.
3. *Cooperation with parents and family* - parents and other caregivers are considered the most important supporters of the child. Accordingly, goals and procedures are based on the needs and possibilities of the parents or other supporters.
4. *Optimizing the child's ability to find his or her way in the world in which the person lives* - the

focus of support is on successful mutual communication and understanding. The goal of the support is the greatest possible independence and self-determination.

5. *Holistic nature* - the neuropsychological characteristics associated with autism are taken into account and the environment is structured and visualized to a special degree according to these needs.

6. *Competence orientation and respect for differences* - the support is based on existing developmental approaches and builds on existing abilities. People with autism and their lifestyles are treated with respect.

7. *Structuring and preference of cognitive approaches and learning theory* - structuring and visualization form the framework for a support concept that is open to methods and is applied in various areas of life.

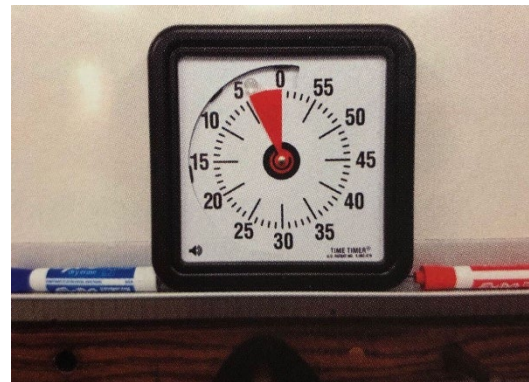
The support of the students takes place within the framework of fixed structures: in the room (where?), in the time (when, how long, what order, what comes after?) and in the activities (what, how, with what?).

Structuring the room considers making the physical boundaries, markings, pictures and other implementations.



Workspace with a written task plan (Häußler, 2005)

Structuring of time means making “the time concept” less abstract and “visualising” the beginning, end and duration of an event, sequence of events, first-then structure, daily structure and further implementations.



Time Timer (Häußler, 2017)

Structuring the work tasks and daily activities means organization of the workplace and materials, finished basket, shoebox-, box-, tray- and folder-tasks, structuring of everyday actions and further implementations.



Shoobox-task (Solzbacher, 2011)

Practicing routines means routines that facilitate work processes and action sequences, from left to right, from top to bottom, check off after work is done or stick them away and other implementations.



Stick it away "Morning Routine"-Plan (Morning-Routine-Plan, 2018)

A number of effectiveness studies have been conducted about TEACCH, both on the overall program and on sub-areas such as the effectiveness of room structuring (Mesibov & Shea, 2009 and Degner, 2011). Parents and professionals from different countries who worked according to the TEACCH concept have taken part in a surveyed about TEACCH effectiveness. Results show that respondents noticed an increase in skills, a reduction in problematic behavior, and the development of greater independence in individuals with ASD.

Other studies also point out that TEACCH is a well-evaluated support concept with demonstrable good therapeutic outcomes. Studies indicate a reduction in problematic behaviors (lower autistic behaviors) and the development of greater independence. Through structured environments, improvements could be achieved in terms of more contact behavior, attention, affect, communication and independent work performance (cf. Degner 2011).

Methods

The research objective was to gain insight into the practical implementation of TEACCH approach in schools of all arts in Germany, Munich Region.

The quantitative research method using a cross-sectional study was chosen for the data collection in this study.

With this procedure, characteristics or correlations of a drawn sample are measured precisely in order to be able to make generally valid statements of the subset on the population.

Instrument

For the purpose of this research, the standardized written questionnaire in online form was chosen.

Questionnaire contains closed question forms, which should be seen as the advantage the questionnaires with offered answers are clearly easier to evaluate and demonstrate the higher objectivity as well. In addition, this creates a greater distance from the researcher, which means that questions that become somewhat personal in the research are usually answered more honestly and accurately (Bortz & Döring, 2009, p. 297f). To answer the questions, the subjects were presented with a questionnaire with checkbox options, which are presented in the form of a unipolar rating scale. The fully structured questionnaire contains 16 questions relevant for the analysis. The sub-categories, which were again divided into questions, refer to the 7 principles of the TEACCH approach.

Participants

For the purpose of this research 39 teachers who teach autistic children in all types of schools were recruited. In the first step an information letter about the study was sent to

the schools with a link to the online survey. An informed consent was a first step in filling in the online questionnaire.

Processing

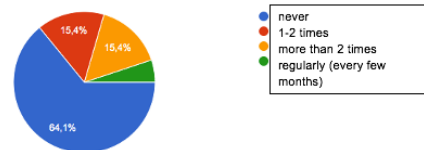
Participants had 20 days to complete the questionnaire. The evaluation of the data was done with the program google-Forms, in which the data can be quickly seen and automatically evaluated. The subjects are offered a scale as a choice option for questions 2, 3, 5.2, 5.3, 6 and 8, which is divided into 0 - 5. 0 meant "little/never", and 5 meant "always/very". For question 1, there were 4 choices: never, 1-2 times, more than 2 times, regularly. For questions 4.1 through 4.4, subjects could choose multiple options. For diagnostics question 5.1, subjects could choose between "yes" diagnostics are collected for the child and "no" diagnostics are not collected, using a nominal scale and dichotomous questions with exactly two possible answers. For question 7, the subjects could again choose from several options ranging from "every day" to "never".

Results

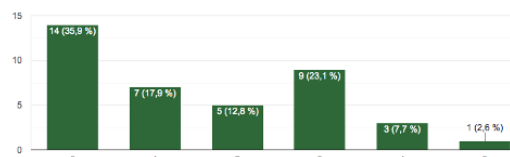
Teachers (n=39) from different types of schools participated in the survey. More than 50 percent of teachers were employed in the special education center.

According to the answers of the teachers one can conclude that TEACCH approach is only rudimentarily known in Bavarian schools. This is well visible in the question 1 where more than 64%, which corresponds to 25 of 39 respondents, stated that they had never attended further training, seminars or workshops on TEACCH approach. Another 6 respondents, corresponding to over 15%, indicated "1-2 times". Most of the respondents therefore stated in question 2 that they had no to very little knowledge about TEACCH approach.

Prior knowledge and own knowledge about TEACCH
1. Have you already had further training, seminars or workshops on the TEACCH approach?



2. How high do you rate your knowledge of TEACCH?

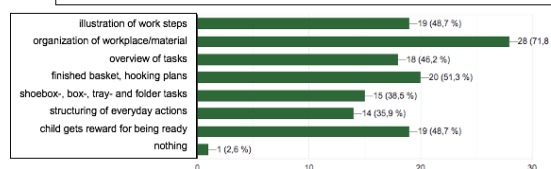


Graph 1.

In the classroom, the TEACCH approach is only rarely used and implemented. This can be seen especially in questions 4.1 to 4.4. In the point "Structured teaching", only a few teachers stated that they do not structure at all (4 out of 39 do not structure the room at all).

However, especially in the area of "structuring work tasks" it is evident that while many subjects, 28 out of 39, structure their teaching by "organizing the workspace and materials", there is little structuring especially in the areas of structured teaching according to TEACCH principles. These areas are "overview of tasks by task basket or shelf" (18 out of 39 participants), as well as "shoebox-, box-, tray- and folder-tasks" (15 out of 39 participants) and "structuring of everyday actions" (15 out of 39 participants).

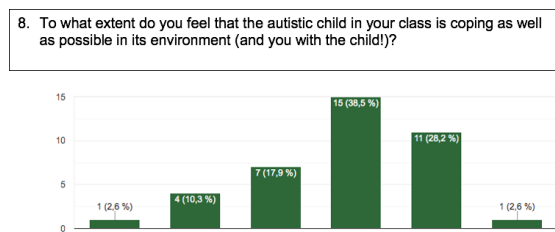
4.3 How do you structure work tasks? (Multiple selection possible)



Graph 2.

More than half of the respondents, 21, did not raise any holistic diagnosis for the autistic child. Almost all subjects stated in question 6 that the

TEACCH approach is not or very little transmitted or continued in other contexts. Thus, it can be seen in question 8 that the autistic child can only partially orientate in his near environment.



Graph 3.

In addition, respondents' answers to the open question number 9 were very revealing. Teachers answered that although they have autistic students in special school, they have never heard of TEACCH. In addition, participants stated that they had school assistants for the autistic children and they should also be educated about TEACCH. One participant stated that he would see the TEACCH approach as the general basis of education for autism spectrum disorders. Another respondent stated that the higher the grade level, the more difficult it was to integrate the autistic student into the classroom routine.

Therefore, the room had to be separated with room dividers, which the teacher felt was inconvenient in terms of inclusion. Others stated that they would like to have more knowledge about autism and TEACCH so that they can understand the children better and be more responsive to the autistic children's actions.

Conclusion

In the time when the implementation of inclusion according to the UN Convention on the Rights of Persons with Disabilities plays a significant role in schools, many actors are

involved in the implementation. Still the schools and teachers play the most important role, as the children mostly spend more time in the school as in other parts of societal life.

Through this small-scale quantitative survey, an attempt was made of researching the question of to what extent TEACCH is being used in the classrooms attended by the pupils in autism spectrum.

Along the seven principles of the TEACCH philosophy, it was surveyed if TEACCH approach is known and used in the classrooms in supporting students in autism spectrum in schools.

Due to the small number of participants in the study (n=39), no general conclusions can be drawn, still the study provides valuable and meaningful results and could make a great improvement of the practice for the schools that have taken part in the research.

It was noticeable that although many subjects claimed to have a knowledge in the area of autism and autism spectrum disorders, it was evident from the results that many of them did not know about TEACCH at all. Therefore, it can be concluded according to the results of the study that the teachers of all school types who participated in the survey have an increased need for information about TEACCH approach. Further work should be done in the practice to educate teachers about autism and the related TEACCH approach.

The training should not just involve the "structured teaching" according to TEACCH, but also the other principles such as holistic nature and support planning should be given more attention in everyday school life with autistic children.

One of the possibilities could certainly be to include the knowledge about TEACCH in the teachers trainings programmes or in-service training programmes.

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Augmentative and alternative communication

The use of AAC among special school and regular school teachers in Bavaria

Cornelia Reinhardt & Maria Mandl

Abstract

When two people interact with each other, it is usually quite simple: information passes from person A to person B, mostly with the help of spoken language, or by generally understood gestures. But what happens when a person loses the ability to communicate by spoken language due to an impairment, such as autism spectrum disorder, or illness? The solution is aided communication (AAC for short). AAC is used in many areas, especially care and rehabilitation. In schools or kindergartens, the topic is also of great importance. For people who need AAC, it should ideally be started as early as possible to increase the chances of successful communication experiences. Involving the teaching staff and other children in the methods of AAC can also create a better, inclusive joint living. In order to be able to guarantee this cooperation, a high degree of professional and technical knowledge in the application of AAC is required. Unfortunately, knowledge about AAC and its application is not yet widespread in Germany. Up to the present time, the situation has changed in that AAC has emerged as an independent discipline in Germany as well, which is taught and researched at special education institutes and is increasingly being used in a wide variety of institutions for all ages. Nevertheless, there is still a great need for information in families and institutions (Braun, 2003; Kristen, 2005; Lage, 2005). In order to find out about the situation related to AAC in the schools a closer look has been taken at the dissemination of subject and subject knowledge on AAC, in different types of schools working with pupils in autism spectrum.

Keywords: Augmentative and alternative Communication; PECS; METACOM

Introduction

According to Boenisch (2019) Augmentative and Alternative Communication (AAC) is the collective term for all measures that help to improve communication and participation for people with insufficient or no spoken language skills and has two important principles:

- achieving the greatest possible self-determination and social participation and
- fulfilling the basic need for communication.

AAC describes multiple ways to communicate that can supplement or compensate (either temporarily or permanently) for the impairment and disability patterns of

individuals with severe expressive communication disorders.

AAC interventions are used to improve quality of life, to improve personal relationships by increasing interaction with others, to increase independence, and to satisfy basic needs.

One important terminological distinction should be made in relation to the term facilitated communication (FC). The translation of the term Augmentative and Alternative Communication into German took part in the 1990s and was not very successful (Braun, 2003). The reason for this was that at the same time the term Facilitated Communication (FC) was translated as Supported Communication and since the translations sounded very similar, this often led

to confusion between the two approaches (cf. *ibid.*). In FC a barely speaking or non-speaking person is touched or supported on the hand, arm, elbow or shoulder by another person and can thereby point to letters or pictures or write. Since it cannot be verified to what extent "the supporting person influences the writing or pointing", this method of – FC - is very controversial (Kirsten, 2002).

People who are temporarily, permanently, or developmentally at risk for spoken or written language at any time in their lives and cannot meet their communication needs through standard modes can benefit from an AAC system.

Choosing an aided AAC system requires careful consideration of an individual's current skills, strengths, and needs, but it is important not to restrict the individual's potential.

In order to prevent that Beukelmann and Mirenda (2013) developed a participation model, based on the idea that everyone should be enabled to actively participate in everyday life.

The participation model focuses on assessment as a *dynamic process* that needs revisiting as students learn new skills or as their disability progresses, in other words, whenever there are changes in *participation levels*.

Assessment is further broken up into four stages:

- 1) Identifying whether or not the student has complex communication needs;
- 2) Assessment that considers both access and opportunity barriers that are impacting participation;
- 3) Plan the scope and sequence of intervention; and
- 4) Monitor progress in terms of how students are participating in their environments (Beukelmann & Mirenda, 2013).

Despite the individuality of each AAC user, Tetzchner (2000) and Martinsen (1996) try to divide them into three subgroups according to the function that AAC performs in each case.

For the users, AAC can have three different functions:

- **the expressive function** - AAC serves as a permanent means of expression for children with speech motor impairments but intact cognitive development. Speech comprehension is developed.
- **the supporting function** - statements are difficult to understand. Often this type is only used temporarily until the person has been able to activate speech learning mechanisms.
- **the substitute language function** - here, AAC is used as a permanent substitute for missing spoken language opportunities (Martinsen, 1996; Braun, 2003; Guttenberg, 2010).

Being able to communicate enables participation, which is the basis for competence development in the area of communicating.

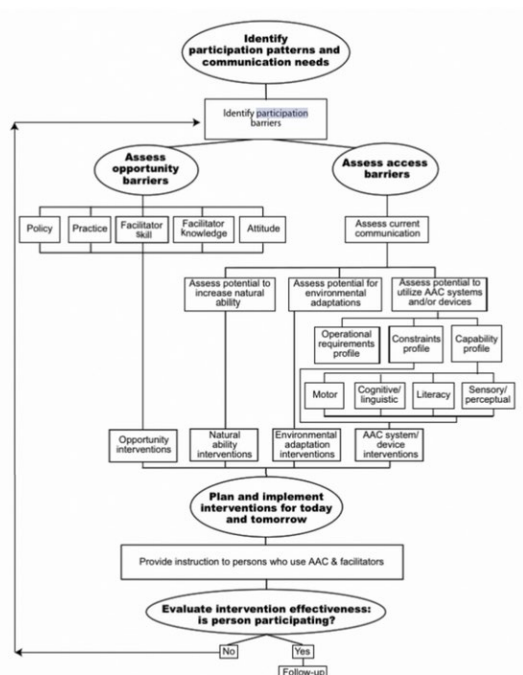


Image 1. Participation Model (Beukelmann and Mirenda, 2013)

Furthermore, the AAC intervention is seen as a purpose for communication and as a facilitator for the ACC user's participation in everyday activities.

Consequently, it is extremely important to provide access to AAC for all people with communication impairments in order to reduce the significant risk for exclusion.

Everyone communicates for a range of different purposes. Sometimes it is to share an opinion or ask a question; sometimes it is to complain or protest; sometimes it is to connect with other people (for social closeness).

This is the same for individuals with autism spectrum condition (ASC), and therefore they need to have access to an AAC system that allows them to communicate for a range of purposes.

Elements of AAC

AAC elements can be divided into 'low tech' and 'high tech' systems:

- Low tech systems include use of gesture, pictures, symbols, writing and drawing. An example of a successful, well trialled low tech system is PECS: this uses cards with pictures or symbols on them to help the person express themselves and make their choices and preferences clear.
- High tech systems include use of tablet devices, computer aided systems and electronic devices designed specifically as 'voice output aids'.

"Picture Exchange Communication System" (PECS) is developed by Bondy and Frost (1994, 2001), and based on the social interaction and communication between two people by exchanging the picture cards (Hartmann, 2018).



PECS

"Talkers" are electronic communication aids with partly complex and complex speech output.

Furthermore, methods such as the "I-book" help the person to introduce him/herself to others in pictures.

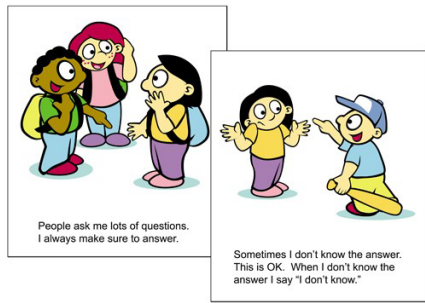


"Talker"



"Modelling"

Modelling is an action where a caregiver demonstrates the use of the communication aid. Other aids facilitate the person's understanding of social situations.



autism. They are to be given structure, for example, through visualised action sequences, pictures and instruction boards. The TEACCH approach can be adapted for all ages and levels of competence and can be used in schools, kindergartens, educational and therapeutic intervention programmes, as well as at home (Hartmann, 2018).

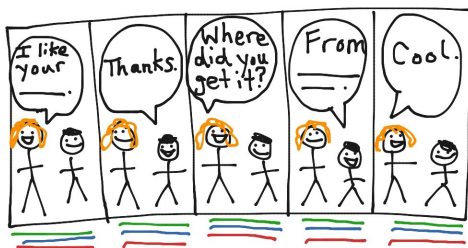
Social Stories

Social stories are short stories that describe correct behaviour in social situations, according to Carol Gray.

Comic Strip Conversations is another tool by Carol Gray, which use a comic strip to show how to behave in certain situations through speech and thought bubbles.

These methods can explain how provocation might affect relationships. Active communication is promoted, for example, through communication aids with vocabulary for scolding (Fröhlich, 2019).

The Compliment Conversation



Comic Strip conversation

First-then visualisations indicate a mandatory activity that must first be completed prior to the desired activity (Fröhlich, 2019).

TEACCH programme (Treatment and Education of Autistic and related Communication-Handicapped Children). The intervention method developed by Eric Schopler aims above all at the independence of those affected by

Methods

Guided by the 9 classification criteria for research designs according to Bortz&Döring (2015), qualitative study design was used for the purpose of this research.

The data were collected at one measurement point on the following 3 factors: prior knowledge, expertise and AAC application experiences with or without autistic people, with the factor levels: general education school and the special school (schools for special educational support).

The collected data was analysed and interpreted qualitatively.

Sample

For the purpose of this research the staff of general school and special school was recruited.

The sample includes equal numbers of both general education school types and special schools.

- 10 participants (female) from general schools - teachers from primary, secondary and middle schools as well as teachers from schools specialized for speech and language disorders.
- 10 participants (female) from special schools - teachers from special educational support centre (learning, language and behavioural problems) and teachers from a special educational support centre for intellectual disabilities.

Instrument

For the data collection in general and special schools, a questionnaire form with a mixture of open questions and clear answer options, was used.

The advantage of qualitative research and data collection is that the perspective of those affected is the focus of interest. The research context refers to "soft" data close to reality and emerges as a dynamic process. The reference to theory promotes the discovery and development of possible hypotheses and theories from the data.

The questionnaire was handed out to the teachers at the different types of schools in paper form, as well as set up as an online form.

The online questionnaire is made with the tool "Survio", processed and sent to the teachers via [link](https://www.survio.com/survey/d/B6L2D1A9M4A6J6U8U) (<https://www.survio.com/survey/d/B6L2D1A9M4A6J6U8U>).

As the survey period extended over several days and a thus short period of time, as well as under corona-related contact restrictions. A Spanish version of the online survey was also created and prepared: <https://www.survio.com/survey/d/U0V6N1O4E3A2F3C4E>

The respondents were informed about the project and the scope and content at the beginning of the survey and were appreciatively invited to participate in the survey.

Results

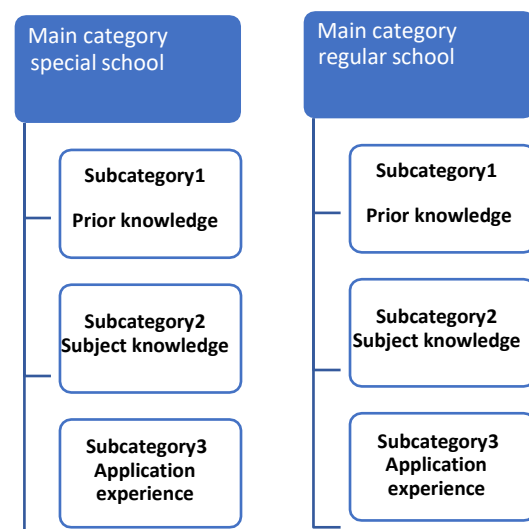
The data analysis is based on the principles of qualitative, content-structuring content analysis according to Kuckartz (2018).

"In the qualitative paradigm, content analysis serves to evaluate material that has already

been collected. It serves to interpret symbolic-communicatively mediated interaction in a scientific discourse" (Krell, 2016).

The main category here is the division of the sample into two types of school, whereby special attention was paid to the type of special school, which is why this type of school was differentiated into two special focuses.

The subcategories here represent the 3 factors of prior knowledge, expertise and application experience with or without autistic people.

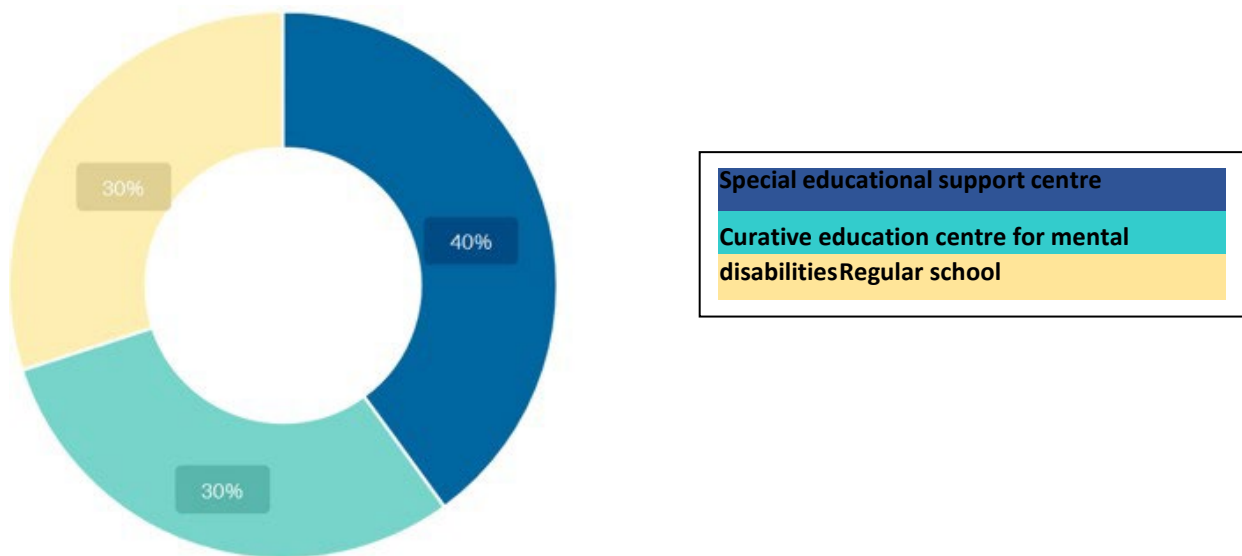


Graph. 1

In this research work, the form of analysis that examines the connections between the subcategories and within the main category, was used. Here, the connection of the subcategories, prior knowledge, expertise and application experiences with or without autistic people, within a main category, general education school or special school, plays a major role.

In order to find out to what extent, the teachers at the respective school types have already dealt with the topic of AAC and whether they have already applied and experienced this knowledge, with autistic people, the results of the questionnaire have been analysed as follows.

Type of the School



Graph 2. School type

According to the results in the Graph 2. **1/3 regular school teachers** and **2/3 special school teachers** participated in this study.

Summary of all subcategories

Subcategory1 Prior knowledge	Subcategory2 Expertise	Subcategory3 Application experiences with or without autistic people
<input type="checkbox"/> In summary, teachers are able to recognise the context of AAC in response to cues and get a more accurate picture of AAC through the cues.	<input type="checkbox"/> In summary, it can be said that all teachers have acquired their knowledge about AAC through the content learned in their studies and the subsequent work they have done as teachers. Furthermore, it can be seen that there is a decrease in the knowledge of natural forms of communication towards electronic aids for augmentative and alternative communication.	<input type="checkbox"/> In summary, only around 80% of teachers have experience of using AAC with autistic people and there is a move away from physical forms of communication towards electronic AAC devices.

Summary of the subcategories with the two main categories special school and mainstream school

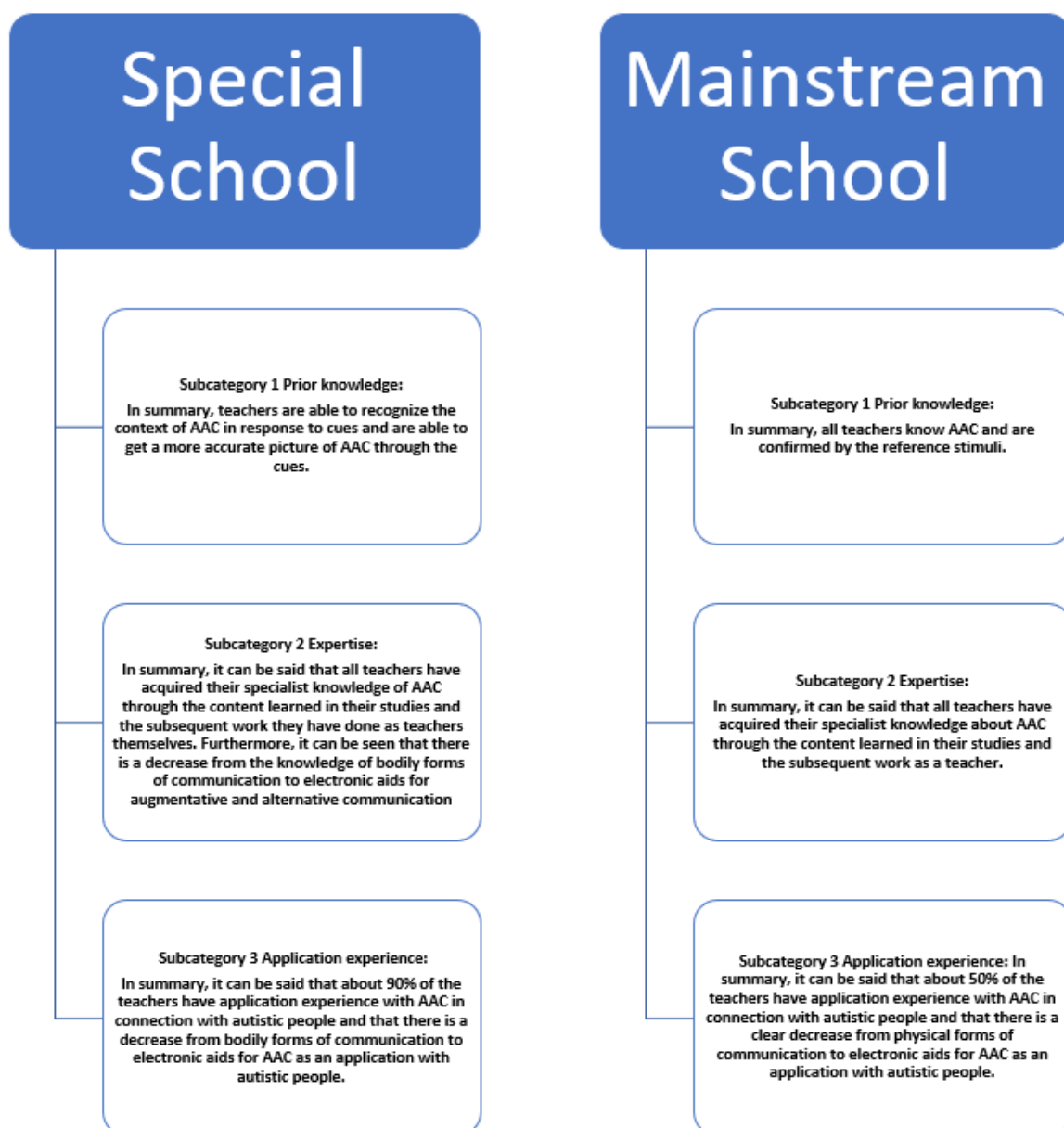


Image 2. Summary of subcategory

Conclusion

The aim of this study was to get an overview of the knowledge and the application of AAC of the practicing teachers in mainstream and special schools in Bavaria.

Due to the small number of participants in the study, no general conclusions can be drawn. However, as this was qualitative research examining the behaviour of individual people, the study nevertheless provides valuable and meaningful results.

This work shows that teachers - whether in mainstream or special schools - consider themselves to have knowledge of ACC, but do not use it regularly in school practice with all its possibilities, or do not make full use of its potential.

In the "experience of use" in the area of the body's own forms of communication, where certain possibilities of expression, such as facial expressions and gestures, naturally go hand in hand with communicating, the knowledge and use is significant.

With the results in the area of electronic aids, it is clearly noticeable that experience and knowledge are not sufficient.

In conclusion, it remains open to what extent the knowledge of ACC of all teachers surveyed is actually fully present, since a contradiction also arose in the evaluation of the main category of special school in the subcategory of prior knowledge in the area of electronic aids.

In the first section of the question "Prior knowledge", apart from 10% of the special school teachers all other teachers stated that they are acquainted with AAC.

In the second section, the subcategory "prior knowledge", in which detailed knowledge about electronic aids is surveyed, 100% of all respondents stated that they are acquainted with AAC electronic aids.

This raises the question, where does the existing knowledge about AAC come from?

Can the respondents only classify what is meant by AAC through signal words, through clue stimuli.

The knowledge about AAC was not only generated by the participants in professionalised settings, but also in practice in the so-called "learning by doing".

Thus, it can be assumed that many teachers unfortunately only have a half-knowledge of AAC causing that students with and without autism do not experience the value of this method appropriately in the classroom.

This confirms that there is an increased need for information about AAC in all types of schools. Also the teachers training programs and in-service programmes should take into consideration the important inputs about AAC.

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