ABSTRACT
Although design has its roots in arts education, in the context of economic crisis and the need to develop Creative Industries in Latvia, it was decided to re-profile 100 professional art teachers to design teachers in 2008.
During 2009-2010 the new and innovative professional development continuing education training program for design teachers was developed where pedagogy was taught with diverse content and methods of design. The program was implemented in 2010/2011 as the first professional development design teachers’ program in the Baltic’s and Europe.
This study discusses the development and implementation process of the first professional continuing education teachers’ training program in design pedagogy, analyzes it in the context of education programs of children's art schools, and examines the benefits and shortcomings of the program from the point of view of 100 design ambassadors – newly-born design teachers. The study reflects broader outputs of the design teachers’ educational program in the context of local communities and municipalities. Research results show correlation between art and design education at an early stage of children's arts and design learning.

Keywords: Arts and design education, continuing professional education

1 INTRODUCTION
This paper presents a study and analyses the dilemma of necessity to differentiate art and design education or to develop design education as continuity of art-based education. Despite the fact that design historically has its roots in arts and culture [1], its up-to-date impact on human life or applying design to the shifting context is far away of using design as aesthetic forms and decoration of the environment. The study discusses integration of design thinking into the art-based education process and opens up discourse of design pedagogy as diverse thinking of creative and unique artefact creation process. The paper discusses the development and implementation process of the first Professional Continuing Education Teachers’ Training Program in Design Pedagogy, analyzes it in the context of children's art school education programs, and examines the benefits and shortcomings of the program from the point of view of 100 design advocates’ – newly-trained design teachers.
In 2008, at the very beginning of the economic crisis in Latvia, it was decided to re-profile 100 art teachers of the professional orientation and vocational arts education to design teachers, referring to the creative industries policy planning and development of instrumental agendas formulated before the crisis. During 2008-2010 the innovative design pedagogical program was worked out. The program reflected and provided comprehensive design content and context delivered using cross disciplinary approach and design methods of the 21st century. Professional development continuing education program for design teachers being the first one in the Baltic countries and Europe was implemented in 2010-2011 as a European Social Fund project with an aim to increase the competence of teachers and to encourage them to use innovative methods in teaching process. In this program teachers’ of the professional orientation and vocational arts education studied design pedagogy as learning by doing process examining design content, context and methods. Also the central goal of the program was to educate design teachers; the content of the program was designed to increase participants’ professional maturity applying design approach, understanding and thinking, as well as to encourage venturing micro creative entrepreneurship. Applied design approach of design teachers program testified design stages ‘breaking the problem into pieces’, ‘putting the pieces together in a new way’ and ‘testing to discover the consequences of putting the new arrangement into practice’ [2]. The first stage of the program was important to discover and understand the context of design practices and demand in the
age of degrowth and to define the problems of current art-based education system. The second stage encouraged setting up needs and goals of the delivered continuing design teachers program bearing in mind that the target audience of the program are those who trains the next applicant of the higher design education. The program scope needed to embrace both global context and country specific focus, reflecting ‘thinking global, but acting local’. The third stage as program implementation phase helped to testify applied use of design concepts and user centred approach in the education process as service quality indicator. Therefore design teachers program claims to be the entirety that changed thinking of teachers with the art education background from an artist’s approach of unique artefact creation process as design to design thinking as value and indicator of socially sustainable changes. Responses of the program’s participants indicate that broader comprehension of the „design for the people’s needs rather than for their wants, or artificially created wants” [3] have been resulting in new collaborative projects and passed out not only in the art schools but also expanded in the local communities, municipalities, and even in new business initiatives.

2 METHODOLOGY
Research “Discourse of design and art education” was developed applying mixed qualitative research types and methods [4] based on particular “Professional education teachers pedagogical basic education program in design”, its development and implementation as basic qualitative and interpretative study. To reveal the specified research object and task as much as possible qualitative case study was chosen and used. Narrative analysis was applied and anonymous questionnaire was elaborated to obtain fair and personal benefits and conclusions of all participants, asking open ended questions. Narratives were interpreted to emphasize “holistic, cognitive, affective, and motivational dimensions” [5] of the design education traditions based on arts pedagogy methods that are divergent from delivered contextual design process oriented design teachers program. Phenomenology provided experience analysis and transformation of consciousness of the design pedagogy program’s target audience. Empirical experience was explored by the author in the case study as the author was the content and context developer as well as project and program manager. Hence observation as ethnographic research method was used in primary data analysis process combined with critical research to provide context of the design education practice in art-based education system.

Use of quantitative methods was limited as the number of respondents and their age was known from the very beginning.

3 RESEARCH FINDINGS AND DISCUSSION

3.1 Social values and empathy as heart of design education
Design is not any more only an object or product creation, designing and production process. Professionals from the product development and marketing departments that fulfilled planned obsolescence finally have focused to user profiles and their values. The shift on human factor in design process is remarkable: stories about people are created and their needs and motivation are researched, naming and practicing design now as user oriented process. Exclusion of the human aspect in product, service development process has led to the global and all-inclusive crisis the challenge of which now is „…to meet a new emphasis on improving experiences instead of objects, and we need to improve the flow of interactions between customers and service providers.” [6] [7] Historical slogan that genuine art cannot be commercialised and object creation as aesthetic quality are the roots of understanding and perceiving design in 21st century as art-based activity and education. It shows the weakest point of design product development and thinking as a more aesthetic than useful good and service creation for the sake of service provider. There is also misunderstanding in accepting common design definitions in constantly changing socio-economic situation regarding sustainability both in professional practises, as well as in design education. At the very beginning the role of design was to decorate space and furniture, performing environmental improvement and differentiation functions. Reduction design to aesthetics or functionality should be analyzed within the context of economical, social and technological innovation processes of the corresponding time. Parallels might be seen also in the 21st century when approbation and use of design definitions should be reviewed contextually, not based on historical assumptions and viewpoints.
These days we cannot declare that economic processes are more pressing than social or environmental problems. When not only designers, but also economists and society in general would place a human being and direct user as the primary value, all in self-sufficiency created products and sales strategies, senseless use of resources and actions for the development of economy and monetary system will end. The emphasis should be moved from the strengthening economic and financial capacity to social – as prioritization humane values. Highlighting social values as a foundation of development in local-global context is objectives for the professionals in the nearest future. These values should also be a mission fulfilment in every education. Applying service design methods into education and program curricula development process is possible “to show true value in the public sector” [8]. Social values and needs were the foundation of the development and implementation of the design teachers’ education program. During program development and designing process context-mapping in service designing process was used based on manager’s and design researcher’s “earlier experiences and her experiences from familiarising themselves with the institution and its services” [9]. Design is more than only good-looks - this was the main finding of the newly trained design teachers during the studies. They admitted that serious pre-research should be done to accomplish something useful and meaningful; the program gave an insight into many factors and context analyses that should be taken into consideration when working with design process to create multi-interdisciplinary interconnections of design development and broad and analytical view on existing products and service design cases. Teachers obtained the confidence, that design offers fresh breathing for every situation of life. They stated that offered curricula was very supportive to understand design processes in the beginning of the 21st century and correlation in every aspect. Therefore putting into practice design research, design thinking, context-mapping and user-centred approach during new design service development and implementation process as design education, not only usable, functional and desirable services could be created, but also “unique value propositions for the customers” [10] as experience and context education. Empathic user-centred and user-experience design approach in its planning and implementation process enlarged excellence criteria of the educational service, not separating content, methods and attitude from the acquisition of experience. The success story of the design teachers program outlines application of empathy in service design leadership in the context of passionate design thinking as the heart of the education service system. Design teachers came to this finding, analyzing benefits from the complex design thinking training program: a human is in the centre and this is a point where the action should begin from. Six-month after completing the program all 100 participants testified that the design training process has changed their professional life and activities as well as increased their self-confidence. They stressed the positive changes in their everyday work, local community and municipality that were accomplished by using design thinking and practicing it as an essential outcome of the program. It shows that the vision of the design teachers’ program “think global, act local” has reached the aim - considering global changes in the design context and adapting them into the local or regional context. Teaching approach ‘learning by doing’ provided the background for the training and implementing use of design and design thinking as practicing discipline applying cross-disciplinary methodology for adult and professional audience, mastering program’s content and context, specifically for art and design teachers with the background in high arts, visual plastic arts or arts pedagogy studies. Design pedagogy program was designed as contextually broadened design map [11] where design process was acquired and practiced from various aspects as hands-on approach – research, idea and design process analysis, product, form, space, environment, graphic design; design strategy, team work and quick short-term response in doing assignments; processing thinking and presentation skills; updating practical skills; discussions about design tendencies, processes and novelties in Latvia and in Europe; the context of economy and sustainability, learning about updated methods in pedagogical work, demography in Latvia and the world, service design as a new design process, and qualification project as formulation of theoretical and developing practical project all together gave structures and scenarios for the future pedagogical and professional practice, marked participating teachers. 3.2 Correlation paradigm of the Art and Design perception as teaching convergence The professional vocational art education for children is ensured as a complex of six subjects: painting, drawing, modelling, composition, work in material and basics of the visual arts language. Art teachers hold a view, that design thinking and practising processes could be included in the current programs with specific assignments. Quality and the result are dependent on the teacher’s knowledge,
ability, interest and personality. Assignments affiliated with design can be excellently incorporated into subjects of composition, work in material or modelling as well as in the graduation project, noted participants. They agreed that in the graduation project children should pay more time on the object or product research process and it also could be tied with the requirements of the professional orientation education. Teachers were aware that design elements are included in the subject “Work in the material” and in the future they will pay more attention to the idea generation and the object creation process. Teachers’ opinion that the standard of the professional orientation art schools is too tight should be noted. Also 13 year-old youngsters have classes in professional vocational arts program 11 classes per week besides general education program at schools. Teachers are certain that there is no space for a new subject related to design in the existing standard.

It was emphasized that exchange of experience and competencies of the design training in the existing art-based educational standard, would be valued. Collaboration among teachers also would be needed when everyone is aware that his/her subject is not the single one but a complementary to other subjects from a holistic view. Art teachers claim that practically everything that is created by arts pupils might be regarded as a design product. It marks the contradiction between principles and context of creating and designing unique artefact or applied art object and design product. Part of the respondents think that design is only a bit more practical than pure art and in order to avoid misunderstanding, design could be incorporated into practical art teaching subjects. Such kind of interpretation of design as an art promotes dogma and anarchism that true art should not be commercialized. Teachers with the artistic background hold a view that design should not be put on a higher pedestal artificially than other art disciplines. That raises two questions: do teachers who have background in arts education are truly able to understand design processes and aims of the design education; and are they capable to teach design or are they just design thinking promoters in the arts education?

Many respondents pointed out that they did not see necessity to divide specifically design thinking and practicing the art because children, in the opinion of teachers, were not ready to make ‘great design’. They claim that the age group from five to fifteen years is not appropriate to practise different methods and thinking. The opposite opinion says that it would be worth to have a subject ‘Design basics’. These teachers represent the view point that the existing educational programs and methods should be changed so they could be adjustable for the design thinking and product designing phases. They have noticed that students doing their project do not think and are not motivated to look and think “out of the box” but stick with the material and technique. Teachers who stress that design thinking can be developed in the subjects such as ‘Work in the material’, ‘Computer graphics’, ‘Composition’ and ‘Modelling’ represent the belief that development of design product is based on the use of specific material as an expression of applied art. Such consequences in product development training are typical also in the professional orientation and higher educational system, where design programs are divided accordingly to the materiality: ceramic, glass, metal, textile, wooden and even handicraft design. Professional orientation art and design teachers have noticed that young people, entering into design program, consider design in a too narrow sense – as an art. As a result, students who have difficulties in maths, rationale thinking and punctuality, are enrolled. To minimize it, general schools should teach the difference between art and design. At the moment, the professional orientation design education system sets the emphasis on the aesthetic aspect, but not on the design as a process which aims to make life more comfortable. In the programs research assignments should be incorporated and design programs should be more comprehensive and not too focused on a narrow sphere. Explicit design thinking and practicing could be implemented into the subjects of ‘business and economy’ and ‘communication psychology’. To overview design issues in every subject, both practically and theoretically, programs of the different subjects should be balanced and themes should not overlap. Students should be promoted to research the target audience.

3.3 Is a need for diversifying arts and design teaching process actual?

Respondents admit that design should be applied as a method to work out any subject and program and allows making an activity switch from the teacher to the student. Design should work as new, unexplored doors to the life outside and should encourage enhancing new knowledge. Focus on design education in contrary to the arts education should be more as a process-based evaluation rather than end result assessment as showing off in any school, local or global exhibition. Short-term assignments and focus on product/service development where quick reaction and thinking is needed based on
research materials could be a possibility for pupils to disassociate design from the arts and open the doors to creative learning process. These assignments would let students become aware that even small work has a great value. Team work and shared creative workshops merging subjects and elaboration of variations, time limited idea development, creative user research or persona’s development, innovative collaboration with enterprises rather than focusing on design as decorativity or applied arts objects creation, is a way to diversify arts and design teaching processes in professional vocational education. Cognition of needed changes into the art-based design education would not be possible without providing “personal experience and perceptions that are decisive in the process of generating ideas” [12]. This approach could be in contradiction to the demands of the existing educational system where orientation on results and achievements are significant as well as criteria of comparison and notability.

Respondents stressed the importance of a wider circle of colleagues who have received training in design. They claimed that being alone and having other colleagues go for changes was not an easy task. Students usually enthusiastically pick up novelties as the teacher has a face-to-face contact with them during the training process. Also dialogue is needed between professional design and art schools and higher educational institutions since the first ones are preparing students but the second ones are providing continuity in professional development.

3.4 Cognitive benefits for the art teachers from the professional development education program of design teachers

Teachers admit that the program helped to classify and to perfect their knowledge about design and marked the direction for further development. Conception and knowledge of diverse design aspects and context influence, examination and analysis of different variables and viewpoints provided understanding of creative and research-based product development process. Teachers became aware that communication is important in design product/service development process and not always should result in a particular product. Teachers recognized that the program was an outstandingly concentrated product and at a short notice provided the essence of design product/service creation processes – research, designing and analysis and gave practical skills to organize work in groups. They realized that in the collaboration and team working process new and unpredicted ideas and solutions can appear; that the key to success in design is work in a group.

Professional art school teachers responded that they learned a lot and they increased their self-confidence as well. The in-service training program gave an opportunity to step out of every day problems and routine; to meet with scholarly lecturers, hearty colleagues and friends in comprehensive lectures, and enjoy great mutual communication. One respondent admitted that she had stepped over her sceptical attitude about anything that is different and differing from her values; another one had become aware of the need that ideas and businesses are to be interconnected and the design studies had encouraged her to start a family enterprise. One particular respondent – a director of a professional vocational art school admitted that design teachers program had changed his life completely. 20 years ago graduating as a sculptor he had started his master studies in design and had started to commercialize his qualification project. He put the knowledge he got in design teachers training program into practice at the art school, implementing new teaching methods. During studies he received impulses and motivation to reorganize teaching at the school and now is structuring work at school in a different manner - more dynamic, attractive and meaningful. Pupils had understood that the moment together with the teacher is irreversible and irreplaceable.

Everyone can be creative but it has to be discovered and opened, and everything you wish to render to others is in your own hands - this is the second most essential conclusions by the participants. The program arouse thoughts about responsibility as an outcome: what are pedagogues delivering? Is it meaningful and how to influence thinking of the students and society? The program showed that a great idea without further strategy and further action plan is just short time investment. However, the opinion that design is creation of artistic products as a part of arts concepts has remained. The acquired knowledge as the starting point can influence the way of thinking and encourage perfecting oneself in the future, but everyone needs to start with oneself. It takes time and practice to think in a new way, concluded teachers.
Although in-service teachers got innovative and contextual design education and new qualification as design teachers, professional educational system remained the same and possibility to put into practise obtained design knowledge and skills was not provided as system enhancement. Current professional vocational arts education system is limiting use of design as unique object creation process based on materiality but does not offer a solution creation process of social, environmental, economic problems where materiality is only the medium. Teaching design context in the vocational professional education is limited by the assignments of the arts subjects. Therefore systemic contextual changes are needed which are provided by the governmental institutions when new educational program is designed and implemented. Training of design teachers increased the competences of in-service teachers but it was not planned to ensure specific design oriented programs and did not create framework of design education continuity since early stage education.

Design teachers program claimed to be the source of influencing the thinking of the art teachers perceiving design as a creation process of the unique artefact to the design thinking as socially responsible value and sustainable performance indicator, the context of art-based education system is conflicting: teachers continued to work as art not design teachers that limits implementation of the acquired knowledge into practice and does not provides systemic approach in educational continuity. The first assumptions that the snowball effect of the design thinking dissemination has been started into professional vocational arts education is misconception. Although all 100 participants of the program received design teachers qualification and continued to work in their previous placements as art teachers, only two subjects based on design methodology and content were developed and implemented anew. Academic excellence and design context education, user-centred approach and experience creation as service design process in education ensured design social innovation. Teachers continue to develop their knowledge and innovation in micro communities within the existing arts education framework.

Research results show the correlation between art and design education at an early stage of children’s arts and design learning, as well as identify the need for discussion about education of the future design user not only as arts lover and professional.

REFERENCES