Curriculum as an instrument in developing teaching and learning

Rudite Andersone  Dr. paed.
University of Latvia, Latvia
rudite.andersone@lu.lv

Abstract: The digital generation, the development of digital economy, globalization, the restriction, the development of the branches of national economy are significant factors for a sustainable development of education to become one of the most significant issues of the development of society. Education in school practice takes place in a dramatically new informative environment (social nets, digitalization, plenitude) and for the future, which cannot be clearly characterized and described. One of the objectives of the curriculum development is the assurance of the teaching / learning in classrooms of all levels. It all is influenced both by the new technologies coming into our national economy and also in school practice, and by the changes of the perception and the way of thinking of the young generation. From this point of you there is a great necessity revise curriculum using new approaches, new principles in developing educational leadership in the classrooms. The research of prospective teachers shows that educational leadership for qualitative teaching / learning follow some principles such as: acknowledge the students’ previous experience and learning; prepare the students for life in its widest sense; recognize non-formal learning within the formal one; promote the learners’ independent and autonomous learning; estimate the students’ needs in compliance with the learning activity and the achievements; plan the activities and manage assistance in order to encourage learning.

Keywords: curriculum, teaching / learning, new generation.

Introduction

We live in a time of rapid changes, our everyday habits are changing, and so is the society, the emphases on values, and simultaneously there goes on continuous development and improvement process, there are continuous advancements in the teaching and learning process, extensions, search for more and more effective techniques. It all is influenced both by the new technologies coming into our national economy and also in school practice, and by the changes of the perception and the way of thinking of the young generation. Representatives of the young generation - the digital generation are sitting at school desks and the existing education system is not meant for people of this generation. Marc Prensky (Prensky, 2001) names several essential changes in the perception of the contemporary learners– irregular speed of perception in contrast to the traditional speed, parallel data processing in contrast to sequential processing, the perception of the picture and only then the perception of the text, preference is given to the scenarios of the game, imagination prevails over reality.

Digital economy, which is today’s reality, radically changes the habits of our society and it exerts impact on its social and economic structure, as pointed out in the statement of the Committee of European economic and social affairs on the theme “ Digital market – the driving force”. (Eiropas ekonomikas..., 2012). Statistic data from Eurostat is reflecting digitalization of the young generation. In 2010 more than 91% of 16-24 years old people, 76 % of 25 – 54 years old people and 40 % of 55 – 74 years old people were using the Internet more than once a week (Eurostat, 2011, Eurostat, 2012).

So new communication technologies have really become an essential part of their life. The rapid growth of technologies causes new challenges for the teachers, who often have to follow the learners’ digital lifestyle. Initiatives to raise the role of ICT in education usually confine themselves to putting up the necessary equipment and implements in the classrooms without reflecting upon what influence they will exert on the teaching / learning processes and how they will change them.
It is quite clear that the future will require a population with the confidence and skills to meet the challenges posed by fast and far-reaching changes. It is sure to influence the content of the curriculum and its implementation, as well as the teaching/learning process in the class.

The basics of curriculum is studying content and studying process planning (Andersone, 2007), so its effective development appropriate to the development of science and society is very important for qualitative changes in school practice, i.e. teaching/learning processes perfection, teachers’ competence improvement, etc. In Latvia like in many other European countries educational standards’ and curriculum’s reorganization has started. Digital generation, digital development of economy, globalization and economics branches’ restructurization and development are important factors to make development of education by one of the most important problems of social development. One of the targets of composing curriculum is providing effectiveness of studying and teaching process and management.

The goal of the article is to characterize development of curriculum as an instrument in developing teaching and learning.

**Methodology**

*Developing teaching and learning*

In school practice there are used three essential pedagogical dimensions, which are connected with the quality of learning and teaching – the promotion of the learners’ intellectual development, the significance of qualitative learning environment, development of the learners’ comprehension of the significance of their own work. (Ayers, Dinham, 1998).

Modern school practice is responsible not only for providing the classroom with modern technological equipment but also with modern achievements in teaching/learning process’ management. New generation technologies are entering school. “Microsoft Surface” and “SMART Table” are two examples demonstrating the future view of a school board and desk combination. A computer makes a desk, and a big touchscreen makes a table plate. On the touchscreen students can see their tasks for the day and their hometasks; they can draw shapes, settle maths tasks, write their comments or play intelectual games with their classmates. All this is used in order to provide qualitative teaching/learning process management.

In the Internet blog “Answers” the question is asked – What is your understanding of high-quality teaching and learning? Byron Samuel answered: what I understand from high-quality teaching and learning is that the students are taught by highly qualified teachers who do not just have appropriate education in the subject they are teaching but they also have a valid experience in that field as well, and only a teacher with such abilities can teach their students with the skills they require to compete in their field on interest today. (Samuel, 2012).

So thinking about qualitative teaching/learning process, its determined and aimed at students’ needs and interests leadership becomes more and more actual.

Consequently, the teacher teaches qualitatively (Fink, 2006):

- by challenging the learners, by creating situations, developing their creative and critical thinking, skills of solving problems and skills of taking decisions;
- by ensuring facilities of active learning, because learning by doing promotes stability of the learners’ knowledge;
- by caring for the way the students learn;
- by ensuring the supervision of the whole class, thus strengthening the students’ learning potential;
- by ensuring feedback in the form of praises and help;
- by ensuring an honest and just assessment system.

However, the teacher needs corresponding security - a good, modern curriculum, a rich learning environment, support on the part of the school administration and the society.
**Curriculum development**

The concept of curriculum is not new. On the whole the authors explain the concept of curriculum similarly, the difference lies only in nuances.

Alan Tom (Tom, 1984) defines the essence of curriculum shortly and precisely as ‘a program for teaching and education. B.Moon (Moon, 2002) remarks that the concept of curriculum embraces the relationship of subjects and the selection of content, teaching methods and everything else that secures a successful learning and the assessment of the learning outcomes.

V. Schubert (Schubert, 1986) names the basic curriculum concepts – the choice of aims, the content of teaching and experience, organization and assessment. It all has something in common with Aristotle’s conception on the categorization of knowledge and its aspects:

- the theoretical aspect - a program, which includes definite knowledge, theories;
- the practical aspect: a process, which includes thinking and action during the process of learning; praxis, which finds its expression in thinking and in which the action is assessed according to its experience;
- the productive aspect - outcomes, understood as the competences obtained.

A more detailed analysis has been given by J.Goodlad (Goodlad, 1997). He distinguishes five kinds of curriculum concepts:

- the ideal curriculum - it is defined by its creator and the designers,
- the official curriculum - the aims of it are confirmed by the state and the educational boards (ministries of education), and it is adopted by the educational institutions,
- the comprehended or perceived curriculum - it enjoys the society’s confidence because it reflects the society’s subjective points of view on what should be taught,
- the operative curriculum - it is a curriculum put into practice in class,
- the experience-based curriculum – it is a curriculum which the learners have gone through in class.

The curriculum is a crucial component of any educational process. It addresses questions such as what students should learn and be able to do, why, how and how well. In the past, the curriculum was designed merely from the perspective of its cultural transmission functions with its structure consequently reflecting discrete areas of knowledge. Given the complexity of today’s ever-changing world, contemporary approaches to curriculum development far exceed the traditional understanding of curricula as merely plans of study or lists of prescribed content. (UNESCO IBE, 2006)

There should be taken into consideration some general principles in the curriculum development:

- the goals and tasks of the school education programs of all levels, the basic values are united, there is being developed united education space;
- the content of education comprises the most significant experience of mankind and the values of culture, it is general enough;
- all the goals and tasks are mutually connected and are to be viewed only in entirety;
- the content of education at its any degree is sufficient foundation for further studies.

There are different approaches to curriculum development. More often there are used four approaches (Visscher-Voerman, Gustafson, 2004):

- instrumental approach;
- communicative approach;
- artistic approach;
- pragmatic approach.

**Instrumental approach** is based upon systematic analysis and development of programs. For the most part there are searched answers to the following questions (Tyler, 1949, Taba, 1962).

- Which objectives should education aim at?
- Which learning experiences are most suitable to attain these objectives?
- How could this learning experience be organized effectively?
- How can we determine whether the objectives have been achieved?
In **communicative approach** the stress is laid on the involvement of and discussions with all the interested parts concerned – the builders of programs and the executers of the programs, specialists of the corresponding spheres, the parents, school leavers, etc. (Walker, 1990). First of all the parts express their points of view on the problems, come to an agreement about the most essential things, then they generate ideas concerning the potential solutions and agree upon the preferable solution, transform it into the description of the final product or a developed curriculum.

**Artistic approach** requires creative approach of the builders of the curriculum, which is based more on subjective understanding of the objectives of the curriculum and the needs of the learners. In this approach the teacher plays the main role (Eisner, 1979). Here emphasis is laid on the creative interaction in a particular context in order to satisfy the learners’ needs in a meaningful way by constantly developing the curriculum.

**Pragmatic approach** is turned to the curriculum product (knowledge, skills, practical availability). Curriculum development goes on in close interaction with the local practice and their users. Formative assessment plays an essential role in order to come to the desired result. (Goodlad, 1979). J. A Komenski, has also drawn attention to the fact that “it is necessary to teach only things, which bring apparent benefit”. (Komenskis, 1992). The choice of the approach to curriculum development is determined by many reasons. The more attention is paid to the learners’ practice in classroom, the wider are the possibilities of the artistic approach. On the other hand, when we think about the context and the final product the pragmatic approach is more suitable. However, on the macro level instrumental and communicative approaches are more frequently used. Learning in school practice takes place in a dramatically new informative environment (social nets, digitalization, plenitude) and for the future which we cannot clearly characterize and describe. Thus one of the vital problems of the contemporary curriculum development is successful inclusion of technology-supported learning in it. The curriculum should not only satisfy the learners’ needs of basic knowledge and basic skills, which will ensure their abilities in their further learning, but also their needs of sustainable activity in the globalized and digitalized world.

**Results and discussion**

Surveying 24 prospective teachers from second study year of University of Latvia in autumn 2012, the question which principles for qualitative teaching/learning they consider by the main ones. In order to estimate their answers we have chosen principles for educational leadership for teaching/learning composed by James and Pollard (James, Pollard, 2006):

- to prepare students for real life in its widest meaning;
- to offer to acquire the main knowledge areas;
- to recognize students’ background;
- to plan activities and to structure assistance to stimulate studying;
- to assess students’ needs according to studies and their results;
- to stimulate students’ independent studying;
- to stimulate students’ communication during the learning process, their receiving and exchange of knowledge;
- to recognize importance of informal studying, i.e. of studying besides the school;
- a teacher studies all the time;
- a teacher makes effective studying environment.

The research of prospective teacher shows that educational leadership for qualitative teaching/learning follow some principles such as (Figure 1):

- to recognize students’ background;
- to prepare students for real life in its widest meaning;
- to recognize importance of informal studying, i.e. of studying besides the school;
- to stimulate students’ independent studying;
- to plan activities and to structure assistance to stimulate studying;
- to assess students’ needs according to studies and their results;
So these principles must be used in curriculum development, because they are an important tool to provide the educational process in the classroom in the teacher’s hands.

Figure 1. Prospective teachers’ opinion about principles for qualitative teaching/learning

Approaches to curriculum development usage for qualitative teaching/learning and principles for qualitative teaching/learning is described in Table 1.

Table 1

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<th>The approach</th>
<th>Connection to the principles for educational leadership for qualitative teaching/learning</th>
<th>Prospective teachers’ opinion</th>
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| **Instrumental approach** | To plan activities and to structure assistance to stimulate studying  
To offer to acquire the main knowledge areas  
To prepare students for real life in its widest meaning                                                                 | To plan activities and to structure assistance to stimulate studying  
To prepare students for real life in its widest meaning                                                                 |
| **Communicative approach** | To promote students’ communication during the learning process, their receiving and exchange of knowledge  
To recognize importance of informal studying, i.e. of studying besides the school  
To stimulate students’ independent studying                                                                 | To recognize importance of informal studying, i.e. of studying besides the school  
To stimulate students’ independent studying                                                                 |
| **Artistic approach** | A teacher makes effective studying environment  
A teacher studies all the time  
To assess students’ needs according to studies and their results                                                                 | To assess students’ needs according to studies and their results                                                                 |
Pragmatic approach

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So a prospective teacher prefers instrumental and pragmatic approaches towards development of curriculum. Their background influences their understanding of importance of curriculum in school practice, when curriculum is used more for students’ knowledge and skills management than for teaching/learning process leadership. Certainly, the choice of an approach towards curriculum development is dictated by various factors, which are not only the teachers’ background but also the school development clear vision, understanding of the new generation’s needs, development of the society, etc. If we draw more attention at the students’ practice in the classroom, then artistic approach and communicative approach give opportunities to use curriculum as a tool for developing leadership in modern school practice.

Conclusions

Essential changes have taken place in the society, in which a new digital generation has grown up, digital economics is developing, more and more new technologies come into school practice, and that is the reason why curriculum development is so significant in order to ensure qualitative teaching and learning. The rapid technology development calls forth new challenges for the teachers, who often have to follow their learners’ digital lifestyle and continuously develop the methods of teaching and learning.

Teachers and, even more, future teachers use previous experience analyzing curriculum development possibilities and educational leadership for qualitative teaching/learning. So a closer attention is attracted by instrumental and pragmatic approaches towards curriculum development. At the same time, students living in the globalized world, using new technologies and sometimes even overcoming their teachers in getting information, are studying at schools. It is essential for nowadays teachers to manage teaching process, to assist students arrange their knowledge and information they get. So artistic and communicative approach towards curriculum development become more and more popular. In these approaches students’ digital skills are used for getting new knowledge. These approaches are especially challenging for teachers.

Bibliography


