

PROFESSIONALISM AND INSTITUTIONALISATION OF EDUCATION OF SPEECH AND LANGUAGE IMPAIRED CHILDREN IN AN INCLUSIVE SYSTEM IN GERMANY

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This paper discusses the future of professionalism of the traditional exclusive and curative pedagogy for speech and language impaired children in Germany. This specialized professional domain is currently being challenged to define as a specialized educational domain of education and educational science their resources with a justifiable educational theory for the inclusive restructuring of the school system. Therefore this domain brings a variety of terminology for concepts and methods that manage to combine education and curriculum-based speech and language therapy in the classroom. In its actual redefinition it moves between linguistic provincialism and professional self-dissolution. But educational and institutional resources with evidence-based educational methods show, however useful perspectives in an inclusive system, if the subsidiarity principle would be followed. Not a complete sentence.. A network-based organization for these resources and methods is one way. The restructuring of the special schools for pupils without speech and language disabilities is another way.

German education of speech and language impaired children and speech and language therapy in international comparison

The establishment of the scientific discipline of special needs education in the case of language and speech impairments between medicine and general pedagogy as well as the build-up of an institutionalised speech therapy system in Germany and Austria/Hungary had a decisive influence on the emergence of speech therapy care systems at the beginning of the 20th century especially in the U.S. In accordance with German traditions, not only medical insights into language impairments, but also pedagogical approaches to treating those who suffer from language impairments wound up leading to a gradually developing, scientific understanding of language and speech impairments. In Europe and in the Anglo-American zone, an extensive study of the classic works on articulation, stuttering and voice therapy by Kussmaul, Gutzmann, Ndoleczny, Froeschels and Rothe took place in the first two decades of the 20th century up until the First World War. These domains of speech therapy development were called the German School (West, 1966).

In Germany, these scientific developments were divided into two groups of professions, which nonetheless worked with the same clientele (children and young people with speech disorders) and in part also with identical methods and techniques (special techniques of language learning, facilitation and therapy), but had different areas of responsibility in the education system and healthcare system. Should this be part of the last paragraph? First, logopedics grew in Germany out of the medical knowledge of speech therapy and was established as a subject at a university in Berlin in 1905. During the course of the 20th century, occupational training was offered for logopedics. Logopedists were for a long time in Germany paramedical, non-academic professions. The theory that served as the basis for the logopedists' competence had its roots in medical speech therapy and in doctors' ideas about a very close connection of language and speech impairments with neural functions and structures.

The career profile of specialized pedagogues for children and youth with language and speech impairments grew parallel to that in the education system. With regard to the therapeutic contents of the developing clinical logopedics and the pedagogical contents of deaf-mute education, a new set of tasks was institutionalised for these special pedagogues at primary schools. Already in 1883, so called speech therapy courses for stuttering schoolchildren were offered. Such courses were public measures made by school authorities parallel to the regular classes in the school. The pedagogues specialized for that conducted systematic therapeutic and speech gymnastic exercises. The question of combining specific linguistic therapy goals and general education goals of teaching was discussed early on during the course of the institutionalization of this academic special needs education for schoolchildren with language and speech impairments. With the answers to these methodological questions, these independent groups of professions of specialized pedagogues, which in the context of school could shape both therapy and

teaching, uniquely established themselves in Germany. Up to now, separate schools are offered in Germany for this work, which are primarily characterized by smaller classes. Schoolchildren who go to this kind of school generally do not receive any assumption of costs by the statutory health insurance fund in Germany for speech therapy by logopedists in the healthcare system, which is prescribed by a doctor. Logopedists may only be deployed within these special schools parallel to the specialized teaching staff in cases of very serious language and speech impairments. A connection of the therapeutic work of logopedists at the schools on the contents of the curriculum generally does not take place.

The separate school system in Germany is being restructured in various steps in consideration of the United Nations convention on the rights of people with disabilities, which is also now applicable in Germany. Separate special schools constitute discrimination against schoolchildren with language and speech impairments according to various judicial interpretations of the UN convention. The goal is to teach schoolchildren with and without disabilities together in a regular school. The question is thus posed, how the previous scope of tasks of specialized pedagogues for children with language and speech impairments will change or if this scope of tasks can be completely taken over at schools by the medical logopedists from the healthcare system.

Discussion of programs and terms in special needs education in Germany

During the course of political discussions and scientific discussions on education about the United Nations convention for the rights of people with disabilities, a diverse programmatic nomenclature of self-reflection of the genuine special needs education professionalism of groups of professions of specialized pedagogues grew from within special needs education and curative education in Germany (see Albrecht & Moser, 2000; Moser, 2005; Mussmann, 2005; Hinz, 2009).

Programmatic and conceptual further developments were also discussed to this end in German exclusive, curative pedagogy for speech and language impaired children (Glueck & Mussmann, 2009). With a program of inclusive education of speech and language impaired children, the necessity of a specific subject-related knowledge of reflection and action is emphasized by pedagogues, which can be provided as a resource of competence for specialized support in an inclusive school system. A professionalization field should therefore be referred to, which stands out due to historical and subject-specific exclusivity, namely reflection, prevention and intervention in regards to language development and use of language (as also the scientific and practical reflection and subject areas e.g. cognitive, social-emotional, body-motor development), In its methodological consequences in reference to its clientele, people with disorders in language, speech, voice and ability to communicate, working in no way exclusively.

Discussion of inclusion of the education of speech and language impaired children

The traditional, separate and curative pedagogy for speech and language impaired children in Germany is at this time challenged to define its resources justifiable in terms of education theory for an inclusive restructured school system as a special pedagogical domain of the arts of education and teaching (Glueck & Mussmann, 2009). This is a challenge with its historical roots in the knowledge of medical speech therapy and its partial development in clinical logopedics. Sustainable further developments are available in integrative, firmly pedagogical and institution independent approaches with authors such as Lütje-Klose (1997), Welling and Kracht (2002) or Lütke (2010). They involve the justification of theoretical concepts of professions, which direct (*therapy, teaching*) and indirect forms of action (*consultation*) should be derived from, which must prove to be capable of again being institutionally open in an inclusive school system (see Mussmann, 2010a).

An integrative pedagogy in the case of language and speech disorders in an inclusive education system must be able to say which offers it can continue to maintain independent of institutions during the political disintegration of the separate school system in Germany.

Point of departure for education of speech and language impaired children: Conceptual-didactic point of departure in the focal point of support for language

The education of speech and language impaired children developed a broad base of terminology for concepts and methods of language therapy in schools (Welling, 2006), which succeeded in combining education and language therapy goals in teaching. Language therapy teaching is in the first place teaching, to be justified as generally didactic and institution independent (Braun, 2004). It should create teaching situations in which the interest of further development of lingual competencies to act can be built up (facilitation). This is at this time being practised directly through their own teaching work in their own classroom, team-teaching or indirectly through consultation for the regular pedagogues. In the

direct work, language-specific individualised curriculum-based interventions should be integrated (therapy), which imparts the use of language typically expected and ensures experimenting and practicing lingual action (Drave, 2000).

In view of the predominant clientele of pedagogical facilitation with its focal point in language, children with localised development impairments in language (Grimm, 2003), the pedagogy for speech and language impaired children systematized three essential approaches which differentiate themselves technically each according to the linguistic level and modalities:

- *Pattern Practice*: Sentence pattern exercises, high frequency model expressions and exercises as *out of content imitation treatment* (Camarata & Nelson, 1992)
- *Development proximal approach* (Dannenbauer, 1999): Lingual goal structures of children's expressions and led common action (*modelling*) or following it (*recasts*) are offered in situated learning and experience contexts. The proximity orients itself to development phases of lingual levels (i.e. Clahsen, 1986).
- *Reflection-oriented approach* Aid in reflection and retrieval for structural and functional properties of language, also through visualisations and typefaces. They can be implemented metaphonologically (minimum pairs, e.g. pin-bin), metasemantically (e.g. word field work: *What belongs together?*), metasyntactically (e.g. alternative questions as a *recast*: *Is the horse in the stall or is it in front of the stall?*) or metapragmatically (reflecting on irony, humour and social situations).

The so called concept of context optimisation combines these three approaches and calls for systematising through cause-orientation, modality switching, resource and context orientation (*within context conversational treatment* Camrata & Nelson, 1992) as language therapy teaching. This concept is currently being one of the few evidence-based practices for speech therapy intervention in the context of school teaching, with an educational and curriculum-based intention to combine therapeutic and educational goals and which is tested and researched extensively in Germany. (Motsch, 2006; Berg, 2008).

Between linguistic provincialism and professional self-dissolution?

The main question within the scope of didactic conceptualism of a specialized pedagogy in the case of impairments in language and speech was for them according to the structures of connection of therapy and teaching (Werner, 1995). This question was avoided by some authors with attempts to define both categories of action as identical (Braun, 1983). In view of the practical requirements of schools, people were frequently more concerned with the technological side of this approach in the sense of *additiva*, technically merely somewhat of an addition of another column in the lesson plan (Welling, 2007). The focus on lingual details, linguistic provinces in the worlds of everyday live, becomes apparent in methodologically differentiated further developments of language therapy teaching. What may constitute an invaluable quarry of practical teaching ideas for special pedagogues in their special schools, poses the question of the relevance of the objective in collective teaching or in inclusive schools. A basis for reducing the exclusive technique of combining structures for action concerning teaching and speech therapy and for complying with basic school structural questions may well be a historically contingent profession structural aspect. The field is characterized like hardly any other by a structural feature, which up to now forms a projection plane for a theoretical discussion on professions between the healthcare system and the education system. The secret of the categories of action of teaching and language therapy was and is, with that in mind, the focal point of this structural discourse. This discussion presents itself in the German education of speech and language impaired children as a historically developed dilemma between differing and competing conceptual references. Functional differentiation in science and research led to the following domains of reflection in today's subject area of speech and language therapy, The medical *art of language therapy* (1905 by Gutzmann, H. with a medical focus, *Berlin School*), later *phoniatics/ pediaudiology and logopedics* (1924 by Fröschels with a psychological focus, *Vienna School* as well as *deaf-mute education* (from ca. 1800 with an elocutionary focus) and thus today to language and speech structural (linguistics, medicine), personal (psychology, pedagogy) and social (pedagogy) oriented toward theory and practice.

A professional self-dissolution is feared in the case of a diffusion of specific linguistic domains of the German education of/ pedagogy for speech and language impaired children in Germany through references to internal (*personal orientation*) and external distal and proximal context factors (*social orientation*). In that way, the German theoretical discussion on professions of the education of speech and language impaired children in Germany is cultivated, which must regard itself as exposed to accusations of institutional grandfathering and disciplinarily preserving the current structure. These

objections are then justified if a de-professionalization arises in Germany after the de-institutionalisation of the education of speech and language impaired children (through the evolution from separate to inclusive school type systems) through exclusive context orientation of special needs education, which leads to the disintegration of person-oriented categories of action (teaching, individualised supporting actions like facilitation of speech and language acquisition) and its responsibility exists merely in the form of organisational consultation.

Didactic further developments in the focal point of speech and language facilitation

Social science oriented, didactic conceptualisations in the focal point of support for language take up social as well as conceptual factors, but places them however again in relation to structural features and phenomenon of language. Lingual action and its interpretations with communicative-pragmatic intentions and all cognitive and socioemotional implications is in the course of that made into a process of cooperative co-construction (Bindel, 2007). In an ideal case of a communicative crisis of speech execution (Homburg, 1993), lingual action and comprehension then becomes an idiolectal process of understanding as a compromise through generalisation of the other (Ungeheuer, 1987) on the basis of the assumptions on knowledge and social and emotional expectations. Language above all wants to drive the partner into a certain perspective (Graumann, 1994) and reach personal goals. Language presupposes an interpersonal interpretation (Tomasello, 2002) and is a cognitive strategy: anticipation of what the listener decides, how he reacts, and contemplation of what is not said (*theory of mind*; Astington, 2006).

Cognitive planning and linguistic construction is important in the process of that to use of language (*thinking for speaking*; Slobin, 1996). The main activity concerns the construction of verbal texts, that is to say complete sentences as a story. Communication is thus relative to personal intentions, the current situation, the addressee and the episode and function of the social encounter. Language is the resource to react variably, to know how to speak in social situations. Language learning in dialogue results in an increase of actively grasping the reality of the use of language from its complexity. An introduction into theoretical culture is important (speaking literally): proof for statements, reflection on statements according to the rules of logic, references to texts for preparing statements (see Nelson, 1996; Bindel et al., 2007).

These are theoretical bases which correspond with current emergence models of epigenetic language acquisition theory (Mussmann, 2009). The development up to these emotive turns and post-cognitive linguistics as the scope of relational didactics in the focal point of support for language was presented in the German education of speech and language impaired children most recently in Germany by Lütke (2010). In short: the pedagogical areas of observation and action in the case of disorders of lingual, cognitive and socioemotional development thus coincide. A separate form of school for language-disabled persons in Germany is thus theoretically difficult to justify. Exclusive domains of pedagogical specialisations, which analyse and facilitate these areas of learning and development with different accentuated focal points, on the other hand are not so difficult to justify.

Perspectives: Didactic resources in the inclusive system

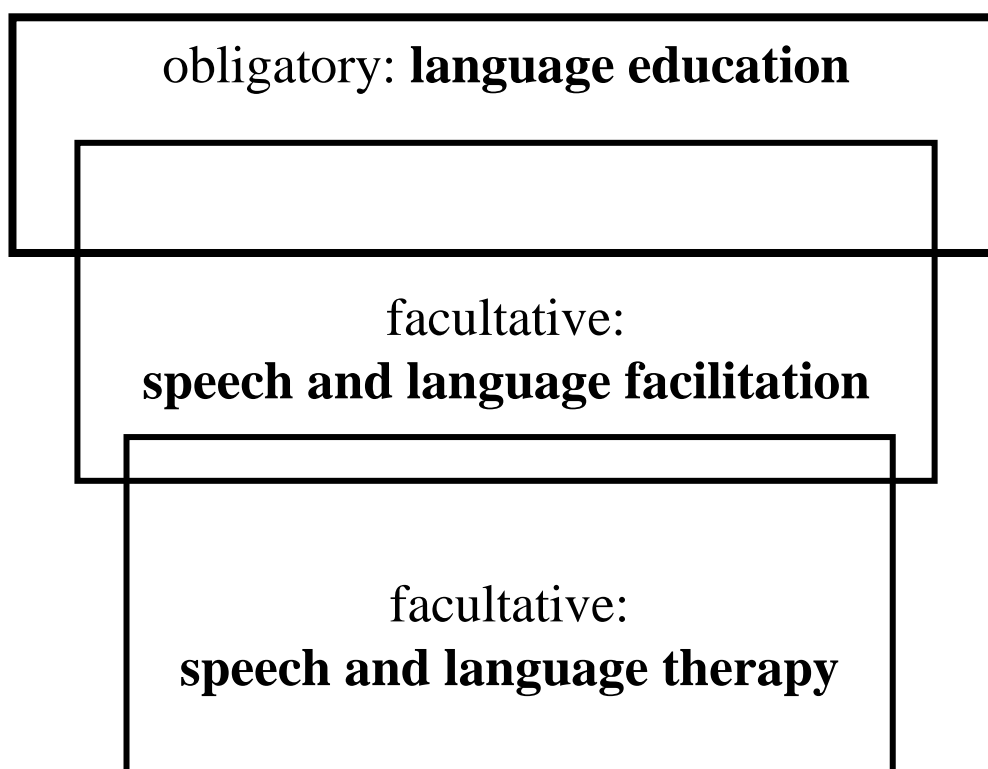
The actual goal of the discussion on inclusion in Germany is a school for everyone, one school that does not discriminate, which welcomes all children and youth irrespective of age, gender, religious affiliation, social origin, mother tongue, parent's income, residence status, cognitive ability, chronic diseases and even also irrespective of existing disabilities. That goes way beyond currently integrative concepts such as teaching children with/without disabilities. The inclusive school can call on subsidiary, network-based support systems with mobile special teachers. What is to be figured out is whether these resources, also in cases of support through specific speech and language facilitation and language therapy, are supplied from the health care system (by logopedists) or still from the education system (by specialized pedagogues). This question has been answered outside of Germany: logopedists work at schools there.

In the inclusive school, the conditions for collective heterogeneity are in a relationship of tension with the individual right of children to be able to fully develop their personality, their talents and their creativity as well as their cognitive and physical abilities - according to the words of the convention on the rights of people with disabilities (Article 24 of the UN convention), which underscores this common right for people with disabilities.

However this *full development* is to be achieved, and where it is in each individual case, is a question that contains different answers for the respective child, its immediate environment and the school and potentially also professionals from their respective own perspective. These answers are synchronized in a more or less explicit negotiation process.

Inclusive education with the point of focus on specific speech and language facilitation reflects (diagnostics) and processes (teaching, therapy) the relationship of immediate (that is to say personal and language and speech structural) and mediate distal and proximal factors (that is to say social context) of unexpected use of language in heterogeneous learning groups.

The creation and support of lingual tolerance for heterogeneity (Weisser, 2005) in inclusive settings requires professional knowledge of reflection, which integrates the conceptual reference in all disciplinary (exclusive) dimensions (linguistic, medical, psychological) in order professionally to appropriately be able to describe and reflect the conditions for an experience of successful communication, that is to say participation. An exclusive knowledge of reflection can in this process require exclusive forms of action (therapy). The specified form of action, *speech therapy*, is subordinated to facilitation as a form of barrier-free lingual-communicative conditions for learning and development (teaching) (Welling, 2007). Both forms of action can display a decidedly pedagogical quality. Namely in all cases where they enable and promote lingual processes for education and learning under aggravated conditions with the goal of self-reflexively supporting this acquisition, development and experimentation of lingual knowledge and lingual abilities in view of the individual person (the schoolchild). Under this pre-eminence of lingual self-determination and co-determination, both categories of action pursue a goal of education (Figure 1).



**Figure 1:
Relationship between lingual education, facilitation and therapy**

Inclusive education with the conceptual reference of impaired speech and communication must also be able to justify a professional concept in an inclusive education system, whose conceptual reference (unexpected use of language) continues to involve the disciplines of references in reflecting on the subject matter, from which however forms of action (consultation, facilitation, therapy) must be able to be derived from, which do not require any exclusive institutions. With reference to related fields, which are necessary for identifying, analysing and describing the subject areas in the practical field of action of traditional, separative and curative pedagogy for speech and language impaired (linguistics, education, psychology and medical as well as neuropsycholinguistic phoniatic and pedaudiologic aspects connected with them), a professional concept is formed, whose immanent categories of action are able to be implemented (that is to say consultation of teachers and parents, speech and language facilitation through directly participating in shaping teaching, interventions similar to therapy as individual support measures during and outside of class), which can be reconciled with school integration concepts, forms of teaching (collective teaching), but also the forms of inclusive schools in the institutionalized field of action of general education. Speech and language therapy work thus inevitably does not require special schools. Regular schools can however set up such offers of language education within the scope of their school programs and profiles or make use of support through a network, which is provided and coordinated by centres for support and consultation.

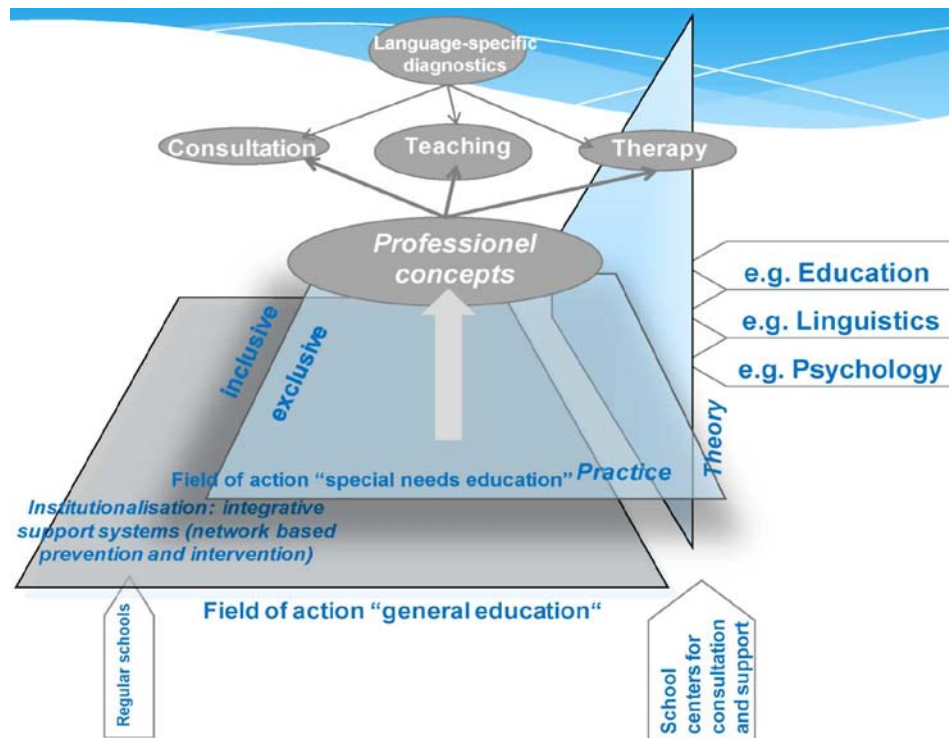


Figure 2:
Structure of education with the conceptual reference of impaired language and communication

The direct reflection of unexpected use of language in an education and training situation in the inclusive schools requires direct categories of action directed towards individuals such as therapy (intervention) and speech and language facilitation (support), in order to immediately enable participation. An inclusive education of speech and language impaired children in Germany can thus also offer speech and language therapy teaching, which is independent of institutions and place of study (Braun, 2004). It distinguishes itself from the preventative character of speech and language facilitation as removing and preventing language barriers (through adaptive teaching) through its structure of specific intervention: it is a kind of subsidiary support system on location, when the independence of the schoolchild no longer exists to realize specific lingual sound, word or sentence structures and this impediment in this moment of crisis threatens to disable or impair the actual learning and education process. This can take place incidentally (that is to say in the case of crisis of speech or communication) or confrontationally as an intentional challenge. In both cases, it distinguishes itself from the incidental, intuitive aid of the regular teachers in that it knows ahead of time who, when and where to whom which lingual assistance will be offered, namely on the basis of previous diagnostics, and also to whom it will not be offered to.

Indirect reflection requires context-related categories of action such as consultation (of colleague teachers, teachers and parents) in order to indirectly enable participation. The work *for* the child is meant with that. Because an education of speech and language impaired children in Germany cannot amount to anything more than healthcare professions in the area of speech and language therapy derived from disorder-specific therapy goals from the phonetic-phonologic, semantic-lexical, syntactical-morphological and prosodic criteria for evaluation as a necessary and exclusive knowledge of reflection for lingual heterogenic learning groups in an inclusive education system.

It should rather deliver criteria for forming learning and development situations in order to confront schoolchildren with language-specific and communicative challenges and problems via media, themes and social forms, which give them opportunities to test and expand their individual lingual ability to act oriented to situations and related to themes. As pedagogy it involves in the first place removing language barriers in the classroom indirectly (through consultation) or directly (through individualized support in the classroom) with the corresponding background knowledge from linguistics, phoniatrics and psychology, and to build up lingual learning opportunities and room for growth. Language, speech and voice impairments must be able to be discovered in their relevance for barriers in forming teaching. That inclusion is already impaired alone by the exclusive description of a pedagogical problem area with

professional terminology, that just the naming and distinguishing for example of stuttering from so called babblerism in consultation discussions with the regular pedagogues should have an exclusive effect, is incomprehensible and is contrary to initial empirical findings within the scope of evaluations of concepts of integration (Lütje-Klose, 2008).

It is furthermore not a primary goal according to the diagnostics and description of the problem area to eliminate the language impairments as an aspect of the problem area before they form on the work of training and education. Education of speech and language impaired children in Germany commands far more resources for this outside of the school. The removal of language impairments and the development of compensational strategies of communication are however not possible through teaching nor in the classroom. The field of the described profession-specific concepts has developed for this, and it is characterized by its immanent methods that are also integrated in the teaching process and distinguishes itself with this pedagogical quality from the medical therapy of therapeutic service providers.

Institutional resources: Separate schools or network-based prevention and intervention

The special needs schools specialized in language in Germany enjoy high acceptance from the parents as a school form with equal goals for learning and as a so called *transition school* (Durchgangsschule). Various special schools specialized for speech and language impaired children allow for qualified secondary school certificates (Hauptschule or Realschule) and offer vocation preparation measures in cooperation with regional operations with proven positive placement rates (see Bachmann et al., 2001; Jäger & Bachmann, 2010). A lot from these reasons speaks for maintaining this form of organization as an optional school as a school for general education i.e. with the offer of speech and language facilitation (Glueck & Mussmann, 2009) in a diverse system of pedagogical support and participation in education.

On the other hand, the demand to necessarily provide the didactical resources, which maintain a specialized domain of pedagogy in the case of disorders of language and speech, as described above, through a network-based support system for prevention and intervention in particular also for schoolchildren with learning disorders, disorders in socioemotional development as well as disorders stemming from social marginal milieus and children with immigration backgrounds (Lütje-Klose, 2006, 2008). Since the previous regular school teachers will not be able to meet these children's needs for support without extensive and costly vocational qualification measures, corresponding special pedagogues specialized in language would be necessary in integrative and inclusive settings. The already detailed independence from institutions of language-specific, high-structured support concepts in teaching (individualized, direct language training and facilitation with therapeutic relevance and indirect, context-driven consultation) also speak for being maintained in an optional school provided for such purpose as well as for its implementation in an inclusive system as a subsidiary network. The international comparison also speaks for the latter. Lütje-Klose (1997) presented investigations into the effectiveness and conceptions for transferring to Germany from the U.S., in which personnel trained in therapy, conducted the language therapy at the schools. Individual models of the school's didactic development and pedagogical qualifications of the personnel in Germany are however behind the level of development of the traditional curative pedagogy for speech and language impaired children in Germany, which, as already explained, speaks against the use of logopedists and academic language therapists in inclusive schools in Germany. In the international comparison, the following school systems were identified (Lütje-Klose, 1997): The *pull out model*, in which language therapy takes place in separate facilitation groups or in individual therapeutic situations outside of the classroom, but in the school, the *classroom-based intervention model*, doubling up in the regular classroom (integrative *team-teaching* or *parallel-teaching*, (Friend & Bursuck 1999; Lütje-Klose & Willenbring, 1999) and the *collaborative consultation model* (Marvin, 1990) as mixed form of collective teaching with consultation structures integrated into the school structures between language experts and other teachers.

These models are also implemented organizationally in Germany (e.g. as a mobile service, collective teaching or integrative regular classes), with different accentuations, school legal basis and terminology in each federal state due to the federal structure.

Alongside the network-based support systems through consultation or competence centres, whose mobile services or ambulances, which are regulated for the time being by the school act (edicts), additional networks are emerging, that is to say pilot projects, which, according to numerous training and education plans in the federal states, are expanding their areas of responsibility to the elementary and external school area. People work *for* the child on various levels and transition points via speech and language facilitation in cooperation *with* the child or indirectly via consultation or continuing education of pedagogical specialists:

- In kindergarten teams through collegial, case-related consultation and continuing education sessions.
- With the parents: Parent meetings will be offered for information and consultation on the topics of language development, language and communication facilitating behaviour, development risks and school career paths.
- With individual children in the kindergarten group or school class through diagnostics, individual support and therapy or their transfer.
- With representatives of all involved institutions to the extent possible: Joint support conferences will be strived for, but also cooperation meetings of kindergarten teachers and future first grade teachers.

All networks constitute transition forms on the way to long-term structural school growth of institutions of education, which should consolidate training and education in elementary and primary level ages. This network for procuring resources, consultation and also individualized support does not at this time compensate further than the differences in the education and the areas of responsibility between kindergarten teachers and primary school teachers as well as concretely for the distance of the institutions in regards to space and time.

Didactical and methodical resources

A great chance for pedagogy in the case of language and speech disorders rests in the professional requirements of analysis and shaping of these transition processes between the family home, kindergarten, school and profession in an inclusive system, bringing in its tried and true professional resources for children and youth with aggravated conditions of first and second language acquisition as well as for their teachers and distancing itself from offers in the health care system through its decidedly pedagogical orientation and didactic competence.

The further chance of the specialised domain of educational sciences described here lies in its methodical and didactical competences a) by integrating individualised techniques and therapeutic interventions in education (therapy and methods of specific language facilitation) and b) avoiding speech impairments or reducing linguistic-cognitive barriers in education (prevention). The techniques of integrating therapy in education so far have been the professional feature of special and curative pedagogy. The task of diagnostic identification of linguistic barriers as means of prevention will play a much more prominent role in the future in the reorganisation of schools into an inclusive system in Germany. But without a technically founded identification and analysis (diagnostics), reflexion and modification of the specific linguistic and communicative conditions in education (methods and didactics) in the inclusive regular school, children and youngsters with speech and communication impediments will experience specific barriers in developing their cognitive, socio-emotional and mostly linguistic-communicative abilities owing to the interaction of the education offer with their impediments. This is why inclusive education requires a certain professionalism to reduce such barriers or to offer them a chance to learn according to their development by individual support (specific facilitation).

Barriers can be mostly expected among pupils with developmental speech disorders

- in the impairment of auditory processing of spoken-language utterances of the teacher and the other pupils, under conditions where the spatial requirements and the education plan do not avoid acoustic information disturbing the child (such as background noises, echoes, unintended language of the others) as required,
- in the general weakness of the verbal-acoustic material (for instance the teachers' utterances), if they cannot be memorised and processed as could be expected regarding the age of the pupils (impairment of processing the phonological information) and if the outline of the class and the media does not sufficiently consider this special condition, for instance in acquiring written language,
- in case of limited access to information relevant for the education by lacking or insufficient processing of information given out in spoken or written language and
- in the insufficient possibilities of the spoken and written language to start sufficient communication with the teacher and mostly with the fellow pupils to transport information but also to design social relations.

To reduce these barriers, the education offer has to be designed in a specific way for pupils subject to these conditions. By the constructional design of the class rooms, the temporary or permanent reduction of noise in class as well as by an educational design, which provides for phases of silence in relevant phases, the barrier of auditory perception impairment can be removed.

A special selection and design of the teachers' language and the language of the media used (such as work sheets, reading material ...) considers the impairment in the verbal-acoustic, but also the lexical and grammatical processing of the written language of the pupils by brevity, simplicity and avoiding redundancy. Manifold sensory, mostly visually and motorical offers (for instance by hand signs) compensatorily support the absorption and processing of information even with an average high cognitive educational purpose.

Special emphasis has to be laid on barriers in the socio-emotional development, as here as well as in the linguistic-communicative development, unfavourable, long-term ways of development have to be avoided. Education and school life have to secure sufficient possibilities to form self-confidence, experience of self-belief, initiating and design of social relationships as well as protecting them from stigmatisation and social exclusion.

These conditions will have to be identified, individually analysed and modified in the inclusive school. Where this is methodically achieved, inclusive speech and language therapy and facilitation are possible. Otherwise exclusive specialised techniques of intervention and individualised support will still be required. The review on the historic development carried out in this article and the current professional-theoretical position and structure of special education for pupils with speech and language education in Germany has shown that a specialised domain of educational sciences is sufficient without acquiring additional resources and sources in the healthcare system by logopaedics.

References

- Albrecht, F.; Hinz, A. & Moser, V. (2000) Perspektiven der Sonderpädagogik. Disziplin- und professionsbezogene Standortbestimmungen. Neuwied; Berlin: Luchterhand
- Astington, J. (2006) The developmental interdependence of theory of mind and language. In: Levinson, S.C. & Enfield, N.J. The roots of human sociality. *Culture, cognition, and human interaction*. Oxford, UK: Berg, 179-206.
- Bachmann, J.; Königstein, B.; Jäger, B. & Mosler, J. (2001) Modell zur Verbesserung der Berufsreife von Schülerinnen und Schülern der Hauptstufe. *Die Sprachheilarbeit*, 46(5), 224-232
- Bachmann, J. & Jäger, B. (2010) Wir haben es geschafft. Erfolgreiche-Berufliche Eingliederung an einer Sprachheilschule. *Erscheint im Tagungsband des 75. Bundeskongresses der dgs e.V.*
- Berg, M. (2008) Kontextoptimierung im Unterricht. Praxisbausteine für die Förderung grammatischer Fähigkeiten. München: Reinhardt
- Bindel, R. (2007) Kognitives Modellieren als didaktisches Prinzip. In: Kohlberg, T. *Sprachtherapeutische Förderung im Unterricht*. Stuttgart: Kohlhammer, 144-160
- Bindel, R., Kessler, L. & Musmann, J. (2007) Zur Emergenz von Sprache. *Forum Sprache*, 1, 16-23
- Braun, O. (1983) Sprachtherapeutischer Unterricht in Theorie und Praxis. Bestandsaufnahme und Diskussion. In: Deutsche Gesellschaft für Speech and Language Therapy e.V. *Konzepte und Organisationsformen zur Rehabilitation Sprachbehinderter*. Hamburg: Wartenberg, 167-178
- Braun, O. (2004) *Bildung, Erziehung und Unterricht in der Sprachheilpädagogik*. In: GROHNFELDT, M. *Lehrbuch der Sprachheilpädagogik und die Logopädie*. Bd. 5. Stuttgart; Berlin; Köln: Kohlhammer, 25-51
- Camarata, S.M. & Nelson, K.E. (1992) *Treatment efficiency as a function of target selection in the remediation of child language disorders*. *Clinical Linguistics and Phonetics*, 6, 167-178
- Clahsen, H. (1986) Die Profilanalyse. Ein linguistisches Verfahren für die Sprachdiagnose im Vorschulalter. Berlin: Marhold
- Dannenbauer, F.M. (1999) Grammatik. In Baumgartner, S. & Füssenich, I. *Sprachtherapie mit Kindern*. München: Reinhardt, 123-203
- Dlugosch, A. (2005) Professionelle Entwicklung in sonderpädagogischen Kontexten. In Horster, D. *Sonderpädagogische Professionalität. Beiträge zur Entwicklung der Sonderpädagogik als Disziplin und Profession*. Wiesbaden: VS, Verlag für Sozialwissenschaften, 27-51
- Drave, W.; Rimpler, F. & Wachtel, P. (2000) Empfehlungen zur sonderpädagogischen Förderung. Allgemeine Grundlagen und Förderschwerpunkte (KMK) mit Kommentaren. *Empfehlungen zum Förderschwerpunkt Sprache*. 1998. Würzburg: Bentheim
- Friend, M. & Bursuck, W.D. (1999) *Students With Special Needs*. Needham: Heights
- Froeschels, E. (1913) *Lehrbuch der Sprachheilkunde*. Leipzig: Deuticke
- Glueck, C. & Musmann, J. (2009) *Inklusive Bildung braucht exklusive Professionalität. Entwurf für eine ,Inklusive Speech and Language Therapy '*. *Die Sprachheilarbeit*, Berlin, 54(5), 221-228
- Graumann, C.F. (1994) Wieviel Zeigen steckt im Nennen? In Kornadt, H.-J. *Sprache und Kognition*. Heidelberg. *Spektrum*, 55-69
- Grimm, H. (2003) Störungen der Sprachentwicklung. Grundlagen - Ursachen - Diagnose - Intervention - Prävention. Göttingen: Hogrefe

- Gutzmann, A. (1888) Das Stottern und seine gründliche Beseitigung durch ein methodisch geordnetes und praktisch erprobtes Verfahren. Berlin
- Gutzmann, H. (1912) Sprachheilkunde. Vorlesungen über die Störungen der Sprache mit besonderer Berücksichtigung der Therapie. Berlin: Kornfeld
- Homburg, G. (1993) Konvergenz von grundschul- und sprachheilpädagogischer Arbeit - ein Ansatzpunkt zu einer veränderten Grundschul- und Speech and Language Therapy . *Die Sprachheilarbeit*, Berlin, 38(6), 279-296
- Hinz, A. (2009) Inklusive Pädagogik in der Schule. Veränderter Orientierungsrahmen für die schulische Sonderpädagogik!? Oder doch deren Ende? *Zeitschrift für Heilpädagogik*, Würzburg, 60, 171-179
- Kussmaul, A. (1877) Die Störungen der Sprache. Leipzig: Vogel
- Lüdtke, U. (2010) Sprachdidaktiktheorie. Vom Sprachtherapeutischen Unterricht zur Relationalen Didaktik. Wie weiter in Zeiten der Inklusion? *Zeitschrift für Heilpädagogik*, Würzburg, 3, 84-96
- Lütje-Klose, B. (1997) Wege integrativer Sprach- und Kommunikationsförderung in der Schule. Konzeptionelle Entwicklungen und ihre Einschätzung durch amerikanische und deutsche ExpertInnen. St. Ingbert: Röhrig
- Lütje-Klose, B. (2008) Mobile sonderpädagogische Dienste im Förderschwerpunkt Sprache. Rekonstruktionen aus der Perspektive der durchführenden Sprachbehindertenpädagoginnen. *Zeitschrift für Heilpädagogik*, Würzburg, 8, 282-292
- Lütje-Klose, B. & Willenbring, M. (1999) Kooperation von Regelschullehrerin und Sprachbehindertenpädagogin. Eine wesentliche Bedingung für die integrative Sprach- und Kommunikationsförderung. *Die Sprachheilarbeit*, Berlin, 44(2), 63-76
- Marvin, C. A. (1990) Problems in School-based Speech-Language Consultation and Collaboration Services: Defining the Terms and Improving the Process. In Secord, W.A. & Wiih, E.H. Collaborative Programs in the Schools Concepts, Models, and Procedures. San Antonio: Harcourt Brace Jovanovich, 37-47
- Mayer, A. (2003) Möglichkeiten der Sprach- und Kommunikationsförderung im Unterricht mit sprachentwicklungsgestörten Kindern. *Die Sprachheilarbeit*, Berlin, 48(1), 11-20
- Moser, V. (2005) Diagnostische Kompetenz als sonderpädagogisches Professionsmerkmal. In Moser, V. & Von Stechow, E. Lernstands- und Entwicklungsdiagnosen. Bad Heilbrunn: Klinkhardt, 29-41
- Motsch, H.-J. (2006) Kontextoptimierung. Förderung grammatischer Fähigkeiten in Therapie und Unterricht. München: Reinhardt
- Mussmann, J. (2009) Sprache und Kommunikation in informellen Lern- und Bildungskontexten. Saarbrücken: Südwestdeutscher Verlag für Hochschulschriften
- Mussmann, J. Beziehungsweise Sprache. Sprache als Medium sozial-emotionaler Entwicklung. In Tagungsband der Fachtagung 100 Jahre Sprachheilschule Halle - älteste Sprachheilschule Deutschlands. Halle, 2010a
- Mussmann, J. (2010b) Rezension zu: Karin Reber/ Wilma Schönauer-Schneider: Bausteine sprachheilpädagogischen Unterrichts. München: Ernst Reinhardt Verlag
- Nadoleczny, M. (1926) Kurzes Lehrbuch der Sprach- und Stimmheilkunde. Leipzig: Vogel
- Nelson, K. (1996) Language in cognitive development – emergence of the mediated mind. New York: Cambridge University Press
- Reber, K. & Schönauer-Schneider, W. (2009) Bausteine sprachheilpädagogischen Unterrichts. München: Reinhardt
- Rothe, K.C. (1925) Das Stottern, die assoziative Aphasie und ihre heilpädagogische Behandlung. Wien: Bundesverlag
- Slobin, D.I. (1996) From 'thought and language' to 'thinking to speaking'. In: Gumperz, J.J. & Levinson, S.C. Rethinking linguistic relativity. Cambridge: Cambridge University Press, 70-96
- Tomasello, M. (2002) Die kulturelle Entwicklung des menschlichen Denkens. Frankfurt am Main: Suhrkamp
- Ungeheuer, G. (1987) Sprechen, Mitteilen, Verstehen. *Kommunikationstheoretische Schriften I. Aachener Studien zur Semiotik und Kommunikationsforschung*. Aachen: Rader
- Weisser, J. (2005) Behinderung, Ungleichheit und Bildung. Eine Theorie der Behinderung. Bielefeld: Transcript
- Welling, A. & Kracht, A. (2002) Sprachpädagogische Professionalisierung der Sprachtherapie Kooperation als pädagogische Leitidee. In: Arbeitskreis Kooperative Pädagogik (AKOP) e.V. Vom Wert der Kooperation Gedanken zu Bildung und Erziehung. Frankfurt am Main, 127-158
- Welling, A. (2006) Einführung in die Sprachbehindertenpädagogik. München: Reinhardt
- Welling, A. (2007) Unterricht und Therapie – die didaktische Frage im Förderschwerpunkt Sprache. In: Schöler, H. & Welling, A. Sonderpädagogik der Sprache. Göttingen: Hogrefe, 955-981

Werner, L. (1995) Aspekte der Integration von Therapie und Unterricht in der Schule für Sprachbehinderte sowie in schulorganisatorisch integrativ organisierten Einrichtungen. In: Gieseke, T. Integrative Sprachtherapie. Tendenzen und Veränderungen in der Speech and Language Therapy . Berlin: VWB, Verlag für Wiss. und Bildung, 109-121