

## **The Language of People with Mild Intellectual Disability – the research written tasks**

In the last few years a lot of attention has been paid to the problems with communicating, differentiating between language and speech (J. Błaszzyński, 1998). This division was initially bridged with the intellectual capacity, which proved to be a misleading direction in the further course of analyses. Another problem that aroused was determining the level of intellectual disability in relation to the manner of passing on a message. However, this idea has been challenged and negated which helped to promote the use of alternative and supporting communication methods (J. J. Błaszzyński, 2008). Neurolinguistics, a dynamically developing field of science, analyzes the use of language for communication. Problems analysed are dyslexia aphasia and most recently *Specific Language Impairment* (SLI). Very rarely, even hardly ever, the problem of communication of people with intellectual disabilities is discussed. This may mainly be due to the diversity of the factors causing abnormalities in the development, as well as the heterogeneity of symptoms, which in the case of mild intellectual disability are considered multifactorial.

It is not clearly defined how to understand intelligence. Especially noteworthy are the comments of Alfredo Ardila's neuropsychological approach to the problem of understanding intelligence, which indicates that:

- studies using psychometric tests do not measure all relevant elements, but are only based on the fundamental aspects;
- determining IQ is considered unnecessary as the test used to measure the level of intelligence are improper;
- neurolinguistic tests seem to be more effective, they are uniform and show the cognitive organization of the brain;
- Averaging the results does not let the researchers create an objective picture of the development and functioning of a tested individual, so it is advisable to use scales (eg. standard ten scale or the standardised result scale) (A. Ardila, 2009, p. 231 – 232).

The allegations introduced by A. Ardila allow for seeing the development of communication, speech and language not limiting the research to determining IQ, but rather

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presenting a wider and more detailed picture of an individual's development.

The assumption that has been adopted in this work was to move away from the socially sanctioned approach that people with intellectual disabilities have specific difficulties in creating, understanding and / or using of speech and language. The traditional approach results in an unjustified restriction of the understanding of development and the acquisition of competence in terms of communication, speech and language.

It seems necessary to revise the approach (the more administrative one) to the understanding of mental retardation, as only based on a diagnosis of the state of development. As a result, in a number of publications, some concerns, which are more of theoretical assumptions, claim that intellectual disability (its diagnosis) determines the kind of impairment an individual is likely to display. Dyslexia and SLI can serve as examples of typical impairments. The basic assumption of dyslexia is that apart from specific difficulties in reading and writing, there is no mental development impairment (M. Bogdanowicz, A. Adryjanek, 2004, p. 23). This problem has been widely analysed in an attempt to redefine „normal intelligence”, which is the main condition in diagnosing dyslexia. (M. Bogdanowicz, 2012, p. 135 – 137). G. Krasowicz-Kupis notices that SLI also excludes the possibility of mental impairment. (2012, p. 79, 121). The standard assumption is that the delay in language development is a part of mental retardation and thus SLI should not be diagnosed (G. Krasowicz-Kupis, 2012, p. 120). The approaches are based on the L. B. Leonard's assumptions, and claim that 85 points in a test is a border line, below which one of the language development impairments is bound to occur (L. B. Leonard, 2006, p. 250).

Speech, as a verbal system of communication in individuals with varying degrees of intellectual disability, has its own individualized course. In speech therapy, the most common disorders for people with varying degrees of intellectual ability are described as oligophasia and dyslogia. In more modern research they are called specific speech impairments characteristic for individuals with intellectual disability (T. Gałkowski, G. Jastrzębowska 1999, p. 294). The approach contrary to the aforementioned one has been adopted by J. Gerenser i B. Forman who differentiate between impairments on the basis of the type of disability. Their model is based on five etiological-diagnostic categories:

- communication and language impairment co-existing with the sense impairment (eg. sense of hearing, sight) which can be described as partial, presenting the etiology of speech development impairments in children and youngsters, displaying varied disabilities;
- communication and language impairment co-existing with the motility disorders ( eg. connected with the abnormalities in motility caused by spina bifida or cerebral palsy);
- communication and language impairment co-existing with the damage to the central nervous

system (eg, developmental delay);

- communication and language impairment co-existing with the emotional developmental disorders (eg, schizophrenia, autism);
- communication and language impairment co-existing with the cognitive development disorder (eg, mental retardation) (J. Gerenser, B. Forman, 2007, p. 563).

This classification allows to analyze the location of the disorder in the development of speech, as well as the implications for the creation of a message. In Poland, this problem is analysed on the basis of M. Bogdanowicz's findings (1991, s. 91-95). She has created a tabular presentation of the development with reference to the degree of intellectual disability, speech and language development. However, this tabular presentation is simplified and in case of speech it is not an accurate description (it presupposes that individuals with profound MR do not think, speak or develop.; nowadays, the researchers claim that such conclusions cannot be made).

A more targeted approach for the development of speech and language presented in the Polish literature is that of Z. Tarkowski (1988, p. 493). From the point of view of a psychologist and speech therapist, he analysed the issue of speech defects incidence and intellectual disability in relation to four factors: a common etiology, different etiology, mental retardation as a cause of speech disorders and speech disorder as a cause of mental retardation.

This is a problematic approach in case of difficulties in assessing the child's intellectual development when they do not speak. Cognitive development is to some extent determined by the acquisition of communication skills, for example, in people who do not speak (deaf, deaf-blind) or with impaired communication (eg, individuals with autism, profound mental disabilities). The use of alternative communication techniques such as *Facilitate Communication* (J. Błeszyński, 2008) made it possible to improve the diagnosis of such persons and determine the relationship between mental retardation and speech and language.

This approach, like that presented by M. Bogdanowicz, lends itself to the conclusion that the degree of intellectual disability determines the development of communication, speech and language.

Irena Styczek (1981, p 420), pointed out the possibility of co-existence of mental retardation with various factors (relating to illness, anatomical, functional, environmental) affecting the incidence of speech defects, which, however, are characterized by complexity and emergence of syndromes.

Language development in individuals with intellectual disability is not uniform and is related to the etiology, severity, and coexisting common diseases, disorders and environmental

factors. A characteristic symptom (very generally described) seems to be the delayed speech development and the acquisition of language skills. This approach allows the presentation of speech and language development as one of the elements characteristic for intellectual disability.

At this point it is necessary to refer to the words of E. Łuczyński (2011, p 165), who considers language a basis for all diagnoses in speech therapy; thus, the experience acquired carrying out analyses of speech therapy diagnoses, refers to competence. This term comes from psycholinguistics, and as such can be understood differently. An example would be description of communicative competence by M. Veronica-Gierowska, a developmental psychologist, as acquired in the learning process and in the course of social interaction, the ability to use language effectively appropriately in context, the intention of the speaker and the listener's expectations, where the context is understood in a particular communicative situation, verbal context and a broader sense - the socio-cultural environment that imposes conventional rules for the use of language (M. Veronica-Gierowska, 1993, p 93). To report more on the problem, the ideas of Ida Kurcz, a psycholinguist, should be mentioned. She considers communicative competence to be a coordination-control system governing the language behaviour of a human being, i.e. understanding and creating a message. The researcher also claims that the same control system governs the whole knowledge of the world (I. Kurcz, 1992, p. 128), as an individual's ability to communicate with others using language as a tool (I. Kurcz, 1992, p. 58). It is also important to present language competence as created for determining human ability to use the language (I. Kurcz, 1992, p. 11).

Formation of language skills (language competence) can be observed in the case of structured grammar acquisition and use of parts of speech, starting with nouns (naming those closest to an individual like animals, foods and beverages), followed by verbs (after 1 year of life - the movements of persons and objects, manipulatory movements), adjectives and adverbs (at the end of 2 year of life; evaluative words meaning), prepositions and adverbs (about 3 year of life, indicating a specific relationship, and ultimate relationships) (Veronica M., H. Spionek, 1973, pp. 391 – 392). Checking how this system is formed in MR children is an important issue at present. Amongst the areas of system that should be checked is the range of receptive and productive vocabulary (the latter being less elaborate according to the findings) and the ability and quality of its use.

The problem of neurophysical conditioning of speech and language of MR individual's development has been widely analysed in another article by J. J. Błeszyńskiego i K. Kaczorowska-Bray (2012), in this paper it is not tackled. However, it seems to be of utmost importance to pinpoint the reverse tendency in acquiring the structure of speech as observed

in dementia -a loss of previously acquired abilities (J. J. Błeszyński, 2011). It is also worth to search for an answer to the question whether the retardation causes limitations, deficits in or malformation of the language system or they are just the elements limiting language acquisition process. Is language functioning of MR individuals at the lower level a consequence of the lack of competence ( a widespread view), difficulties in acquiring the competence or permanent irregularity in the acquisition process?

Analyses of the written work, and in the future oral utterances, will serve as a basis for discussion over speech and language of the mentally disabled and a reference for SLI and dyslexia.

### **Research over the development of speech of a MR child**

Analysing speech development in children with different levels of retardation, one realises that in Poland there are not many papers concerning this matter. Among the few worth mentioning there are papers prepared by Anna Szuniewicz (1967) and Elżbieta Minczakiewicz (1989, 1993a, 1993b, 1994). The research over speaking and writing skills of children with mild mental retardation was described by E. M. Minczakiewicz (1993a) and S. Sadowska (2006). The issue of voice was analysed by G. Martuszevska(1983), range of vocabulary by L. Błeszyńska (2006), agrammatism in speech by Z. Tarkowski (1988). When it comes to the research on the development of speech in people with profound mental disabilities, the papers by Agnieszka Makowska (1992) and Elżbieta Minczakiewicz (1984) deserve special attention.

#### **Research organization and a description of the research group**

The subject of the research and analysis are written statements created by the students of class three of gimnazjum (lower secondary school).

All subjects have a current decision on slight degree of mental retardation. The group consisted of individuals aged 16 to 18. The study was conducted in the school year 2011/2012 in three groups, which consisted of a total of 48 students (I - 18, II - 19, III - 11).

The research was focused on the ability of students to create a written statement, consisting of an independent description of a picture, writing a story with a dialogue, and writing a letter. All works were written in the classroom without assistance.

The aim of this study was to analyze the use of particular parts of speech and the correctness of structuring sentences.

#### **The language people with mild intellectual disability - the use of various speech parts in pieces of writing created by the students**

The assignments written by students were to allow them to present their ability to transfer information. Five out of 48 subject did not attempt to write the assignment. Their resignation

resulted from the inability to self-generate a written statement(3) or lack of motivation (2).

Research findings are presented in relation to the three forms of assignments and then analysed as a whole.

### **The use of parts of speech in written statements**

Analysing the use of parts of speech in written assignments, it is important to pinpoint that the use of parts of speech within the rules of Polish grammar system varied. The task of picture description was carried out by 18 students; 2 students refused. The students used 614 words altogether.

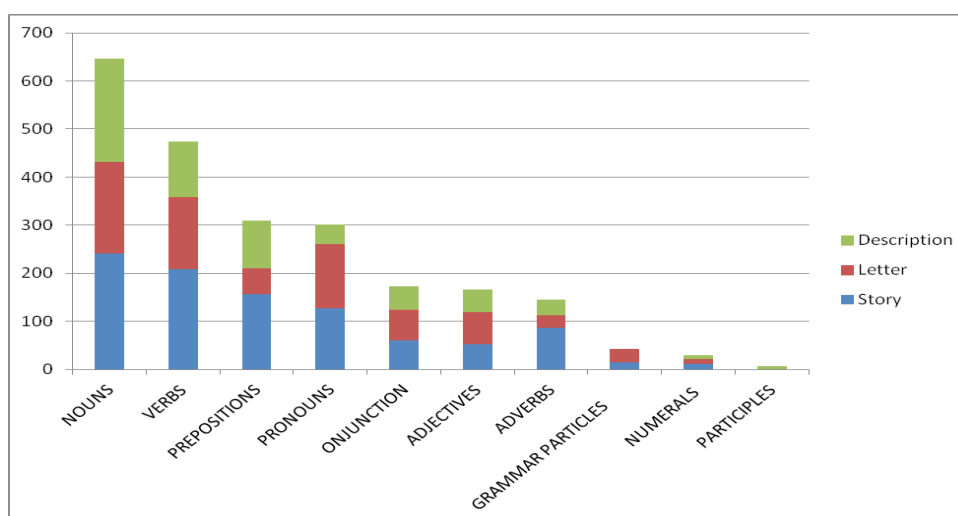
Verbs and nouns were most commonly used. Out of 641 words, 215 were nouns, 116 verbs, 100 prepositions. The most rarely used parts of speech were participles (5) and numerals (8).

The next task was an assignment involving writing a story with a dialogue. In this task, verbs and nouns were also most commonly used. 20 students undertook the task and 2 refused. The students used 191 nouns, 149 verbs and 132 pronouns. The most rarely used parts of speech were numerals (10) and participles (1) .

The last task, writing a letter to someone close to students, was undertaken by 11 children and only 1 refused. The most widely used parts of speech were nouns and verbs. Out of 916 words, 241 were nouns and 209 verbs. The students also used prepositions(157) and pronouns(128). The most rarely used were grammatical particles (15) and numerals (12).

Analysing all of the findings, researchers have concluded that each written statement included a different number of used parts of speech. However, it is possible to observe a steady tendency in the preference of use of particular parts of speech.

Tab. 4. The use of parts of speech in the tasks.



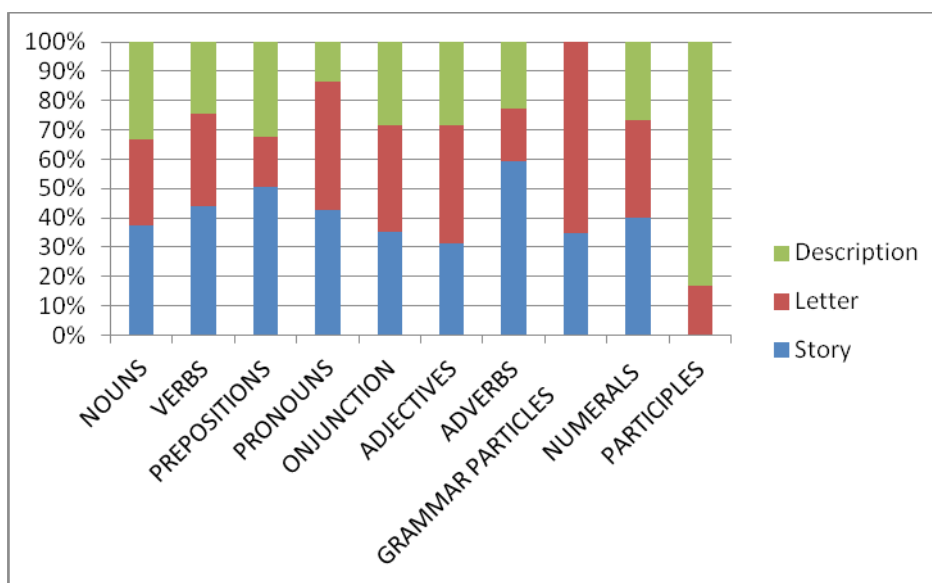
Source: own research

In all the analysed writing tasks most parts of speech were used but the use varied especially in:

- the use of a higher number of pronouns used in the letter than in other statements;
- lack of grammatical particles in the story;
- lack of participles in the picture description.

Attempting a statistical analysis of the use of parts of speech in different tasks, the researchers observed certain tendencies.

Graph 5. Percentage analysis of the use of parts of speech in the story, the letter and the picture description.



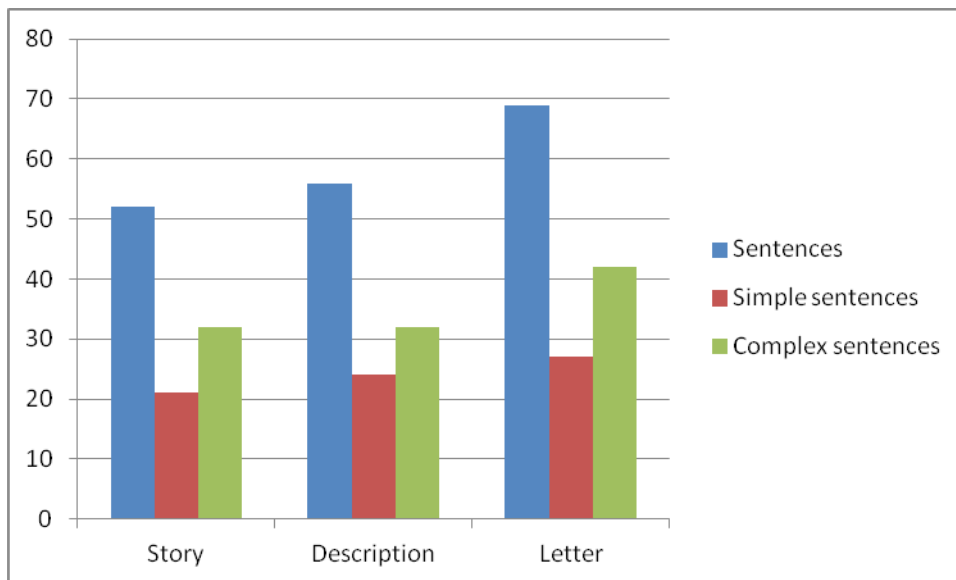
Source: own research

The most proportional use of parts of speech in the three tasks is observed in the employment of nouns, conjunctions and numerals. The most distorted use of parts of speech in the tasks is observed in the employment of participles, adverbs, pronouns and prepositions. This can result from the form of written assignment, vocabulary range and language competence of the authors.

### **The length and complexity of written statements**

Written assignments created by the subjects vary in length and the complexity of sentence construction.

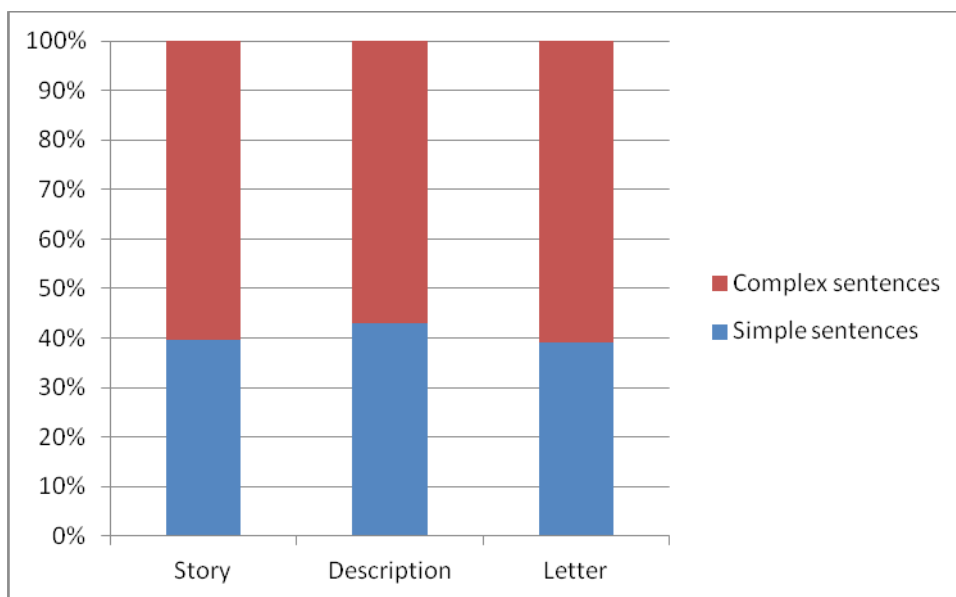
Graph 6. Sentences used in particular forms of written statements.



Source: own study.

Irrespective of the form of writing, complex sentences are most common..

Graph 7. The use of sentences in particular tasks.



Source: own research

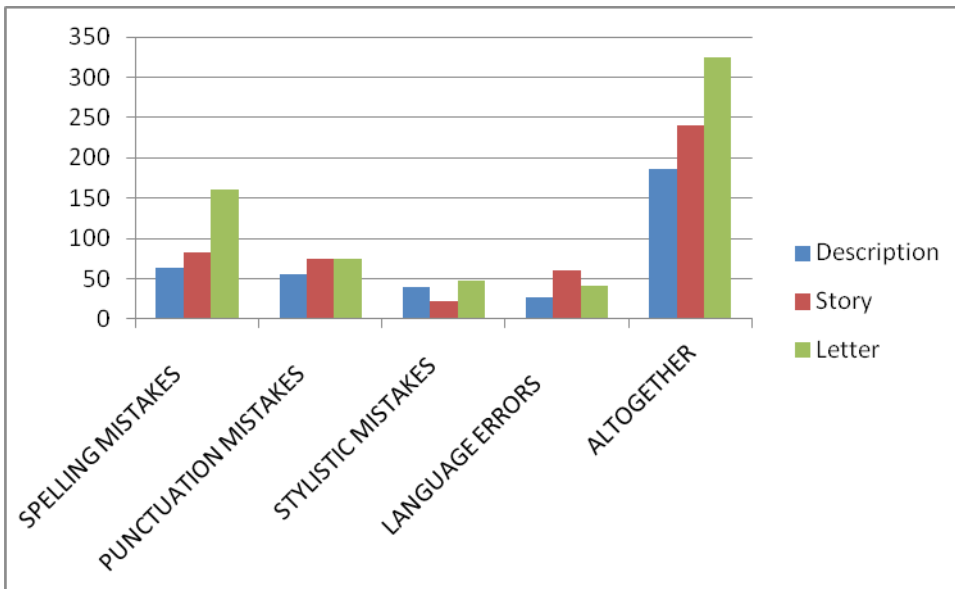
It is possible to infer that irrespective of the form of writing, there is a steady proportion between the use of simple and complex sentences. The vast majority of sentences used by the subjects (60%) are complex sentences. It has consequences in the use of punctuation and the logic of the text.

### **The analysis of mistakes appearing in the written statements**

Written statements allow for the analysis of mistakes and their characteristics. The mistakes (apart from the spelling ones) are similar to those in the spoken language. The mistakes in the analysed written statements were divided in relation to the type of mistake..

Graph 8. Mistakes appearing in the written statements.

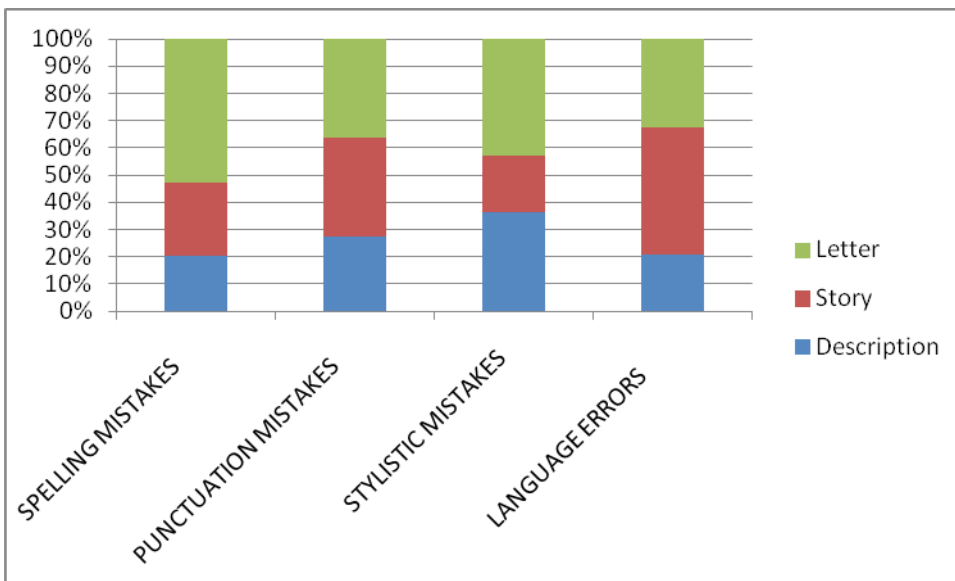




Source: own research.

Mistakes appear in all the statements but they vary in type. The most common type of mistakes are spelling, punctuation, linguistic errors and the rarest mistakes are connected with style.

Graph 9. Mistakes in percentage.



Source: own research.

Mistakes appear in all types of statements but the accumulation of mistakes varies.

### Summary and conclusions

The research showed that intellectually disabled children are able to use a wide variety of parts of speech. During the research, the analysts observed huge discrepancies in the ability to use language including its rules and system. The discrepancies are a result of individual abilities and social impact. During the research five children refused to do the task ( despite receiving motivational support). This may be a consequence of their limited psychophysical

capabilities or the reluctance to do the task.. As in every group, in this group there were individuals who did not undertake any of the tasks.

The analysed statements included widely accepted vocabulary items. While speaking the subjects of the research tend to use foul language and swear words, in written assignments there weren't any. This may indicate the duality of language and at the same time subjects' awareness of its use. Words like „kumple”( mates) and „fajne” ( cool) appeared only in the letter. In the other types of statements, subjects tended to use proper structure and formal language. Written assignments undoubtedly limit the range of vocabulary. This is conditioned by the necessity of reflection and the lack of direct contact, which is more distant and formal than in spoken language.

It is necessary to highlight the preference to use certain parts of speech. The most popular ones are nouns and verbs, which ontogenetically are primary tools allowing for describing the surroundings. The most difficult and rarest parts of speech are participles and numerals. This distribution of parts of speech in written assignments limits the range of word combinations and structures which at the same time limits the productivity of a statement. This results in the length of sentences. The subjects tended to use complex or compound-complex sentences. Therefore, their statements are characterised by wrong sentence structure and illogicality of the whole text. The overuse of nouns is caused by the compound -complex sentences, which are often just an enumeration of elements. Thus, the whole logical structure of an utterance is distorted, incoherent. Another problem observed in the statements is repetition of vocabulary items. The statements are short – the longest one consisted of 10 sentences. the average length was of 3-4 sentences.

Mistakes in written statements are a reflection of those made in speech. Mistakes connected with pronunciation , palatal sounds, devoicing in a series of sounds were observed in written assignments.

The largest number of mistakes appeared in the letter, the smallest in the picture description. the most common mistakes are spelling mistakes. These are the most difficult problem when it comes to creating a written statement. There are less punctuation, language and stylistic mistakes. This distribution may be a consequence of the frequency of using a particular skill. The most common are spelling and punctuation mistakes - characteristic of written language. More commonly used verbal communication is constantly corrected, therefore the number of language and stylistic mistakes is smaller.

In line with past experience, concerning the development of language skills in people with intellectual disabilities, it is clear that they have language competence. However, the

acquisition of this competence is associated with a delay, as well as the difficulties in its application. Increasing the amount of review, as well as varying forms of exercise allows for the improvement of performance.

The interesting finding of the report is the conclusion that language competence of intellectually disabled individuals, in particular those with mild mental retardation, cannot be described as uniform. It is a mistake to claim that mentally retarded individuals lack this competence or to describe it as dependant on the level of retardation. The research has proved that there are huge discrepancies between individuals' ability to use the language system within the group of mildly retarded. It would be wrong to conclude about the level of intellectual development or define its further stages. It is important to widely describe the ability to acquire language competence and use it when planning further education or therapeutic programmes.

Within this approach, it is vital to attempt recreating the assumptions for the diagnosis of developmental disorders with respect to IQ and instead relying on language competence. In diagnosing dyslexia or SLI, the assumptions do not take into account mental retardation. It seems to be more appropriate to draw conclusions connected with acquiring communicative competence and language competence in particular. Employing this would help to make diagnosis of developmental disorders more accurate and allow for an in-depth analysis of the concept of intellectual disability.

Another problem is the tendency to describe mental retardation as a state in which a child finds itself in as resulting from lack of stimulus, improper interaction with the surrounding care and educational environment. Consequently, a large discrepancy in development, acquiring communicative competence vital for proper functioning in society, is observed.

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