**“Job communication and hard of hearing employees”:**

**Germany´s first disability case study as a part of the North Rhine-Westphalian Ruhr University´s equality and diversity strategy**

Caroline Richter M.A., Agata Markocinski B.A.

**Summary**

This paper illustrates the importance of *Managing Disability* as part of *Managing Equality, Diversity and Inclusion* (short: EDI) on the basis of the specific implementation example from the Ruhr University Bochum and the first nationwide long-term study in Germany on the topic of job communication and hearing-impaired employees.

**1. Purpose**

This paper aims to explore the relevance of disability management against the backdrop of *Equality, Diversity and Inclusion (EDI)* for German universities. It illustrates the paucity of research (particularly in regard to disability and work research) and theimportance of *Managing Disability* on the basis of the specific implementation example from the Ruhr University Bochum. The article discusses the first nationwide long-term study on the topic of job communication, work-assistance and hard of hearing employees.

**2. Design/methodology/approach**

The leading questions of the study were the needs and **tasks in practice for the hearing-impaired individuals and the work assistant as well as the implementation. The interests were also the agreements and cooperation during the assistance, furthermore the demand of the progressing.**

The study took six months in 2011 and included structured expert interviews and discussions; the documentation of work approaches and significant results and experiences were evaluated. The persons included to augment the study were sent questionnaires. The current specialist literature and socio-demographic data on the subject were also analyzed in a back-up function.

**3. Findings**

The results of the case study show that occupational communication and participation for hearing-impaired employees is limited in a variety of situations, despite technical aid equipment. Overall, the project demonstrates clearly that there is a structural deficiency for the participation of hearing-impaired individuals in occupational communication; a deficiency that can be eliminated with work assistance. While such work assistance can be assessed as being necessary at the individual level for the hard of hearing recipient of the assistance and possibly also for other hearing-impaired individuals, its collective implementation at the structural level must nevertheless be assessed as a luxury, even though it would be particularly effective and makes sense for hearing-impaired individuals and their surroundings.

**4. Research limitations/implications**

The study was subject to research limitations which primarily affect its representativeness: The target group of hearing-impaired employees examined in the study is quantitatively very small and only represents a minority within the minority of disabled persons at universities. Additionally, the study could only be conducted with the work of one of Germany’s twelve specially trained work communication and work assistance specialists for hearing-impaired persons, thereby inherently limiting the representativeness for other such communication and work assistance specialists and practices.

**5. Originality/value of the paper**

The *Convention on the Rights of Persons with Disabilities* (short: UN-CRPD) poses new challenges for universities, which must more forcefully ensure the inclusion of disabled persons in the internal job market than has been the case until now. The few existing managing diversity concepts in and for German universities are still in the development phase; universities have only begun addressing the topic of *Managing Equality, Diversity and Inclusion* very recently; there are not (yet) any tested concepts and instruments. The case study on *communication & work assistance for hard of hearing employees* is unique throughout Germany for the implementation of the UN-CRPD at universities. Furthermore, the number of young people and employed persons with hearing impairments has constantly increased in recent years; as such, the paper depicts experiences and potentials for overcoming future challenges.

**Keywords:** university, disability and hard of hearing, work-inclusion-strategy, effectiveness and efficiency, work- and communication-assistance

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**1. Initial situation**

The strategy and aims of higher education institutions are focused primarily on their constituent function as educational facilities for students. But in order to cement their existence as excellent performance centers they are also dependent on excellent personnel, with the management of diversity in scientific and administrative personnel gaining in importance. Recently, the search for appropriate concepts and management strategies has increasingly also drawn attention in Germany to the topics of diversity (cp. Stuber, 2004), diversity management (e.g. Belinzki et al., 2003; Becker and Seidel, 2006) or managing diversity (e.g. Wagner and Voigt, 2003). The objective behind these virtually synonymous terms is to make the diversity of members of the particular organization or relevant (minority) groups strategically useful and to compensate the negative aspects of diversity (e.g. Konrad et al., 2006).

US research cites what is known as the *Big 8* as central dimensions of diversity: race, gender, ethnicity/nationality, organizational role/function, age, sexual orientation, religion and mental/physical ability (Plummer, 2003). Most of the German-language literature on the subject also notes eight dimensions as primary characteristics in addressing the topic of diversity: race, sex, ethnic origin/culture/skin color, age, sexual orientation, religion, world view and disability (e.g. Stuber, 2002; Vedder, 2005). The German view therefore focuses less on the broadly interpretable term “mental or physical ability” and more on the area of the disability that is restrictive or which at least deviates from the norm.

This paper aims to explore the relevance of disability and inclusion management against the backdrop of equality, diversity and inclusion for German universities. It takes the example of the *Ruhr-University Bochum’s* case study on *communication and work assistance for hearing-impaired employees* (short: c&w assistance), the first study of its kind in Germany, to illustrate this part of the diversity strategy and to depict the related experiences and outcomes up to now. The disability case study initiated and financed by the Ruhr-University Bochum’s HR Department and its representative body for severely disabled persons as a part of the equality, diversity & inclusion concept was conducted between April 1st and September 30th, 2011, and since 2012 the search has been on to find financing opportunities to continue the program. During the project period, a work assistant was hired on the basis of a salary agreement for up to 70 working hours per month.

The initial part of this essay addresses the deficit in social science and human factors science research on disability, taking the example of hearing impairment and participation in the job market. It follows with a description of the case study on work assistance as an innovative instrument of inclusion, after which the central findings of the study are sketched out. The last section of this essay provides a summary of the lessons learned from a critical-theoretical perspective, followed by deduced concluding recommendations and correlating factors for equality, diversity and inclusion (short: EDI) in organizational and personnel development.

**2. Case study: project idea at Ruhr-University Bochum**

The few existing managing diversity concepts in and for German universities are still in the development phase; as such, the choice and application of EDI-strategies and instruments goes hand in hand with their “fabrication” (according to von Kleist, taken in reference to organization research of Kieser, 1998), i.e. their (interest-directed) perception, interpretation and adaptation by the participants and affected individuals and groups in each case.

The same applies as well for the Ruhr University Bochum (RUB) in North-Rhine Westphalia. It is the city’s largest employer with 5,500 employees (Status: Dec. 1st, 2010). Of those 5,500 employees, 2,420 are employed in non-scientific positions and 3,080 are employed in scientific positions. A total of 34,024 students (Status: WS 2010/11) are registered; 2,227 students come from abroad to study in Bochum, 1,721 students are immigrants or offspring from immigrant families. Since it was founded in 1965, RUB has developed 20 faculties and a range of curricula covering 153 fields of study. University-wide there are more than 40 international partnerships and more than 200 at the faculty/institute level. Double degree programs are aimed at increasing international employment opportunities. RUB participates in over 50 international research projects. Since resolving to adopt a strategy of internationalization in 2010, internationality is to be consistently established not only in specially designated areas and facilities at RUB, but instead throughout the entire campus. Numerous staff units and university authorities are addressing the topic of EDI without acting under this title, such as the Equality Appointee, the Severely Disabled Representation (german: Severely disabled personsvertretung) and the Internationalization Staff Unit. RUB explicitly rejects the anchoring of a Diversity Staff Unit like those already in existence at other universities; instead, the university is striving to take an individualized path and seek out new approaches.

This project was focused on organizational and personnel development and was aimed at anchoring equity of opportunity, cosmopolitanism and inter-culturality as a cross-sectional task that is accepted, implemented and practiced by all members at all levels.

**2.1 Research deficit I: disability, hearing impairment and work**

German universities have only begun addressing the topic of Manging EDIvery recently; there are not (yet) any tested concepts and instruments. The case study on *c&w assistance for hard of hearing employees* is unique throughout Germany for the implementation of the *Convention on the Rights of Persons with Disabilities* at universities. Furthermore, the number of young people and employed persons with hearing impairments has constantly increased in recent years; as such, the paper depicts potentials for overcoming future challenges.

Considering the overall number of persons with disabilities, the number of persons with hearing impairments represents a comparatively small group. At present, it is estimated that there are some 55 million adults with impaired hearing in the European Union aged between 18 and 80 years (hear-it.org). This figure is set to rise to approximately 90 million by 2015 (Ibid.).

Since few hearing-impaired individuals openly acknowledge their impairment and apply for a disability certificate, the statistics on the number of hearing impairment sufferers are hardly reliable and the number of unreported cases must be estimated to be far higher. However, against the backdrop of demographic change and the extension of the average working life, this group is especially relevant, since the number of children with notable hearing impairments has increased significantly in recent years. The German Environmental Survey for Children conducted from 2003/06 by the German Federal Ministry of the Environment and the Robert Koch Institute and commissioned by the Federal German Ministry of Education and Research notes and specifically warns of this trend (Babisch, 2009). Hearing impairments are increasingly affecting people of employable age. An investigation conducted in 2007 by Witten/Herdecke University in Germany found that currently one-fourth of hearing-impaired individuals are between the ages of 50 and 59, an age group that still has many years of vocational life ahead of it (Sohn, 1999).

Overall, in the recent past the topic of disability has largely been marginalized in German-language social sciences literature. For example, sociological specialist magazine “Soziale Probleme”, dedicated to issues of social challenges and social controls, has only published two pieces on the topic of disability in 21 issues published by the magazine since 1990 (Waldschmidt, 1998; Wetzel, 2002). Empirical works are also scarce. One of the few exceptions only addresses the topic of disabled persons’ leisure activities (Markowetz and Cloerkes, 2000), but not their employment arrangements. All of this is despite the fact that the right to work and equality on the public job market constitutes a central political demand of the *Convention on the Rights of Persons with Disabilities*. The specialist magazine “Arbeit”, which focuses on trends and challenges in working environment and human factors research, employment arrangements and employment policies, has only published two essays in more than 80 issues published until now since 1992 that address the topic of disability and work (Wetzel, 1999; Rudow et al., 2007). And to describe as rare empirical human factors science studies examining disability in relation to public job market work or organizations (i.e. aside from special *workshops for disabled persons*) is an understatement.

Only the study known as *ArzT-Studie* (commissioned by the sponsor of work assistance in Germany) conducted between 2004 and 2007 empirically analyzed the instrument of work assistance for disabled persons; the study reached the conclusion that work assistance contributes to participation in the workplace and is suitable for numerous disabled persons, and that hearing impaired persons also benefit from this support.

Despite these findings and research deficits, the invisible disability of hearing impairment remains (as yet) unrecognized as a field of research. The increasing relevance in regard to work and organization issues due to demographic change, the extension of the working lifetime (in Germany to age 67) and the increasing rise in hearing impairments have as yet received scarcely any attention at all.

The academic literature has primarily taken the position that disability is automatically linked with medical diagnostics and is virtually synonymous with disadvantage (see for example Cloerkes 2003, 2007; Forster 2004; Wacker/Wedel 1999; Waldschmidt 2007). Disability sufferers have repeatedly been behind moments of remonstration during the history of the Federal Republic of Germany; the most prominent of these was the radical, socially critical movement of the 1970s and 1980s known as the *Krüppelbewegung* (cripple movement). However, the movement developed into a disability movement with demands of a more reformist, socially inherent nature (Cloerkes, 1985) instead of making the category of disabilitya central issue.

With German-language territories increasingly giving greater attention to disability studies (e.g. Waldschmidt and Schneider, 2007), which are already established as an interdisciplinary field of research in the English-speaking world (e.g. Albrecht et al., 2001), critical discussion of the multiple facets of disability and disadvantage is slowly expanding and deepening. Stimulated by disability studies, disability and disadvantage are increasingly being identified and considered as structures of social and cultural exclusion and mechanisms of repression (Bösl et al., 2010). Some instructive perspectives on this are currently available in literature on social constructionism (e.g. Bendel, 1999), research on gender and intersectionality (Bruner, 2005; Raab, 2007), sociology of the body (Gugutzer, 2004; Gugutzer and Schneider, 2007) and political sociology (Maschke, 2007). Despite differing central focuses, the consensus in the current debate is that disability is correlated with complex practices of thinking, perception, assessment and action that necessitate normality categories on the one hand and simultaneously reproduce them on the other (Bruner, 2005; Waldschmidt and Schneider, 2007). After all, stigmatization, discrimination, precarity and isolation are manifested for disabled persons in numerous objective structures in social space, for instance in the design of architecture, infrastructure or work processes tailored to the average non-disabled person. The integration of persons classified as disabled into processes of communication, consumption and work always (additionally) serves in integration and the adaptation to a non-disabled order.

**2.2 Research deficit II: the right to participation in the working life**

The *Convention on the Rights of Persons with Disabilities* (short: UN-CRPD) on the Rights of Persons with Disabilities and its requirements for structural inclusion, participation and accessibility on the general job market (Article 27 in the German Version) which took effect in 2009 emerged right in the middle of the initial confrontation with the subject of disability and Germany’s relatively new academic areas of the sociology of disability and disability studies.

The participation of disabled persons has nevertheless been anchored for many years in *German constitutional law* (Article 3 of GG/German Grundgesetz) and numerous benefit and compensation laws; for example, employers are obligated to fill a prescribed minimum number of jobs with severely disabled persons or pay a compensatory levy benefiting the integration of people with disabilities. Also, once their workforce has achieved a certain size and number of disabled employees, employers must also create a special body representing the interests of employees with disabilities.

The UN-CRPD requires the following as an indispensable objective for the inclusive configuration of the work environment and therefore the guarantee of adequate occupational participation as defined by Article 27 of the UN-CRPD (German version): Every person with a disability should be employed on the general job market according to his or her abilities and aptitudes, thereby earning a living and having access to continuing training and advanced training measures.

The convention maxims of *parti*cipation, *non-discrimination*, *accessibility* and the elimination of barriers focus on professional qualification and personal support along with special support structures and contact persons who are sensitive to the special needs of disabled persons. These requirements also pose new challenges for universities, which must not only demonstrate a greater commitment to the concerns of disabled students, but also more forcefully and intensively ensure the inclusion of disabled persons in the internal job market than has been the case until now.

In its own efforts for managing EDI, the Ruhr University Bochum (RUB) decided not to simply consolidate existing measures under a new label, but to actively develop new measures.

The case study introduced below is the first empirical work in Germany on hearing impairment in professional life and the instrument of c&w assistance, which was tested as an EDI management measure at the Ruhr-University Bochum.

**3. The disability case study**

To this end, between April and September of 2011, RUB was the first higher education institution in Germany to test the implementation of communication and work assistance for hearing-impaired employees. In addition, the HR Department hired one of Germany’s twelve specially trained work assistants, a communication and work assistance specialist for hearing-impaired persons. This work assistant was hired to provide free, non-bureaucratic interpretation services facilitating acoustic communication for hearing-impaired employees and their surroundings.

The instrument of work assistance is governed as an individual right for hearing-impaired individuals and their employers in a variety of laws. Collective implementation for entitled individuals without ongoing application documentation has been rejected by funding entities up to now; the reasons that they constantly cite for this are that technical possibilities (hearing aids) and co-worker support eliminate the need for any specific assistance. This assumption should be reevaluated in the interest of compliance with the UN-CRPD demand for inclusion and equality facilitated by changes in existing structures. On this basis, the EDI sub-project illustrated above was accompanied by a scientific case study from the chair of work organization and work structuring (institute of work science). The study is aimed at examining the effectiveness and economic efficiency of the structural communication and work assistance program and at testing and evaluating a model instrument for promoting occupational inclusion.

**3.1 Research questions and methodology**

**The case study is intended to find answers to the following questions:**

* **What needs and tasks are recognizable in practice for the hearing-impaired individuals and the work assistant? How are they being implemented?**
* **How are agreements made? What is the nature of the cooperation from technical, methodical and social/personal perspectives?**
* **How is demand for this progressing? Is the program being extended to additional hearing-impaired individuals? If so, what measures for such expansion are being undertaken?**

Cumulatively, answers should be provided as to whether and under what circumstances (the structural implementation of) communication and work assistance is effective in regard to its content as well as economically efficient in the interest of promoting and contributing to the professional inclusion of hearing-impaired individuals at universities and subsequently to manaFging EDIas described in UN-CRPD. Qualitative and quantitative methods were applied in accomplishing this: structured expert interviews, document analyses and data gathered through the use of questionnaires.

The case study focused on the work of the communication and work assistant. The hearing-impaired chairperson of the body representing the interests of severely disabled individuals acted in the study as the principal assistance recipient of the services provided by the c&w assistant. The study included structured expert discussions (Liebhold and Trinczek, 2000; Flick, 2006), and the documentation of work approaches, significant results and experiences were evaluated. The persons included to augment the study were sent questionnaires. The current specialist literature and socio-demographic data on the subject were also analyzed in a back-up function.

The basis for the case study consists of 27 weekly documentations conducted by the c&w assistant; four interviews with the c&w assistant and the recipient of the assistance conducted at two different times during the case study; eight summaries of special situations (“Event diaries”) written by the recipient of the assistance; four questionnaires issued to additional hearing-impaired employees and co-workers or supervisors working with hearing-impaired persons; and one accompanying analysis of the related specialist literature and socio-demographic data.

All of the data gathered and researched were evaluated in regard to their content with consideration for developments and changes, and finally compiled for response to the target questions.

**3.2 Research implications and limitations**

The development of an approach toward managing EDI was begun in the spring and summer of 2011 in cooperation between the university’s management and the sociologically oriented chair of work organization and work structuring. This cooperation involved analyzing needs and existing structures, and finally an implementation and sensitization project was created that is scheduled to begin in 2012. The strategically relevant representatives of the Ruhr University Bochum’s management participated in the project development. The staff units that were included in addition to the university president’s office were the offices responsible for organizational development and consultation, strategic PR and branding, internal advanced training and consultation and the International Office/Internationalization. Additional relevant cooperation partners were the directorship of the HR Department, the directorship of the office responsible for central education, the representative appointed for issues relating to the severely disabled and the representative appointed for issues relating to equality. This strategic decision also meant that the responsibility for managing EDI should not initially be delegated to a specially appointed expert. Instead, it was to be linked as an across-the-board management task with persons already established and known by employees of the university and worked on using scientific methodology at the *Institute of Work Science*.

Following an analysis of the socio-demographic data on the composition of the staff and the actively committed representation of the severely disabled, it was resolved to explicitly make the characteristic of disability the object of a sub-project based on the specific example of the invisible, increasingly widespread and societally disparaged condition of hearing impairment. The resulting long-term study was conducted throughout Germany and was subject to research limitations which primarily affect its representativeness: The target group of hearing-impaired employees examined in the study is quantitatively very small and only represents a minority within the minority of disabled persons at universities. The benefits yielded from this effort are obvious: Attention is drawn to a specific case without generalizing the results to apply to other disabilities. This makes the invisible disability of impaired hearing tangible. Hearing impairment is additionally a deficiency which is not congenital and which can develop over the course of one’s life. The change in demographics, frequent loud noises that are a part of daily life and longer working lives confront human hearing with formidable challenges, and potentially anyone in our society can be affected by impaired hearing. Additionally, a hearing impairment is generally a gradual process that is usually only noticed by the sufferer at a very late stage. Additionally, the study could only be conducted with the work of one of Germany’s twelve specially trained work communication and work assistance specialists for hearing-impaired persons, thereby inherently limiting the representativeness for other such communication and work assistance specialists and practices.

**4. Findings**

The results of the case study show that occupational communication and participation for hearing-impaired employees is limited in a variety of situations, despite technical aid equipment. Overall, the project demonstrates clearly that there is a structural deficiency for the participation of hearing-impaired individuals in occupational communication; a deficiency that can be eliminated with work assistance. While such work assistance can be assessed as being necessary at the individual level for the hearing-impaired recipient of the assistance and possibly also for other hearing-impaired individuals, its collective implementation at the structural level must nevertheless be assessed as a luxury, even though it would be particularly effective and makes sense for hearing-impaired individuals and their surroundings.

The key learning is that it is indispensable to engage and invite input and leadership from the traditionally underrepresented group of employees with disabilities and their colleagues, supervisors and employees in order to link disability in as a component of EDI management aimed at inclusion. The implementation and realization of managing EDIat universities is time-consuming and communicatively challenging, is in no way free of conflict and requires policies and visions outside the realm of economic standards, concrete guidelines and instruments, top-down statements and a bottom-up dialogue with disabled persons, their colleagues, supervisors and employees.

**4.1 A selection of specific results for the EDI specialists**

1. **Tasks and activities:** Assistance as a structural program at RUB allows for no methodical specialization in only one interpretation technique, instead requiring a flexible mixture of methods consisting of verbal interpretation on the telephone, summarized simultaneous transcribing on computer and handwritten notes in a variety of situations and under a variety of surrounding spatial conditions. It makes particular sense in fields of activity where the work features a high level of communication (meetings, discussions, phone calls) in different settings (interpretation via simultaneous or consecutive transcribing, summary transcribing or repeating the dialogue in telephone calls, in mobile situations or in discussions with groups and individuals). On the one hand, assistance contributes to the ability of hard of hearing employees to ensure their concentration and substantial participation over a longer period of time; on the other hand, assistance ensures that concluded agreements are acoustically understood by numerous parties and therefore that their content can also be communicated. Since many of the occupations and assignments at RUB have to be conducted with a focus on contact, service and commitment, the application of such assistance in a university environment should be appraised as being worthy of recommendation.
2. **Agreements and configuration of the cooperation:** The c&w assistant described the cooperative work in the interviews and documentations as being characterized by trust, honesty and increasing routine. Both sides assessed the acceptance that the assistant received as having improved and stabilized over the period of the project, with the assistant’s presence at regularly held events increasingly being viewed by the others as a matter of course and included in their planning. On this basis one can assume that it is highly advantageous if the team in question is capable of cooperating over a longer period. With only a few known cases of hearing impairment at RUB with staff from the areas of science, administration, technology and other fields, the project’s work dealt with a very limited number of people; this is an area where cooperation with other universities and higher education institutions could be a sensible move.
3. **Positive experiences:** The c&w assistant had an equally alleviating effect on the persons she assisted as she did on her colleagues and supervisors. Her interpreter services made it easier for the hearing-impaired persons she assisted to concentrate on content and their professional duties, to participate directly in discussions and to pose questions in response. Her colleagues and supervisor also experienced her assistance work in a positive light, since first of all it meant one more person was compensating support needs and subsequently allowing them to give greater focus to content themselves, and secondly, the presence of the assistant contributed to disciplined, results-oriented communication.
4. **Negative experiences and challenges:** Interpretation poses significant challenges for the person providing the assistance. Role reflection and active demarcation, for instance resulting from the necessity to leave pauses, pose practical challenges. Unforeseeable results and changing framework conditions of the work are unavoidable, thus requiring flexible methods and a high level of adaptability, but also influencing the quality of the interpretation. Rejection and insecurity on the part of hearing-impaired individuals and their environment make this work more difficult and breaking through this posture requires a great deal of patience, time and clarification.
5. **Future topic - hearing impairment in one’s professional life:** As a result of demographic change and longer work lives, hearing impairments represent a challenge to the job market, both for sufferers and for co-workers and supervisors within companies. The number of potential employees and employed persons with impaired hearing is constantly increasing, while hearing impairment is becoming a greater barrier to participate in the workplace as a consequence of flexibilization and rationalization in the working world.
6. **Usage of assistance at RUB:** On balance, the c&w assistance at RUB should be appraised as effective (as defined in terms of meeting its objective), but within the project period of 6 months as only partially efficient (as defined in terms of the effort required to meet its objective). These appraisals are based on the fact that despite being directly addressed by the c&w assistant and despite the publicity promoting the assistance program and the case study in the university newspaper and the local press, only one additional person at RUB was able to be recruited as a regular user of the assistance, and only a few persons within and outside of RUB were able to be recruited for a trial.
7. **Low efficiency:** We suspect the following causes were behind the low level of usage of the assistance at RUB:

* Sufferers do not want their disability to be visible for others.
* Sufferers do not know what they can expect.
* Sufferers rely on other compensation strategies.
* Assistance for hard of hearing employees is directed at a minority within the minority.

1. **High effectiveness:** Despite the low level of efficiency resulting from insufficient distribution within the project period, there are still arguments that speak for the effectiveness of the assistance support:

* The work environment of hearing impairment sufferers profits from the c&w assistance, and misunderstandings in the communication and perception of communication can be dealt with
* The disability cannot be taken advantage of by others during the course of work
* The presence of an assistant sensitizes everyone to the issue of hearing impairment and disciplined discussion skills
* The c&w assistance can reduce prejudices, biases and incorrect assumptions based on resistance to the unfamiliar between employees with normal hearing and the group of hearing-impaired persons.

**4.2 Project result: long-term continuation or not?**

During the 6-month project period it became clear that confronting the topic of hearing impairment and communication that is altered through hearing impairment was initiated by the assistance program, and that dialogue on the subject was opened up and viewpoints were exchanged. We therefore made a summarized recommendation to continue the c&w assistance, if necessary on a limited basis, and to augment it with

* gathering a broader range of data or compiling a survey on hearing impairment at RUB
* intensifying the top-down provision of information and bottom-up permanence in a manner closely linked to the RUB maxims of “cosmopolitan, humane and highly capable”
* maintaining a close, highly sensitive eye on blockades at hierarchical and personal levels

Three arguments were the decisive factors for us in this recommendation:

* an increase in the equality of opportunity/access for hearing-impaired employees/applicants, trainees and persons who work and communicate with them (i.e., relieving the burden on the teams)
* retention and increase in the employability of hearing-impaired individuals, support for the teams and subsequently the optimization of RUB resources
* the reduction of negative discrimination (in accordance with UN-CRPD) and the increase of equal opportunity.

Within the framework of the case study, the EDI-relevant business case for specialists and the entire project team addressed by Kirton and Greene (2009) and others represented a challenging task that also entailed tension and conflicts. This became particularly obvious in the assessment of the findings and the discussion regarding a possible continuation of c&w assistance, where various players pursued their own different interests. After the conclusion of the project phase, the hard-of-hearing employee gave an extremely positive assessment: “My workday is now far less stressful and I no longer have to constantly fill in the gaps of the acoustic patchwork of word snippets. This gives me more time to concentrate on the core duties of my job and enables me to apply my skills more effectively. I no longer always have to think about or ask what others might have said or search for the common thread. I can simply apply my skills better. Thanks to the work assistance, I’m no longer always so exhausted from the hearing stress, and that makes me a better worker with a greater sense of security and self-confidence.”

In contrast to the individually positive assessment of the hearing impairment sufferers, the HR Department of the Ruhr-University Bochum remains doubtful regarding the suitability and long-term establishment of c&w assistance as an aid instrument. There was skepticism about the content of the program and how it should be financed. The recommendation of the human factors sciences case study was to continue the project in cooperation with neighboring universities and the presiding Integration Office. This would have required creating a temporary job position for c&w assistance which could have been broadened on a model basis to encompass hearing impaired job applicants and university students. However, the Integration Office that was contacted cited the fact that payments from applicable public funds are only permitted to be made for severely disabled employees who are subject to social security contributions, but not for university students and job applicants as envisioned in the structural assistance presented here. Following an initially positive evaluation, a high level of openness toward the concept and the willingness to provide funding for the continuation of the assistance, the effort ultimately failed primarily due to the financing issue.

The study provided many interesting and broadly-applicable experiences with the instrument of work assistance for hearing impaired employees of higher education institutions. Nevertheless, the question as to whether this will result in an infrastructural continuation remains open and appears, for now at least, to be unfeasible for the Ruhr-University Bochum.

These developments pose new challenges to managing EDI:

* The proportion of severely disabled hearing-impaired individuals will rise in the future, and employers and sufferers will increasingly (have to) address the issue of how they deal with the spread of hearing impairment in professional life.
* A variety of support instruments are already available for working individuals affected by deafness at birth or in early childhood: The orientation on sign language enables such individuals to benefit primarily from sign language interpreters. But for hearing-impaired individuals who have not or do not want to learn sign language, sign language interpreters do not represent an appropriate interpretation service. Modern technology or other aid possibilities such as hearing aids or even written-word interpreters often do not compensate the impairment or do not compensate it sufficiently; this is further complicated by the fact that communication requirements in the flexible working world in particular are also more differentiated.
* Therefore, there is a significant interest from a sociopolitical and job market policy perspective to support this target group in the retention of its employability, also for occupations requiring educational qualifications and specialized training skills.

*C&w assistance for hearing-impaired individuals* has therefore not (yet) been conceived as an instrument of structural inclusion, and as such is also not (sufficiently) capable in the conventional administration practices of the official authorities of meeting the current requirements for inclusion and those of the UN-CRPD.

For structural anchoring which would, for example,

* make collective implementation for all entitled individuals possible,
* be financed by a variety of funding bodies,
* be funded by a mixture of different institutions, e.g. a combination of the universities and the “typical” funding bodies,
* also be available to persons with a degree of the disability of below 50%,

there is not (yet) any practical implementation.

The fact that these innovative approaches also require a search for innovative paths is underscored by the findings of the work and organization-related case study that are illustrated in this paper.

**5. Lessons learned**

**5.1 Theoretical implications and critical perspectives**

Our concept of *equal* opportunityin this regard is the *equity* of opportunities manifested as *equality* aimed at attaining equal sharing, exact division and a kind of “egality” and therefore pursuing *equity* as a form of fairness and the justice of outcomes. This *equity* of opportunities focuses on the distribution of and access to participation in hierarchical structures in which power and inequality are tantamount to symptoms of and catalysts for difference and inequality. Universities also have a character that is hegemonic and hierarchical. Power is expressed there in ways including the participation or inclusion in communication, networks and micro-political knowledge communities in which hearing-impaired individuals do not participate or only participate in a limited capacity (to the extent that technical aid equipment does not fully compensate the acoustic deficit).

From the perspective of the sociology of disability and diversity studies and as central points for EDI actors and practitioners, a structural localization of c&w assistance raises points of critique primarily aimed at ontologization and affirmative action; these points are briefly illustrated below:

* Unequal gratification: The assistance addresses hearing-impaired individuals and their teams (co-workers/supervisors) and “elevates their position”, while sufferers of other disabilities are not able to benefit to the same extent from a comparable structure; this unequal distribution must be able to be legitimized primarily against the backdrop of limited resources.
* Difference production: Structural anchoring of assistance could solidify ontological attributes by marking out what is different (the hearing impairment, the communication limitations), while the norm (people with normal hearing, the daily communication at work) remains unmarked. The target group of hearing-impaired individuals is addressed on the basis of a stigmatizing characteristic and social differentiation is perpetuated.
* Deficit approach: This approach links disability with a more-or-less voluntary claim to compensation; this construes disability solely from the perspective of a deficit.
* Domination:In the interplay and interference at the level of perception by others and categorization of individuals and groups, Crenshaw (2000) refers to the risk of over-inclusion and under-inclusion in which discrimination is replaced by domination.

Sociologist Rogers Brubaker (2004) describes this problem in his criticism of (ethnic) “groupism”: “(…) categories shape institutional as well as informal cognition and recognition. They not only structure perception and interpretation in the ebb and flow of everyday interaction but channel conduct through official classifications and organizational routines. Thus ethnic (and other) categories may be used to allocate rights, regulate actions, distribute benefits and burdens, construct category-specific institutions, identify particular persons as bearers of categorical attributes, ´cultivate´ populations, or, at the extreme, ´eradicate´ unwanted ´elements´” (Ibid., p. 26). The conclusion from this is that EDI measures aimed at increasing inclusion and equity of opportunity for specific groups do not represent a solution for reducing discrimination, but instead represent a central problem. Measures such as the assistance constitute compensation for specific groups (in this case, hearing impaired persons), and as such threaten to essentialize difference and inequalities, allocating people to the group of hearing impaired persons and possibly reducing them to this sole characteristic; as such, the expectation of an ostensible need for support is either implied in a stereotyping manner or approved with positive intentions. Brubaker asserts that any orientation on groups increases the tendency toward establishing collective identity concepts as identity policies. The problem of *groupism* cited by Brubaker is not diminished when certain EDI management measures construct and altruistically support specific target groups. Very few people are proud of a disability or eagerly affiliate themselves with the perceived deficiency of not being able to hear as well as others. Equally, dealings between non-disabled persons and disability sufferers appear to be difficult for the non-disabled, since disability is associated with fears, prejudices, avoiding such persons or shame.

In connection with the case study, addressing this risk in practice repeatedly proved to be a dilemma: All of the participants were constantly confronted with this paradox of recognizing idiosyncrasy while avoiding the threat of a homogenizing categorization and subordination of individual persons in the interest of the organization.

As a rather new, currently topical theme in Germany, “Diversity Management” still runs the risk of tending to affirmatively interpret inequality and diversity – and as such also disability – (although completely unintentionally), as well as of ignoring the perspectives of EDI in an undifferentiated manner. One example of this is the slow pace of the confrontation now in its early stages regarding equity and equality or (as a typical German term) integration as distinct from the concept of inclusion (as is very critically cited by Wocken, 2010). This attributes the terms diversity, equality and the concept of managing EDI with a normative character, overshadowing their controversial sensitivity. One consequence of this is that it lays the groundwork for attributions leading to significant stigmatization potential. Furthermore, these popular concepts must therefore be subjected to an analysis from a scientific perspective, possibly producing new categories of diversity distinct from those already cited as the Big 8 or by Germany’s “Allgemeine Gleichbehandlungsgesetz” (general law on equal treatment).

After all, an existing disability by no means excludes the possibility that an individual’s other capabilities and skills are particularly prominent. But it has a number of effects on harnessing their usefulness and is as such accompanied by a degree of deficiency; semantically replacing this deficit with the label of being different or being a resource does not change anything beyond the lingual level. By providing a compensatory program at the structural level (in this case: c&w assistant), the disability sufferers are placed in the position of no longer having to take the initiative to request compensation and then to manage such at the operative level; instead, in the sense of an alleviation function they are relieved of the burden of having to request support and to themselves compensate the associated additional individual expenditure of effort and/or costs; additionally, co-workers and supervisors have the possibility to request assistance and can subsequently specifically take the acoustic difference into consideration in their communication. This could be positive discrimination or affirmative action. From the academic perspective of disability studies and diversity studies, such positive discrimination is tenable on the path to less negative discrimination to the extent that it is contemplated and analyzed.

In our opinion, the discussion of such objections is very important for theoretical reflection on the practice and utterly indispensable for a corresponding discourse. Rejecting the further development of instruments prevents the issue being addressed and the development of a specific, application-oriented approach from which valuable experiences can be explicated.

**5.2 Lessons learned: practical implications and notes for the future of managing EDI**

The case study produces implications for successful EDI management for organizations, and not just in relation to the disability of hearing impairment. EDI management must develop into an established, politically and economically linked long-term process enabling an exchange of views and practices both within and beyond the internal borders of organizations:

* In our opinion, the previously cited paradox of diversity (consciously maintaining diversity while simultaneously creating unity) does not mean that targeted support would be inconceivable for managing EDI. Under no circumstances does it mean that after many years of discrimination, for example through segregation, i.e. separation into different segments of life, that there is not also an urgent need for measures that can or perhaps even must prevent or compensate the existing disadvantages through differentiated treatment. Instead, the result of the study shows notably that disability, and in particular the invisible disability of hearing impairment, require an elevated awareness that is broad-based, managed with commitment and which demonstrates a courageous approach within the framework of managing EDI. More than anything this means asking people with and without disabilities how they work together, what the associated difficulties are and what they need in order to participate with one another. To achieve this, in addition to dialogue between all the players, it is particularly important to address organization expectations, daily routines, characteristics and allocation processes. Despite the difficulties to be expected, we view voluntary participation as a central aspect for the utilization of associated assistance offers; in this way, the practice of telling the group of hearing impaired individuals and their milieu what is good for them can be avoided, instead enabling each individual to decide on their own what is good for them. This becomes productive when a problem is cited, but not standardized, in order to eliminate the problem.
* Insufficient financing possibilities, the scarcely verifiable efficiency of measures and a clinging to existing frameworks hamper the expansion of EDI management concepts which can only deliver findings over the long-term. Subsequently, the work for specialists is made more difficult not only as a result of the financing and evaluation dimensions, but also of the time dimension. As such, it is necessary for EDI professionals to discuss diversity openly and constructively, and to point out problems and deficits in the process. Our experience indicates that this works better if one person within an organization does not bear sole responsibility for the planning, implementation and evaluation of EDI, whose work is then the sounding board for the whole range of diversified wishes. This role is better allocated to persons who are already known within an organization, who possess the necessary influence and with whom the organization’s members are personally acquainted.
  + - It is important to create, stimulate and maintain communication opportunities on the topic of diversity within an organization. To achieve this, a level should be created that is independent of the organization’s structures and hierarchies where management personnel and employees can meet, discuss and learn from one another.
    - Employees and job seekers with disabilities should receive support through EDI measures which help them complete their duties independently and with self-confidence. This is not possible when non-disabled co-workers serve as HR support, as in the case of the hearing impaired assistance recipient prior to the case study. This clouds responsibilities and work duties; when non-disabled employees increasingly take on the duties of disabled co-workers, they actually also contribute, despite the best intentions, to limiting the leeway that their disabled co-workers have in assuming responsibility. Against the backdrop of overall social developments, precisely this scenario cannot be permitted to happen. It is not only the creation of the possibility of diversity through the employee structure that plays a role for EDI actors; the support for every single EDI task equally plays a role. Orientation on the participation of disabled persons therefore also implies a diverse range of work organization possibilities and the expansion of structures that have previously been taken for granted which raise awareness for addressing the issue of hearing impairment in the design of communication and work processes. However, creativity, commitment and pronounced communication skills are needed among the professionals in order to be capable of having this discussion without stigmatizing groupism.
    - For EDI actors, addressing disability and developing specific structural and individual programs represent one option for creating a (preliminary) unique selling point with which organizations and commercial enterprises can stand out from the competition and promote inclusion. In our view, the long-term establishment of assistance would be an appropriate instrument for the promotion of participation for as long as the working world is not oriented on providing for disability per se. Organizational commitment in the area of the structural provision of assistance would represent a bold, important and exemplary step for the inclusion of disabled persons. The long-term establishment of such assistance at the structural level would make it and the topic of disability public, omnipresent and compatible for discussion as a theme. In addition to this constituting a benefit for the organization and despite the attendant hurdles and challenges, we also see in it the opportunity to normalize and put the topic of disability into perspective over the long-term within the larger concept of organization and society in order to contribute to equal opportunity and justice from the perspective of EDI.

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