

## **Competency Based Career Education**

The rapidly changing 21st century living and working conditions have made it necessary for everyone, including pupils and their teachers, to look after their personal growth and become their own career developer and manager. The emergence of new professions, overproduction of traditionally demanded professions, unemployment, uncertainty, educational institutions competing among themselves for financial funding by trying to attract the largest possible number of students, pressure on graduates to make fast career decisions in a limited amount of time – all of this impedes the pupils on their own to logically think over the steps of choosing and shaping their career. Educational policy makers admit that these processes are related to the necessity of improving career education in schools so that any graduate of an educational institution would be able to grasp the ever-changing labour market conditions and be able to make their independent career choices at any given stage of their life (Career Education in Compulsory Education Stage in Europe, 2009). In the modern society there is a growth of interest about the possibilities of providing career education in schools because increasingly more people around the world acknowledge the personal, social and economic benefits that are related to developing career management skills within the educational process, realising that it plays a crucial role in integrating young people into the labour market.

Career education in its many forms plays an important role in preventing early school leaving, as well as developing pupil's career management skills in a lifelong perspective (Early School Leaving and Lifelong Guidance, 2014).

The Latvian Education Law defines *career education* as measures integrated in the education process in order to ensure the acquisition and development of career management skills of pupils, which include being aware of one's interests, abilities and opportunities for selecting the direction of further education and professional career (Republic of Latvia Education Law, 2013). From this perspective, career education in Latvian schools is understood as an important support tool in the process of developing pupil's career management skills because it is

the school that is the main environment for providing formal career guidance services to pupils at any stage of the educational process (Guiding at-risk youth through learning to work, 2010).

The report on changes in public life in the 21st century, issued by a European Commission expert group, stresses that during the pedagogical process teachers should focus more on developing career management skills rather than acquiring specific skills related to any particular profession, noting that nowadays the attitude towards *education* and *work* as two separate and independent concepts has fundamentally changed. The conceptual meaning of *Education* and *work* is being more and more mutually integrated in the learning process that is open to innovations and accessible to every pupil (New Skills for New Jobs, 2010).

The process of developing career management skills, which includes self-analysis, is based on specific knowledge of oneself, whereas getting to know the working world is based on detailed knowledge of work and ability to choose between different options (Parson, 1909), therefore, in order to successfully move towards achieving one's personal goals in life and to be able to continue studying or fit in the labour market, the pupil uses knowledge obtained about oneself to learn to become their own resource and process manager (Arnold, 1997; Watts, Esbroeck, 1998). Sometimes these processes can be managed by people themselves, but on other occasions it is necessary to involve support providers such as teachers, representatives of the supporting personnel or career counsellors who work together with the pupil (Sultana, 2011;2009). The development of pupil's career management skills is a process of cooperation orientated towards the support provider helping the pupil to review all the results obtained from different career education activities that have been carried out, helping to analyse and structure them, as well as providing career counselling during the pupil's decision making process (King, 1999).

The research addresses the problem of facilitating development of pupil's career management skills within the pedagogical process according to age specifics, pupil's particular needs and career development opportunities.

Problems in this field arise from teachers' lack of understanding career education as a system, as well as the inability of school management to include career development support system as a part of school activities (Vuorinen, 2016).

**Research problem.** Within the educational sector of Latvia there has not been enough research done on the possibilities of helping pupils in developing their career management skills (there are a few separate researches in career education field - Jaunzeme, 2014; Pudule, 2013; Šmitiņa, 2011), furthermore no financial support from the government is provided to general education schools in order for them to facilitate career counselling, often the school personnel does not have sufficient qualification to carry out career education activities and provide career counselling services; career education activities are not organised in a structured succession and often they are fragmentary in nature, also when it comes to providing career guidance to pupils there is a lack of diversified cooperation in the educational sector between the involved partner institutions and participants. There is a lack of available infrastructure in order to provide career counselling in schools such as career guidance centres or methodically informative offices.

There are plenty enough problems regarding pupil's career management skills development in general education schools to make it worthwhile studying their causes and proposing potential solutions.

Taking into account the presented problems, theoretical approaches and detected practical methods, an important research is presented on the possibilities of solving the listed problems and contradictions in school pedagogy, called “**Development of pupil's career management skills within the pedagogical process of general education schools**”.

**Research object:** Career education process in school.

**Research subject:** Pupil's career management skills.

**Goal:** To elaborate a pupil's career management skills development model based on theoretical knowledge, verify it through experiment and summarise the research results.

**Hypothesis:** A pupil develops career management skills more successfully, if:

- a systematically and systemically organised career education is included in school's pedagogical process according to pupil's needs;
- development of pupil's career management skills is based on a meaningful cooperation between the pupil and a professional pedagogical personnel.

**Tasks:**

- To examine the theoretical basis of career management skills by studying the scientific sources of pedagogical, psychological and career development theories.
- To elaborate the pupil's career management skills development model.
- To carry out an experimental verification of the model and to summarise the results of the study.
- To elaborate recommendations for facilitating development of pupil's career management skills within the pedagogical process in general education schools.

**Methodological and theoretical grounds of the research work:**

- Human pedagogical approach (Gudjons, 2007; Kons, 1982; Lanka, 2003; Maslo, 1995; Špona, 2004; Valbis, 2013; Vigotskis, 2002).
- Operating procedural structural approach in the educational process (Fišers, 2005; Hahele, 2006; E. Maslo, 2003; Rimma, 2000; Riņķis, 2002; Zelmenis, 2000; Žogla, 1994; ИЛЪИН, 2002).
- Interdisciplinary approach in the educational process ((McCarthy, 2006; I. Maslo u.c., 2006; Rogers, 1969; Riņķis, 2002; Sultana, 2013; Vuorinen, 2014; Zelmenis, 2000; Žogla, 2001).
- Competence-based education approach in the educational process (Delor et al., 1996; Earley, 1992; Garleja, Kangro, 2015; Hargreaves, 2004; Hughes, 2014; Huidobro, 2009; Kuijpers et al., 2006; Maslo u.c., 2006; Ose, 2014; Pollock et al., 2009; Vuorinen, 2016).
- Pedagogical studies on the development of pupil's skills during the pedagogical process (Bernarde, 2013; Beļickis, 1997; Fišers, 2005; I. Maslo u.c., 2006; Prets, 1994; Rimma,

2000; Riņķis, 2002; Rubene, 2004; Sheerens, 2003; Sultana, 2013; Špona, Čamane, 2009; Šteiners, 2007; Zelmenis, 2000; Watts, Esbroeck, 1998).

- Career development theories - analysis of concepts related to career management skills (Havighurst, 1964, 1973; Holland, 1973; Krumboltz, 1983, 1994; Osipow, 1990; Osipow, Fitzgerald, 1996; Patton, McMahon, 2006; Raoul Van Esbroeck, 2005; Sharf, 1997; Super, 1990).
- Theories on personality development and identity establishment (Eriksons, 1980, 1998; Ginzberg; Gottfredson, 1981; Havighurst, 1964; Kons, 1985; Piaget, 1958; Piažē, 2002; Pokratniece, G. (1998). Roe, Lunneborg, 1990) Super, 1957; Малкина-Пых, 2004; Зеер, 2006; Vygotsky, 1978; Waterman 1989).
- Theories on professional choices (Dawis, 1996; Rozenblats, 2001; Климов, 1984, 1996, 2004 Фукуяма, 1989; Зеер, 2006).
- Career counselling theories related to pedagogical process in schools (Amundson, 2009; King, 1999; Savickas, 1993; Tron, 2012; Peavy, 2004; 1997, 1996; Pīvijs, 2010).

## **Research methods**

### 1. Theoretical methods:

- analysis of scientific literature on pedagogy, psychology and career management;
- analysis of the documents binding to the study (Latvian and European Union education policy documents: directives, analytical research reports, standards, laws, regulations regarding general education school activities, statistical data);
- model elaboration;
- analysis of career educators' practice and experience in Latvia and abroad.

### 2. Empirical methods:

- data collection methods – questionnaires, narrative interviews, discussions in focus groups, surveillance, situation analysis;
- Data processing methods using data statistical processing program SPSS version 17 to

determine data frequency and analyse data differences:

- Student's t test to obtain metric data (amount);
- Kolmogorov-Smirnov test to study proportions;
- Sign Test to study answers to closed questions and paired questions measurement differences before and after the experiment

3. Descriptive statistics and graphical presentation (tables, graphs, images, Excel program);  
grouping, analysing and interpreting qualitative data.

**Research basis**

827 pupils from 8<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades and 176 teachers from different Latvian schools took part in the study:

- 25 schools in Riga, of which - 7 gymnasium high schools, 25 secondary schools and 3 primary schools;
- 19 schools in other cities, of which - 6 gymnasium high schools, 10 secondary schools and 3 primary schools;
- 13 country side schools, of which - 8 secondary schools, 5 primary schools.
- Interviews on the research topic (in order to retrieve qualitative data) have been conducted with:
  - 43 pupils receiving individual career guidance consultations with the author of the study;
  - 12 groups of pupils attending career education activities organised by “Career information and counselling centre for young people and their parents”;
  - participants of the author's organised seminars and courses - 8 groups of teachers (424 participants in total) and 4 groups of parents (108 participants in total);
  - participants of the author's organised focus groups - 53 pupils, 76 teachers and 48 parents;
  - 36 pupils and 32 teachers interviewed by the author.

Pilot group in order to carry out the experiment was comprised of seventeen 9<sup>th</sup> grade

pupils and nineteen 12<sup>th</sup> grade pupils (36 in total).

### **Scientific novelty of the research**

- The definitions of *career*, *career management*, *career management skills* have been specified and expanded by gathering researchers' previously elaborated definitions and theoretical conclusions.
- The connection between acquiring career education and developing pupils' career management skills has been theoretically verified.
- It has been detected that career education, under which the pupil's career management skills are being developed, is a part of competencies-based pedagogical process.
- *A model of developing pupil's career management skills* has been elaborated based on theoretical knowledge;

### **Practical novelty of the research**

- As a result of the pedagogical experiment, empirical verification has been carried out of pupil's ability to manage their own career by making decisions on career choices if the pupil has systematically and systemically received career education in a general education school.
- Limitations have been examined (on national education policy and school level) that inhibit development of career management skills in general education schools during the pedagogical process.
- The author's program on career education has been elaborated and experimentally tested.
- Recommendations have been put forward on how to improve career education in general education schools.
- The results of the research can be practically used to elaborate a general education school's career guidance program and to put into practice the content of career education.

### **Research stages**

- **Preliminary stage:** from April 2012 to October 2012, in order to define the relevance of the study, the author interviewed 173 pupils during group sessions and individual career consultations as part of "Career information and counselling centre for young people and their parents" activities about their career intentions, out of which only 29 (23%) general school pupils could confidently say that they are sure about their career path after graduation. On the contrary, 79% out of 103 pupils from professionally orientated schools responded that they knew what professions they wanted to acquire and that they were ready to make their career choices. The initially obtained view on the existing situation allowed the author to conclude that it is important to carry out a study on the process of developing pupil's career management skills in general education schools, involving a broader range of respondents and covering a bigger number of schools from different regions of Latvia.
- **The 1st stage of the study** covers the period from October 2012 to September 2014 choosing, studying and analysing theoretical literature and elaborating the *Pupil's career management skills development model*. In order to obtain a complete view on the situation of implementing career education in different regions of Latvia, cities and the countryside and to discover the most common career education methods used, the first stage, apart from studying theoretical literature, involved surveying the control group with the first questionnaire, interviewing pupils and teachers as well as carrying out discussions between pupils, teachers and parents in focus groups.
- **The 2nd stage of the study** covers the period from October 2015 to September 2015 outlining the theoretical part of the study and elaborating the empirical research program. During the second stage surveying of the control group, interviewing pupils and teachers, as well as carrying out discussions in focus groups were continued.
- **The 3rd stage of the study** covers the period from September 2015 when the experimental group is formed to May 2016 when the experiment is concluded.



- **The 4th stage of the study** covers the period from October 2015 when alongside carrying out the experiment, the collected qualitative data (interviews, discussions, debates) were summarised, processed, analysed and interpreted. In May 2016 the experimental group was given a second questionnaire to obtain comparable data before and after the experiment and also to compare it with the results from surveying the whole static group and to determine the results of the experiment.
- **The 5th stage of the study** covers May to September 2016 when the results of the thesis are being analysed and interpreted and the doctoral work is being formalised.

**Structure of the study:** introduction, two parts, conclusion, bibliography (contains 374 items), 39 appendixes. The doctoral work contains 156 pages. The total size of the dissertation – 259 pages.

#### **Thesis to be defended**

1. Pupil's career management skills are developed by carrying out one's self-assessment in connection with exploring, analysing and evaluating different career options during a systematic and systemic competencies-based career education process. Developing pupil's career management skills is a self-led activity, therefore it would be more accurate to use the term career self-guidance.
2. A factor contributing to successful development of pupil's career management skills is an educational process focused on meeting the pupil's individual needs in accordance with the development stage of the child, teenager or youngster and based on targeted collaboration between the pupil/pupils and the pedagogical personnel.
3. Experimental usage of the procedural model of pupil's career management skills development verifies an enhancement of pupil's career management skills. The model can be used at all levels in general education schools in order to improve pupil's career management skills.

### **The Content of the Doctoral Thesis**

The introduction provides reasoning behind choosing the research topic and its relevance, describes the problems to be solved, determines the research object and subject, sets the goal and tasks, determines the study hypothesis, indicates the study methods and research methodology, determines the novelty and practical significance of the study, describes the basis of the study and the research stages.

The 1st part of the study “Theoretical grounds of career management skills characteristics” reflects concepts of *career management skills* in scientific literature and defines *career* related concepts as conceived by researchers of education politics and pedagogical processes.

Sub-chapter 1.1 „Description of competency-based education” indicates new ways of learning and organisational forms that facilitate the development of career management skills. It has been concluded that competency-based education is related to changes in perception of “teaching” and “learning”, which respectively determines changes in the organisation of the pedagogical process related to learning environment, teaching methods, ways of teaching and evaluation where a significant role is played by pupil's self-assessment. Competency-based education is characterised by a new trend: pupil's and teacher's role change, where the teacher is a participant in the pedagogical process, a partner, an ally, a helper, a creator of the learning situation and an initiator of the pedagogical processes, whereas the pupil takes on more responsibility for their own studies and managing them. Conclusion: the result of a competency-based approach is the development of a new teaching and learning culture. Learning is organised as a personally important process for the pupil, acquiring new competencies that include virtualisation, use of everyday experiences, operating in a diverse learning environment and collaborative pedagogy.

Sub-chapter 1.2. “The essence and description of career management skills” analyses how the concepts of *career*, *career management*, *career education*, *career management skills* are

understood in pedagogical studies (King, 1999; Korna, 2011; Law, 1996; Lāce, 214; Miķelsone, 2008; Pudule, 2013; Rozenblats, 2001; Sultana, 2012; Wats, 2008; Career education and guidance in schools, 2004; Career Education in Compulsory Education Stage in Europe, 2009); psychology studies (Kons, 1985; Nīkiforovs, 2007; Super, 1957; Paszkowska-Rogacz, 2008); researches on career management and career development processes (Law, 1996; Super, Savickas, 1996; McMahon, 1999; Kuijpers, Scheerens, Schyns, 2006; New Skills for New Jobs, 2010) from career counselling point of view (Amundson, 2009; King, 1999; Peavy, 1995). It is concluded that career is a process that shapes a person's attitude towards life and its multiple areas, develops a person's individual value system, knowledge, skills, abilities, interests and character traits. It is deduced that in contrast to universal skills that are acquired in general education, which means learning contents of any particular subject, the development of career management skills is related to getting to know pupil's personality and professional world in such a way that the acquired knowledge of one's self and the professional world would help the student to successfully manage their own career.

1.3. “Concept of career education within the development of pedagogical theories” describes how skills related to people's professional occupation and career choice have formed in the context of evolution of pedagogical theories, how these skills have been historically inherited and nowadays have obtained a new denomination - *career management skills*. It is concluded that during all stages of human existence the professional occupation has always been closely related to the study of environment of each epoch, and the pedagogical process reflects society's need and evolution processes that emerge from the country's economic, political and social factors faktoriem (Beļickis, 1997; Dreimanis, 1929; Gardner, 1993; Gudjons, 2007; Kēstere, 2013; Pestalocijs, 1996; Rubene, 2004; Špona, Čehlova, 2004). It is deduced that the concept of *professional orientation* that was used in the 20th century and was understood as orientating someone towards choosing their profession in accordance with the demands of the country's planned economy has been replaced in the 21st century by *career education*, which is understood

as one's learning to develop their own career management skills.

Sub-chapter 1.3.1. "The conceptual substantiation of career education in the strategical political documents of the European Union and Latvia" describes the conceptual substantiation of career education in the strategical political documents of the European Union and Latvia. Education policy documents promote a stance that career education program is an integral part of every school, since putting it into practice means developing pupil's career management skills and facilitating a successful transition from school to further education stages or work. (Career Education and Guidance in New Zealand Schools, 2009; The Good School, 2004; General Guidelines on Career Education and Guidance, 2009; Careers 2020. Options for future careers work in English schools, 2012). The analysis of regulating documents has revealed that career education according to competency-based approach and elaboration of career education program and it's putting into practice has been set as one of the priorities in the European Union and Latvian education politics.

In sub-chapter 1.3.2. "Theoretical description of the concept of career education" different definitions, explanations and conclusions have been employed (Barnes, 2009; Haase et al., 2005; Sultana, 2015; 2004; Oomen, Plant, 2014; Super, 1996 u.c.) in order to expand the concept of *career education - the aim of career education, it's contents and available means are orientated towards carrying out a purposeful process of pupil's career management skills development, which is centered on pupil's self-assessment and recognition of their interests, aptitudes and talents, skills and abilities, as well as their values and expectations. The result of career education is the pupil's capability of independently managing their own career and making decisions that are based on the correlation between a personality's inner and outer structures, where the outer structure includes acquired knowledge, theoretical notions, available information, as well as personal comprehension of one's dominating interests and suitability for certain professions, whereas the inner structure includes the ability to organise the outer structure in order to evolve and manage one's own career.*

Sub-chapter 1.3.3. “Experience of integrating career education in the educational systems of different countries” describes examples of this praxis in foreign countries. By analysing the researches carried out in different countries (Kjaer, 2005; Leirvik, 2012; Launikari, 2015; Tron, 2012; Vuorinen, 2011; 2010 *Career Education and Guidance in New Zealand Schools*, 2009; Good School, 2004) it has been concluded: in European schools career education is being practiced according to the following principles:

- *Availability principle*. Pupils have easy access to career counselling independently of the education stage; the more help a pupil needs, the more help they receive.
- *Child-focused system principle*. Career education is child-focused, national policy is directed towards it, it is a well structured system where every party's responsibilities have been clearly defined.
- *Integrative principle*. Every pupil has access to professional pedagogical staff that help to solve also their personal problems.

It has been concluded: if schools carry out a career education program, pupils can identify their future perspectives already at a primary school level.

Sub-chapter 1.3.4. “Providing career education in general education schools in Latvia” analyses the situation of pupil's career management skills development process as described by researchers (Jaunzeme, 2014;2011; Lāce, 2014; Mihailovs, 2013; Pudule, 2013; Šmitiņa, 2011). It is concluded that within the Latvian educational environment the concept of career guidance is tied to finding a specific school or job, but not connected to other significant career guidance aspects: integration of career education contents within the schools' study programmes, career counselling and improving general, professional and career management skills. Conclusion: the regulating documents in Latvia do not define the content of career education, it's implementation possibilities and methods in general education schools; the concept “career education” in general education regulating documents is not defined - it is explained only in the country's education planning documents.

Sub-chapter 1.4 “The content of acquiring career management skills during different educational stages” analyses scientific literature on the choice of content of acquiring career management skills in career education according to development psychology and educational psychology that are based on understanding a pupil as a developing personality with individual necessities during each stage of life (Lasmane, 1999; Špona, 2004; Valbis, 2013). Development of career management skills is related to the pupil's ability to learn specific subjects during classes and determined activities at a particular age (Виготский, 1997), as well as the ability to learn, which results in higher self-esteem and better knowledge of oneself (Роджерс, 1994; King, 1999), and an understanding that the goal of the learning process is personal growth (Šteinberga, 2013; Пидкасицкий, 1995). Exploring pupil's personality is being analysed as a personally significant action during the learning process (Holland, 1997; Климов, 1984; Gardner, 1996; Zelmenis, 2000). The doctoral thesis analyses researchers' conclusions about people's life cycles in relation to their development as professionals during their lives, where changes in a person's life-long plans, professional plans, social situation and personality structure take place (Ericsson, 1980; Ginzberg, 1975; Havighurst, 1964; Super, 1957; Nikiforovs, 2007; Зеер, Симанюк, 2005; Зеер, 2006; Safranoviča, Vanovska, 2007). It is concluded that an individual during their life cycle goes through different evolution stages that influence the development of their career management skills and choice of profession.

Sub-chapter 1.5 “The methodological grounds of pupil's career management skills development” analyses factors that help to develop pupil's career management skills: organisation of the pedagogical process (Asplund, 2012; Krumboltz, Worthington, 1999; I. Maslo, 2006; Sigurdardottir et al., 2009; Riņķis, 2007); pupil's individual style of learning (Asplund, 2012; Fisher, 1990; Honey, Mumford, 2000; Kolb, 2000; Sampson, 2000; Sousa, 2006; Riņķis, 2007), employing the appropriate learning and teaching methods (Amundson, Penner, 2006; Baldiņš, Raževa, 2001; Fenwick, 2005; Korna, 2011; King, 1999; Janda, 2004; Holland, 1973, Климов, 1996; Gardner, 1999; Tron, 2012). It is concluded that the result of each pupil's

career management skills development is related to the character of professional research carried out within the process of career education, which is reproductive, interpretative and creative and relies not only on the pupil's knowledge, way of thinking and style of learning, but also on the organisation of the teaching process, where the important factors are cooperation between the teacher and the student, choosing appropriate teaching methods and organising the work accordingly.

Sub-chapter 1.6. “The model of pupil's career management skills development” demonstrates the theoretical model of pupil's career management skills development, which is based on acquired knowledge during the theoretical analysis about mutually related components that have an influence on the development of pupil's career management skills (see Image 1).

The model reflects connections discovered during the theoretical research between a targeted pedagogical process and development of pupil's career management skills, which is possible under the circumstances where the pupil has an opportunity to receive career education, contents of which is based on appropriate methodology and organisational forms of career education, as well as the pedagogical process being centred on the pupil's personality self-assessment, their active participation during the process, determining their interests, talents, skills, abilities and values so that the pupil is able to independently organise and manage the development of their own career by getting to know themselves. **The model reflects correlation between objective and subjective components of pedagogical process (Vigotsky, 1978; Zelmenis, 2000; Špona, Čamane, 2009).**

**The model demonstrates that successful development of pupil's career management skills is based on cooperation between a pupil and their the school's pedagogical personnel.**

**The theoretical model demonstrates achieving results on developing pupil's career management skills based on connection between the pupil's inner and outer personality**

structures, by outer structure meaning the acquired knowledge, available information, personal understanding of what the pupil likes, is interested in and is suited for, whereas the inner structure contains the ability of organising the outer structure towards the desired direction.

### **Criteria and indicators of the pupil's career management skills development model**

Based on the analysis of theoretical literature and the results from interviewing and questioning pupils and teachers, as well as organising discussions with pupils, teachers and parents in focus groups, it is concluded that the development of pupil's career management skills is being influenced by following circumstances:

- the pupil is being provided with the possibility of systematically and systemically acquiring career education;
- the development of pupil's career management skills depends on meeting their personal needs;
- the pupil is able to receive professional advice from the pedagogical personnel.

The following criteria have been put forward in order to verify connections detected in the theoretical research between the advance of the pedagogical process and pupil's career management skills development:

- systematic acquisition of career education;
- fulfilment of pupil's needs;
- collaboration with professional pedagogical personnel.

In order to analyse the qualitative and quantitative indicators of developing career management skills in the empirical study, the criteria are measured by determined indicators and a table has been worked out to show the criteria, indicators and their levels (see Table 1). Every criterion includes indicators that describe different levels, which accordingly reflect the degree of career management skills development:

- Level A - the highest indicator when the determined trait is important and it has a regular character;



- Level B - intermediate indicator when the determined trait is fragmentary and is in development stage;
- Level C - the lowest indicator when the determined trait has not been developed.

**Table 1. Criteria and indicators of pupil's career management skills development model**

<b>Criteria</b>	<b>Indicator</b>	<b>Level A</b>	<b>Level B</b>	<b>Level C</b>
<b>Systematic obtainment of career education</b>	Career education provided in classrooms (Baldiņš, Raževa, 2001; King 1999; Korna, 2011; Tron, 2012)	Career education matters are regularly included as a part of classroom activities	Career education matters are discussed in classrooms irregularly	Career education matters are not discussed in classrooms
	Career education provided as an integrated part of different subjects (Zelmenis, 2000; Riņķis, 2007; Sultana, 2009)	Integrated learning of career education is regularly provided	Integrated learning of career education is being provided fragmentarily	Integrated learning of career education is not being provided
<b>Systemic implementation of career education according to pupil's needs</b>	The content of career education is based on the corresponding career management skills development methodology (Fišers, 2005; Hahele, 2006; Riņķis, 2002; Sultana, 2012; Sigurdardottir et al., 2012)	Succession is being ensured when using the methodology	Succession is being partly ensured when using the methodology	Succession is not being ensured when using the methodology
<b>Collaboration with professional pedagogical personnel</b>	Collaboration with every possible participant (Lanka, 1999; Pudule, 2013; Žogla, 1994; King, 1999; Sultana, 2013)	Varied collaboration	Collaboration with specific individuals	No collaboration
	Access to career counselling is being ensured (Amundson, 2009; Jigau, 2007; King, 1999; Watts, 2000; Savickas, 1993)	All pupils are provided access to career counselling	Part of the pupils are provided access to career counselling	No access is provided to career counselling

The 2nd part of doctoral thesis “Empirical study of pupil's career management skills development” focuses on examining the situation in general education schools in Latvia in relation to development of pupil's career management skills within the pedagogical process, as well as empirically verifying the theoretical Pupil's career management skills development model

using the elaborated criteria and indicators. **Based on results from the empirical study, recommendations have been drawn up.** In the 2nd part the goal and tasks of the empirical study have been defined, the development of the research and research methods have been described, choosing of the experimental group and control group is described, data results obtained from the empirical study have been analysed, facts discovered during the research have been analysed, the organisation and carrying out the pedagogical experiment have been described, the conclusions and recommendations have been formulated.

Sub-chapter 2.1. “Methodology, programme and organisation of the empirical study” describes the programme, methods and organisation of the empirical study. **The goal of the empirical study** is to experimentally verify the theoretical *Pupil's career management skills development model* by investigating the correlation between systematic and systemic acquisition of career education based on suitable methodology and pupil's career management skills development.

In order to examine and analyse the situation, the following **tasks** have been set forth:

- from obtaining the quantitative data (surveys):
  - to establish how often career education is being provided in different general education schools in different cities and regions of Latvia;
  - to determine what pedagogical methods are being used in the process of developing pupil's career management skills;
  - to define how well pupils from general education schools in Latvia are able to take decisions on career choice;
- from obtaining the qualitative data (interviews, discussions, debates, observations):
  - experimentally verify the conditions of developing pupil's career management skills as defined by the theoretical model;
  - by summarising the research results, elaborate recommendations on developing pupil's career management skills in general education schools.

In order to gather the necessary information during the empirical research, the following have been used: surveys with respondents independently filling out questionnaires (quantitative method) and interviews during which information has been obtained by respondent and researcher socially and psychologically interacting and the researcher being able to verify the truthfulness of the information obtained during the interview (qualitative method); discussions with pupils, parents and teachers in focus groups; planned and purposeful observation (monitoring lessons) that takes place in a natural environment where the focus is on a person in action (qualitative method); experiment in order to scientifically confirm new experience in the pedagogical procedures; statistical observation, grouping and processing empirical data, illustrative and analytical methods (Kristapsone, 2014).

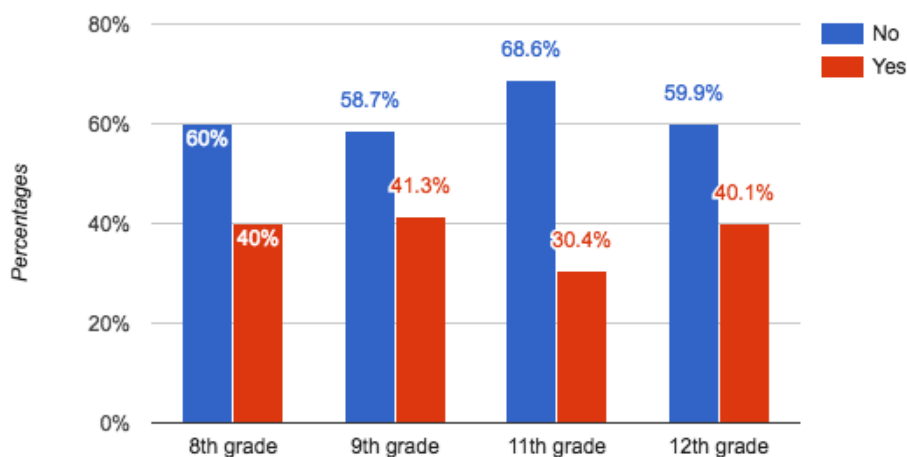
Sub-chapter 2.2. “The evaluation of possibilities of developing pupil's career management skills within the pedagogical process in general education schools” examines the existing situation regarding the possibilities of pupils being able to develop career management skills during the learning process.

Sub-chapter 2.2.1. “Pupils' career management skills supervision” analyses the obtained quantitative and qualitative data by carrying out pupil and teacher surveys, monitoring classes, interviewing pupils and teachers and organising discussions with pupils-teachers and pupils-parents in focus groups.

Elaboration of the questionnaire “Career education in schools – 1”, in order to obtain quantitative data, included concepts analysed in the theoretical part such as “decision making”, “career choice”, “career education”, “career education methods”. As a basis of the questionnaire it was assumed that acquiring career education integrated in the learning process at school helps develop pupil's career management skills for them to be able to independently make decisions on choosing a career. 827 pupils from the 8<sup>th</sup> to 12<sup>th</sup> grade took part, forming the static group, that come from different general schools in different cities and regions of Latvia. The obtained data from the questionnaires were processed with a data processing program SPSS (Statistical

Package for Social Science), version 17.

In order to clarify how many of the general education school pupils have obtained career management skills to make career choices, the pupils were asked “Have you decided what profession you want to represent in the future” and it was found that 505 pupils or 61% of the respondents replied that they haven't made any career choices, but 322 pupils or 39% of the respondents replied that they are certain of their career choice. As a result of obtaining these data it was concluded that conscious professional choice and certainty about their future was quite low among the respondents. Looking at the tendencies of pupil's readiness to make career choices during different stages of the educational process, the obtained results reflect that the highest readiness to make career choices within the whole static group is among the 9<sup>th</sup> and 12<sup>th</sup> graders, even though within the 9<sup>th</sup> and 12<sup>th</sup> grade groups pupils who were ready to make career choices were still less - 40% and 41% (see Image 2).



*Image 2. Results in percentages divided by grades in response to the question “Have*

*you decided what profession you want to represent in the future?”*

**Interviews with pupils show a result** that 10 out of 36 interviewed or 27,7% were ready to take career choice decisions (4 in the 9th class and 6 in the 12th class).

**Out of all the pupils that participated in focus group discussions** (70 in total), 16 pupils or 22,8% assured they were ready to take career choice decisions (7 in the 9th class and 9 in the 12th class).

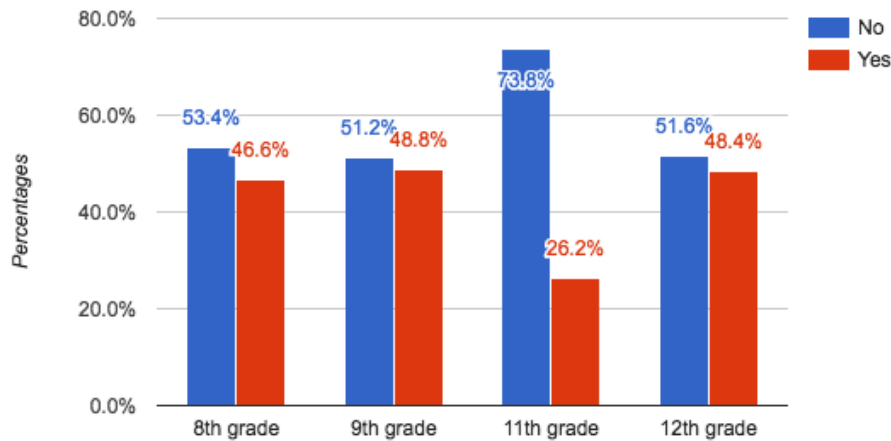
**Teachers' focus group discussions reveal** that the majority of pupils master poorly career management skills, especially - the skill to take decisions and the skill to plan their time and near future.

**Pupils' parents focus group discussions reveal** that pupils are poorly aware of their resources and are not able to objectively assess themselves, the biggest difficulties experienced by pupils are related to being able to independently take decisions on further education or choice of profession.

Both the quantitative and qualitative data reveal that **pupils' conscious choice of profession and clear awareness of their future is fairly low** (30% on average).

Sub-chapter 2.2.2. “Providing career education in schools” analyses the results of quantitative and qualitative data obtained.

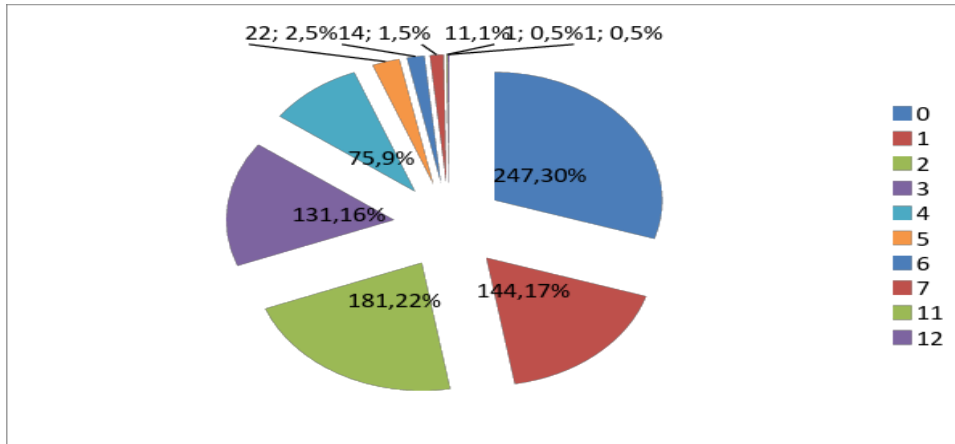
The obtained quantitative data on pupil's readiness to make career choices among the ones who responded that they had had the chance to receive career education, are shown in Image 3 (see Image 3).



***Image 3. Responses to the question “Have you decided what profession you want to represent in the future?” by pupils that had received career education.***

The obtained data reflects that the majority of pupils (563 or 70,1% of respondents) say they have had the chance to receive career education, but the majority of the ones that have received career education (295 or 52,3%) have responded “no” on the readiness to make career choices, raising further research related questions. The question is whether there have been enough career education classes (according to educational policy indications or recommendations) and whether appropriate teaching methods revealed in the theoretical research have been used during the teaching process in order to develop career management skills.

While processing the obtained data it was examined whether the quantitative results reflect a certain tendency within the whole static group (827 pupils from 52 Latvian schools) on how many classes are being used to provide career education during each year. Pupils' responses are shown in [Image 4](#).



**Image 4. Career education classes per school year as indicated by the pupils (n=827)**

The obtained data reveal that only in 2% of the cases the pupils' indicated number of career education classes corresponds to recommendations from the *Career education model programme* (2011), where it says that 6 classes per school year should be organised for the 9<sup>th</sup>-11<sup>th</sup> grade pupils and 10 classes for the 12<sup>th</sup> grade pupils. The data reveal that in 68% of the cases the indicated number of classes doesn't correspond to the recommended minimum number of career education classes as per the educational policy documents, and in 30% of the cases the pupils have responded that there have been no classes dedicated to career education at all. In order to study the correlation between the number of career education classes and pupil's career management skills and ability to make career choices, the obtained data were divided by number of classes per year, which revealed that in the category of up to 5 classes the number of “yes” responses, when asked about pupil's readiness to make career choices, was lower than “no”, in case of no career education classes at all the positive response was 70% lower than negative, whereas starting from 6 classes the number of positive responses was higher than negative responses by 9%-42%, but in case of 11 and 12 career education classes the percentage of positive responses was 100%.

When looking at the practice in other countries in the theoretical part, 24-48 hours are planned each year in order to carry out career education programme both in primary and

secondary schools abroad, whereas there is an indication of a different situation within the Latvian educational system: 1) the recommended number of career education classes (6) in legislation documents is not sufficient for a pupil to develop career management skills; 2) according to the information provided by 827 pupils involved in the survey, even this number of classes (6) is being accomplished only in 2% of the cases.

Sub-chapter 2.2.3. “Implementation of career education content” reflects the results of obtained quantitative and qualitative research data.

When summarising the information collected from the questionnaires on methods used, the obtained data reveal a tendency that in the majority of cases appropriate career education methods analysed in the theoretical part that allow to achieve the maximum result, have not been used, such as discussions in groups that give 50% efficiency, practical tasks (including online environment) with 75% efficiency and mutual learning and immediate use of the acquired knowledge with 90% efficiency.

Qualitatively obtained data (interviews, focus groups, discussions, inquiries with open questions) reveal that the most used methods are discussions, providing information and lectures, but the least used - using online environment that provides inexhaustible possibilities for both exploring the professional world as well as self-examination, even though pupils are the one part of the society that have a very high level of digital skills.

In order to analyse deeper the obtained quantitative data, qualitative research methods were used parting from qualitative data from pupils', teachers' and parents' focus group discussions, inquiring teachers, monitoring classes and interviewing pupils and teachers. When preparing the open questions for discussions, interviews and questionnaires, criteria of the theoretical model were used, such as “systematical acquisition of career education”, “fulfilment of pupils' needs”, “cooperation with professional pedagogical personnel”, as well as the questions included in the first questionnaire about career education methods.

After discussions in focus groups, the **conclusion** was that:



- in the classes, career education issues are touched upon irregularly, fragmentarily, most frequently during the 2<sup>nd</sup> semester and normally in the 9<sup>th</sup> and 12<sup>th</sup> grade;
- in order to develop pupil's career management skills it is necessary to focus more on practical activities related to professional world and self-examination rather than teaching only the theoretical part of the subject;
- a pupil does not have to be brilliant in all possible areas, but the teachers have to help pupils to succeed in subjects where they're more talented, especially regarding areas where they are most talented.

In order to compare the obtained information from surveying pupils and teachers and discussions in focus groups to the information provided during interviews, 36 pupils and 32 teachers were interviewed. After the interviews the **conclusion** was that:

- The majority of pupils have not developed such career management skill as working with varied informative career resources, because most of the interviewees are not aware of career information resources on internet or interactive computer programs for self-examination; pupils do not have sufficient knowledge on educational/study programmes offered by different educational institutions and the subjects each programme offers;
- during the learning process, pupils do not acquire sufficient skills of self-inquiry and self-assessment;
- 9<sup>th</sup> grade pupils are mainly orientated/encouraged towards continuing their studies in their current general education school because the pedagogical personnel does not provide sufficient information on diverse studying possibilities in other educational institutions;
- career support is provided more to secondary school pupils, mainly 12<sup>th</sup> graders.

Information obtained from the qualitative research methods reflects a situation where it is necessary to train teachers on how to implement career education methodology and provide career support, also integrating career education issues in learning subjects is only possible if every teacher acquires knowledge and minimum skills to implement career education.

Sub-chapter 2.2.4. “Functionality of career education as a system” reflects the analysis of qualitative data obtained.

Qualitative data obtained allow to conclude that career education as a systemic part of the pedagogical process is being implemented in separate Latvian schools, but it can not be considered as a systemic approach on the state level.

Sub-chapter 2.2.5. “Collaboration between the pedagogical personnel and pupils during the process of career management skills development” reflects the pupils', teachers' and parents' experience on collaboration in providing career guidance to pupils, obtained in the interviews, discussions and open questions on the questionnaire. Analysis of the qualitative data obtained reveals that collaboration in most of the cases takes place between the pupils and their class tutors or individual subject teachers; teachers are rarely being perceived as collaborators, partners, allies or supporters within the pedagogical process, which is characteristic to competency-based education.

Sub-chapter 2.3. “Pedagogical experiment and its results” describes the process of the experiment. When commencing it, the **goal** of the experiment was to facilitate pupil's career management skills development and ability to make conscious career choices when graduating the 9<sup>th</sup> or 12<sup>th</sup> grade as a result of systematically and systemically organised career education.

The experiment was organised according to the following features:

- timeframe of the experiment - one school year;
- the experiment has a conclusive character changing the pedagogical process, where there is a necessity to conclude a certain connection between the pedagogical influence and the result and where the pedagogical phenomenon or process has to be created from zero (Kristapsone, 2014).

The activities of the experimental group (36 pupils) were organised under the supervision of professional career counsellors, when alongside obtaining career education during classes a systematic collaboration was organised between the participants of the experiment and school

psychologist and career counsellor, including testing the pupils, organising career consultations in groups and individual consultations of each participant.

Questionnaires were given to the experimental group before and after the experiment.

In order to compare the obtained survey data before and after the experiment, SignTest was used from the statistical program SPSS because the data are nominal scale (0 and 1) data. The processed data results from the question “*Have you decided what profession you want to represent in the future?*” demonstrate statistically significant difference because the significance level  $p$  (Sig) < 0,05 (see Table 2).

**Table 2. Sign Test results from dichotomic questions to 9<sup>th</sup> grade pupils before and after the experiment**

	1. - 1.	2. - 2.	4.2. - 4.2.	4.3.- 4.3.	4.4. - 4.4.	4.5. - 4.5.	4.9. - 4.9.
p (bilateral significance level)	,000 <sup>b</sup>	,125 <sup>b</sup>	1,000	1,000	1,000	,250 <sup>b</sup>	1,000

Analysing the significant statistical difference before and after the experiment on the question of how many classes of career education pupils have received during the school year with the help of Student’s t test (because the data are proportional scale data), it is concluded that there is a statistically significant difference ( $p < 0,05$ ), as it is reflected in Table 3 (see Table 3)

**Table 3. Sign Test results from the 9<sup>th</sup> grade pupils’ responses on the number of career education classes**

	Difference between a pair of measurement					
	Aritm. av.	Standard deviation	Aritm.av.. standarderror	t	df	P (sign. level)
3 r d q u e s t i o n before and after the experiment	1,875	0,835	0,295	6,355	7	0,000

o						
n						

Comparing the answers of the whole static group of 9<sup>th</sup> grade pupils (N=426) there are statistically significant differences on questions 1 “Have you decided what profession you want to represent in the future?”, to which after the experiment 76,4% of pupils participating in the experiment have given a positive response comparing to 41,3% of the whole static group ( $p=0,035$ , which is  $< 0,05$ ), and on questions 3, as shown in Table 4 (see Table 4)

**Table 4. Kolmogorov - Smirnov tests results on the 9<sup>th</sup> grade pupils' answers given by the static group and the experimental group**

	1st question Do you know what professional you want to become?	2nd question Have you had the chance to receive career education?	3rd question How many classes have been dedicated to career education during the school year?
Kolmogorov-Smirnova Z value	1,421	1,300	3,920
p significance (bilateral)	,035	,068	,000

Differences in the level of tendencies (t) are observed on the 2<sup>nd</sup> question “Have you had the chance to receive career education as a part of learning process at school?”, because ( $p = 0,068$ , which is higher than  $0,05$ ). The rest of questionnaire results don't show statistically significant differences.

The results from the 12th grade pupils' answers to question 1 “Have you decided what profession you want to represent in the future?” before and after the experiment show statistically significant differences because the significance level  $p$  (Sig)  $< 0,05$  (see Table 5).

**Table 5. Sign Test results from dichotomic questions to 12<sup>th</sup> grade pupils before and after the experiment**

	1. - 1.	2. - 2.	4.2. - 4.2.	4.3.- 4.3.	4.4. - 4.4.	4.5. - 4.5.	4.7. – 4.7.	4.9. - 4.9.
p (bilateral significance level)	,000 <sup>b</sup>	,219 <sup>b</sup>	1,000	1,000	1,000	,250 <sup>b</sup>	1,000	1,000

Analysing the significant statistical difference before and after the experiment on the 3<sup>rd</sup> question of how many classes of career education pupils have received during the school year with the help of Student's t test (because the data are proportional scale data), it is concluded that there is a statistically significant difference ( $p < 0,05$ ) as it is reflected in Table 6 (see Table 6).

**Table 6. Sign Test results from the 12<sup>th</sup> grade pupils' responses to the 3<sup>rd</sup> question before and after the experiment**

	Difference between a pair of measurement			t	df	P (sign. level)
	Aritm. av.	Standard deviation	Aritm.av. standarderror			
3 <sup>rd</sup> question before and after the experiment	1,833	0,718	0,207	8,848	11	0,000

Comparing the answers of the whole static group of 12<sup>th</sup> grade pupils (N=426) there are statistically significant differences on questions 1 “Have you decided what profession you want to represent in the future?”, to which after the experiment 89,4% of respondents have given a positive response comparing to 40,1% of the whole static group ( $p = 0,002$ , which is  $< 0,05$ ) and on question 3 about the number of classes which is already proven with the Sign Test (see Table 7).

**Table 7. Kolmogorov - Smirnov tests results on the 12<sup>th</sup> grade pupils' answers given by the static group and the experimental group**

Kolmogorov – Smirnov Z value p significance (bilateral)	1 <sup>st</sup> question Do you know what profession you want to represent in the future?	2 <sup>nd</sup> question Have you had the chance to receive career education?	3 <sup>rd</sup> question How many classes have been dedicated to career education during the school year?
	1,839 ,002	1,074 ,199	4,177 ,000

Differences in the level of tendencies (t) are observed on the 4<sup>th</sup> question about implemented career education methods in section 4.7. “Discussions”, because  $p = 0,059$ , which is higher than 0,05 (see Table 8).

**Table 8. Kolmogorov - Smirnov test results on answers from the 12<sup>th</sup> grade pupils' static group and experimental group**

Kolmogorov-Smirnov Z value p significance (bilateral)	4.1.	4.2.	4.3.	4.4.	4.5.	4.6.	4.7.	4.8.	4.9.
	,406	,000	,210	1,047	,411	,581	1,328	,000	,000
	,996	1,000	1,000	,223	,996	,889	,059	1,000	1,000

Other questions don't reveal statistically significant differences, which might be due to the fact that the experimental group is small, hence the differences can't reach a statistically significant level, but differences are noted during the qualitative data analysis: interviews, focus group discussions, questionnaires with open questions and discussions with the participants of the experiment.

A comparative view on the 9<sup>th</sup> and 12<sup>th</sup> grade pupils' responses on career management skills development during the experiment is shown in Table 9 (see Table 9).

**Table 9. Pupils' arrangement of career management skills developed during the experiment**

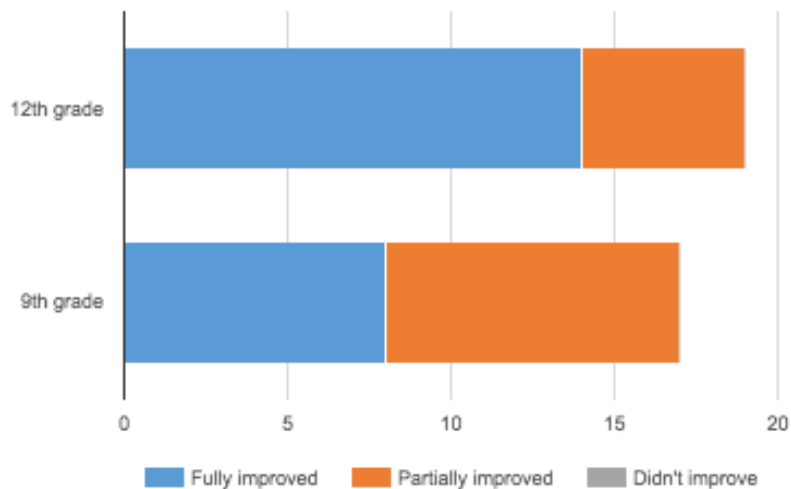
Career management skill	% 9th N=17	Rating	% 12th N=19	Rating	Total % 9 -12 N=36	Rating
The ability to explore and evaluate one's own personality traits, talents, interests, skills and values	82,3	3	94,7	1	88,5	3
The ability to be aware of the necessary level of knowledge,	76,4	4	73,6	6	75	5

skills and abilities for certain professions						
The ability to examine the professional world and it's provided career opportunities	100	<b>1/2</b>	89,4	<b>2/3</b>	94,7	<b>1/2</b>
The ability to work with varied informative resources	100	<b>1/2</b>	89,4	<b>2/3</b>	94,7	<b>1/2</b>
The ability to elaborate a possible action plan	64,7	6	68,4	7	66,5	6
The ability to make decisions and realise them	47	7	78,9	5	63	7
The ability to self-assess one's own work	70,5	5	84,2	4	77,4	4
The ability to improve one's capacities and talents during career development	35,2	<b>8</b>	36,8	8	36	<b>8</b>

Data comparison reflects that 12<sup>th</sup> grade pupils have achieved higher results in being able to explore and evaluate one's own personality traits, talents, interests, skills and values, whereas 9<sup>th</sup> grade pupils in being able to examine the professional world and to work with the informative resources, which may be explained by differences of each age bracket, where the youngsters determine their own identity, whereas teenagers are still curious about exploring the surrounding world. The majority of 12<sup>th</sup> grade pupils (79%) have indicated that they have improved their decision making skills, whereas only less than a half of the 9<sup>th</sup> grade pupils (47%) admit that they have developed or improved this skill, which also may be related to different characteristics of each age bracket, where the youngsters have a higher level of responsibility and observing future perspectives than teenagers. The ability to develop a possible action plan in both groups has the same level as the ability to make decisions, reflecting a logical connection because both of these skills are related, but the lowest results for both 9<sup>th</sup> and 12<sup>th</sup> grade groups are regarding the ability to improve one's talents, which can serve as a suggestion for teachers to explain to their pupils, as described in the theoretical study, the role that capacities and talents play in successful career

management and to encourage their pupils to take part in vocational education and extracurricular activities that facilitate improving one's talents and capacities.

Comparative data on the answers from 9<sup>th</sup> and 12<sup>th</sup> grade pupils on how receiving career education has improved pupil's career management skill to make career choice decisions are shown in Image 5 (see Image 5).



***Image 5. 9<sup>th</sup> and 12<sup>th</sup> grade pupils' assessment on the improvement of decision making skill during the experiment***

The obtained data exposes that decision making skill has significantly improved for 12<sup>th</sup> grade pupils (78% of the cases), but the improvement is lower among 9<sup>th</sup> grade pupils (57% of the cases), and this leads to conclude that teachers need to provide bigger support (especially to 9<sup>th</sup> grade pupils) in improving the decision making skill.

After concluding the experiment, the levels of the theoretical model criteria were compared before and after the experiment (see Table 10).

Characteristics of each level:



- Level A - the highest indicator when the determined trait is important and it has a regular character;
- Level B - intermediate indicator when the determined trait is fragmentary and is in development stage;
- Level C - the lowest indicator when the determined trait has not been developed.

**Table 10. Comparison of the theoretical model indicator levels before and after the experiment.**

<b>Criteria/ indicator</b>	<b>Indicator</b>	<b>Indicator levels before the experiment</b>	<b>Indicator levels after the experiment</b>
<b>Systematic obtainment of career education</b>	Career education provided in classrooms	Level B	Level A
	Career education provided as an integrated part of different subjects	Level B Level C	Level A
<b>Systemic implementation of career education according to pupil's needs</b>	The content of career education is based on the corresponding career management skills development methodology	Level B Level C	Level A
<b>Collaboration with professional pedagogical personnel</b>	Collaboration with every possible participant	Level B Level C	Level A
	Access to career counselling is being ensured	Level B Level C	Level A

By summarising the opinions of pupils and teachers who took part in the experiment on career management skills development possibilities in the learning process in schools, it has been **concluded**:

1. Meaningfully organised career support within the pedagogical process helps the pupil to discover the professional area that is most suitable to their personality, and the pupil's

career choice making process becomes more considered, reasonable and suitable to the pupil's individual needs.

2. A pupil, collaborating systematically with their class and subject teachers, support personnel, career counsellor or teacher - career counsellor, is able to start developing career management skills at an early age.
3. The development of pupil's career management skills is closely related to its stimulating factor - pedagogical guidance, therefore teachers (class and subject teachers) need to employ a variety of pedagogical approaches and career education methods integrated into the teaching process and be more focused towards pupil's practical activities on self-knowledge and exploring the professional world rather than on theoretical content of the subject.
4. Pupils can obtain theoretical knowledge and notion of the professional world during one school year, but they are not able to try out in practice several alternative professional directions to be able to compare them and make a career choice as a result of this comparison, based not only on theoretical knowledge but also on practical experience, therefore career educational work has to be organised systematically and systemically (including education, support and evaluation) starting from preschool and primary school stages, in this way providing a chance to the pupil to start developing their career management skills at the earliest age possible.
5. Every general education school teacher, not only the class teachers, need to master a minimum of career management theory and the practical methodological basis of career education. In order to be able to follow all the latest labour market requirements, the development of modern technologies and be able to use them in their professional activities, teachers have to be making constant professional improvement.

During the research the theoretical *Pupil's career management skills development model* has been verified by carrying out the pedagogical experiment and the overall research results

indicate that the theoretical model matches the empirically obtained results. The *Pupil's career management skills development model* can be used by school management to create school career guidance system, whereas teachers can use it to elaborate career education programmes and thematic plans for school subjects, as well as organise varied collaboration with their associates in order to provide career guidance to pupils.

Based on analysis of Latvian educational policy documents, results from pupil and teacher questionnaires, conclusions obtained from pupils' and teachers' statements during interviews, opinions expressed by pupils, teachers and parents during focus group discussions about the current situation on pupil's career management skills development within the pedagogical process in general education schools, the following **proposals** have been put forward in order to improve career education work.

- To develop a career education standard, which would contain certain guidelines on carrying out career education work in schools.
- To develop a unified frame of pupil's career management skills levels achievable during the learning process in different grade groups.
- To include the components of career education revealed in the theoretical part of the research (author programme developed by the author, included in the doctoral thesis appendix) in career education programme.
- To include all pupils (from primary to high school) in obtaining an integrated career education.
- To find ways of ensuring further education for teachers, which would include learning the methodological basis of career education, as well as studying informative career resources and making use of modern technologies.
- To find ways of employing professional career counsellors or teachers-career counsellors in every school, as well as set up methodological cabinets of pupils' career counselling or career centres.

## Conclusions

1. *Career management skills* is a totality of knowledge-based skills that a person commands by summarising, analysing, synthesising and organising information related to oneself, education and employment. Dominating career management skills is the basis of a person's ability to manage their own educational and professional path and put their life plan into practice.
2. A competencies-based educational approach is an important factor in developing pupil's career management skills, which is orientated towards personalised learning, practical activities when researching professions, employing diversified learning environment and modern technologies, as well as collaboration between the pupil/pupils and the pedagogical personnel.
3. Pupil's way/style of learning, the development characteristics of young children, teenagers and youngsters, as well as meeting the individual pupil's needs are all important objective components of career education process.
4. The result of pupil's career management skills development depends on the pupil's knowledge, diversity of perception, way/style of learning and on the organisation of the pedagogical process, where an important role is played by the varied methods and forms of cooperation used by the teacher.
5. Competencies-based educational approach is characterised by a new focus on the collaboration between the pupil/pupils and the teacher: the teacher is searching for answers and comes to conclusions together with the pupil, they learn from each other, divide the responsibilities evenly, and the teacher assumes the role of a partner, supporter, consultant, helper, motivator and the role of proposing conditions.
6. Pupil's career management skills development is closely related to the pedagogical process management. Teachers (class teachers and subject teachers) encourage achieving every pupil's personal goals by using the corresponding career education methods and

practical activities carried out by pupils related to their self-assessment and researching professions.

7. The process of pupil's career management skills development involves not only the class teacher but also the rest of the school's pedagogical personnel: the librarian, interest education teachers, support staff, career counsellor and other participants: parents, school graduates, university academics, employers, entrepreneurs, representatives of non-governmental organizations and associations.
8. The implementation quality of career education programs is directly related to the pedagogical personnel's professional competencies, therefore teachers need to be accordingly theoretically and practically prepared.
9. It is difficult for a pupil to make rational decisions on their own without the support of professional pedagogical personnel because a pupil doesn't operate with all the possible facts, their reasoning skills aren't sufficiently developed and they haven't established a consistent value system.
10. A successful development of pupil's career management skills, including decision making skills, is enhanced by daily access to career counsellor's or teacher - career consultant's guidance regardless of the educational stage which the pupil is at.
11. An early development of pupil's career management skills is ensured by carrying out career education during all stages in general education schools, this way securing a balanced and informed decision making regarding career choices during the final year of primary and secondary schools.
12. The meaning of school career development support system is to help a particular pupil in a specific situation to be able to understand oneself, identify the opportunities offered by the professional world and help the pupil to make balanced career choice decisions.
13. When creating a career development guidance system in schools, European school practice should be taken into consideration, which is characterised by a unified structure

of career development guidance organisation: goals, tasks, plans, cooperation methods and forms, and system monitoring; it is a well structured system where every involved party's responsibilities is clearly defined.

### **Approbation of research results**

#### **In scientific publications**

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5. Anspoka, Z., Lemešonoka, I. (2013). Career guidance for youth with social risk status. *Proceedings of the LLU 6th International Scientific Conference “Rural Environment. Education. Personality” symposium (12.03.2013)*. Thomson Reuters Web of Science database, ISSN:2255-808X; ISBN:978-9984-48-082-4.

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