Robert Dębski

Department of Speech-Language Pathology, Institute of Polish Language Education, Faculty of Polish Studies, Jagiellonian University in Krakow
https://orcid.org/0000-0001-7417-8467

Feliks Matusiak

Department of Psychiatry, Collegium Medicum, Jagiellonian University in Krakow
https://orcid.org/0000-0002-9544-5381

Rafał Młyński

Department of Speech-Language Pathology, Institute of Polish Language Education, Faculty of Polish Studies, Jagiellonian University in Krakow
https://orcid.org/0000-0001-9069-0612

Experiences and emotions accompanying first-year students of Master's speech therapy studies: Problem-based Learning at the Jagiellonian University

Abstract: Problem-based Learning (PBL) has had a significant impact on tertiary education programs around the world in recent years, including programs in speech-language pathology. In Poland, the change from traditional teaching forms, such as lectures and classes, to problem-based tutorials has been a noticeable trend. There is a scarcity of research devoted to PBL adaptations in Poland, including research on student reception of this approach to education. The present study describes the experiences and emotions accompanying a purposive sample of six participants, first-year students of Master's speech therapy studies at Jagiellonian University, at the time of enrolling in the PBL program, during their studies and when they consider their future work as speech therapists. The phenomenological analysis of in-depth interview data has made it possible to identify several lead and peripheral themes which can become the basis of actions aimed at improving student response to problem-based learning in speech pathology education.

Keywords: problem-based learning, university education, speech-language pathology, phenomenological research

Przeżycia i emocje towarzyszące studentom pierwszego roku magisterskich studiów logopedycznych. Nauczanie problemowe na Uniwersytecie Jagiellońskim

Streszczenie: Nauczanie problemowe (ang. *Problem-based Learning*) wywarło w ostatnich latach duży wpływ na światową dydaktykę akademicką, w tym na dydaktykę logopedyczną. W Polsce zauważalnym trendem w kształceniu uniwersyteckim staje się przechodzenie od form tradycyjnych, czyli wykładów i ćwiczeń, do metody problemowej. Wciąż brakuje jednak badań adaptacji metody problemowej w warunkach polskich, w tym badań dotyczących odbioru takiej formy kształcenia przez studentów. W artykule przedstawiono badania jakościowe dotyczące przeżyć i emocji, jakie towarzyszyły sześciorgu studentom (próba celowa) pierwszego roku magi-

sterskich studiów logopedycznych na Uniwersytecie Jagiellońskim podczas wyboru studiów w formacie metody problemowej, studiowania oraz planowania pracy w zawodzie logopedy. Fenomenologiczna analiza wywiadów pogłębionych pozwoliła wyłonić tematy wiodące i peryferyjne, które mogą stać się podstawą działań zmierzających do poprawy odbioru nauczania problemowego przez studentów logopedii.

Słowa kluczowe: problemowa metoda nauczania, dydaktyka akademicka, logopedia, badania fenomenologiczne

Problem-based Learning

Problem-based Learning (PBL) is an educational approach in which solving complex, ill-defined problems, drawn from a section of the real world, is used as a vehicle to promote learning. Following W. Okoń's (1964) definition, we could also propose that PBL is about creating "problem situations, engaging autonomous students in generating ideas how to solve them, and verifying the accuracy (truthfulness) of their ideas" (p. 32). In tertiary education, PBL usually is a force that propels small group practice-based classes, where students collaboratively analyse medical case studies, court case scenarios or engineering projects. In this model of education, knowledge and practical skills are developed through reflection on problems, generating hypotheses to illuminate them and planning relevant activities, that is by determining a sequence of actions leading to a problem solution. Some academic programs rely solely on PBL, other programs adopt a hybrid solution where in addition to centrally situated problem-based tutorials, there are subjects requiring traditional participation (Whitehill et al., 2014). In addition to the central position of a complex, ill-structured problem, the most frequently mentioned determinants of PBL are: the leading role of students responsible for their own learning, student reflection on own learning strategies, and the supporting role of the teacher who models thinking processes and interpersonal relationships among students, drawing on their individual abilities (Marra et al, 2014; Savery, 2006; Bobrzyńska, 2008). Based on a systematic review of the literature on PBL published in 1995–2014, Gewurtz et al. (2016) list eight assumptions, based on theories of learning and teaching, underlying implementations of this educational paradigm: 1) adult students are responsible for their own learning; 2) adult students experience intrinsic motivation and are goal-oriented, 3) the learning process is most effective when its results are applied in practice; 4) learning is based on cognitive processes; 5) learning is an activity and requires active participation; 6) interaction between learners supports the learning process; 7) activation of previously acquired knowledge and experience supports the acquisition of new knowledge; and 8) the learning process requires reflection. In the literature, the constructivist foundations of PBL are widely acknowledged, based on the basic assumption that knowledge is not acquired in

a transmission process, but is actively constructed by people on the psychological and social plane (Doubleday et al., 2015).

In tertiary education, the beginnings of PBL are associated with an innovative medicine program at McMaster University in Canada in the 1960s (Servant-Miklos, 2019). This new method was quickly adapted to the teaching needs of many disciplines, including speech-language pathology, in countries such as Ireland, Sweden, Australia and the USA (Burda & Hageman, 2015). Whitehill et al. (2014) discuss in detail the issue of implementing PBL in speech-language pathology programs. Currently, there are global associations of academics practising and researching PBL, such as the International Society for Problem-based Learning (https://issotl.com/problem-based-learning/), and academic journals dedicated exclusively to this subject, such as the Journal of Problem-Based Learning, (http://www.ejpbl.org) or the Interdisciplinary Journal of Problem-based Learning (https://docs.lib.purdue.edu/ijpbl/). The existence of universities which in their mission emphasise innovative education, based on the problem-based method – such as the University of Maastricht in the Netherlands and the University of Aalborg in Denmark – demonstrates the appeal and recognised value of PBL (Multan, 2017). Problem-based Learning is now being introduced on a large scale in Chinese universities, as one of the government's tools to repair education and build an innovative and creative society by 2030 (Zhou & Zhu, 2019).

Problem-based Learning research

While a large number of research reports show a positive impact of the problem-based method on the learning process and its outcomes, there are also reports highlighting the challenges faced by proponents of this method. Research shows, for example, that PBL promotes long-term maintenance of acquired skills and knowledge (Strobel and Van Barneveld, 2009) as well as deep learning (Gijbels et al., 2005). Subjective student opinions also allow us to believe that learners participating in problem-based tutorials take more responsibility for their own learning process (Rovers et al., 2018) and develop skills in the management of information sources, critical thinking and teamwork (Hammel et al., 1999). PBL tends to be positively perceived by students (Sobral, 1995). In Takahashi and Saito's (2013) study, PBL evoked rich and varied emotions in students engaged in solving a problem, helped them expand their knowledge and build relationships through dialogue, and even led them towards personal transformation. Research on students' experiences, conducted by Galle and Marshman (2010), showed that the problem-based method stimulated reflection on previous educational experiences in students, leading them to greater awareness of the currently ongoing learning process, preparing them for work in medical teams, and shaping their

professional identity. The challenges posed by PBL for students include the feeling of abandonment by teachers, experiencing ambiguity and lack of direction from academic staff, as well as the need for cooperation intrinsic in the method and difficulties in abandoning individualistic attitudes (Galle & Marshman, 2010). Students may also experience problems with time management, fulfilling the social roles envisaged in the program, and discrepancies between their own and their teachers' expectations (Hammel et al., 1999). It is believed that in order to increase the effectiveness of PBL, planning should take into account the culture in which the implementation takes place (Ju et al., 2016; Hmelo-Silver, 2012).

Research method

Research problem and questions

In tertiary education in Poland, the transition from traditional forms, i.e. lectures and practice classes, to the problem-based method is becoming a noticeable trend (Górniak, 2015). While there are articles explaining applications of PBL in speech-language pathology teaching in Poland (Knapek et al., 2019), there are no published reports on empirical research focusing on how the problem-based method is experienced by students. Driven by the intention of starting to fill this gap, this present research study attempts to answer the following questions:
1. What were the students' experiences and emotions while choosing an academic program in speech-language pathology based on PBL?
2. What feelings accompany them during their studies, especially in relation to the main assumptions of PBL?
3. What do they feel when they think about becoming a speech-language pathologist in the future?

The new program in speech-language pathology

Launched at the Faculty of Polish Studies of the Jagiellonian University (JU) in Kraków in the academic year 2017–18, the new Master of Speech-Language Pathology program adopted the hybrid-PBL format. At the beginning of each week, a new case study is introduced during a problem-based tutorial, devoted to a child or an adult with a diagnosis of a communication competence disorder or dysphagia. The case studies developed for the program relate to all areas of speech-language pathology practice, i.e. language and speech of children, lan-

guage and speech of adults, speech fluency, voice, dysphagia or augmentative and alternative communication. Students solve case studies working in groups of 14–15 in a room designed in such a way as to facilitate and support brainstorming. At the beginning of each class, students choose a leader, a secretary and an archivist from among themselves. The leader's job is to manage the dynamics of the discussion. The secretary writes down the results of the ongoing brainstorming on the whiteboard according to the adopted format. The archivist copies the notes from the whiteboard, edits them, saves them on the computer and sends the finished report documenting the course of the discussion and the results to all participants immediately after the meeting. The main goal of the brainstorming is for students to formulate hypotheses explaining a given case study with an appropriate justification. The PBL tutorials end with the identification of issues for self-examination by students in a given week, and individual reflections of all discussion participants on the problem-solving process, levels of activity among students and encountered difficulties. The teacher in charge of problem-based tutorials assesses the participation of students in the discussion, acts as a mediator, models the inference process, and watches over the development of interpersonal relations among students. As the course progresses, students become more and more independent and the role of the teacher diminishes. During a typical week, students participate in a series of lectures and practice classes that deepen and expand their knowledge of issues related to the case study which they are currently solving. They also learn pertinent information during lectures from the bio-medical block, conducted by medical doctors, specialists in neurology, paediatrics, psychiatry or laryngology. Lectures and seminars on research in communication disorders are an important element of the studies, because the program propagates the idea of evidence-based practice. Clinical linguistics classes are conducted in English, as the studies emphasize the necessity to be familiar with world literature and the ability to work in English. The week of studies is concluded with the second PBL tutorial, during which students verify the hypotheses set at the beginning of the week, discuss the literature they have read in relation to the case study that has just been solved, and perform the practical exercises provided in the program. Starting from the second semester of studies, speech pathology placements are organised for students in educational institutions and health care centres.

Participants

The present study involved a sample of six students selected during the second semester of the academic year 2017–18 from the available population of 25 students completing the first year of the Master of Speech-Language Pathology program

at the Jagiellonian University. At this stage of their education, students remember well their experiences in relation to previous academic courses, react vividly to any educational innovations and begin to construct ideas in their minds about their future profession. We can assume that they emit initial attitudes and feelings which may be confirmed or modified at the later stages of their studies. The selection of the purposive sample was based on an analysis of the demographic data of the population and observations of the behaviour of students during PBL tutorials, so that the selected students faithfully represented the population in terms of gender, age, previous education, and attitudes, both positive and negative, that they revealed during classes. For example, one interviewee was described during the recruitment process as "active, precise and thoughtful" and another as "quiet, withdrawn and polite". Ultimately, the study participants included: five women and one man, one person older than the rest, students who previously studied Polish philology and graduates of other philology programs, graduates of the Jagiellonian University and of other universities, students who were active during the classes and those who were reluctant to participate.

Data gathering, analysis and description

The process of collecting and analysing data was based on the principles of the phenomenological research methodology, usually involving learning about the lived experience of people, including their mental states, thoughts, values and conscious experiences (Lester, 1999). There is a wealth of Polish and world literature documenting the use of phenomenological research in explaining the experiences and emotions of individuals involved in the learning and teaching process (e.g. Lee et al., 2014; Ablewicz, 1994). In the present study, the researched phenomenon was the experiences of students involved in the educational process of a master's level course in speech-language pathology, built according to the assumptions of PBL.

The collection and analysis of data was carried out in accordance with the patterns established in phenomenological research designs, but mainly based on the detailed reports of Willig (2007) and Hycner (1985). In order to increase the objectivity of the research results, at the outset, the researchers made a list of their own expectations towards the phenomenon under study in order to consciously suspend them for the duration of the research (bracketing). The data was collected through one-hour, semi-structured interviews conducted in an office at the university and recorded on a dictaphone. The interviews were conducted by the second-named author of this report, a psychiatrist and psychologist who has extensive experience in this area. The interview questions were broad and open, so that the participants could express their thoughts fully. The aim of the inter-

view questions was to stimulate reflection on the experiences and emotions that accompanied the students while choosing the speech-language pathology program and continue to accompany them during their studies and when they start planning their future professional career.

The first stage of the data analysis process involved verbatim transcription of all the interviews by the second- and third-named authors of the present report. The subsequent stages of the analysis were mostly performed by the first-named author. After having read the transcripts twice, in order to understand the data and form a holistic picture of their content, the author reduced the data by extracting meaning units from them, i.e. those that spoke about the experiences/emotions of the students. The meaning units were often signalled in the interviews by verbal tokens, such as: "I miss […]", "It irritates me that […]", "I certainly like […]", "It is so uplifting if […]". They could be descriptive (e.g. "I like that everything is consistent: there is a case study, there is a medical block, then the methods are analysed […]"), explaining (e.g. "These studies motivate me to in that […]") or evaluating (e.g. "It irritates me that there is little awareness […]"). The next stage of the analysis included a thematic organisation of the meaning units and identification of students' statements in the source transcripts that most fully expressed the meaning of the identified themes. Threads common to all or most of the research participants' interviews were identified as leading themes. Content that was present in one, two or three interviews was also noted as peripheral themes. In the next phase of the research, all of the identified themes were described by the first-named author, who repeatedly returned to the interview transcriptions during this process, either looking for a broader context of various student statement or words that would better illustrate an identified issue. The thematic descriptions developed by the first-named author were subsequently re-analysed and verified by the other two researchers in order to increase the credibility of the present research. Phenomenological research is an attempt to grasp the essence of the studied phenomenon, which is more than a description of individual experiences (Willig, 2007). Accordingly, the final stage of data processing encompassed creating a synthesis of the phenomenon under study based on the issues agreed among the researchers.

Research ethics

All the study participants gave their written consent to participate in the study. In the document made available to them, they were informed about the aims and procedures of the research, the incumbent risks and benefits, as well as the anonymity and confidentiality of data. As the result of an agreement between the researchers, discussions on the content of the interviews were suspended until

the study participants graduated. The interview transcripts were analysed and interpreted several months after the students included in the study had left the university. In this report, pseudonyms are used, which are all female names in order to preserve the anonymity of the male student who agreed to take part in the research, the only male student in the cohort.

The themes

The way to speech-language pathology

Leading themes

Self-discovery and self-realisation: "I felt I belonged elsewhere" (6[1]). Choosing a master's degree program in speech-language pathology is a further step for students in searching for a place for themselves in their life and professional work, where they can fulfill themselves. "I felt that I fitted elsewhere," says Iga, a graduate of English studies and a singing student, who seeks in speech pathology an opportunity to combine her artistic interests with her profession. When speaking about the choice of the speech-language pathology program, research participants refer to their previous experiences in philology studies; mention the low level of satisfaction while studying and lack of prospects for a satisfying job. "That university did not require me to be active during classes, says Karolina, adding: "and here they do". Speech-language pathology fares better in confrontation with other studies when students consider their future profession; it seems to them more "useful for the future" (Julia); they hope that it will "be more concrete" (Magda), more pragmatic. Natalia expresses her satisfaction with the decision to study speech-language pathology in the following way: "I no longer think that I have to do something, that it will be useless, that it is boring". There is a strong desire among students to keep developing themselves after graduation and to seek further self-fulfilment in professional work. According to some, speech pathology opens up such opportunities for them, as the following statements reveal: "In this profession, you can actually do what you like, what you want (Julia); "You can do various things after it" (Magda); and "The possibility of developing constantly, not standing still" (Natalia).

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[1] The number in brackets represents the number of interviews in which a particular theme was present.

Peripheral themes

The problem-based approach is attractive, although students do not really understand how this method works in practice (3): "We didn't quite know how, we just knew it was different" (Julia). The openness of the program to teaching a range of diagnostic and therapeutic methods and techniques, both Polish and foreign, is also attractive (3). The "greater prestige" of the Jagiellonian University, the fact that it "has a good opinion" (Róża, Karolina), may also encourage people to enrol in speech-language pathology studies at the Jagiellonian University. Family events contribute to choosing speech pathology studies (2). "This is basically a product of my family's experience with my grandfather's stroke," says Natalia. She goes on to say that those experiences continue to be the source of her motivation during clinical placements: "[…] where I meet cases such as my grandfather, and I have a lot of enthusiasm, energy and commitment". In addition, the motivation for speech pathology studies may be financial, because as a speech pathology graduate "you can earn a little more, at least for starters" (Magda).

The studies

Leading themes

 Relations: "We are taught to cooperate" (5). An important aspect of the studies are the relations among students and between students and lecturers. PBL, and especially speech pathology diagnosis tutorials, require students as well as shape their ability to work in a team, "sort of, to cooperate with others" (Karolina). "We learn to cooperate," says Róża, adding that the start of the semester was "turbulent" in their group, because "different characters, personalities and temperaments clashed". At the beginning, the group was also quiet, nobody wanted to speak, "nobody wanted to be accused of thinking differently than everyone else" (Karolina). Julia describes the relations among students in a similar way, concluding, however, that now the group members "are in sync" and "get along". At the same time, she adds that "concerns are raised by the new division into groups", aimed at shaping in students the flexibility and ability to cooperate with a range of different personalities, which they will need to demonstrate in professional environments. Some of the students do not share Julia's concerns about the approaching new division into groups and even argue that the original division has caused the phenomenon of students belonging to different groups closing themselves onto one another: "They closed themselves on us, and we closed ourselves on them" (Karolina), "we started, in fact, to function a little like two separate entities "(Natalia). The students appreciate the "good aura" (Iga) during

their studies, which in their opinion results from the fact that "there is no great gap" (Róża) between students and lecturers. In the opinion of one of the students, however, it is easy for the "greater directness" (Natalia) of students towards the lecturers to exceed acceptable limits: "The girls were more direct, they dared to say more, which was surprising to me" (Natalia).

Motivation: "It's like a game" (5). The "sense of meaningfulness" (Iga), resulting from the coherence of the program, gives a strong motivation to learn: "everything is consistent: there is a case study, there is a medical block, then the methods are analysed" (Iga). Another motivation is willingness to participate in a "game" (Julia), in solving a "puzzle" (Natalia), characteristic of PBL. "We have one case a week and we do it all week, then it ends, but we know there will be something new next Monday" (Iga). Natalia is somewhat disappointed that sometimes "the path of the diagnosis is too simple", and students should, after all, "meander in this maze a little and thereby learn more". She proposes that the case studies should be more complex, more difficult and therefore even more puzzling than they currently are. In her opinion, solving a case study can lead to "self-satisfaction" that results from "seeing something that the other person did not" Julia reports that once she heard one of her friends say the following: "I genuinely envy you all that you could go this class." She herself has problems with the subject taught in English and is afraid of the exam, because if she did not pass, it would be "such an incredible pity to give up all this". In the students' opinion, several other elements of the program provide motivation to study. "It is such a … driving force," says Julia about the students' responsibility for setting their own learning goals. According to Karolina, on the other hand, "it's thinking […] that drives us to delve into all this". Magda claims that everyone is "focused on acquiring skills thinking of their profession" and that "the thirst for knowledge is so common", something she had not encountered before. Finally, Natalia says that being a student, she "should be giving" and she even feels embarrassed that she "is gaining just as much".

Personality: "This method doesn't quite agree with me" (5). Problem-based Learning poses requirements which do not suit every personality, and which often are a source of concern. Róża talks about her own lack of clout, that she sometimes feels a blockage when solving case studies in the small group environment, and she concludes: "This method doesn't quite agree with me." Magda, like Róża, "enters a group" very slowly and has "such problems with breaking through at the beginning". "I'm still an individual person and I like to work according to my own schedule," says Karolina. Róża is afraid "to ask questions, even basic ones". The role of the "leader" during PBL classes evokes a lot of emotions, which is perfectly rendered in Karolina's words: "Being a leader if someone does not have such predispositions is stressful" and "Stronger individuals who are more suitable can take more responsibility in the group". The fears expressed by most

of the students contrast with the confidence evident in Julia's words, when she expresses her feelings about problem-based teaching in the following way: "I feel inner peace", "I find myself in it" and "I like to learn this way".

Responsibility and fears: "The responsibility is greater" (4). The studies evoke in students the feeling of responsibility for future patients. "Certainly, it is a responsibility", says Julia about her speech-language pathology studies and adds "responsibility, quite a lot of it, because we know that one wrong step on our part may mean a longer therapy for the patient or the patient will close in on himself". Róża emphasizes that she feels particularly responsible when she thinks about working with adult patients. Magda believes that the sense of responsibility during these studies is greater than in the programs she previously studied. The sense of responsibility in speech pathology is greater than the one felt "towards the text or that I am at school one day and something would not work, but the next day I would fix it" (Magda). Róża makes a similar comparison: "if you are a literary scholar, you write various articles and you do not have much responsibility, you do not feel that you are in direct contact with a human being." That sense of responsibility for future patients also means that students have high expectations of the program and lecturers. Iga suggests that there should be more practice classes because she is worried that one day she might "show someone something wrong". Likewise, Róża believes that there should be more recapitulations, more guidance from the lecturers, because according to her, conclusions drawn by students during problem-based classes sometimes remain without any commentary: "no one […] says whether it is good or bad".

Peripheral themes

Students consider the relationship between medicine and speech pathology (3). Natalia appreciates the presence of a medical block in the program of her studies: "The medical block is something that is very constructive to me." For her, however, speech pathology is only a mere "substitute for medical studies". She does not think that "any physician would want to go back and practice speech-language pathology." Magda says with a grain of salt that "you can be a doctor without a medical degree", but at the same time she wonders about the cooperation between speech pathologists and doctors, and she has doubts that it can go well. Karolina previously did not realize that medical content could constitute such a large part of speech-language pathology knowledge-base. She believes that speech pathologists do not provide treatment, "because they are not doctors", but "more of a therapy". The students are also considering the place of research in speech-language pathology clinical practice and in speech-language pathology studies (2). "Knowledge must be verified," says Karolina. Magda positively evaluates the efforts of the academic staff to instil in students the idea of evidence-based

practice, although she does not, in general, have "a very high opinion about under-graduate and graduate student theses." One student becomes emotional when describing her speech pathology placement in functional rehabilitation centre in Krakow: "The lady started talking to us, she turned on, something amazing" (Julia). Another student admits that she feels fatigued carrying on two university degree programs at the same time (Magda).

On speech-language pathology

Leading themes

A future profession: "We are proud of what we do" (6). The interviewed students feel satisfaction and they are proud of their future profession: "allied-health is […] an ennobling space" (Natalia). They experience satisfaction on a day-to-day basis: for example, from the fact that they understand what the media say about speech-language pathology and are able to properly assess media information (Julia). Their sense of pride also results from the fact that speech-language pathology "means providing help" (Iga) or even "a task, maybe a bit lofty, in a way heroic" (Magda). Magda sees the course trying to "instil this idea […] of helping another person". In addition to being ready to help, speech-language pathology also requires "considerable empathy" and "considerable resistance to a number of things" (Julia). For Natalia, speech-language pathology is "the challenge of staying in close relationship with another person". Karolina, on the other hand, believes that when practising the profession of a speech-language pathologist, "one must have great patience". According to her, the patient "also expects kind of mental support". Róża is worried by the thought that speech-language pathology often lacks quick effects of prescribed therapy, and therefore she asks herself: "Am I really fit for this job?".

Lack of awareness in the society: "And you're studying this? How come?" (4). The students are irritated by the low awareness in the society of what a speech-language pathologist does. It results, among other things, in the lack of under-standing for the profession in the family, supporting children in choosing it, and then during the studies themselves. And when the family are supportive, "it is so gratifying" (Iga). Karolina recalls how her father, having heard false opinions on the work of speech-language pathologists on TV, called her and asked with irony in his voice: "And you are studying this? How come?". The student "had to explain everything to him". Magda regrets that the stereotypical thinking that "a speech therapist is about improving 'r', 'sz', 'ż', 'cz'" still prevails in the society and suggests that "people probably do not realize that speech pathologists work with adults". Karolina, likewise, recalls that when she sometimes talks about her

placements in a hospital, she is immediately taken for a medical student. Working with children on pronunciation, although most often associated with speech-language pathology, has a low prestige in our society. Natalia feels angry with herself whenever, in order to add prestige to her work, she tries to "explain herself to someone that she does more, that this is not such a narrow field that only deals with the pronunciation of the 'r' sound". She thinks that she drives herself into an inferiority complex in this way, into thinking that "therapy for children is something worse".

Synthesis

Choosing the master of speech-language pathology program at the Jagiellonian University was a step forward for the students towards finding a profession in which they could fulfill themselves and combine many interests. Since their previous studies did not provide them adequate satisfaction and did not open up prospects for a good job, they chose the program in speech-language pathology because of its practical appeal and the fact that speech-language pathology as a profession provides opportunities for continuous professional development in a range of directions. The choice of the studies in speech-language pathology was also influenced by recent experiences related to the disease of relatives, the intriguing problem-based method of teaching, albeit little known to the students, and the openness of the program to embrace and teach a wide range of methods of diagnosis and therapy, both Polish and foreign. The assessment of the university's prestige and the prospect of good earnings were not without significance.

While in university, the students are motivated by a sense of meaning resulting from the coherence of the study program and the lack of content poorly related to pursuing the target professional. Equally motivating is the weekly case study, perceived by the students as a kind of game. They see the case studies as puzzles, which must be complex enough to stimulate thinking, so that students can go astray and thereby learn. This "game" is so addictive and satisfying that skipping classes may cause a sense of loss. Students are also motivated by setting their own learning goals. The widespread and strong focus on expanding knowledge-base and skills comes as a surprise to some; it's something they had not experiences before. The thirst for knowledge results to a large extent from the prevalent sense of responsibility for the effects of future professional work, which is becoming very real and tangible to students. The sense of responsibility among students is greater than in previously experienced studies. The students appreciate the presence of medical subjects in the program, they feel the high prestige of medical science,

and are proud to be preparing to work in the field of allied health. However, at the same time, they wonder, not without some degree of uncertainty, how the cooperation between speech-language pathologists and physicians may develop, about the place of research in their studies and the concept of clinical practice based on scientific evidence.

The Problem-based Learning process has a strong influence on the relationships among students and between the students and the academic staff. Students, representing various characters and personalities, had to adapt to working in small groups. Now the students are worried about another division into groups in the new semester, although on the other hand it is clear that the original division caused students from different groups to close themselves off. The problem-based classes also seem to require leadership skills and favour leadership personalities. The students generally appreciate the good aura of their studies, resulting from the lack of excessive distance between lecturers and students, while at the same time noting that greater boldness and directness in relation to lecturers sometimes can exceed acceptable limits. PBL poses requirements for students which do not suit every personality. It is especially challenging for those who slowly adapt to working in a group and lack self-confidence and the predisposition to lead. Continuing two courses of study at the same time causes great strain and fatigue.

The thought of practising the profession of a speech-language pathologist is associated by students with the great gratification that comes from helping another person, but also with empathy, resilience, patience, the ability to establish a relationship with another person and readiness to offer psychological support. The satisfaction, resulting from the course of their studies and experiencing the prestige of the allied health sciences, is tempered by the low awareness of speech-language pathology as a profession in the society, also among members of the closest family who sometimes fail to provide the necessary support. The stereotype of a speech-language pathologist working on improving children's pronunciation is still prevalent in the society, and there is little understanding of the complexity of this work. This causes frustration among the students and the desire to demonstrate to the outside world that they are also involved in the more prestigious therapy of adults in hospitals and clinics. Speech pathology is sometimes seen as a substitute for medical studies.

Summary and conclusions

The aim of phenomenological research is to understand and describe a phenomenon, not to interpret it in the light of a theory (Hycner, 1985). The present

research describes the feelings and emotions accompanying students when they recollect choosing a master's degree program in speech-language pathology organised according to the formula of Problem-based Learning, experienced during their studies and when they plan to work in the speech-language pathology profession in the future. The synthesis of students' feelings and emotions, proposed as an outcome of the research, suggests specific actions that could be taken in order to increase the students' sense of satisfaction with the choice of speech-language pathology as an area of study in general and with the choice of a PBL-format format in particular. Examples of such actions can be supplied. Students should have a better understanding of what Problem-based Learning is at the time of choosing their studies. This can be achieved by placing on the course website video recordings of exemplary classes and guides describing the PBL method as well as by providing opinions and reflections of graduates. The design of the case studies, the focal point of the program which motivates students to act, requires special attention; it should be sufficiently complex and strategically "underdefined" to stimulate reflection, exploration, discussion and the testing of hypotheses.

Many of the themes described in the present report resonate with threads already running through the world subject literature. Group collaboration in the problem-solving process is an important topic. Galle and Marshman (2010) write about the attitudes of individualism common among students, which makes the experience of working in a group difficult for many of them, as they must go through a period of adaptation. Hammel et al. (1999), on the other hand, argue that Problem-based Learning helps students to understand how to build relationships, a skill needed in later work. Roderick and Carusetta (2006) describe how group work in problem-driven activities led to the development of a culture where students worked together even when the program did not require it. Many research reports deal with the subject of differences among students in the perception of Problem-based Learning, as a result of personality and cultural differences. Palmer and Major (2004) argue that problem-based classes are better perceived by students with leadership personalities, but such classes also support the development of leadership skills. Due to the diversity of students, research indicates the need for local adaptations of the method (Ju et al., 2016; Hmelo-Silver, 2012). In this study, the profession of a speech-language pathologist quickly became very real and close to the students. Likewise, Galle and Marshman (2010) suggest that Problem-based Learning supports the process of inculturation and identification with the future profession. Several other topics which emerged from the interviews are more closely related to the situation of speech-language pathology in Poland. For example, this research shows that speech-language pathology as a profession still faces the task of making itself better known to the society, overcoming various prejudices in the society, informing about the progress in the profession,

and strengthening the identity of speech-language pathology as an independent academic discipline.

The present research describes the initial experiences and emotions of students which may have changed later in the course of their studies. More research into Problem-based Learning is needed, in particular long-term studies examining the relationship between the main assumptions of this method and the learning outcomes, the level of student preparedness to engage with the profession and adaptation to the work environment as a speech-language pathologist after graduation.

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