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ACTION RESEARCH AS A METHOD OF IMPROVEMENT OF SCHOOL PRACTICE WHILE EDUCATING GIFTED STUDENTS

Abstract

There are two basic organisational approaches to training gifted students in the world: training gifted students in special departments or schools, where they are trained through special, tailor-made programmes, and training together with other students. In Europe, there are great differences in the definition of giftedness, the identification and perception of gifted students. Identifying gifted students and creating individualised programmes for gifted students is a major challenge for school policy, both in the field of legislation and in its implementation in education. This paper presents an action research that was carried out in two cycles at a selected primary school in order to analyse the current situation in the creation of individualised gifted student support curricula and the further work with gifted students. Furthermore, the application of a new participative curriculum for gifted students as an alternative to the existing national programme guidelines for working with gifted students in the Republic of Slovenia is presented. We note that educators face many difficulties (in discovering and adapting didactic strategies and curricular adaptations for gifted students) and highlight the benefits of a participatory programme for the active participation of gifted students in the learning process.

Key words: action research, elementary school, individualised plan for learning, learning individualisation, gifted students.

AKCIJSKA ISTRAŽIVANJA KAO METODA UNAPRIJEĐIVANJA ŠKOLSKE PRAKSE PRI RADU S DAROVITIM UČENICIMA

Sažetak

Postoje dva temeljna organizacijska pristupa obrazovanju nadarenih učenika u svijetu – odvajanje nadarenih u posebne odjele ili škole u kojima se školuju kroz posebne, prilagođene programe i obrazovanje s ostalim učenicima. Međutim, europske se zemlje uvelike razlikuju u definiranju nadarenosti te u prepoznavanju i konceptu darovitih učenika. Identifikacija nadarenih učenika i stvaranje individualiziranih programa za nadarene učenike predstavlja velik izazov školskim politikama kako u području zakonodavstva tako i njihovoj primjeni u obrazovnom radu. Ovaj rad predstavlja akcijsko istraživanje koje je provedeno u dvama ciklusima u odabranoj osnovnoj školi kako bi se analizirala trenutna situacija u pripremi individualiziranih kurikula za nadarene i daljnji rad s njima te primjena novog participativnog nastavnog programa za nadarene kao alternativa postojećim nacionalnim programskim smjernicama za rad s darovitima u Republici Sloveniji. Otkrivamo kako se učitelji suočavaju s mnogim poteškoćama (u otkrivanju i prilagođavanju didaktičkih strategija i prilagodbi nastavnih programa nadarenim učenicima) te koje prednosti participativnog programa ističu u aktivnom sudjelovanju nadarenih u procesu učenja.

Ključne riječi: individualizacija učenja, individualizirani odgojno-obrazovni plan, daroviti učenici, osnovna škola, akcijsko istraživanje.

Introduction

There are 15 countries in Europe that offer a variety of programmes for gifted students as part of the regular education programme at school (European Agency for Development and Special Needs Education 2009, p. 18). Slovenia does not yet have a specialised, unified curricular model for the education of the gifted and/or specialised alternative version of it, as schools adapt to the internal administrative and pedagogical situation in the preparation of specific educational programmes for gifted students. The introduction of individualised programmes for gifted students (named INDEP) also represents a qualitative leap in the curriculum model since the existing curriculum (subject-oriented curriculum) is also joined by a student-oriented curriculum (individualised programme for gifted students). Didactic strategies are based primarily on learning differentiation, individualisation and enrichment. Forms of working with gifted students in Slovenia are therefore organised according to their needs and abilities. Planning programmes for working with the gifted is certainly a neuralgic point of the whole process, since it requires professional readiness of the holder of the educational programme, cooperation with others, program providers, a good knowledge of the highly capable student and his/her needs, the variety of use of programme forms and methods and much more (Kukanja Gabrijelčič, 2015).

We find that gifted and talented students in Slovenia are well taken care of by law and programme legislation (White Paper on Education in the Republic of Slovenia 1995; Primary School Act 1996; 2006; Organisation and Financing of Education Act 1996; Concept of discovering and working with gifted students in a nine-year elementary school in Slovenia 1999; Operationalisation of the Concept of discovering and working with gifted students in a nine-year elementary school in Slovenia 2000; 2008); but legislation does not require differentiated and individualised programmes for them. Therefore, when working with students (who have not been identified as gifted), particular attention should be paid to the enrichment of the learning environment, which is intended to provide emotional security for the student and to be extremely challenging, stimulating and intellectually oriented (George 1997, p. 79). In addition, when preparing an individualised programme, it is essential to take into account the

goals, interests, abilities, characteristics and desires of the gifted and successful student and his/her parents.

Marland's definition (1972), cited by Concept (1999), according to which gifted students were identified, states that talented people make between 3 and 5 % of the population. Juriševič (2009, p. 154) cites data from the school year 2008/09 - at the time, we had 26 % of the identified gifted students among the 9th grade student population. The first reason for the higher percentage of identified talented children is that we have taken Renzulli's concept of talents as a basis, which allows the identification of several types of talents and thus a higher percentage of identified talented children. The second reason, however, lies in the scale of the teacher. The difference between 3–5 % and 26 % is due to identification according to the teachers´ scales, which have inappropriate criteria/statements for identification.

Working with the gifted according to the Concept of discovering and working with gifted students (1999) is based on the following basic principles: broadening and deepening of basic knowledge, faster progress in the learning process, development of creativity, use of higher forms of learning, use of cooperative forms of learning, consideration of special abilities and strong interests, respect for individuality, promotion of independence and responsibility, care for holistic personal development, diversity of the offer and freedom of choice of the students, establishing mentoring relationships between students and teachers or other programme providers, ensuring appropriate acceptance of gifted students in their classroom and school environment, creating opportunities for occasional social contacts according to their specific needs and interests. In addition to the fundamental principles, we have provided principles for creating a differentiated programme for gifted students, which have been proposed by the National Curriculum Council of the American Institute for the Education of the Gifted and Talented (Bezic et al. 2006, p. 18). These principles include the folowing: the principle of the breadth of teaching content; interdisciplinarity; direct experience; the complexity of the learning content; outsourcing tasks; research; integration; introduction of new technologies; personal growth; the principle of evaluating of the learning process (ibid.).

Learning individualisation

Learning individualisation most often occurs in connection with learning differentiation, although we cannot equate it, as these are "highly dependent phenomena with a number of opposites" (Strmčnik, 1993, p. 15). Thus in the text that follows we will concentrate primarily on the pedagogical aspect of learning individualisation, which puts the individual in the foreground (i.e. individually – oriented students´ work or work linked to the independent students´ work with individualised learning tools). We define instructional individualisation as "a didactic principle that requires schools and teachers to discover, respect and develop solid individual differences between students in order to try to individualise and adapt joint teaching and learning as much as possible to the individual educational and learning characteristics, needs, wishes and aspirations of each student and to enable students to carry out independent learning work" (Strmčnik, 1993, p. 13). Interestingly, the author also presents the need for learning individualisation, which he believes is necessary in today's developed world, where education and skills are becoming an increasingly important force for social and economic development, where it is necessary "to discover and develop every talent and to put each person in the right place where they can benefit most" (1993, p. 12). This notion should also be taken into account when preparing a personalised programme for gifted students in other subjects.

Learner-individualised programmes for gifted students are tailored to the characteristics of each individual student. Teachers of a particular subject, school counsellors and external mentors (academics, other professionals), parents and the most important factor - gifted students - must be involved in the preparation of a personalised programme. The teacher can also plan and design the personalised programme independently, however help, guidance or simply the comment of other professionals is most welcome (Eyre, 2005) and a gifted student.

The levels that the teacher needs to consider when designing an individualised curriculum are defining the goals we want to achieve; identifying individual learning skills, interests and desires; designing a varied, diverse and didactically rich curriculum; creating teaching aids, historical literature, didactic tools and resources, etc. (Eyre 2005; Strčmnik 1993; Welding 1998).

In his statement on working with gifted students, Rosić emphasises that individualised work with them should not be understood in isolation from other models of teaching and learning (1994, p. 69) and points out that this can lead to poverty in the educational process and to indoctrination. There are many opponents of external learning differentiation and individualisation in heterogeneous departments, who advocate the benefit of other students in class. However, we believe the existence of more successful students is necessary because they are role models and thus contribute in making more progress than it would be possible in situations wher there were no successful students in the classroom. The teacher does not only help such students to discover and unlock their potential by expressing their creativity and the ability to take a unique approach to learning, but also helps them to overcome the social and other personal problems that these students face much more often than their peers. The teacher can therefore be an authority, mentor, guide, facilitator, friend and confidant for the student. We start from the conviction that by teaching that takes into account the specific needs and above-average abilities of the individual, we contribute to the development of strong areas and interests of a student who is successful in learning. The objectives of differentiated teaching are therefore to prepare meaningful and engaging tasks that are challenging while activities and content are adapted to with different teaching methods and forms; to take into account the students' reactions, interests, needs and preferences; to prepare an appropriate, challenging and rich learning environment; to match the knowledge standards and objectives of the teaching with the curriculum, etc. (Heacox, 2009).

An individualised learning programme

When preparing an individualised learning programme for a gifted, above - average student in teaching (hereinafter referred to as ILP), we must pay attention to a wealth of information that bears witness to the student's abilities (tests, grades, parents' opinions, other teachers' opinions, achievements, etc.). The information should be processed by a specific group of teachers and the school counselling service, which is responsible for the preparation of ILP. The child's interests and wishes should also be discussed, as well as its strong and weak areas, parents' interests and suggestions, assessment and results, as well as other factors that either promote or hinder the development of a student's

high abilities. It is also important to formulate higher goals and standards of knowledge, to integrate them into the general curriculum, to participate in extracurricular activities and to provide continuous training for teachers.

The areas that the ILP preparatory team should consider when preparing an individualised programme for gifted students are following:

(i) learning and teaching strategies; (ii) the student's needs in other areas; (iii) development of the social -emotional sphere; (iv) use of ICT; (v) cooperation with parents and external institutions; (vi) professional development for teachers; (vii) continuous evaluation of ILP progress (ibid.). Van Tassel-Baska (1998) and Sandling (2003) propose different thematic areas when individualised learning programme is prepared: ILP should provide opportunities for accelerated learning; encourage the use of ICT in learning and teaching; encourage learning (metacognition); include a range of motivational and creative thinking techniques; promote understanding and acceptance of diversity, global interdependence and tolerance; develop fine motor skills to produce different authentic products; promote and develop literacy and communication skills; develop the ability to interpret, analyse, synthesise and evaluate primary resources; develop critical thinking skills; be motivated to read different literature, biographies, and be focused on them; raise new moral and other questions.

In addition to focusing on the development of competencies in the chosen subject, the ILP should be broader and deeper, thus covering other areas that significantly influence the development of a child's talents. These include creativity, aesthetics, social skills, the emotional sphere.

In the creative field of ILP, the following aspects should be considered: promoting flexible, deviant, fluid and original thinking, innovation and originality; encouraging the production of specific authentic and other products; artistic and musical expression; possibilities of physical expression (dance and movement); role-plays and simulations; making use of the biography of the creative person; use of numerous techniques and tasks to promote creative thinking; performances and exhibitions of the student's products; extra-curricular integration.

In the field of social skills development, it should promote management and organisational skills and teamwork; volunteering in forms of social work; promoting research and involvement in camps, clubs, associations; providing social-emotional support to the student (Deal, 2003, p. 86; Sandling, 2003, p. 220; Van Tassel-Baska, 1998).

In summary, differentiation means differentiation of teaching (Deal, 2003; Sandling, 2003; Van Tassel-Baska, 1998): recognising different forms of learning among students; affirming and accepting diversity; insisting on the achievement of curriculum goals and standards for all students; diversity in teaching, learning and assessment; ensuring a high level of complexity and challenge and active learning; awareness that not all students need to do the same work in the same way; identifying learning needs and assigning appropriate tasks tailored to students' needs and interests; developing students' skills; designing differentiated tasks; using flexible groups of students to enable them to learn with others who have similar interests and objectives; recognising the importance and value of everything students do ; developing fair and impartial procedures for assessing students' performance and evaluating knowledge.

The education of gifted students is a challenge for school practice, especially in the area of adapting the educational process to the needs of gifted students. There are no easy solutions and there is no one solution that is suitable for all gifted students. For this reason, action research can be one of the more effective ways to improve school practice. Action research differs from other traditional types of research in that it is constructivist, situational, practical, systematic and cyclical (Efrat Efron and Ravid 2013). The purpose of action research is to improve school practice, to involve the participants in a particular process,with research questions arising from specific problems, events and needs (e.g. implementation and adaptation of individualized programs for gifted students. Action research has certain stages of the process (Efrat Efron and Ravid 2013, p. 8): (1) identifying the problem, (2) obtaining information about the problem, (3) planning the research, (4) collecting data, (5) analyzing and interpreting the data and (6) implementing the results.

Methodology

Aim and purpose of the research

The aim of the study is to determine the difference in the structure of gifted students between the two interviews in terms of psychodiagnostic tests and evaluation scales. The aim of the research is (i) to identify the existing situation in the field of work with gifted students in the selected primary school and (ii) to propose improvements in the field of work with gifted students, which contain elements of foreign curriculum theories and which should be introduced and tested on the basis of action research and adapted to the needs of Slovenian gifted students.

We posed the following research questions: How do gifted students assess the relevance of their individualised programme (content and learning approaches)? Does the introduction of the new individualised programme contribute to a better assessment by students, and how? How can systematic work with gifted students improve their performance?

Research methods

We have used action research, mainly to identify and monitor changes. In action research, we resorted to the following: (i) interviewing gifted students at a selected primary school; (ii) action research - introducing new, participatory, individualised programmes for gifted students at their selected primary school; (iii) re-surveying gifted students at the selected primary school.

The basic philosophy of action research was to improve the supervision of gifted students at school. In this way, we increased the degree of complexity of the students and improved the quality of time and teacher guidance in working with gifted students. In defining the framework and conducting action research, we followed the Stringer sequence of action research (Stringer, 2008, pp. 20–21). We focused on research design, data collection and analysis, reporting and action, which led to the introduction of a new action research step.

Participants in action research

First interview

In the first interview the students involved in action research were interviewed. They were all identified as gifted students of the selected primary school. The interview was conducted before the introduction of the first step of action research. 35 gifted students were interviewed, 48.5 % of whom were girls and 51.5 % boys.

Table 1: Overview of identified areas of giftedness in the first cycle of the survey

	area of giftedness	*number of students*	*%*	*% all areas of giftedness.*
TTCT	Creativity (Torrance test - TTCT)	19	48,7	13,9
GIA	General intellectual ability (Raven's Progressive Matrices Test or WISC III)	18	46,2	13,2
MUS	Music	17	43,6	12,5
LEA	Leadership	16	41,0	11,8
TEH	Technical field	11	28,2	8,1
GIA	General intellectual ability	10	25,6	7,4
ART	Art	10	25,6	7,4
LIT	Literature	10	25,6	7,4
LEA	Learning	8	20,5	5,9
KIN	Kinaesthetics	7	17,9	5,1
DRAM	Drama	6	15,4	4,4
CRE	Creativity	3	7,7	2,2
ART2	Artistic field	1	2,6	0,7
FILM	Film	0	0	0
Together				100

Almost half of the gifted students were identified with a psychodiagnostic test, i.e. Torrance tests of creativity (48.7 %). This also makes almost 14 % of

all gifted areas. Similarly, 46.2 % of students were identified as gifted by the Raven Progressive Matrices Test test or the WISC III test, representing 13.2 % of all gifted areas. The following data indicate at the ranking of gifted students according to OLNAD Teacher Scale, 2012. 43.6 % or 12.5 % of all gifted areas were recognized in the music field, 41 % (11.8 % of all gifted areas), 28.2 % in the technical field (8.1 % of all gifted areas). This is followed by the general intellectual, visual and literary fields with 28.6% of students (7.4 % of all fields of talent). 17.9 % of students (5.1% of all gifted students) were identified in the field of kinaesthetics. In the field of acting 15.4 % of students (4.4 % of all gifted areas) were recognized by the teaching staff, and only 7.7 % were recognized in the creative field (2.2 % of all gifted areas). We found that almost half of the students were recognized on the psychodiagnostic TTCT test, and the situation on the teachers' scales was completely different. There was a noticeable difference between teacher identification and psychometric tests.

The students were further classified according to the number of identified areas of giftedness. There were 14 areas. Possible areas were compared with the number of all students in the school. The second interview included 32 identified gifted students out of a total of 34 identified gifted students in school, of which 53.1 % were girls and 46.9 % boys. We also labelled the study subjects (students) as students who participated in the first interview with the following labels:

- 5th grade - UČ1 to UČ5
- 6th grade - UČ6 to UČ8
- 7th grade - UČ9 to UČ17
- 8th grade - UČ18 to UČ26
- 9th grade - UČ27 to UČ35

The labels of the students interviewed in the second part of the survey:

- 4th grade - 2UČ1 to 2UČ4
- 5th grade - 2UČ5 to 2UČ12
- 7th grade - 2UČ13 to 2UČ17

- 8th grade - 2UČ18 to 2UČ23
- 9th grade - 2UČ24 to 2UČ32

Second interview

The second survey (the second part of the survey) involved 17 students from the same sample of students from the first survey, which represents 53.1 % of the total sample in the second survey. In the first interview the students were given the code UČ and the consecutive number in the second interview the code 2UČ. The structure of gifted students in the two interviews differs according to class level. Nevertheless, the consistency of the 6th to 9th grade samples from both interviews is striking. The difference is only noticeable in the 5th grade students.

The students were assigned to a table according to the type or range of talent identified (Table 1). Almost two thirds of the gifted students (58.8 %) were recognised by the Torrance test for creativity, 50.0 % by Raven's Progressive Matrices Test or WISCIII, followed by half recognised by the teacher scale for music (41.2 %). The following are the percentages of gifted teachers in the teacher rankings: 38.2 % were recognised in leadership, 35.3 % in technique, 32.3% in general intellectual ability and art. This is followed by literature (29.4 %), learning (26.5 %), kinaesthetics (17.6 %), drama (8.8 %) and, as the last creative area with only one recognised student (2.9 %).

Table 2: Overview of identified areas of giftedness in the second cycle of the survey

	area of giftedness	*number of students*	*%*	*% all areas of giftedness.*
TTCT	Creativity (Torrance test - TTCT)	20	58,8	15,6
GIA	General intellectual ability (Raven's Progressive Matrices Test or WISC III)	17	50,0	13,3
MUS	Music	14	41,2	10,9
LEA	Leadership	13	38,2	10,2
TEH	Technical field	12	35,3	9,3
GIA	General intellectual ability	11	32,3	8,5

ART	Art	11	32,3	8,5
LIT	Literature	10	29,4	7,8
LEA	Learning	9	26,5	7,0
KIN	Kinaesthetics	6	17,6	4,8
DRAM	Drama	3	8,8	2,3
CRE	Creativity	1	2,9	0,8
ART2	Artistic field	0	0	0
	Together			100

We can observe similar results as those in the first survey cycle, as the number of identified gifted students with the predicate Torrance Test "creativity" is significantly higher (by 13 students or 38.3 %). This indicates a serious problem with the identification or ambiguity of the statements on the teachers' assessment scales. In any case, this is a fact not to be neglected. It would be worthwhile to investigate the reasons for this with more detailed and extensive research.

The structure of students according to each type of talent differs from the first to the second survey, nevertheless, the first three places are often occupied by both psychodiagnostic tests and musical talents, which are determined on the basis of the teacher's scales. Other areas of giftedness are scattered differently, as are various areas of talent scattered throughout the gifted population. The students were also classified by the number of areas of giftedness identified, as shown in Table 2.

In the school year 2014/15, 241 students attended the elementary school, including 34 identified gifted students, representing 14.11 % of all students in the school and 20.23 % of students from grades 4 to 9. With the exception of grade 6, the percentages were high and the average of gifted students in each grade was 20 %. This is unrealistic given the definitions derived from the percentage assumptions already refuted in the theoretical part. The percentage assumptions were rejected because of the rigidity of the definitions and not because of the number represented by the percentage.

Data collection process

The data was collected using various data acquisition techniques: (i) semi-structured interview of gifted students before the introduction of the first step of action research to capture the existing situation: understanding and attitudes of gifted students towards recording, identification and the individualised programme as a compulsory document of each identified gifted student; (ii) transcription of the interviews before the introduction of the first step of action research; (iii) analysis of participatory individualised programmes for gifted students; (iv) semi-structured interview of gifted students after completion of the second step of action research; and (v) transcription of the interviews after completion of the second step of action research. In the second interview we focused on the analysis of the following strands: the conception of giftedness, individualised programmes, and teachers' attitudes toward gifted students.

Research approach

The survey was conducted in two phases of action. All data from the first round formed the basis for the second round of action. The first survey was conducted in the school year 2013/14. Prior to the implementation, we identified codes and categories based on the interpretation of transcribed interviews, in which we assessed the needs of the talented people who participated in the programme. The programme was evaluated and progress was made at the conscious level of the students. Students set goals, made efforts to achieve them, and recorded everything in their individualised curriculum. We designed a work programme and alternative activities. After conducting the first interview and analysing the data, we decided with the control group that more radical changes needed to be made. Then we introduced a participatory individualised programme for the gifted students based on student participation, self-activity and metacognition.

We also conducted a teacher training course, where we presented some questions and dilemmas and examples of good practice in the field of discovering and working with gifted students.

After the evaluation of the second research cycle, we noted a trend towards improvement and progress of students in the cognitive and conative areas of the students who actively participated in the training programme.

Participating individualised programme for the gifted student

In principle, primary school offers the student the possibility of educational work according to a personalised work plan, which forms the basis for planning the differentiation, individualisation and personalisation of educational work for a gifted student. Thus, when choosing the contents and designing a participatory individualised programme, we have thought in the direction of approaching the students, as we prepare an individualised programme for them and adapt it to their needs, knowledge, talents, etc. It is designed on the basis of professional guidelines that collect and summarise collected data on important characteristics and identified educational needs of a gifted student.

The active involvement of students in designing an individualised programme has several implications (Alberta, p. 12): selection, goal setting and self-assessment; awareness of one's own thinking and different learning contexts; showing responsibility for one's own learning. Metacognition (Thomas, 2004) thus includes the critical aspects of thinking or awareness of one's own thinking. These are: (i) planning, (ii) control and (iii) evaluation. Planning includes the following activities: setting goals, selecting activities to achieve the goals, dividing up the activities, identifying potential challenges and anticipating the results. Controlling is about following the goal with the focus on the goal, deciding what the next activity is and choosing the right activity, knowing how to deal with the mistakes and obstacles on the way to the goal. Assessment and evaluation include: an evaluation of the achievement of the goal, an evaluation of the appropriateness of the results, an evaluation of the suitability of the selected activities, an evaluation of the challenges and an evaluation of the effectiveness of the plan.

Processing of research data

The data from the action research and from both interviews were processed according to certain principles of qualitative data processing. At the end of

each action step we conducted an analysis. The scope of the analysis of the interviews included the processing of the material, the definition of coding units, the grouping of related concepts into categories and the development of conclusions (theories). After each interview, a transcriptional analysis was conducted and after each round of action an analysis of the participatory individualised programmes was conducted.

Quality criteria for action research results

We have adapted the criteria established by Stringer (2008), Sagadin (1993) and Vogrinc (2008), which can ensure quality by objectivity, credibility, transferability, reliability, verifiability and validity. The objectivity of the test, as defined by Sagadin (1993, p. 90–91), is assessed in several ways: objectivity of the test, objectivity of the evaluation of the answers and objectivity of the interpretation. These aspects can also be applied to our research. We assured the objectivity of the test (interview) in the way that we had not decided on the results in advance and therefore had not influenced them. During the process of action research we tried to ensure credibility, which is often neglected in the research process. To avoid distortions, we have tried to ensure the credibility of our research in various ways. Stringer (2008, p. 68) notes that one of the criteria for validity is long-term performance and that the researcher should spend more time in the environment in which the research takes place. Since we conducted the survey at a well-known school, we met this criterion. Furthermore, we conducted the survey, mostly with the same students, for more than two years. We met with the students every day, talked to them, directed them, etc. We recorded many conversations or observations. We also observed the students during other activities. Furthermore, we fulfilled the criterion of continuous observation (2008, p. 69). As the next criterion the author mentions triangulation, i.e. the use of different sources, methods and concepts to support, fulfil or illuminate a research problem. We tried to meet this criterion by using interview notes, our own notes and an action plan as different sources. One of the criteria for the credibility of research is the interview or testimony of the participants (2008, p. 69). Transferability means the usefulness of the research results in a similar environment with similar topics studied.

The reliability of the survey was achieved through an audit (2008, p. 71). All our research data can be viewed or stored by the researchers. Each participant in the survey also agreed to transcribe their interview. Evidence is achieved by storing recorded and logged information (2008, p. 71). All recorded and transcribed interviews are stored and are available for review by the authors of the paper. The validity of the results is ensured by including different points of view and opinions of the persons investigated. Stringer (2008) notes that the research can also be influenced by our own experiences, which we were also aware of throughout the research.We tried to raise awareness through reflection and self-reflection in order to maintain distance and show unencumbered results.

Results with discussion

Based on the interviews with gifted students and the content analysis of the individualised gifted programmes, we find the following:

Most gifted students see their individualised programme as flawed. The assessment of our own individualised gifted development programme was obtained by a preliminary survey of gifted students before the introduction of the first step of action research, i.e. before the introduction of a new form of individualised programmes.

1st interview:

(i) The phenomenon of giftedness: More than 75 % of students were able to answer the question of when they were identified as gifted. When asked what it means to be identified as gifted, more than 75 % of the students were able to answer it in their own words; e.g. that they solved tests by which they were recognised (identified), that they knew more or were better than the others. In most cases, students named areas, subjects, activities that they liked or in which they were successful, but not those in which teachers recognised them on the assessment scales. Only four students (11 %) were able to indicate areas of their ability, 19 students (54 %) indicated only some areas, while 35 % (12 students) indicated completely different areas or were unable to answer the question.

With this information we asked ourselves where the reasons for the students' answers differ from the established state. The questions went in the wrong direction, i.e. lack of teacher assessment; shortcomings in the assessment scales; a focus on subject-specific lessons that did not take into account the active role of gifted students in helping to shape a working relationship in INDEP planning; the teachers/coordinators were poorly trained to manage the student-centred part of the training. Similarly, they cite Bezić and Deutsch (2011, p. 87), where they offer identification in grade 4 and confirmation in the second half of grade 9 when students show performance. At the same time, however, this does not seem to be the best solution, as most of the primary school system is currently based solely on performance.

(ii) Recording, identification and individualised programmes. Only seven students confirmed that they are aware of the identification process. No one knew what recording was. When asked what they thought of an individualised programme for gifted students, one student responded that it was a programme for working with gifted students. Others (94 %) said they did not know what it was. They were then asked if they knew what was written in it, and all (100 %) replied that they did not know. The question whether they understand the content of INDEP and whether they agree with its content was completely superfluous, as they did not know what INDEP was.

We then asked them what their parents thought about INDEP and whether they agreed with its content. The first question was not answered, but when we helped them with the statement that INDEP had to be signed by their parents, they all agreed that they agreed with the content. One of the following questions was whether they took the content of INDEP into account in their decisions and choices regarding their interests and hobbies. We have not received a single affirmative answer here. We have received such results not only in our research, but they were also recorded by consultants in the research of the Educational Institute of the Republic of Slovenia (2012, p. 5): "/... / In all these years we have never had a case where parents or children disagreed with the development of INDEP, which means that every year a lot of information has to be planned or written down that parents and students do not consider important. This is evidenced by the fact that despite the fact that we talk to students at

the end of the school year about the realisation of INDEP (in terms of the fact that they sign it every year), they do not know they had it in the ninth grade. They show an ignorant attitude towards it, they are not motivated for the planned high level activities recorded with INDEP, and in such case it is difficult to achieve all the planned and written objectives, activities, etc. "or on page 6:" I think that INDEP at school failed to put together one that referred to something other than following the formal rules. The management of the school felt that the quality of the work with the students was the first priority, and therefore some of the INDEP were really missing, just because they ..."

What was worrying was that none of the students knew what an individualised programme for working with gifted students was and that they did not discuss this with their parents. When examining the research question, we found that not only did the students rate their individualised programme as faulty, but 94 % of the students did not even know what an individualised programme was. This points to a gap that goes deeper than just the shortcomings of the programme.

The assessment of gifted students in the context of the new individualised programme (participatory programme) will be higher after its introduction. After careful consideration and review of the various literature, we decided to design an individualised student programme, which we called the participatory individualised programme. After using the new individualised programmes for two and a half years, we conducted a semi-structured interview to examine the students' attitudes to individual segments of the programme. All interviews were recorded (with prior parental consent) and written down. We then coded and collected the data. We present them in comparison to the first interview.

2nd interview

(i) The phenomenon of giftedness: More than 68 % of students were able to answer the question of when they were identified as gifted. When asked about giftedness, almost all students correctly identified the areas in which they were identified as gifted. In the first survey, only 11 % of the identified gifted students were able to identify their strong area. This time, half (50 %) of the students accurately listed all their strengths and identified talents.

The reason for this improvement is due to the new individualised programme, as we highlighted the areas in which they had been identified on the first page of this programme. In this way, they will know in which psycho-diagnostic test they scored well (if at all) and which evaluation scales were accepted by the teachers. In this way, they become aware of their strengths, which they can develop further. However, we do not neglect the area of self-interest that is not on the assessment scales.

(ii) Recording, identification and individualised programmes. When asked what they thought of the individualised programme for gifted students, two students said that they did not know what it was (6.3 %). Nearly 72 % said that the new individualised programme is very good or good. The rest (21.7 %) could not be identified.

In the first survey, only two students knew what an individualised programme was, and in the second survey only two did not know what it was (the students in Class 4 who learned about their talent six months before andabout the fact that that they were part of this individualised programme.

The systematic work and contact with the students has led to positive results. One of our goals was to make the students aware that they are gifted and that only they can do something for themselves and improve what is good for them.

Students have moved from complete ignorance of the individualised programme to a high level of awareness and use of these programmes.

At the end of the action, the performance of the gifted students was higher than at the beginning of the action research. We focused Zois Scholarship on achievements that are relevant for gifted students. These are awards from various competitions. The Zois Scholarship Regulations stipulate that a Zois Scholarship can be awarded to a student who has achieved outstanding achievements in knowledge, research, development or art and a corresponding grade point average in the two years preceding the first application for a scholarship.

The conditions for the award of the Zois Scholarship (Outstanding Achievement in National Competitions) are as follows: “The gold award (or the first prize) will be awarded with 5 points and the silver award (or the second

prize) with 2 points (Zois Scholarship Award Rules, Official Gazette of RS, 2014, Art. 5, indent 6)".

We compared the performance of the gifted students who were included in the action survey in the school years 2012/13 and 2014/15. We deliberately compared the two school years, although we had already started the first step of the action research in the 2012/13 school year. Since we started our research in the second semester, the systematic work with the students could not produce noticeably better results in such a short time. The second reason is that we included the same students in both compared school years.

Table 3: Comparison of achievements and the number of achievement points from the 2012/13 and 2014/15 school years

Achievement	2012/13	number of points	2014/15	number of points
gold award	-	-	2	10
silver award	6	12	5	10
Together	6	12	7	20

The number of outstanding achievements rose sharply in the 2014/15 school year, with students receiving two gold awards at the end of the action survey, whereas they had not previously received any gold awards. They received 6 silver awards, which would give them 12 points after the evaluation. One of the silver awards was a collective award. At the end of the survey, students scored 20 points according to the Zois Scholarship Score, which is almost half more than before the introduction of the participatory individualised programmes.

In the school year 2012/13, the students achieved silver awards in the Vega Maths Competition, the 9th grade (3 German Competition students), the Happy School Competition, and the "Multimedia Ecoposters" computer science competition (group prize). In the school year 2014/15 they received a gold award in the Slovenian Cankar Award Competition language and in the 9th German Competition grade. At the end of the second step of our research we found that the differences were significant in Happy School Competition. There were more outstanding achievements and the degree of recognition had increased.

Conclusion

The purpose and occasion of action research arose from the fact that the teachers at the school where the research was conducted did not know how to recognise creative students. The purpose of action research was achieved when changes in school practice and a new school practise of planning, implementing and evaluating individualised programmes for gifted students were uncovered. As a result of the action research, a simplified and comprehensible procedure for designing individualised programmes was created. It is also a less bureaucratic process for teachers and coordinators. Most importantly, it has led to a qualitative leap in the design and implementation of individualised programmes, with a focus on the relationship between co-creation, co-participation and co-responsibility of all those involved in the educational process.

The introduction of a participatory individualised programme has led to more talented students participating in the programmes and to a greater awareness of the purpose and goals of the individualised programme. The introduction of a participatory individualised programme also influenced the increase in the research performance of the talented students involved (results in competitions, etc.). The situation at the school where we conducted the action research has improved considerably in the area of planning and implementing individualised programmes. For this reason, we will continue to implement the participatory individualised programme as an example of good practice at the respective school. The importance of a participatory individualised programme as an example of obvious good practice is also reflected in its introduction in other Slovenian schools. The results of action research in other schools will be compared with the results presented in this study and disseminated in the form of a comparative study.

Many new research questions were raised during the action research. Future research should focus on the following issues: (i) how teachers understand the co-design of a specific curriculum for gifted students; (ii) how teachers identify gifted students; (iii) how can gifted students participate more actively in shaping their education and developing talent; (iv) how to improve school practise in designing and implementing individualised programmes; (v) how teachers understand the concept of creativity, who they consider creative and in what areas; (vi) how can an appropriate training programme for educators be designed to identify and work with gifted students.

Because of the cultural conditioning of the conception of giftedness and talent, action research in school practice is a way to design our own way of conceptualising giftedness and talent and to develop unique models of school practice for identifying talent and working with gifted students.

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