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Linguistic knowledge of the selected groups of people with disabilities in the course of educational research – constraints and opportunities

Summary

The aim of the article is to identify certain limitations in the research conducted in a group of people with intellectual disabilities and people with hearing impairments. On the basis of reports from the field of developmental psycholinguistics it has been assumed that some of the limitations of research in the above-mentioned study groups will result from the shortcomings of linguistic knowledge of these people. It should be emphasised that linguistic difficulties have completely different backgrounds in the selected groups of people with disabilities, which was sought to be explained here.

The authors attempt to identify opportunities posed by qualitative methods increasingly used in the social sciences, including special education. The success of the research procedure, both in the paradigm of the quantitative and qualitative strategies, depends on the level of communication skills and language subjects of the research (respondents, but also researchers).

Key words: linguistic competence, communicative competence, people with hearing impairment, people with intellectual disabilities

Introduction

“Everyone knows from personal experience that both the language and its syntax rules (*linguistic competence – ed. Authors*), as well as how to use them in different social situations (*communicative competence – ed. Authors*) need to be learnt while dealing with other people, within family, at school.” (Kurcz 2007: 11).

Both of the indicated competences – linguistic and communicative, together make up our linguistic knowledge, which is congenital, but comes to life only in contact with the social group engaged in communication, in the long process of assimilation, initially, and in the long run learning the language (cf. Kurcz 2007; Krakowiak 2012). Noam Chomsky assumed that linguistic competence is the “ability (skill) of man to understand and create sentences in some language”, whilst the communicative competence, according to Dell Hymes, is “the ability to use that same language appropriately for the listener and for the social situation in which communicative interaction takes place” (Kurcz 2007: 11; see Grabias 2003). Both of the defined competences – linguistic and communicative, are independent of each other, but only together allow the full development of our linguistic knowledge (Grabias 2003; Kurcz 2007).

The fact of dependency relationship between language, thinking and the reality is irrefutable. Language, being a product of society, plays an active role in the process of perception of reality (cf. Sapir–Whorf theory about linguistic relativism and determinism, Grabias 2003). Not only is it a tool, but also a form of thinking, it marks the border and outline of human cognition; subjective perception in turn, actually leads to the formation of new linguistic facts (Herder’s thesis, Humboldt theory, Grabias 2003).

Linguistic knowledge of people with intellectual disabilities and hearing impairment and the possibility of their participation in social study

In addition to access to a social group (social dimension), the development of linguistic knowledge is also associated with individual features of a person (individual dimension), along with intellectual, emotional and social development, cognitive capacity and activity. The process of understanding statements, conditioning the development of linguistic knowledge, comes before the process of transmitting own language expressions. Kazimiera Krakowiak (2012) distinguishes four levels of information in the course of understanding”. Three of them proceed in an automated manner. These are: the level of sensory processing, the level of recognition of lexical-semantic elements (e.g. understanding individual words) and the level of syntactic integration (e.g. using words in a sentence). The fourth level of language information processing – logical-cognitive interpretation is a conscious activity.

Biological factors, that is the damage to the structure or function of the central nervous system, which contribute to the occurrence of intellectual disability and also of hearing loss – peripheral, central, mixed, being the source of hearing impairment, may lead to disorders in the field of cognitive processes (perception, attention, memory), which condition receiving, storing and processing the linguistic messages and higher cognitive processes related to thinking and understanding (and consequently transmitting) the language.

The studies focused on speech and language development in a group of people with intellectual disabilities show that “expression of children with intellectual disabilities is characterised by poor vocabulary, low level of syntactic operations, poorly assimilated grammar norms, as well as various disorders of speech; however, this does not mean the inability to communicate with the society” (Kaczorowska-Bray 2012: 53). Characteristics of cognitive processes, including those related to thinking and language in people with intellectual disability is generally presented in the context of the extent of disability. In the case of people with mild intellectual disability attention is paid to poor vocabulary with respect to abstract terms, a higher incidence of speech defects compared to those of regular intellect, difficulty in understanding other people, especially in the absence of direct contact, and the difficulty in formulating statements, especially if the content is detached from social context (Żubrowska 2008; Chimicz 2015). On the other hand, people with moderate, severe and profound intellectual disability demonstrate delayed readiness to language acquisition (Piszczek 2007) and different communication skills (in terms of transmitting and receiving linguistic messages), depending on the level of intellectual functioning – the higher the level, the greater the ability of verbal communication. People with moderate intellectual disability more often speak in sentences, demonstrate fluent speech, though generally less clear. Also, in this group the ability to understand speech is greater. When compared to people with profound intellectual disabilities, persons with severe intellectual disability, in addition to non-verbal communication (gesture, facial expression, vocalisation), use words or simple sentences. Among people with profound intellectual disabilities we can distinguish those that do not use the acoustic speech and those who remain at the level of a word in the development of speech (Kirenko & Parchomiuk 2008). Sometimes, thanks to intensive therapy run by the family and professionals, they understand certain words and follow simple commands (Wyczesany 2012). In the situation of deprivation of opportunities to use the acoustic speech by people with a deeper intellectual deficit the possibility of

introducing alternative methods of communication is introduced, which requires a multidisciplinary diagnosis towards communication skills, allowing to assess the maturity of brain structures involved in the creation of basic cognitive schemas (Piszczek 2007).

On the other hand, people with hearing impairment – mostly deaf and hard of hearing, who due to internal (e.g. genetic, congenital) or external (e.g. disease, injury) factors have, to varying degrees, limited access to sound, including speech sounds or phones, which constitute the realization of phonemes, which is essential to forming the linguistic knowledge. Lack of access to phonological subsystem of language, resulting from aphonemia or dysphonemia, prevents mental manipulation of signs at all levels of internal organisation of the language (Krakowiak 2012). Limited experience of language (linguistic deprivation in the early, critical period of language development) lead as a result to poor knowledge of the language signs and the rules governing their use and processing. More broadly, auditory processing disorders limit the opportunities to explore physical and social phenomena, described by the language (Krakowiak 2012).

Renata Kołodziejczyk (2015) performed a detailed analysis of the linguistic difficulties in terms of grammar (syntax) experienced by people with impaired hearing, on the basis of own research results and those of other authors in the field of developmental psycholinguistics in this group of respondents. The analysis of the degree of mastering the lexical subsystem (semantic and morphological, in the quantitative and qualitative context) was developed by Ewa Muzyka-Furtak (2010; 2015).

Speech and language development in the case of the hearing impaired is a complex process conditioned by many factors, including: the type and the degree of hearing loss, time of occurrence and cause of the hearing loss, the moment of diagnosis and hearing aid treatment, benefits of the early developmental support: technology in the form of hearing aids, rehabilitation of hearing and speech, the intensity of educational activities, including linguistic training. Those factors are described in detail in the works of Kazimiera Krakowiak (2012 and earlier). In summary, hearing impairment causes difficulties in the form of obstacles, limitations, or even makes the natural process of language acquisition impossible. These difficulties include all linguistic planes: phonetic-phonological, lexical-semantic, morphological-syntactic, and pragmatic.

Educational research in the group of people with intellectual disabilities and persons with hearing impairment. Limitations of quantitative research vs. qualitative strategies capabilities

The aim of the investigations of various social sciences and humanities is on the one hand the search for general regularities; on the other hand, however, the analysis of specific cases, including their complexity and specificity, without trying to draw conclusions of a more general nature. These two types of studies are accompanied by different strategies of cognition research. The selection of strategy (quantitative vs. qualitative research) ought to be dependent on the scope of the phenomena under study, which defines the subject of research, the issues addressed and specific group of the surveyed individuals.

Quantitative studies rely on quantitative – in the form of mathematical calculations and statistical compilations – description and analysis of facts, events, processes, including those extremely difficult to measure, because not all of the studied phenomena are easy to count and quantify, such as the abilities or behaviour of people. “[...T]o get to know them by means of quantitative research always requires accurate determination at least in the form of operational definitions, without which these studies seem useless and devoid of deeper meaning. However, while meeting these or other needs, they appear to be unquestionably appropriate and necessary in educational research concerning different personality traits, for instance, or personality of students, their interests, attitudes, values [...]” (Łobocki 2004: 60). While discussing the issue of quantitative research and its vital role in education, Mieczysław Łobocki (2004: 60) emphasises that applying them “only in moderation and in a way sufficiently accurate and reliable” may indicate some trends in the formation of the examined phenomena in social reality (as a result of the relative nature of the measurement in educational research).

The issue of selecting appropriate measuring equipment in studies concerning people with disabilities sometimes proves to be quite a challenge. For example, in the *Standards for tests used in psychology and education*, we read, among others, that the standardised test designed for the general population may not be suitable for testing people with certain types of disability. In some cases, the decision to modify the test should be taken by experts. Another issue relates to the diverse needs of people with the same type of disability, and even the extent of disability, needs to introduce changes (American Educational

Research Association, American Psychological Association, the National Council on Measurement in Education 2007: 179–180).

Trying to meet the requirements of science, researchers have “resorted” to studies combining quantitative and qualitative strategies, thus accepting the so-called complementary research model. Agnieszka Żyta (2010), explaining the use of such a model in research conducted by her and her colleagues, highlights the possibility to demonstrate a more holistic image of experience of people with intellectual disabilities. Various research strategies often include more than one entity or one population studied, such as people with intellectual disabilities; they also cover other groups, therapists and parents, for instance. The information obtained from parents or therapists is treated by investigators as allowing to objectify, expand, or verify the data coming from the group of people with intellectual disabilities. The value of this type of research was described by Uwe Flick (2007). In education of the deaf and hard of hearing, the research combined with use of standardised techniques (in the quantitative research trend) along with observation, narrative interview and qualitative interpretation of the results obtained as a result of measurements was conducted by Urszula Bartnikowska (2004), with co-authors of the article Małgorzata Zaborniak-Sobczak (2009; 2014) and Grażyna Dryżałowska (2015). Despite all the efforts to maintain an appropriate level of reliability and validity of empirical material, there is always a risk of error (affecting every educational measurement – cf. Łobocki 2004), relating to proper understanding of the problems the respondents have to face. This risk is associated not only with the difficulties in understanding the instructions and questions, but also with “the level and intensity of intrapersonal conversation” (Krakowiak 2012: 245). These problems, in the case of respondents with hearing impairment, are very often minimised through the introduction of a supportive sign language, in the presence of true experts in sign language interpreting. Also, the fact of possessed knowledge, experience of the researchers in dealing with people with hearing loss is of great significance here (cf. Temple & Young 2004).

In recent years, thanks to the “field researchers” in the field of special education, as covered by Beata Borowska-Beszta (2005), the methodological search has been empowered and enlivened. The reason for this was the opposition of special education practitioners towards considering quantitative research procedures as the only valid ones. As explained by Borowska-Beszta, despite their proper implementation, the loss of the subject of such research was stressed above all. For example, Dorota Krzemińska and Iwona Lindyberg (2012) point

out that people with severe intellectual disabilities were not usually treated as competent senders of meaningful messages. While addressing the issue of adulthood, the authors adopted the perspective of a qualitative methodological approach, which allowed them to treat the respondents as competent subjects, “in some way capable of contributing to the research process and providing meaningful information about themselves and their own world” (Krzemińska & Lindyberg 2012: 10).

The study of people with hearing impairment, using techniques belonging mainly to qualitative methods (in this case, biography) was conducted by Dorota Podgórska-Jachnik in 2013, at the same time she questioned the quantitative research conducted to date on a group of respondents with hearing impairment. The author also suggests solutions in terms of research methodology in a group of people with severe hearing loss (deaf/Deaf) – *Deaf Studies* (Podgórska-Jachnik 2013).

In general, qualitative research allows for direct contact with the person studied. This fact is important when a researcher finds that context that interests him is not understandable for the subject. Mindfulness of the researcher allows to make the research procedure more precise (by asking additional questions, explaining the context of interest, etc.). Of course, the researcher must take special care at striving to obtain important information. He cannot suggest or impose answers. The advantage of selected qualitative procedures is the ability to hold several meetings with the respondent (cf. Woynarowska 2010). Thus, the material previously obtained can be supplemented with further information. There is also room to explain incomprehensible, unclear, incomplete topics. Agnieszka Żyta (2011) comes to similar conclusions, undertaking interviews with people with intellectual disabilities.

One gets the impression that in the methodological discourse of social studies focused on quantitative approach, greater attention is paid to linguistic competence not only of those being examined, but also of the researcher. The selection of research tools (adequate to linguistic abilities of the respondents), followed by the level of analysis of the resulting research material depends greatly on his/her linguistic knowledge. In qualitative research the linguistic transfer must also, of course, comply with this requirement. However, in qualitative research the essence of the interpretation of the linguistic expression of the respondent is emphasised more often. On the one hand, what has already been partly mentioned, there is a risk of misunderstanding, or falsification of information obtained from the respondents by the researcher. On the other hand, there is a danger that the researcher, being aware of lower cognitive

functioning of the interlocutor, will adopt the “overinterpreter” approach. So we are dealing here with the risk of “imposing own perception and interpretation in situations where the interlocutor expresses lower level of verbal functioning, and his speech is more difficult to understand” (Goodley 1996, after: Żyta 2011: 25). Therefore, to avoid such errors, the researcher must adopt a kind of scientist’s approach, which is really the attitude focused on the respondent. Dorota Krzemińska (2012) notes that the personal approach to subjects (in this case with intellectual disabilities, but important also in the context of people with hearing impairment) can be significant for their perception and treatment. The author emphasises the role of qualitative methods, where equal partners are allowed to present their point of view “regardless of the condition of those speaking, making the effort of cognitive curiosity, and above all the willingness to patiently and humbly listen attentively to this voice” (Krzemińska 2012: 70). On the other hand, abovementioned Borowska-Beszta draws attention to the person of the researcher, emphasising the role of his/her knowledge and broad social competence: “considerable intellectual rigor is needed on the part of the researcher and vulnerability associated with openness to originality, otherness, with all its verbal or non-verbal manifestations” (Borowska-Beszta 2005: 18).

Conclusion

Increasing use of the strategy of qualitative research in special education is primarily related to change in thinking about subjects of this scientific discipline, and thus the modification of its research area. “By focusing on participants’ personal meanings, qualitative research ‘gives voice’ to people who have been historically silenced or marginalised and descriptive information from qualitative studies leads to an understanding of individuals with disabilities, their families, and those who work with them” (Brantlinger et al. 2005: 198–199).

A different view of the subject of research, in principle the subject of scientific discipline, inevitably poses innovative questions or verifies current view of reality.

In addition to knowledge, experience and practice, effective qualitative and quantitative research requires the researchers to possess appropriate communication and linguistic skills. This conclusion applies to research conducted particularly among people with hearing impairment, but also among those with intellectual disability. Unawareness of linguistic limitations of the research

subjects can lead to over-interpretation of the outcome, both as a result of the measurement, and the qualitative description.

In qualitative research, both the researcher and the respondent become partners and research subjects at the same time. Researcher's position is elevated by his personal participation in the study, the knowledge of the field and the reflectivity in navigating within it (Flick 2007), which raises the importance of qualitative research, especially in special education. An important part of the research process is adapting the test procedures to linguistic skills of the research subjects. Therefore, the knowledge in this field should be regularly reviewed and modified by researchers, who should always be accompanied by a critical cognitive reflection.

The problem of linguistic knowledge in educational research is presented in this paper from dual perspective. Limitations in communicative and linguistic competence of the surveyed group of people with disabilities were demonstrated, also in view of the capacity of those conducting the study – the researchers. Identified problems and awareness of them should not, however, constitute an obstacle to posing other research questions and attempting to solve them in the research process (more on minimising errors in the quantitative research, e.g. in: Łobocki 2004; in qualitative research: Flick 2007). However, one should make every effort to minimise the risk of errors both in the test procedure itself, and subsequently in the development of the data obtained, its interpretation and inference.

References

- American Educational Research Association, American Psychological Association, National Council on Measurement in Education. 2007. *Standardy dla testów stosowanych w psychologii i pedagogice (The Standards for Educational and Psychological Testing)*, trans. E. Hornowska, GWP, Gdańsk.
- Bartnikowska U. 2004. *Małżeństwa mieszane (osoba z uszkodzonym słuchem – osoba słysząca)*, Oficyna Wydawnicza Impuls, Kraków.
- Borowska-Beszta B. 2005. *Etnografia dla terapeutów (pedagogów specjalnych) – szkice metodologiczne*, Oficyna Wydawnicza Impuls, Kraków.
- Brantlinger E., Jimenez R., Klingner J., Pugach M., & Richardson V. 2005. Qualitative Studies in Special Education, *Exceptional Children*, 71(2), pp. 195–207.
- Chimicz D. 2015. *Młodzież z niepełnosprawnością intelektualną wobec własnej sytuacji życiowej*, UMCS, Lublin.

- Dryżałowska G. 2015. *Integracja edukacyjna a integracja społeczna. Satysfakcja z życia osób niedosłyszących*, Wydawnictwa Uniwersytetu Warszawskiego, Warszawa.
- Flick U. 2007. *Managing quality in qualitative research*, SAGE, London.
- Grabias S. 2003. *Język w zachowaniach społecznych*, UMCS, Lublin.
- Goodley D. 1996. Tales of hidden lives: A critical examination of life history research with people who have learning difficulties, *Disability & Society*, 11(3), pp. 333–348.
- Kaczorowska-Bray K. 2012. Zaburzenia komunikacji językowej w grupie osób z niepełnosprawnością intelektualną, [in:] J. Bleszyński, K. Kaczorowska-Bray (eds.), *Diagnoza i terapia logopedyczna osób z niepełnosprawnością intelektualną*, Harmonia Universalis, Gdańsk, pp. 36–64.
- Kirenko J., & Parchomiuk M. 2008. *Edukacja i rehabilitacja osób z upośledzeniem umysłowym*, WSSP, Lublin.
- Kołodziejczyk R. 2015. Trudności gramatyczne u dzieci i młodzieży z uszkodzeniami słuchu, [in:] E. Muzyka-Furtak (ed.), *Surdologopedia. Teoria i praktyka*, Harmonia Universalis, Gdańsk, pp. 156–176.
- Krakowiak K. 2012. *Dar języka. Podręcznik metodyki wychowania językowego dzieci i młodzieży z uszkodzeniami narządu słuchu*, KUL, Lublin.
- Krzemińska D. 2012. *Język i dyskurs codzienny osób z niepełnosprawnością intelektualną*, Oficyna Wydawnicza Impuls, Kraków.
- Krzemińska D., & Lindyberg I. 2012. *Wokół dorosłości z niepełnosprawnością intelektualną. Teksty rozproszone*, Oficyna Wydawnicza Impuls, Kraków.
- Kurcz I. 2007. Jakie problemy psychologiczne może rodzic dwujęzyczność?, [in:] I. Kurcz (ed.), *Psychologiczne aspekty dwujęzyczności*, GWP, Gdańsk, pp. 9–39.
- Łobocki M. 2004. *Wprowadzenie do metodologii badań pedagogicznych*, Oficyna Wydawnicza Impuls, Kraków.
- Muzyka-Furtak E. 2010. *Konstrukcje słowotwórcze w świadomości językowej dzieci niesłyszących*, UMCS, Lublin.
- Muzyka-Furtak E. 2015. Wyrazy pochodne w słowniku dzieci z uszkodzeniami słuchu, [in:] E. Muzyka-Furtak (ed.), *Surdologopedia. Teoria i praktyka*, Harmonia Universalis, Gdańsk, pp. 176–192.
- Piszczek M. 2007. *Diagnoza i wspomaganie rozwoju dziecka. Wybrane zagadnienia*, CMPPP, Warszawa.
- Podgórska-Jachnik D. 2013. *Głusi. Emancypacje*, WSP, Łódź.
- Temple B., & Young A. 2004. Qualitative research and translation dilemmas, *Qualitative Research*, 4(2), pp. 161–178.
- Woynarowska A. 2010. *Niepełnosprawność intelektualna w publicznym i prywatnym dyskursie*, Oficyna Wydawnicza Impuls, Kraków.
- Wyczesany J. 2012. Wybrane aspekty diagnozy i terapii osób z niepełnosprawnością intelektualną, [in:] K. Bobińska, T. Pietras, P. Gałęcki (eds.), *Niepełnosprawność intelektualna – etiopatogeneza, epidemiologia, diagnoza i terapia*, Continuo, Wrocław, pp. 69–92.

- Zaborniak-Sobczak M. 2009. *Osoby z wadą słuchu wobec wybranych problemów integracji psychospołecznej*, UR, Rzeszów.
- Zaborniak-Sobczak M. 2014. *Odpowiedzialność młodzieży z wadą słuchu*, UR, Rzeszów.
- Żubrowska A. 2008. Kompetencja komunikacyjna uczniów niepełnosprawnych intelektualnie w stopniu lekkim w kontekście ich społecznego przystosowania, [in:] W. Pilecka, K. Bidziński, M. Pietrzekiewicz (eds.), *O poznawaniu siebie i świata przez dziecko ze specjalnymi potrzebami edukacyjnymi*, Wydawnictwo Uniwersytetu Humanistyczno-Przyrodniczego Jana Kochanowskiego, Kielce, pp. 203–209.
- Żyta A. 2010. Wprowadzenie i wyjaśnienia metodologiczne, [in:] A. Krause, A. Żyta, S. Nosarzewska (eds.), *Normalizacja środowiska społecznego osób z niepełnosprawnością intelektualną*, AKAPIT, Toruń, pp. 9–17.
- Żyta A. 2011. *Życie z zespołem Downa. Narracje biograficzne rodziców, rodzeństwa i dorosłych osób z zespołem Downa*, Oficyna Wydawnicza Impuls, Kraków.