PROBLEMS OF EDUCATION IN THE 21st CENTURY Volume 39, 2012

ADAPTATION ANALYSIS OF SOME ALTERNATIVE COMPETENCE-BASED EDUCATION PROGRAMS' IN A HUNGARIAN PUBLIC SCHOOL

Zsuzsanna Hanák, László Dorner

Eszterházy Károly College, Hungary E-mail: hanak@ektf.hu, dorner@ektf.hu

Abstract

Some international researches has proven that Hungarian students are below the desired level regarding the application of acquired knowledge in many areas. In recent years competence based education includes knowledge, attitudes and abilities, gained ground in Hungarian schools. Our research aims to analyze the sustainability of some competence based, alternative education programs in Hungarian public education. Additional objectives include: revealing the opinion, examining the impact, exploring the related experience of students, parents, and teachers towards the following competence-based education programs: "Student Cognition" "Lesson Differentiation", "Project Based Education", "Epochal Education", "Cooperative Education" and "ICT tools". Questionnaire was used as a research method, applying SPSS to evaluate our data. The survey was carried out in a public school which takes part in the dissemination of competence based trainings. Sample consists of 158 participants. Results: applying these practices students and teachers are more effective to discuss their problems, the quality of education improves. Meet the students' age characteristics, establish better measurement and evaluation system, clearer rules. Adapt to the students' abilities/skills increasing their self-sufficiency and performance orientation. Consequently, the new practices can be appropriate to meet the challanges of public education in the 21st century.

Key words: Hungarian students, Hungarian public education, competence-based education programs.

Introduction

The Hungarian educational experts reacted quickly to the international educational-pedagogical trends already in the start-up phase of education reform concepts. The reform pedagogical trends appearing at the turn of the 20th century met with success and gained followers not just abroad but in Hungary as well. In 1908 opened up the so-called "Openair forest school" modelling the "Landerziehungsheim" school in Germany (Németh, 1993). In Italy it is worth mentioning the first kindergarten which applied the Maria Montessori's pedagogical methods based on her physiological-psychological results. In the spread of this pedagogy in Hungary Erzsébet Burchard-Bélavári had the major role who set up her "Montessori kindergarten" in 1927, and one year later her "Montessori school" in Budapest as well. In this period not only foreign, but Hungarian reform pedagogical aspirations turned up.

These aims were to spread the modern educational-psychological principles and to create new basis for education. Some outstanding educationists and pedagogues of the period: László Nagy, Weszely Domonkos (Pukánszky&Németh, 1996). Furthermore, Márta Müller Nemes established the so-called "Family-school" which is inspired by Ovide Decroly, who set up his theoritically well-founded school in Brussels in 1912. Some of the concepts described in the second period of reform pedagogy also appeared in Hungary soon. The theory of Waldorf-

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pedagogy was born in 1913, then in Stuttgart in 1919 appeared the first "Free Waldorf-school" operating in a spirit of antroposophy. In Hungary Mária Göllner the student of Rudolf Steiner established the first Waldorf school. Before the World War II the centralized education policy then the war itself led to the end of alternative schools. In 1945 a governmental decree warranted the establishment of regular eight grade elementary school and the resulting monolithic public education system had little tolerance for alternative forms of education (Pukánszky&Németh, 1996).

From the seventies the alternative schools could be established again in Hungary. Important experiments took place in Szentlőrinc in 1969 by László Gáspár and the elaboration of the "Permanent education theory" by József Bernáth, Ottó Mihály and János Páldy in 1970 should be mentioned as well. One of the most-influenced programs was created by József Zsolnai called "Value mediation and ability development". It was first applied in Törökbálint Practice School in 1985 (Pukánszky&Németh, 1996, Torgyik, 2004).

As of the 1990's the new laws made the establishment of alternative schools possible. From that time lots of schools adopted one of the reform pedagogical concepts as their educational program or created their own alternative pedagogical program. Later the Freinetpedagogy, Dalton-project, Jena-project and Rogers' client-centered therapy also appeared in Hungary. But the initial enthusiasm has not been followed by the spread of these schools, only the schools of "Value mediation and ability development program" (Kiss, 2002) and the Waldorf-schools (Vekerdy, 1994) are considered widespread in Hungary. The other concepts and approaches mentioned sparsely appear in public schools and the alternative schools have not established a network in public education, instead they remained isolated (Langer, 2010).

Problem of Research

As an antecedent to the research program described by the present essay between 2001 and 2003 we assessed the problems of public schools at the beginning of the 21st century. The inquiry pointed out these conditions, which public schools in disadvantaged areas were forced to cope with:

- Education accumulates knowledge, relies on memory.
- Students are regarded as receptive, frontal education is dominant.
- The amount of stored knowledge is central aspect of evaluation.
- School books do not promote independent learning, their primary goal is conveying information and knowledge.
- The aim of evaluation is the control of knowledge acquisition.
- Maintenance of discipline is an important goal.
- Teachers use rewards and punishments to retain student interest, whose motivation is mostly extrinsic.
- The applied methods do not support the cooperation and mutual assistance among students
- Short lessons (45 minutes) are not suitable to apply the project-based and "natural learning" method.
- "Personalized treatment" and "personalized development" are rarely used methods

ICT tools are used for playing, not for active self-studying.

After exploring the problem Hungarian researchers worked out methodological recommendations and programs (for instance "Alma-mater project") between 2003 and 2004 (Szebeni, 2004, Hanák, 2009). Then this research group joined in 2 national methodological development projects, in which more competence-based programs were elaborated (2005-2011) utilizing the previous results and incorporating the already developed methodological approaches. The international overview of teacher career eligibility competences and standards has also been carried out (Falus, 2011). After accrediting the programs these alternative practices were introduced in several schools, for instance in the examined school as well.

Research Focus

The present research aims to analyze the suitability of some competence-based training programs in the Hungarian public education. The study carried out among school teachers in Western Hungary confirmed that lots of teachers reported anomalies about methodology, organization, teaching tools and forming student communities (Németh, 2009).

The research effort aims to reveal the opinion of students, teachers and parents about the effectiveness of the programs based on alternative pedagogies in public school situated in a disadvantaged region. The examined school applied the following competence-based education programs:

- "Getting to know students": Help teachers gain important information about the students' personality, learning abilities and to recognize learning disabilities as disgraphia. Apply the facilities of students' personality development (Tóth, 2005).
- "Lesson Differentiation": Make teachers apply processes and practices by which the students' personalized development can be achieved and their personalized cognitive needs are satisfied (Kopp& Ollé&Zágon, 2006).
- "Project Based Education": It is appropriate for students to learn how to learn efficiently. It is a target-centered teaching strategy which helps to obtain goals by applying attivity-centered, task-oriented technics. Broadening the schools'frames the aims are achieved in natural learning environment (Estefan-Varga& Szikszay, 2006).
- "Epochal Education": The coherent materials and literacy areas are blocked and organized into one period, instead of 45 minutes lessons in all weeks of the semester (Ballér, 2002).
- "Cooperative Education: It is based on the cooperation of the participants, who work together in small groups. It develops efficiently the self-esteem and problem-solving of students. Parallel interactions and equal participation are basic principles (Kagan, 2004, Taskó, 2011).
- "ICT tools": Help spreading the applicable methods for developing digital competency. It is important for the teachers to know the latest ICT innovations and the possibilities of using these tools (Lengyel, 2011).

Methodology of Research

General Background of Research

Our research centre has been a long-term cooperation with the school in which the study was performed. When we started to unfold the problems of public education in 2001, we already found this school as an interesting field to study, because this school are located in Hungary's most underdeveloped region, it applies competence-based teaching strategies to compensate the worse situation of underprivileged students creating the possibility to emerge. The former

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projects mentioned above have already been developed in this school (ex. Alma-mater Project). As a first step of our present research we selected the competence-based education programs worth adapting in this public school. This work has been in cooperation with the teachers of this school. Then the teachers fulfilled in-service teacher training programs, where we prepared them to apply these programs in practice. In line with it programs' adaptations were performed. Then in the classes participated in the study the education started applying the new competence-based education programs. As 1 year has passed since the adaptation of these programs, we decided to study the effectiveness of this work by measuring the opinion of students, teachers and parents.

The study was carried out at a public school which contains both elementary and secondary sections. The host institution is also an active participant in the dissemination of the results of competence-based education programs. The school assigns high priority to "Getting to know students", "Lesson differentiation", "Personalized ability development". Projects and epochas are periodically used. ICT tools are usually applied during education.

Sample of Research

67 students, 24 teachers and 67 parents (158 participants) took part in the study all of them are concerned in the competence-based education programs. The student sample is based on two full classes whose members learn under the competence-based education programs. They were 1st and 7th grader primary school students. 33 1st grader and 34 7th grader students participated. This sample was completed with one parent from all students (67 altogether) and 24 teachers who teach with competence-based programs. We regard the sample as little, but it would have been impossible to adapt all materials' curriculums from traditional to competence-based, so only two classes were available. If the participants of these programs are proven to be satisfied and feedbacks are favourable in this study, we consider adapting the other grades' curriculums as well. Furthermore, each teacher had to adapt their all-year curriculum for the new requirements, which was a long and heavy work.

Instrument and Procedures

3 questionnaires were developed by our research group. These questionnaires contain the same factors aiming to unfold the students', parents' and teachers' opinion of the new competence-based programs. Practically all questionnaires contains the same questions, there were only stylistical differences among the 3 questionnaires to address the 3 target groups. Each questionnaire contains 18 items, in which there are questions about quality evaluations, satisfaction with the new programs, student-teacher relationship, clarity of rules, the achievability of requirements, effect on talents, teacher-student problem-solving, extracurricular activities etc. The participants answered on a five grade Likert-scale and replied to some open questions as well. 3 open questions also have been in the questionnaire which aimed to unfold what other important thoughts emerged in the students, teachers and parents in connection with this subject. Items: "What did you like the best in this year?", ""What would you change on?", "What programs would you like to meet in the future?"

Data Analysis

The statistical analysis was performed using SPSS statistical program. Descriptive statistics (mean: \bar{x} ; standard deviation: SD) were used to measure the statisfaction data. With independent samples t-test we assessed whether the means of two genders are statistically

different from each other. Pearson Correlation (r), the most commonly used bivariate correlation technique, measured the association between our quantitative variables. The reliability of each questionnaire was measured by Cronbach-alpha coefficient (α) , which showed the consistency of measures.

Results of Research

Based upon the respective answers the 3 groups' means were calculated (Figure 1).

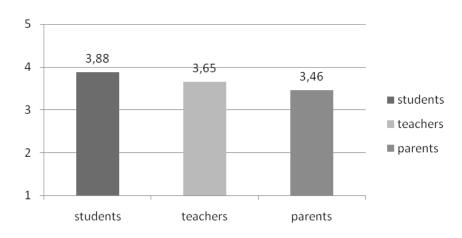


Figure 1: Means of 3 groups (n=158).

The reliability of the questionnaires were relatively high as it is seen in Table 1 below.

Table 1. Reliability analysis of the questionnaires (n=3).

Questionnaires Cronbach-α	
Teachers scale	0.851
Students scale	0.887
Parents scale	0.944

The students consider the new programs most effective ($\bar{x}\bar{x}$ =3,88, SD=0,97), following the teachers ($\bar{x}\bar{x}$ =3,65, SD=0.69), lastly the parents ($\bar{x}\bar{x}$ =3,46, SD=1.05). In details it is shown in Table 2 below.

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Table 2. Comparison of Means for all 18 items in 3 groups (n=158).

	Students' opinion		Teachers'opinion		Parents' opinion	
Examined issues	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
General satisfaction	4,18	0.80	3,83	0.56	3,73	0.88
Development of personal skills	4,45	0.67	3,71	0.55	3,64	0.85
Quality of education	4,05	0.67	4,25	0.61	3,77	0.61
Clearity of rules	4,09	1.06	3,83	0.96	4,14	0.94
Achievability of requirements	4,14	0.83	3,79	0.66	4,14	0.57
Reply to learning difficulties	3,52	1.29	3,54	0.72	3,19	1.12
Development of talents	3,82	1.01	3,79	0.78	3,29	1.15
Measurement and evaluation system	4,00	0.75	3,92	0.58	3,60	0.82
Helping career choice	3,76	0.89	3,78	0.67	3,63	1.16
Communication	4,19	0.98	4,42	0.58	4,14	1.28
Cooperation among students	3,62	1.07	4,46	0.51	3,68	1.17
Community development	3,41	1.14	3,67	0.76	3,14	1.17
Effect on extracurricular activities	4,16	1.12	3,86	0.89	3,00	1.12
Effect on free time	4,06	1.03	3,64	0.66	3,22	1.11
Autonomy	3,53	1.17	3,55	0.74	2,90	1.04
Achievement orientation	3,50	1.10	3,67	0.92	3,17	1.20
Matching age characteristics	4,38	0.74	4,18	0.73	3,19	1.38
Student-teacher relationship	3,15	1.27	3,74	0.62	2,89	1.41

Students are satisfied with these new methods ($\bar{x}\bar{x}$ =4,18, SD=0.8), they believe these develop their abilities better ($\bar{x}\bar{x}$ =4,45, SD=0.67), match their age and useful for their leisure activities ($\bar{x}\bar{x}$ =4,38, SD=0.74). By these programs it is easier to discuss their problems with the teachers ($\bar{x}\bar{x}$ =4,19, SD=0.98), and the curricular requirements are easier to fulfil, the rules become clearer ($\bar{x}\bar{x}$ =4,14, SD=0.83).

Studying the correlations it is found that the boys are significantly more satisfied with the new programs' effect on the development of their abilities (t=2,73, df=66, p=0.013), also the

age of students correlates with the evaluation of new programs (r=0,484, p=0,026). The upper school students (7th graders) evaluate them significantly better than lower school students (1st graders). The reason for that the upper school students is likely to have spent more time under traditional learning programs so it is easier for them to compare the traditional and alternative programs.

Teachers emphasize that by means of new programs it is easier to discuss the students' learning and other problems ($\bar{x}\bar{x}$ =4,42, SD=0.58), the quality of education improves ($\bar{x}\bar{x}$ =4,25, SD=0.61) and it matches to the students' age characteristics ($\bar{x}\bar{x}$ =4,18, SD=0.73). These programs' measurement and evaluation system are regarded as optimal, the rules become clearer ($\bar{x}\bar{x}$ =3,92, SD=0.58). The requirements are easier to achieve, help the talented students develop ($\bar{x}\bar{x}$ =3,79, SD=0.78). Furthermore the new programs help students in their carrier choice ($\bar{x}\bar{x}$ =3,78, SD=0.67). It is easier to adapt to the students' abilities, help efficiently who have learning difficulties ($\bar{x}\bar{x}$ =3,79, SD=0.72). They regard students' separateness and motivation in lessons as positive ($\bar{x}(\bar{x}$ =3,55, SD=0.74).

A tendencial significant correlation can be discerned between the teachers' gender and the possibility of discussing students' problems (r=0.397, p=0.06), and also between gender and satisfaction with new programs (r=0.398, p=0.06). Female teachers' evaluation is better (t=1,968, df=23, p=0.06), but since there are less men in the sample, the respective results should be treated with caution.

Parents are less satisfied than students and teachers. They do not experience positive change in the time spent with learning by their children ($\bar{x}\bar{x}$ =2,90, SD=1.28). However, they regard the new programs as more efficient in clearing the requirements and expectations ($\bar{x}\bar{x}$ =4,14, SD=0.94) and in discussing problems ($\bar{x}\bar{x}$ =4,14, SD=1.28).

Qualification of parents correlate with perceived quality of education (r=0.426, p=0.048), with clarity of rules (r=0.443, p=0.039), with possibility for their children to discuss problems with teachers (r=0.514, p=0.014), and with student-teacher partnership (r=0.452, p=0.035). There is correlation between the parents' gender and student-teacher partnership (r=0.452, p=0.035), mothers have a tendencial significantly better opinion about it (t=-1,968, df=66, p=0.066). The gender correlates with how the new methods support their children'career choice (r=0.395, p=0.094), the fathers evaluate it tendencial significantly higher than mothers (t=1,775, df=66, p=0.094). Parents are satisfied as the new programs are compatible with their children's age characteristics and support their extracurricular activities (r=0.514, p=0.042).

Analyzing the *open questions* it is stated that *students* would like to have more ICT lessons, they are pleased with the new programs and do not want their teachers to return to the "old approaches". In addition they need more free time, trips, movement. *Teachers* direct attention to the need for reducing class size, the irregularity of ICT accessibility (require much time to pack and unload) and the demand for greater Internet accessibility. It should be useful to amend teacher-parents communication, the cooperation among teachers, they would like greater freedom in teaching and less administration. *Parents* are afraid that the second language is not given equal importance. They believe the classrooms'equipment should be developed. They would like to know more about the new programs. More oral presentations are required. Greater effect on education and more emphasis on discipline are needed. On the whole they are satisfied with teachers' pedagogical and organizational work.

Discussion

As it was mentioned in the introduction, the Hungarian scholars of education reacted promptly to the international educational-pedagogical trends already in the first phase of reform pedagogical conceptions. In the 21st century the Hungarian education policy has become more open to new ideas and concepts and promoted their widespread application in public education. The education experts drew up the key competences which are necessary for every European citizen to acquire to unfold their personal abilities, to participate in social life and to be employed. Its realization is not so easy with as many problems as it is demonstrated in the problem revealing part of this study. In Hungary -as we mentioned- more competence-based education programs have been elaborated, public schools have the right to adapt them or not. According to a representative national study (n=1755) 44.5% of the pedagogues regard competence-based programs as useful, contrarily in our disadvantaged region this number is only 40.7% (Liskó-Fehérvári, 2008). This number indicates us that more attention is needed for each school in our region. An other national survey found out what kind of in-service teacher training programs are willingly chosen by teachers (n=2569). The results of this survey correspond with our present study: 73% of teachers chose "Lesson differentiation", 72% of them "Cooperative techniques", followed by Projects and epochas (66%), "Getting to know students" (66%) and ICT (65%). (Liskó-Fehérvári-Havas-Tomasz, 2007). In our host school all of these programs have been elaborated and applied. Furthermore, in a new study we can read about the applicability of these competence-based programs evaluated by teachers. The national sample (n=1993) showed 3,4 mean score in 5 grade scale (Liskó-Fehérvári, 2008) in constrast with our study in which 3,65 mean score is shown by teachers. It signs that in our disadvantaged region "development in small steps process" seems to be efficient. Measuring of parents' and students' opinion has not been publicated in Hungary yet, however, we consider all 3 groups' evaluation important, because these programs are viable only if every concerned person value them as desirable. The future studies have to measure this aspect alike. We emphasize that the developed and incorporated alternative programs in public education still have to be sustained.

Conclusions

The research sample is not so high so the results have to be considered with limitations and these conclusions cannot be generalized to the whole population, but the tendencies are clearly seen: the results reveal that new competence-based programs meet the needs all of different actors of the educational-pedagogical scene. The results of present study complete the studies publicated in this topic so far by taking attention of the schools of underdeveloped regions which need enhanced professional support, furthermore shows the importance of considering the common evaluation of students, parents and teachers. Teachers are willing to apply them, however they notice the problems alike, for instance the oversized class numbers and also deficiencies like the teamwork among teachers and communication between teachers and parents. Students enjoy learning with these programs. These programs develops the students' interpersonal skills and abilities, which are underemphasized in the current education system. These programs help to develop their knowledge, abilities and attitudes which contribute to form key competences expected by European Union. Parents emphasize the positive and negative sides of these programs as well. They feel that it develops the relationship and problem-solving discussions between teachers and students. However they do not know these programs enough that is why a little doubtfulness occurs related to discipline and second language.

However, the initial difficulties of introducting these programs demand much work, need for cooperation and patience by the actors of the Hungarian public education. In the future our research group aims to concentrate on resolving of questions, fears and doubts emerged in the participants related to these programs.

All of these statements indicate that these alternative programs are successful and popular in public education, it would be useful to broaden their availability and should play more important role in teacher training.

As competence-based education programs have indirect effect on development of key competences accepted by European Union we hope that the presentation of our study and obtained results are useful for international arena and we are waiting for the feedbacks of our colleagues.

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Advised by Laima Railienė, University of Siauliai, Lithuania

Received: January 13, 2012 Accepted: March 02, 2012

Zsuzsanna Hanák	PhD, College Professor, Eszterházy Károly College, 12 Klapka Street, Eger, Hungary. E-mail: hanak@ektf.hu Website: http://www.ektf.hu/english/
László Dorner	Teacher Assistant, Eszterházy Károly College, 12 Klapka Street, Eger, Hungary. E-mail: dorner@ektf.hu