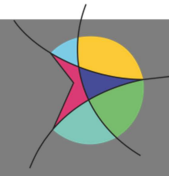


2022



Erasmus+



Analysis of the graphic design curriculum in secondary vocational schools in Serbia, Croatia, Slovenia and Portugal

Made as part of the "Vector World" project

Synopsis

The work contains an overview of the official content of secondary school curricula in Croatia, Serbia, Slovenia and Portugal. After the initial presentation of the curricula in Serbia, Croatia, Slovenia and Portugal, the paper carried out a detailed analysis of these curricula with the help of SWOT analysis instruments, teacher questionnaires, student questionnaires and teacher focus groups. The analysis brought separate conclusions from each school as well as one common conclusion. Then, the paper presents a proposal for changes to the curriculum that, in the opinion of teachers and students, would improve the teaching process. The conclusion of this analysis indicates the good sides of the curriculum as well as the bad ones that need to be worked on. Also, the paper shows the differences in the graphic design curriculum in secondary schools in Serbia, Croatia, Slovenia and Portugal. Original educational documents in the mentioned countries were used in the writing of the paper, and their thorough analysis was made according to the mentioned points.

Keywords:

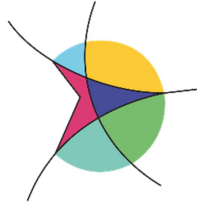
graphic design, curriculum, goals, teaching areas, achievement evaluation, comparative analysis



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"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for the content."



**E A
S R**

**escola
artística
de soares
dos reis**

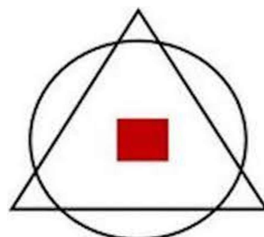


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1. INTRODUCTION:

This paper studies and compares the teaching curricula of graphic design in four different countries: Serbia, Croatia, Slovenia and Portugal. It was created as part of the activities foreseen by the project "Vektorski svet" within the partnership for cooperation in the field of professional education and training KA220 VET. The project was financed by the European Commission within the Erasmus+ program. The teachers from the partner schools had the need to analyze the curricula in detail, compare them and try to point out the weaknesses they encounter in teaching.

In the first part, the official graphic design curricula in secondary schools of all countries are presented.

The presentation of the curriculum was followed by an analysis. The following instruments were selected for the analysis: SWOT, survey for students and teachers and focus groups.

This is followed by a comparative analysis, a comparison of certain parts of the curriculum such as: course objectives, content, teaching organization and evaluation of student achievements.

In all the curricula of the studied countries, the area of teaching is similar.

The differences in the curricula are most visible in the organization of teaching and the teaching area of creativity. After the comparison and analysis, it was concluded that in the last few years, good foundations have been laid for the development of the subject curriculum, but also that some curriculum areas should be modernized, following the example of some countries.

In the paper, the order of the countries is arranged in alphabetical order.

2. GRAPHIC DESIGN CURRICULUM IN SECONDARY SCHOOLS

2.1. CROATIA¹

Hours: 4/140 Year 2	
No.	TEACHING CONTENTS
	<ol style="list-style-type: none">1. Line - point2. Irregular and regular raster3. Black-white relations, drawing4. Different forms of line raster5. Wallerian ratios (grayscale)6. Shaping the drawing with color7. Elements of composition: contrast, balance, harmony8. Stylization

Hours: 4/140 Year 3	
No.	TEACHING CONTENTS
	<ol style="list-style-type: none">1. Stylizing drawings2. Trademark3. Logo4. Illustration, based on the template , drawing in the sfumato technique5. Packaging, legalities, drafting and execution6. The equipment of the book, the typographical and artistic design of the cover7. Poster

Hours: 8/256 Year 4	
No.	TEACHING CONTENTS

¹ Nastavni planovi i okvirni programi za srednje umjetničke škole, Prosvjetni vjesnik, 3.travnja 2001.g., Ministarstvo znanosti i obrazovanja, Zagreb

1. Typography
2. Visual identity of the company
3. Illustration
4. Packaging
5. Newspaper page break
6. Equipment of the book
7. Sample card
8. Poster

2.2. PORTUGAL

COMMUNICATION DESIGN COURSE PROJECT AND TECHNOLOGIES

11th GRADE

MODULE 1 INTRODUCTION	
PROJECT	TECHNOLOGIES
<p>1. Fundamentals of the discipline</p> <p>Contextualization of the discipline in the list of disciplines of the course/year.</p> <p>Articulation between the two aspects: Project and the technologies.</p> <p>Areas of action of Communication Design (Graphic and Multimedia Design)</p> <p>Skills to be developed in the discipline. Project methodologies, tools and practices. Evaluation methodology.</p> <p>[2 * 90 min classes]</p> <p>2. Fields of Research / Thematic Areas</p> <p>3. Formal and semantic contents of the Design object</p> <p>4. New Design Perspectives</p> <p>[2 * 90 min classes]</p>	<p>Organization of spaces</p> <p>Equipment</p>

MODULE 2	
PROJECT	TECHNOLOGIES
<p>DESIGN LIMITS AND LANGUAGES</p> <p>1. Limits of Communication Design</p> <p>Artistic Expression vs. Design Design, technique and technology</p> <p>2. Languages of Communication Design</p> <p>Functions and objectivity of Visual Communication Graphics configuration and the environment</p> <p>[15 * 90 min classes]</p>	<p>Introduction to Indesign</p> <p><i>Creation of a brochure of advertisement with presentation in analogue and digital format about a theme</i></p>

MODULE 3	
PROJECT	TECHNOLOGIES
<p>STRUCTURAL AND STRUCTURING ELEMENTS OF COMMUNICATION DESIGN</p> <p>1. Graphic architecture Pages; formats; structures; grids; composition</p> <p>2. Typographic expression Fonts; typographic families; size readability criteria</p> <p>3. Colour Color application; contrasts and harmonies; additive colors and subtractive colors; RGB and CMYK.</p> <p>4. Image Drawn illustration and photographic illustration</p> <p>5. Typography and image Text as image Written text and drawn</p> <p>[15 * 90 min classes]</p>	<p>Introduction to Photoshop</p> <p>Practice Indesign</p> <p><i>Create a poster with illustration (in analogue and digital format) about the suggested theme</i></p>

MODULE 4	
PROJECT	TECHNOLOGIES
<p>METHODOLOGIES AND CREATIVE PROCESS</p> <p>1. Project methodologies</p> <p>2. Process and stages of a project Analysis/research Work project Visualization of ideas/creation Model, mockup, final artwork E code design, methods and processes Report, cost plan, descriptive memory</p> <p>3. Creative process</p>	<p>Introduction to Illustration</p> <p>Practice Indesign</p> <p>Practice Photoshop</p> <p><i>Development of communication design media for an event: Cover for program / Invitation / Tickets. Presentation in analog and digital format, integrating all available visual resources</i></p>

<p>Exploration and visualization of the idea The importance of the diversity of means of representation and techniques as a creative and evolutionary element in Communication Design</p> <p>4. Creative project Graphic composition, image/text Layouts and graphic media Photography as a means of creative and communicative expression The infographic exploration Drawing in graphic structure, image manipulation The impact on various media</p> <p>[15 * 90 min classes]</p>	
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MODULE 5	
PROJECT	TECHNOLOGIES
<p>DESIGN GRAPHIC AND MULTIMEDIA</p> <p>1. Typologies of Communication Design Editorial design, newspaper design, identity design, sign design, audiovisual communication design</p> <p>2. New application areas of Communication Design Generics for TV and Film; TV Separators; credit web pages; banner pop-ups; infographics; electronic kiosks; interactive CD-ROMs; DVDs</p> <p>3. The multimedia matrix Navigation as a communicability factor Internet time: sender time, receiver time</p> <p>4. Organization and structuring of final projects Individual portfolio Final exhibition</p> <p>[15 * 90 min classes]</p>	<p>Practice Illustration</p> <p>Practice Photoshop</p> <p>Advanced Indesign</p> <p><i>Creation of an infographic project: slideshow of presentation (in analogue and digital format)</i></p> <p><i>Individual portfolio</i> <i>The final exhibition</i></p>

*** TECHNOLOGIES**

- 1 - Photography;
- 2 - Screen printing;
- 3 - Prepress and Offset printing ;
- 4 - Multimedia.

The students are divided into groups attending all the different technologies in a rotation schemes.

2.3. SLOVENIA

SECONDARY SCHOOL FOR VOCATIONAL AND TECHNICAL EDUCATION MURSKA SOBOTA

GRAPHIC DESIGN

(graphic design - GOB)

The graphic design curriculum is divided into three levels: basic level, routine and advanced.

GOB1 The student plans the methodological and implementation components of the design.
ROUTINE LEVEL

GOB2 Student designs visual messages for different media. **ADVANCED LEVEL**

GOB3 The student uses and determines various software in the design - planning and implementation for various media or. production. **BASIC LEVEL**

GOB4 The student practices the basic laws in the design and preparation of pictorial material. **ROUTINE LEVEL**

GOB5 The student plans and designs the functional and aesthetic aspects of the product.
ROUTINE LEVEL

GOB6 The student plans the labeling system and applications and prepares technical documentation. **ADVANCED LEVEL**

GOB7 The student designs simple systems of complex design solutions and participates in professional teams. **ROUTINE LEVEL**

GOB 1 - The student plans the methodological and implementation components of the design:

Subject of work, methods of work, means of work, materials and standards

The student adopts:

- methods of work
- creating visual messages
- work technology
- processes in graphic design and design
- professional terminology.
- data storage technology,

- distribution and preparation for reproduction-playback in various AV media and materials;
- measurement systems in graphic design;
- process standards in computer-aided design;
- basic materials and modern tools in design.

GOB2 - Forms visual messages for various media.

The student learns the basics:

- calligraphy
- typography
- ornament

GOB3 - Uses and determines different software in the design - planning and implementation for different media or. production.

The student gets acquainted with:

Design for printing:

- Historical cross-section of design in the printing medium
- Basic printing techniques
- Design
- Basic printing materials

Knows technical design standards for preparation, execution and finishing of printed matter;

- knows the technical design standards for preparation, implementation and post-production in AV media (video, moving image, website, TV ...).

Creating a break for different media:

- knows the design and technical standards of text layout for different media;
- knows the thematic areas of text design;
- knows how to design a typical page design for different media and thematic areas of design;
- knows how to design covers;
- knows how to design advertisements, leaflets, posters and banners;

- knows how to design a calendar; - knows the design of newspapers, magazines and tabloids;
- knows the design of securities and stamps;
- knows the design of an electronic book or. presentation CDs;
- knows how to design a breakthrough and how to browse web pages.

GOB4 - Practices basic laws in the design and preparation of pictorial material.

The student gets acquainted with:

- Drawing,
- picture,
- illustration,
- decoration,
- a photograph
- image editing and correction,
- 2D / 3D imaging material,
- implementation of the painting technique

GOB5 - Designs and designs functional and aesthetic aspects of the product.

The student gets acquainted with:

By designing different types of packaging and implementing pre-preparation

GOB6 - Designs the labeling system and applications and prepares technical documentation.

The student gets acquainted with:

- semiotic and semantic aspects in design (sign, symbol, icon, coat of arms)
- basics of sign design and planning;
- by redesigning the sign;
- techno-functional applications of signs, symbols for various media;
- knows how to prepare project documentation.

GOB7 - Designs simple systems of complex design solutions and participates in professional teams

The student gets acquainted with:

- Corporate identity and media
- Animation, moving image and multimedia

2.4. SERBIA

Educational profile: GRAPHIC DESIGN TECHNICIAN²

B. PROFESSIONAL COURSES (theory, exercises, practical teaching)	FIRST GRADE					SECOND GRADE					THIRD GRADE					FOURTH GRADE					IN TOTAL				
	Number of classes				Teaching in the block year.	Number of classes				Teaching in the block year.	Number of classes				Teaching in the block year.	Number of classes				Teaching in the block year.	Number of classes				Teaching in the block year.
	Weekly		Yearly			Weekly		Yearly			Weekly		Yearly			Weekly		Yearly			Weekly		Yearly		
	T	P	T	P		T	P	T	P		T	P	T	P		T	P	T	P		T	P	T	P	
1. Art history	2		70			2		70			2		70			2		64			8		274		
2. Theory of form		2		70	30																	2		70	30
3. Drawing and painting		4		140			4		140			4		140			4		128			16		548	
4. Photography							2		70	20												2		70	20
5. Calligraphy							2		70	20		2		70								4		140	20
6. Advertising graphic							6		210	20		4		140	60		7		224			17		574	80
7. Book graphics												4		140			4		128			8		268	
8. Poster												5		175			5		160			10		335	
9. Printing technology						2		70													2		70		
10. Pre-matriculation practice																				60					60
Total	2	6	70	210	30	4	14	140	490	60	2	19	70	665	60	2	20	64	640	60	10	59	344	in 2005	210
Total B:	8		280		30	18		630		60	21		735		60	22		704		60	69		2349		210
Total hours per year :			310					690					795					764					2559		

² Pravilnik o izmenama Pravilnika o nastavnom planu i programu za sticanje obrazovanja u četvorogodišnjem trajanju u stručnoj školi za područje rada kultura, umetnost i javno informisanje, Službeni glasnik Republike Srbije, "Prosvetni glasnik", br. 10/ 2013, 28. jun 2013.

GRAPHIC DESIGN TECHNICIAN

THEORY OF FORM

PROGRAM CONTENTS

I CLASS

(0 + 2 hours per week, 0 + 70 hours per year + 30 hours in a block)

- LIGHT AND PERCEPTION OF SHAPES
- SPACE AND COMPOSITION
- ELEMENTS OF COMPOSITION
- LINE
- FORM
- SIZE
- TEXTURES
- WALLER
- COLOR
- PRINCIPLES OF COMPOSING
- REPETITION
- GRADATION
- HARMONY
- CONTRAST
- UNITY
- DOMINANT
- EQUILIBRIUM
- FORM AND CONTENT

CLASSES IN THE BLOCK

(30 hours per year)

Deepening teaching content by visiting galleries and museums.

DRAWING AND PAINTING

PROGRAM CONTENTS

I CLASS

(0 + 4 hours per week, 0 + 140 hours per year)

- INTRODUCTION TO DRAWING AS A DISCIPLINE
- COMPOSITION
- PERSPECTIVES
- LINE AND DIRECTION
- SIZE AND SHAPE
- TEXTURES
- WALLER
- COLOR

II CLASS

(0 + 4 hours per week, 0 + 140 hours per year)

- COMPOSING
- PROPORTION OF THE HEAD
- LIGHT - TONE - SHADOW
- COLOR

III CLASS

(0 + 4 hours per week, 0 + 140 hours per year)

- PORTRAIT
- SPACE AND THE THIRD DIMENSION
- COMPOSITION
- COLOR

IV CLASS

(0 + 4 hours per week, 0 + 128 hours per year)

- ANATOMY OF THE HUMAN BODY
- ACT
- COUNTERPOST
- CROCE
- UNITY OF FIGURE AND SPACE
- COLOR

TYPOGRAPHY

PROGRAM CONTENTS

II CLASS

(0 + 2 hours per week, 0 + 70 hours per year)

- HISTORICAL OVERVIEW, LETTER DEVELOPMENT, CALIGRAPHY AND ITS APPLICATION
- ACCESSORIES AND MATERIALS

- MOVEMENT EXERCISES, CORRECT HOLDING AND FEATHER MANAGEMENT
- LETTER OF CAPITAL
- CAPITAL
- TEXT COMPOSITION
- HUMANISTIC RENAISSANCE COURSE
- CYRILLIC COURSE
- LETTER: CYRILLIC CONSTITUTION

III CLASS

(0 + 2 hours per week, 0 + 70 hours per year)

- DEVELOPMENT OF TYPOGRAPHY FROM GUTTENBERG TO CONTEMPORARY FONTS
- BLOCK LETTER, ALPHABET AND ALPHABET, CAPITAL AND CURRENT
- BLOCK LETTER
- SERIF AND SERIAL-FREE TYPOGRAPHY
- SERIF AND SERIAL-FREE TYPOGRAPHY Project task.
- EXPERIMENTAL TYPOGRAPHY, LETTER DESIGN - VERZAL
- EXPERIMENTAL TYPOGRAPHY, LETTER DESIGN - CURRENT
- EXPERIMENTAL TYPOGRAPHY, NUMBER DESIGN
- APPLICATION OF DESIGNED FONT

PHOTOGRAPHY

PROGRAM CONTENTS

II CLASS

(0 + 2 hours per week, 0 + 70 hours per year + 30 hours in a block)

- INTRODUCTION TO PHOTOGRAPHY
- TECHNOLOGY OF RECORDING AND PRODUCTION OF PHOTOGRAPHS
- LINE
- CONTRAST
- TEXTURES
- PERSPECTIVES
- WALLER

CLASSES IN THE BLOCK

(30 hours)

ADVERTISING GRAPHICS

PROGRAM CONTENTS

II CLASS

(0 + 6 hours per week, 0 + 210 hours per year + 20 hours in a block)

- TYPOGRAPHICAL COMPOSITION
- ARTISTIC COMPOSITION
- ARTISTIC GRAPHIC COMPOSITION OF SIGNS
- DESIGN AND CONSTRUCTION OF MOBILE TV ANNOUNCEMENT OR SIGN OFFS

CLASSES IN THE BLOCK

(20 hours)

III CLASS

(0 + 4 hours per week, 0 + 140 hours per year + 60 hours in a block)

- ARTISTIC GRAPHIC SOLUTION OF THE STICKER
- ARTISTIC GRAPHIC SOLUTION OF THE LABEL
- ARTISTIC SOLUTION OF THE ADVERTISEMENT
- ARTISTIC SOLUTION OF PACKAGING PAPER AND BAGS
- ARTISTIC SOLUTION OF SHAUKARTON
- ART GRAPHIC SOLUTION POSTCARDS, CONGRATULATIONS, FLYERS
- ARTISTIC SOLUTION OF CD COVER

CLASSES IN THE BLOCK

(60 hours)

IV CLASS

(0 + 7 hours per week, 0 + 224 hours per year)

- ARTISTIC DESIGN OF THE TRADEMARK
- ARTISTIC GRAPHIC SOLUTION OF THE LOGO
- ARTISTIC SOLUTION OF THE NEWSPAPER ADVERTISEMENT AND TELEPHONE TV
- ARTISTIC DESIGN OF THE WALL CALENDAR
- ARTISTIC GRAPHIC SOLUTION OF THE PROSPECTUS
- ARTISTIC SOLUTION OF BUSINESS PAPERS
- ARTISTIC GRAPHIC SOLUTION OF APPLYING THE COMPANY'S CHARACTER ON DIFFERENT ELEMENTS
- ARTISTIC DESIGN OF THE ANNUAL REPORT / CATALOG /

GRAPHICS OF THE BOOK

PROGRAM CONTENTS

III CLASS

(0 + 4 hours per week, 0 + 140 hours per year)

- ARTISTIC SOLUTION OF THE BOOK (AS A LETTER SOLUTION)
- ARTISTIC GRAPHIC SOLUTION OF A MAGAZINE OR LIST
- ARTISTIC SOLUTION OF THE BOOK 1
- ARTISTIC SOLUTION OF THE BOOK 2
- ARTISTIC SOLUTION OF THE CATALOG MONOGRAPHS

IV CLASS

(0 + 4 hours per week, 0 + 128 hours per year)

- ARTISTIC SOLUTION OF THE BOOK (AS A TYPOGRAPHIC SOLUTION)
- ARTISTIC SOLUTION OF THE BOOK 1
- ARTISTIC SOLUTION OF THE BOOK 2
- ARTISTIC DESIGN OF A MAGAZINE OR LIST
- ARTISTIC SOLUTION OF THE BOOK 3

POSTER

PROGRAM CONTENTS

III CLASS

(0 + 5 hours per week, 0 + 175 hours per year)

- ARTISTIC SOLUTION OF POSTERS
- ARTISTIC DESIGN OF THE POSTER 1
- ARTISTIC DESIGN OF THE POSTER 2
- ARTISTIC DESIGN OF THE POSTER 3
- ARTISTIC DESIGN OF THE POSTER 4

IV CLASS

(0 + 5 hours per week, 0 + 160 hours per year)

- ARTISTIC DESIGN OF THE POSTER 1
- ARTISTIC DESIGN OF THE POSTER 2
- ARTISTIC DESIGN OF THE POSTER 3
- ARTISTIC DESIGN OF THE POSTER 4
- ARTISTIC DESIGN OF THE POSTER 5

PRINT TECHNOLOGY

PROGRAM CONTENTS

III CLASS

(0 + 2 hours per week, 0 + 70 hours per year)

- THE CONCEPT OF THE PRESS
- FUNDAMENTALS OF TYPOGRAPHIC DESIGN
- PREPARATION OF FILES FOR PRINT
- MANUFACTURE OF PRINTING PLATES
- PRESS PROCESSES
- PAPER AND PRINTING INKS
- FINISHING GRAPHIC PRODUCTS
- SPECIFICATIONS IN THE PRINTING HOUSE

PRE-GRADUATION PRACTICE

IV CLASS

(60 hours per block per year)

3. ANALYSIS

The meaning of the word analysis according to dzs.ffzg.unizg.hr:

"(eng. analysis) description of the subject; the process of researching a whole with the aim of finding its main parts and determining the relationships between them. Content analysis should provide the data needed for the subject of research."

We did the curriculum analysis within each school and jointly.

Therefore, each school did an analysis separately, a conclusion, and at the end we jointly included the overall perceived good and bad sides of all curricula and drew a joint conclusion.

Graphic design teachers, professional associates and students participated in the analysis. Each school had a different number of respondents considering the number of teachers and students in the school.

The work of analysis lasted four months and was demanding in terms of time and expertise.

3.1. INSTRUMENTS OF ANALYSIS

The analysis instruments we used are:

- SWOT
- Survey for students
- Survey for teachers
- Focus groups

Each instrument was applied separately in all schools, and at the end we reached conclusions in the joint focus group. It took place on mobility in Maribor. Detailed information follows below.

3.1.1. SWOT analysis

SWOT is a tool, an instrument for analyzing an existing problem. In schools, it is used mainly for self-evaluation³ in order to raise the quality of work.

SWOT analysis means that external and internal factors should be looked at in order to find out the best way to achieve the desired goal.

SWOT answers 4 questions?

S - Strengths → strength (What are our strengths ?)

W - Weaknesses → weaknesses (What are our weaknesses)

O - Opportunities → opportunities (Where do we see opportunities for improvement ?)

T - Threats → threats (Where will we encounter obstacles beyond our power ?)

We believe that a SWOT analysis is a good start for analyzing the graphic design curriculum, so let's look at the results by country.

Strengths	Weaknesses
List the advantages, the good sides of your curriculum? Why is your curriculum good? What is good in the curriculum, and what should still be in the curriculum?	What are all the flaws, shortcomings, downsides of the curriculum? What should be removed, certainly changed?
Opportunities	Threats
What are all the unused opportunities, unused potentials for curriculum development? What should definitely be encouraged ?	What real difficulties do we face? What are all the real circumstances that threaten and prevent the optimal development of the curriculum?

³ Priručnik za samovrednovanje za srednje škole, Nacionalni centar za vanjsko vrednovanje obrazovanja, travanj 2010.g., Zagreb

3.1.1.1. SWOT analysis Croatia⁴

School of Fine Arts, Split

Graphic design curriculum was brought by the Ministry of Science and Education in 2001.

The tools we used to analyze the curriculum in our school are: focus groups, a survey among teachers, a survey among students, and a SWOT analysis.

The call for analysis was public within the school.

All teachers with an education in graphic design (5 teachers) and students attending graphic design (20 students) participated in the analysis. After all the collected data, we had a discussion and a meeting where we analyzed the data and wrote conclusions in the form of a SWOT analysis.

The coordinator of the entire process was Aleksandra Dužević, pedagogue, leader Željka Milošević Paro, and translator Josip Đuran, prof. English language .

Strengths of our curriculum	Weaknesses of our curriculum
<p>List the advantages, the good sides of your curriculum? Why is your curriculum good?</p> <p><i>The curriculum has all the contents of visual design that are applicable in technology (eg new programs and modern society. Depending on the medium (message carrier), the design is also changed or supplemented.</i></p>	<p>What are all the flaws, shortcomings, downsides of the curriculum? What should be removed, certainly changed?</p> <p><i>The curriculum is outdated in terms of technology (eg new programs and computers) that is used to create a certain design, and media (newspapers no longer dominate, but websites).</i></p> <p><i>from the 3rd year (graphic technology and photography) should be combined with Graphic Design .</i></p>
<p>Opportunities that we can change in our curriculum (Opportunities)</p>	<p>Dangers, what we cannot change in our curriculum (Threats)</p>

⁴ Swot analiza, Rukavina, Ivana, Završni rad, 2018.g., Veleučilište Nikola Tesla, Gospić

<p>What are all the unused opportunities, unused potentials for curriculum development?</p> <p><i>Connecting with the labor market (eg HRT), students are more motivated when they work for a specific opportunity, competition or client.</i></p> <p><i>We can analyze the curriculum and propose changes, improvement of the curriculum and send it in writing to external institutions.</i></p>	<p>What real difficulties do we face?</p> <p><i>We do not have new, licensed computer programs. And computers that are suitable for drawing - tablets are expensive and we depend on donations or tenders.</i></p> <p><i>The curriculum is approved by the Ministry and that is not in our power.</i></p>
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3.1.1.2. SWOT analysis Portugal

The Escola Artística de Soares dos Reis Communication Design course curriculum was developed by the Ministry of Education between 2005 and 2007.

Throughout the years several adaptations were made regarding the job market needs and the new emerging technologies.

This SWOT analysis considered the actual curriculum as it is developed nowadays in our classes: a combination between the official curriculum and the school's adjustments.

This analysis is the result of the teachers and students surveys and the main findings of the several discussions inside the Communication Design department.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> - broad and diverse curriculum; - well-equipped workshops allow the completion production of the projects, enabling the learning of the entire graphic design process; - students develop skills needed either for the job market or university. 	<ul style="list-style-type: none"> - not enough time to delve into all the topics of the curriculum; - in the official curriculum (from 2005) there are several outdated topics and others that would justify their inclusion.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> - the school has some autonomy to adapt and update the curriculum internally; - the curriculum allows the development of partnerships with job market companies. 	<ul style="list-style-type: none"> Lack of funding for software, hardware and workshops. Dual certification (job market and university) implies a high workload.

3.1.1.3. SWOT analysis of Slovenia

Secondary vocational and technical school Murska Sobota, educational program Graphic design

Design Technique curriculum with three different modules:

Graphic design, fashion design and design of utility items were approved by the Ministry of Education, Science and Sport in Ljubljana. Based on several summer analyzes of the graphic design curriculum, we also conducted a survey among employees and teachers at the school. Only students attending the Graphic Design program and teachers of professional theoretical subjects took part in the analysis. We ordered the analysis on the basis of a survey, which was solved by students and teachers of professional subjects. 63 2nd and 3rd year graphic design students and 5 teachers participated in the analysis. Based on the written surveys, we ordered an analysis of the written opinions at the meeting and ordered the following conclusions:

Strengths of our curriculum	Curriculum Weaknesses
<p>List the advantages, good sides of our curriculum? Why do you think the curriculum is good?</p> <p><i>The curriculum is good because it contains all the content of visual design, which is used in the modern consumer society. Education takes place in different media, students and teachers adapt to each media, connect them to each other but build on them. From each individual option, teachers extract the essence and in this way build the educational process.</i></p>	<p>What shortcomings did we find in the curriculum? How can we change them?</p> <p><i>Considering the rapid technological development and progress, it would be necessary to change programs on computers more quickly and be in the trend with news. However, unfortunately, everything is also connected with the financing of the program by the ministry. We wish for more intersubject linking and more hours for professional subjects from the open curriculum. It would also be good if, in general subjects, they also focused on the needs of graphic design, for example. in chemistry - developing analog photographs using the classic method; history - development of design, etc.</i></p>
<p>Options that we can change in the curriculum ourselves (Opportunities)</p>	<p>What can't we change in the curriculum? (Threats)</p>

<p>What are the unused opportunities and new potentials for curriculum development?</p> <p><i>Greater market orientation of the students, independent written presentation is the part of the students - that the students know how to independently describe where they got the idea from and what their product means to them. More connections with the economy and cooperation in various competitions and projects (eg Zotka).</i></p>	<p>What problems do we encounter in our work?</p> <p><i>We do not have the latest programs for computers, otherwise we are equipped with graphic tables, which are of great help to students when designing. A big problem with other people's textbooks, which we don't have.</i></p>
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3.1.1.4. SWOT analysis Serbia

School of Textile and Leather Design, Novi Pazar, Serbia

The graphic design curriculum (graphic design technician) was adopted by the Ministry of Education, Science and Technological Development of Serbia in the field of culture, art and public information, which has been applied since 1993 with minor changes that occurred eleven times until 2011. In essence, the plan and program is the same as in 1993.

The tools we used to analyze the curriculum in our school are: focus groups, a survey among teachers, a survey among students, and a SWOT analysis.

The call for analysis was public within the school, and all teachers who had an interest in it could participate.

All teachers with graphic design education (4 teachers) and students attending graphic design (20 students) participated in the analysis. After all the collected data, we had a discussion and a meeting where we analyzed the data and wrote conclusions in the form of a SWOT analysis.

The coordinator of the entire process was Ajla Rebronja.

Strengths of our curriculum	Weaknesses of our curriculum
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<p>List the advantages, the good sides of your curriculum? Why is your curriculum good?</p> <ul style="list-style-type: none"> • Sufficient number of lessons to cover teaching topics. • The curriculum has substantial and varied topics • It enhances creativity and artistry. • Subject separation, i.e. the subjects are separated by units, so that a poster, book graphics, graphic design (advertising graphics), photographs, etc. are separate subjects. which gives a better result towards the acquisition of knowledge. 	<p>What are all the flaws, shortcomings, downsides of the curriculum? What should be removed, certainly changed?</p> <ul style="list-style-type: none"> • The main disadvantage of the curriculum is its obsolescence, there are some topics in the curriculum that are not in accordance with today's times. • The curriculum does not mention software used in modern graphic design. There are no classes for technical production of exercises, designs. • Teaching topics or project tasks for which design is done are unusable in today's time, such as the design of CD covers, cardboard boxes... • Unclear work guidelines for teaching topics in the first semester of the second year in the subject of graphic design • No guidelines have been defined for the block of classes and pre-matriculation practices
<p style="color: red;">Opportunities that we can change in our curriculum (Opportunities)</p>	<p style="color: red;">Dangers, what we cannot change in our curriculum (Threats)</p>
<p>What are all the unused opportunities, unused potentials for curriculum development?</p> <ol style="list-style-type: none"> 1 Modernization of exercise topics for work. 2 Connecting the curriculum with the labor market. 3 Work practice of students. 	<p>What real difficulties do we face?</p> <ul style="list-style-type: none"> • The impossibility of changing the curriculum when it is observed during the implementation of classes that it does not follow the trends of the labor market. • Impossibility to participate in the change of plan and program announced by the Ministry of Education and Science. • Lack of modern techniques as didactic aids. • Absence of teacher training seminars. • Lack of textbooks as teaching aids for teachers that would guide teachers in teaching.

3.1.2. Survey - students

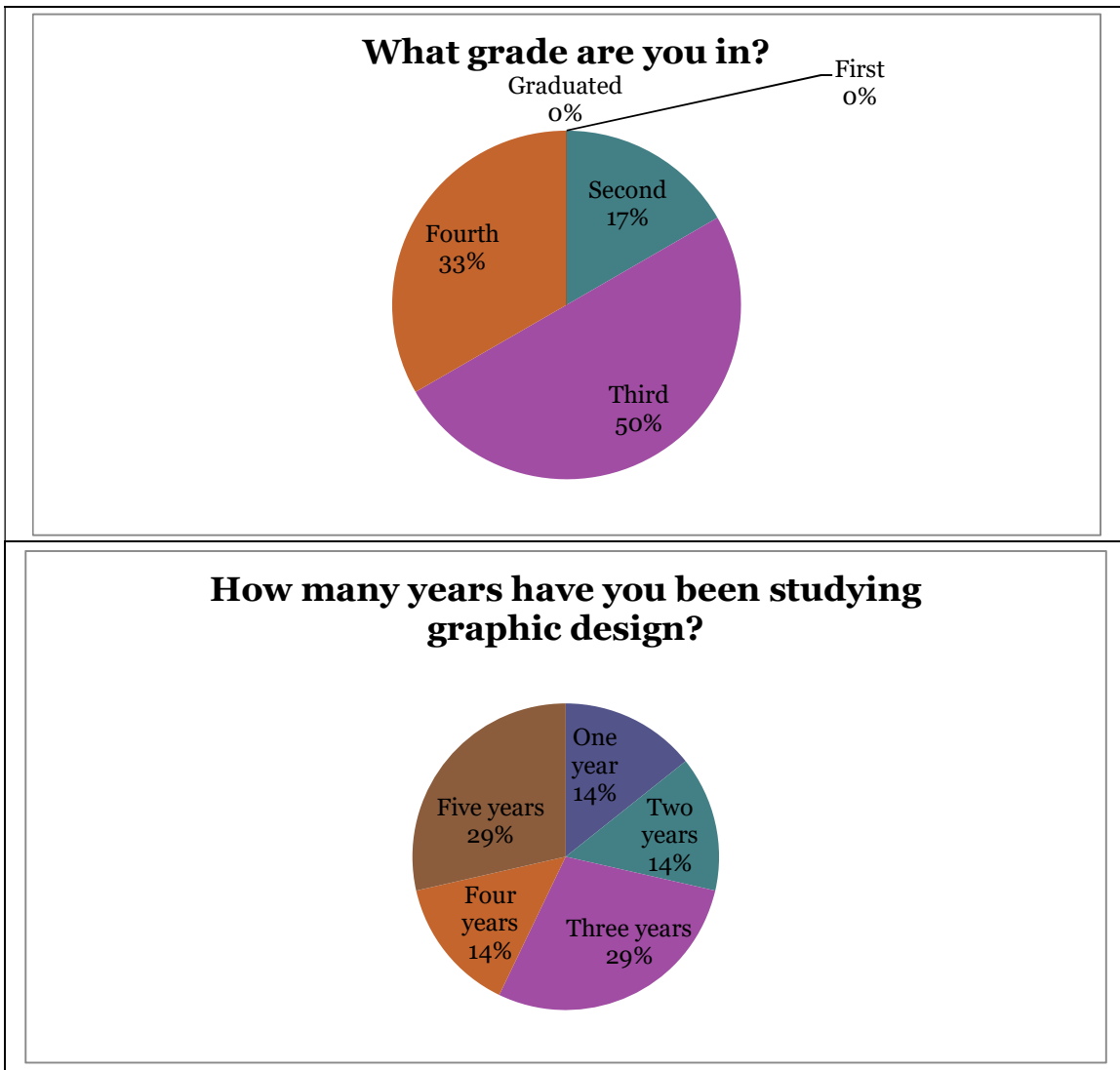
In all schools, a survey was conducted with students using the Forms digital tool.

In this report, we highlight the key answers of the students that we believe are important for the analysis of the curriculum.

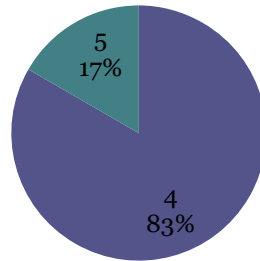
3.1.2.1. Croatia

In Croatia, the survey included students in grades 2, 3. and 4th grade Graphic Design, so 27 students. Students were not obliged to answer all questions.

We highlight the most important answers relevant to the Analysis, which we selected together at the Focus Group:



How would you grade curriculum (programme of study) from 1 to 5 (5 is the maximum)?



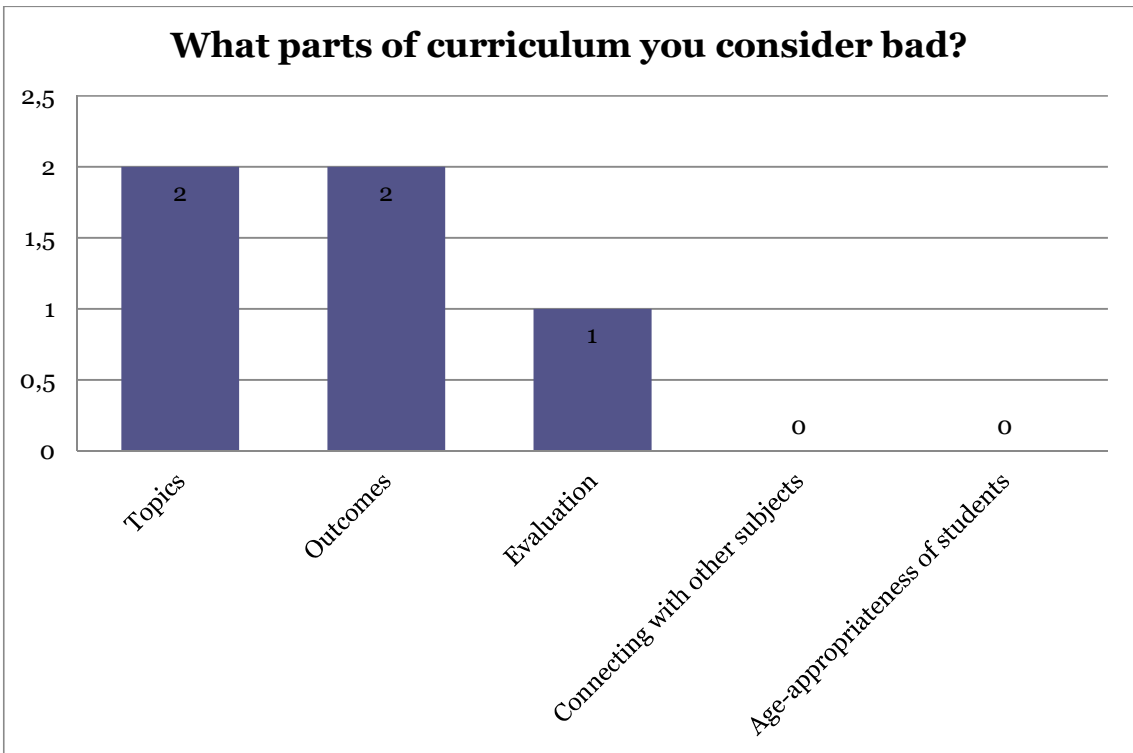
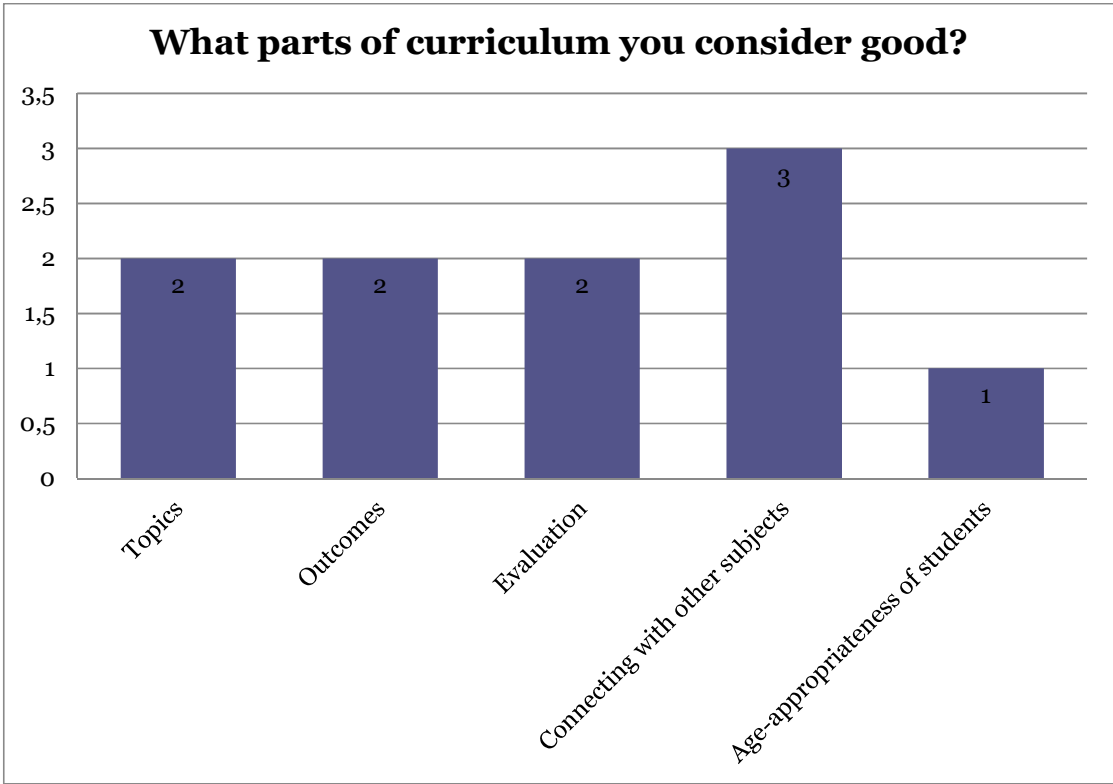
Medium grade is 4.17.

**Which area / topic of the curriculum (programme of study)
gives you the most problems?**

- Students have mostly answered none.
- Several have answered that it is working on new applications for design like Illustrator and Morbius

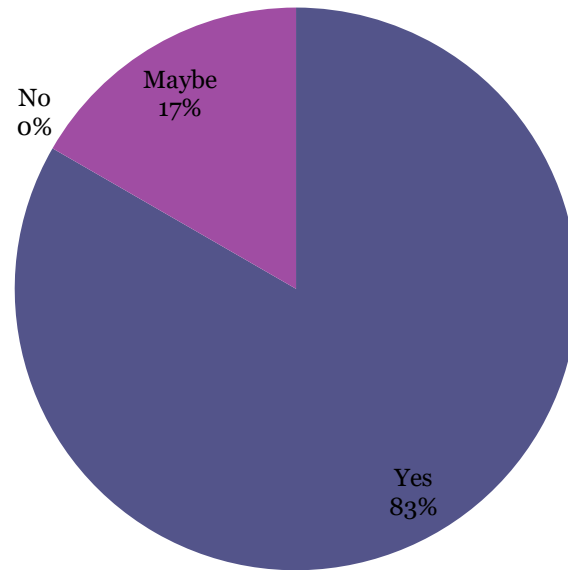
Why?

- Considering that majority of students answered that they do not have problems with curriculum there are not many of them who answered this question



Several students have answered that there are no bad parts of the curriculum.

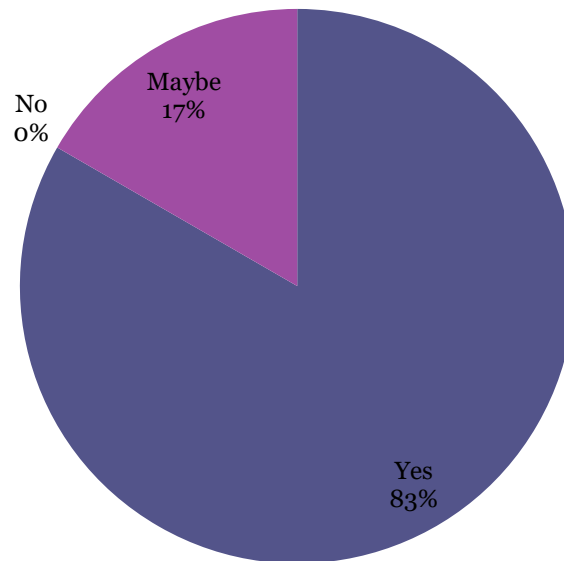
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- We had no further answers

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

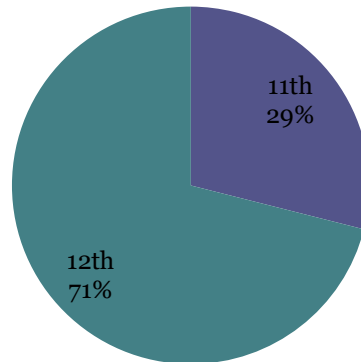
- We had no further answers

What new would you like to learn in school?

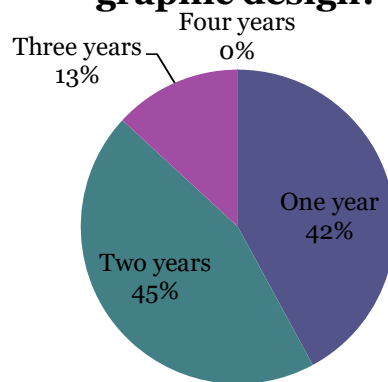
- Few students would like to deal with animation and related apps
- Other students said that they would like to find out about new stuff and trends in graphic design

3.1.2.2. Portugal

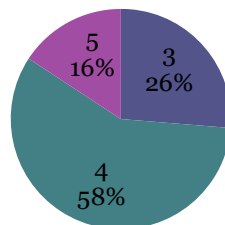
What grade are you in?



How many years have you been studying graphic design?



How would you grade curriculum (programme of study) from 1 to 5 (5 is the maximum)?



Medium grade is 3.89.

Which area / topic of the curriculum (programme of study) gives you the most problems?

Main findings of 12th grade students :

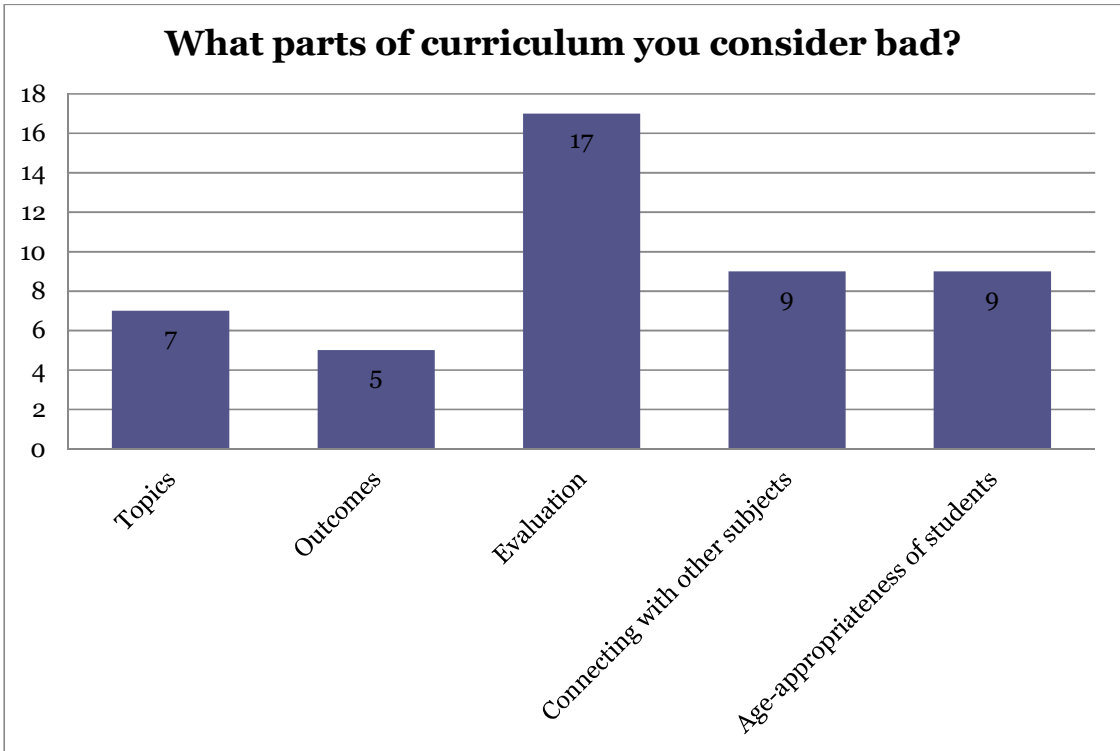
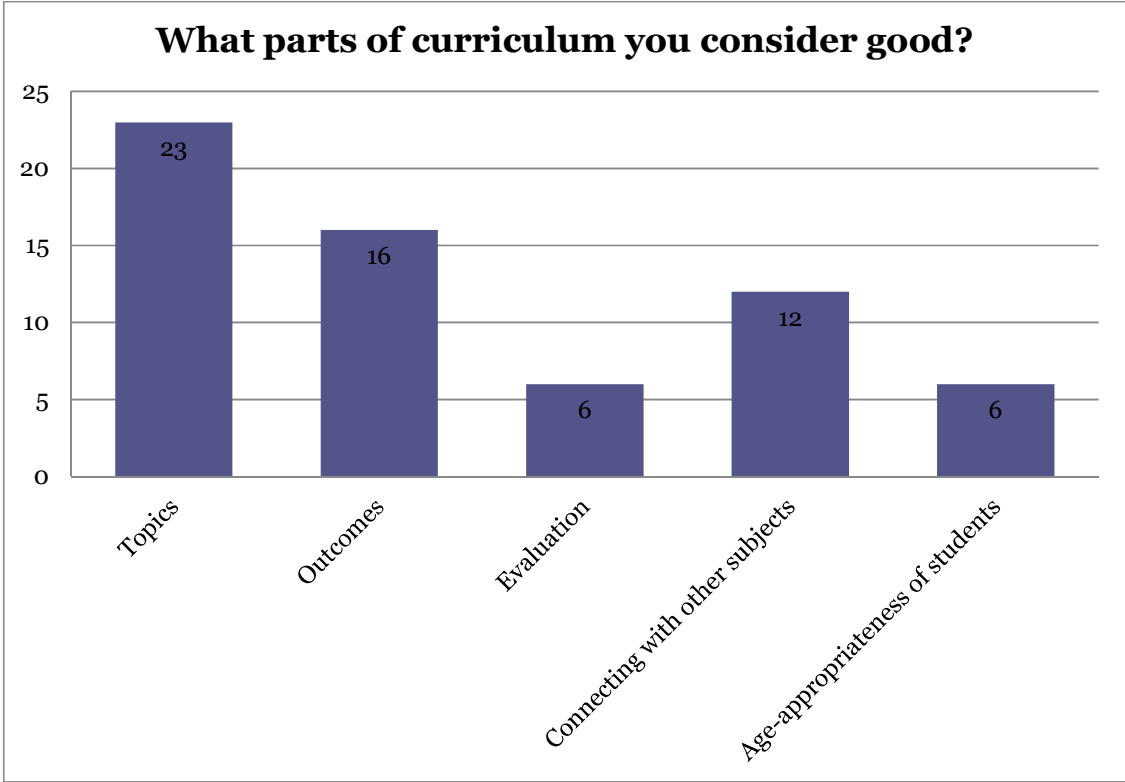
- "Layout design" in the majority
- Several students mentioned difficulties in the creative process (developing ideas, organization)
- Some students mentioned image editing in Photoshop

Main findings of 11th grade students:

- Web design and code development
- Software skills.

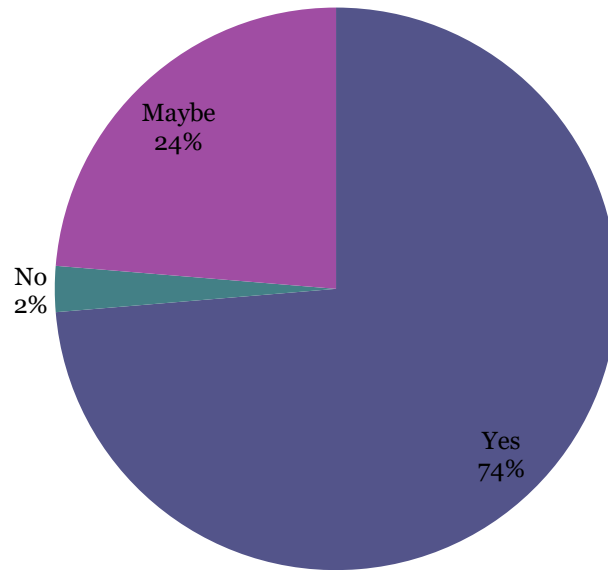
Why?

- Lack of solid foundations. 10th year is insufficient from the point of view of preparing students for the following year.
- The aesthetic part is more difficult to control from the code in web design.



Several students have answered that there are no bad parts of the curriculum.

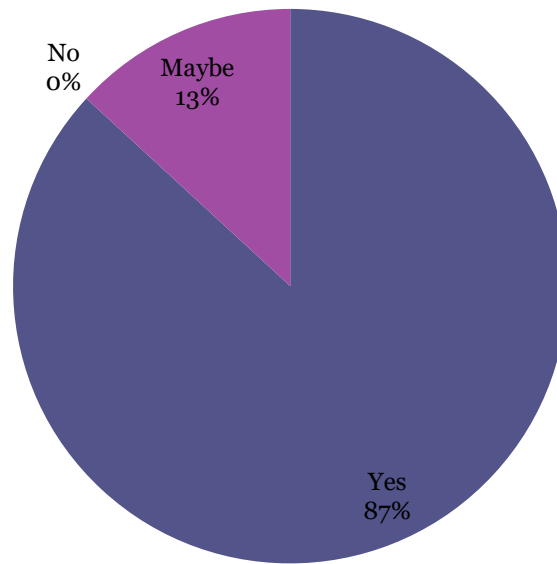
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- Students said that they would like to have more experimentation and theoretical classes about the topics

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

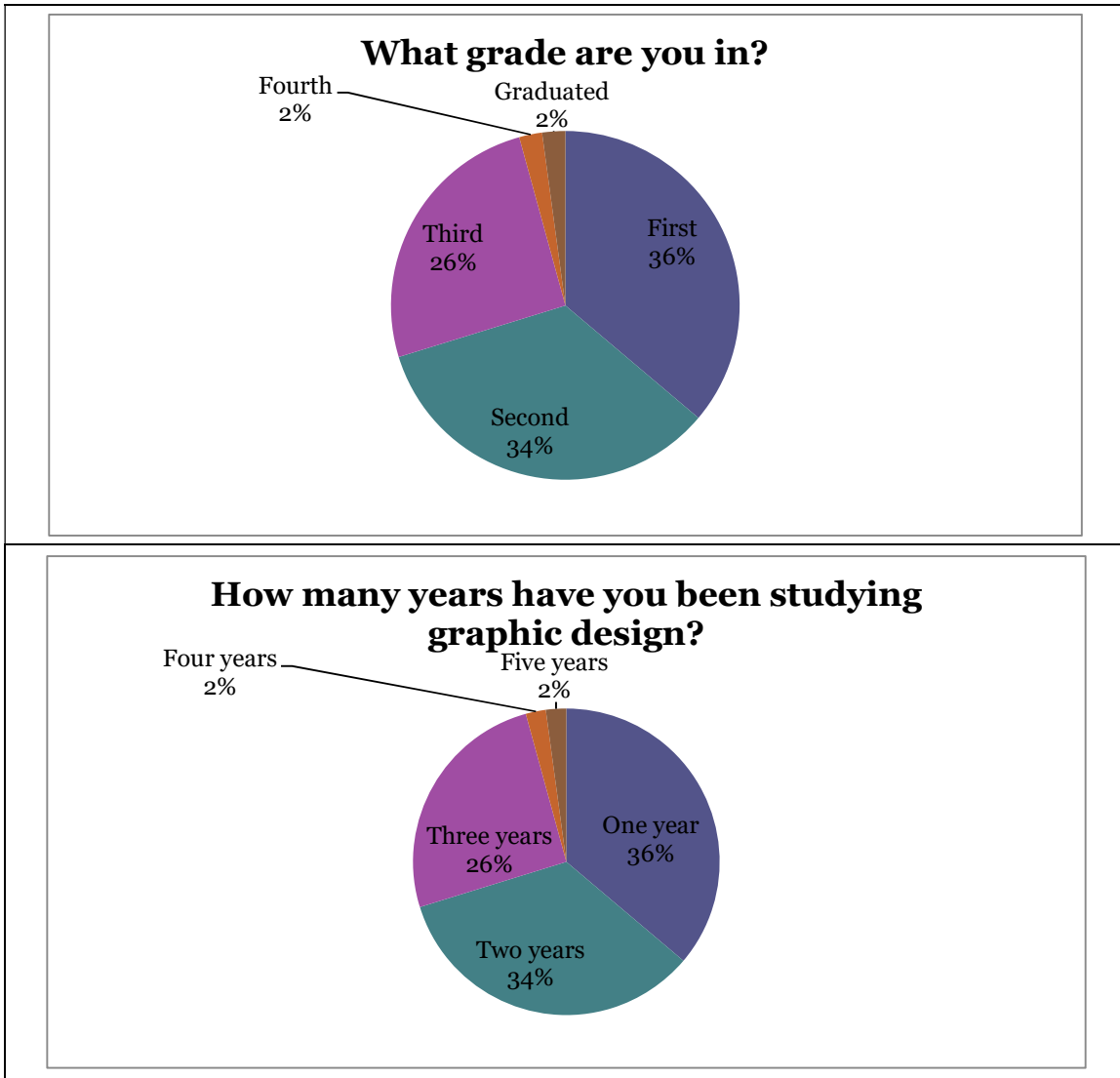
- We had no further answers

What new would you like to learn in school?

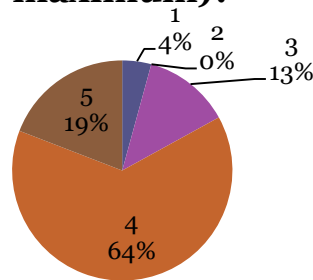
- Few students would like to deal with apps regarding web design
- Other students said that they would like to find out about new stuff and trends in graphic design
- Students also said that they would like to focus on more workshop oriented classes

3.1.2.3. Slovenia

In Slovenia, the survey included students in grades 1, 2, 3 and 4. grade Graphic Design, so 47 students. Students were not obliged to answer all questions. 21 students participated in the first semester, 27 in the second and 28 in the third. We highlight the most important answers relevant to the Analysis, which we selected together at the Focus Group:



How would you grade curriculum (programme of study) from 1 to 5 (5 is the maximum)?



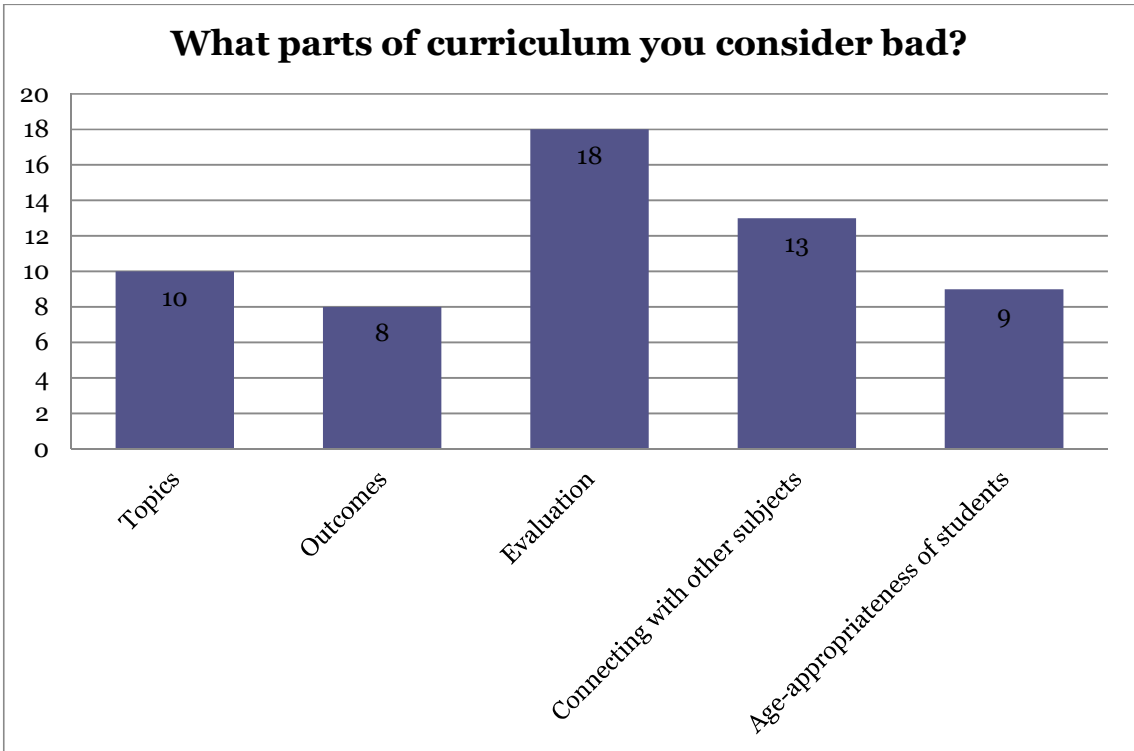
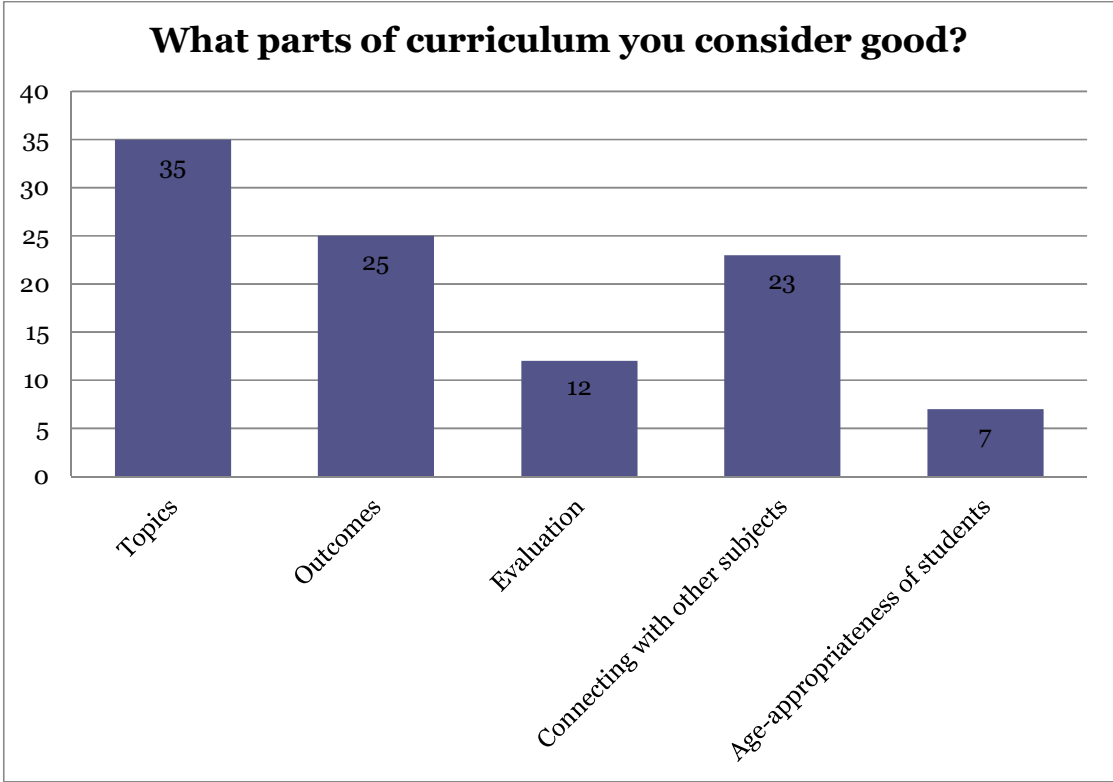
Medium grade is 3.94.

Which area / topic of the curriculum (programme of study) gives you the most problems?

- Students have mostly answered that the biggest problem for them is apps for design
- Several have answered that they have many obligations per class and that they cannot dedicate enough time

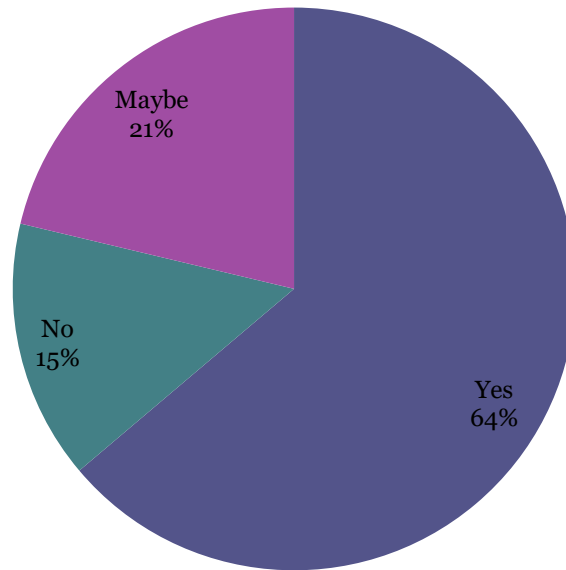
Why?

- Big reason for problems that students have with apps is that they are first introduced to classical way of work and after that they start working digitally, and for some of the students that change can be hard. From the pedagogical side, that is the right way to do curriculum because it is in correspondence with modern ways of designing



Several students have answered that there are no bad parts of the curriculum.

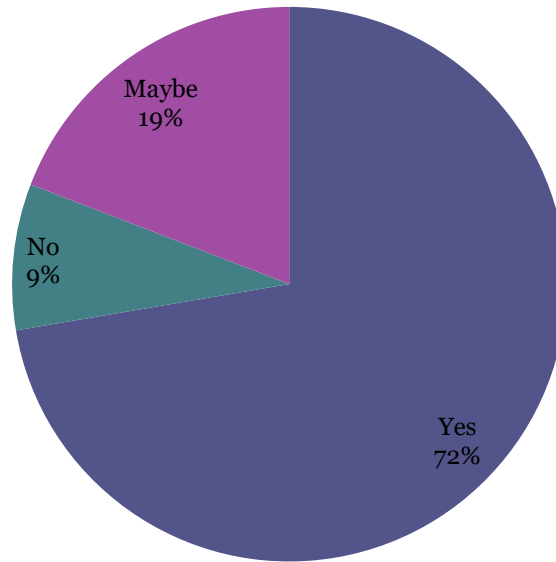
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- Just several students gave their opinion and the one who gave said that it is mostly because they do not have enough practice
- One answer was that he as a student thinks that he is not prepared for the business world for graphic designers

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

- Students mostly answered like in the previous question that they would like to have more practical work

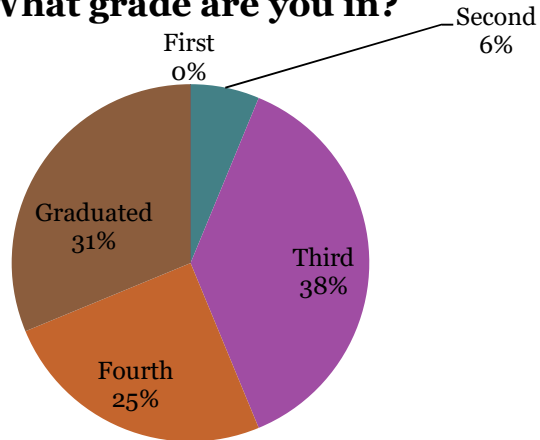
What new would you like to learn in school?

There were really various answers in this school:

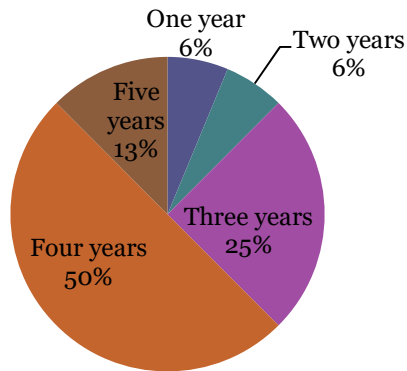
- Some students wanted to explore different aspects of design like for example web design, clothes design, there were some that wanted to explore more behind design theory and color
- Like in other schools, a lot wanted to talk about design apps and to work more on them
- A large number of students have the opinion that they should have more classes of practice, because they have a lot of theory

3.1.2.4. Serbia

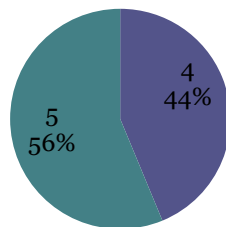
What grade are you in?



How many years have you been studying graphic design?



How would you grade curriculum (programme of study) from 1 to 5 (5 is the maximum)?



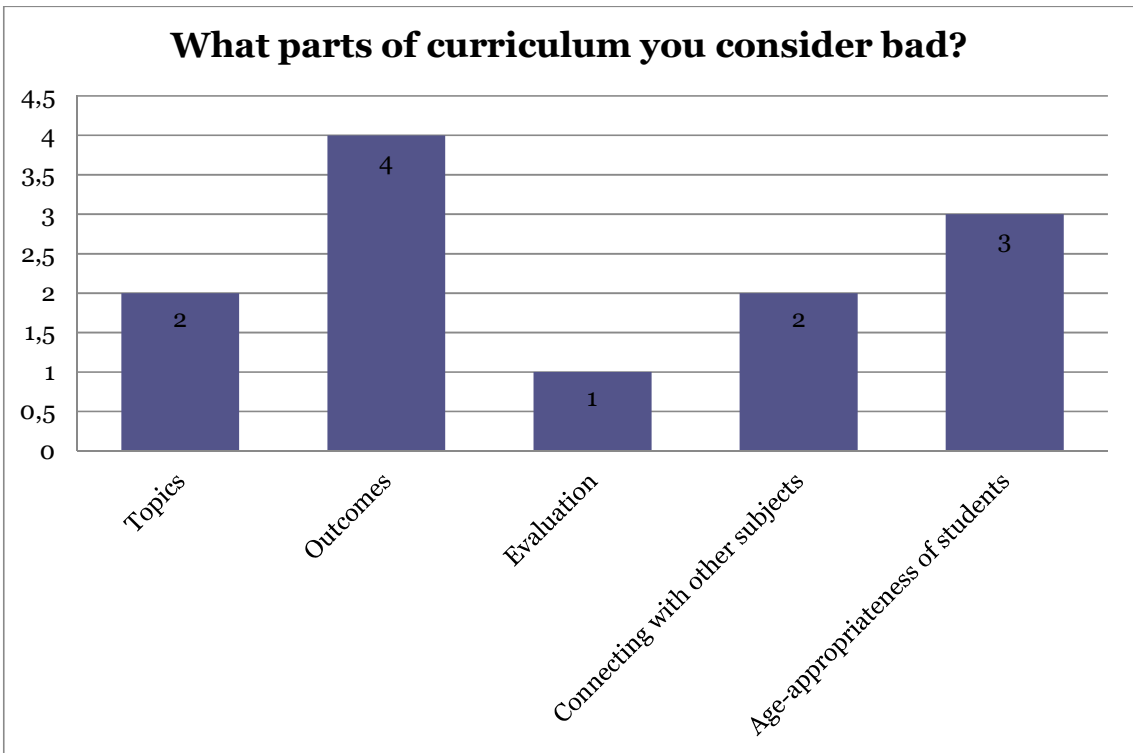
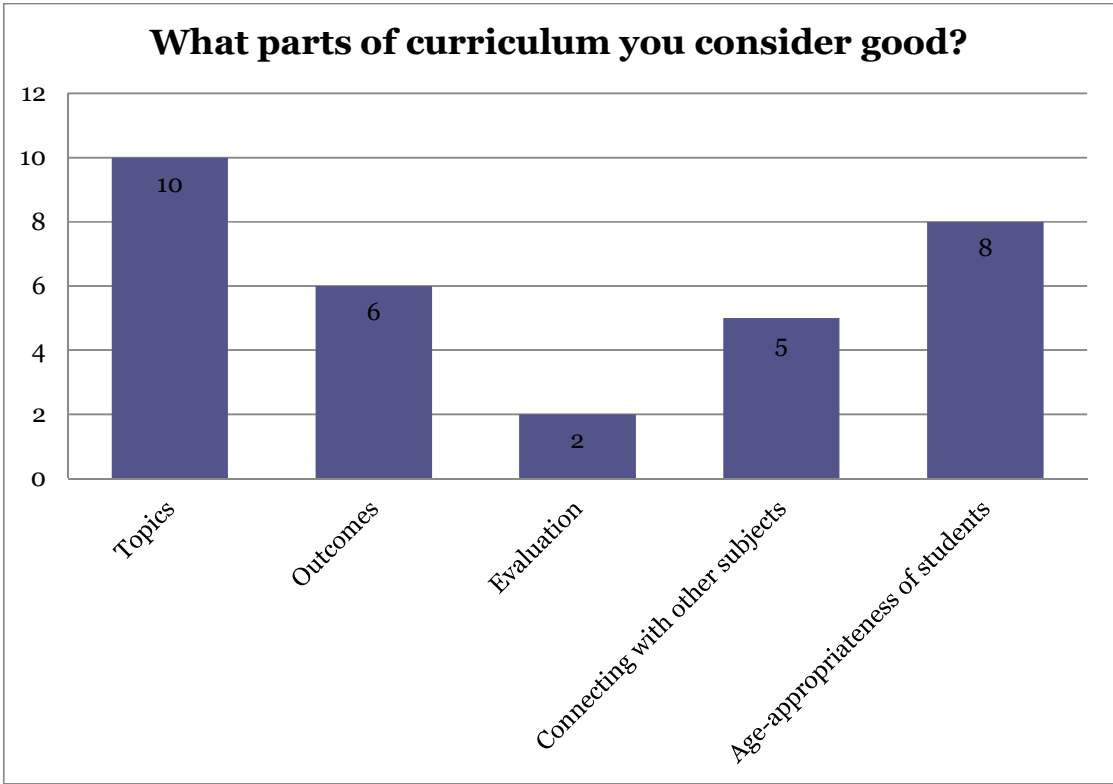
Medium grade is 4.56.

Which area / topic of the curriculum (programme of study) gives you the most problems?

- Students have mostly answered none.
- Several have answered that it is working on new applications for design like Illustrator and Photoshop, so they probably did not understand the question.

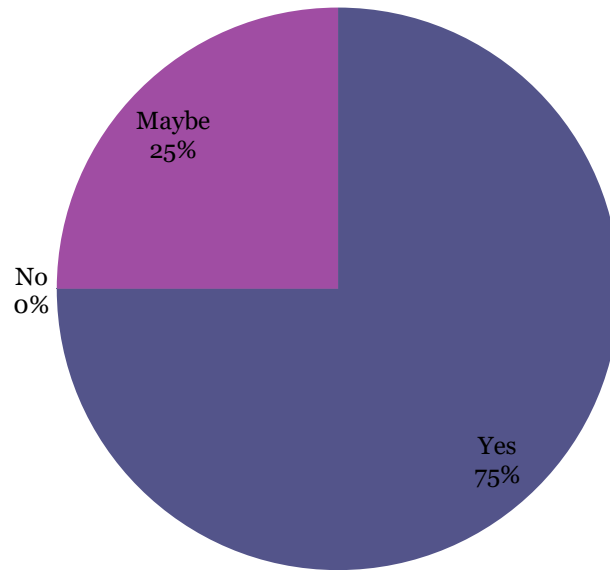
Why?

- Considering that majority of students answered that they do not have problems with curriculum there are not many of them who answered this question
- Several have answered that it is too hard for them



Several students have answered that there are no bad parts of the curriculum.

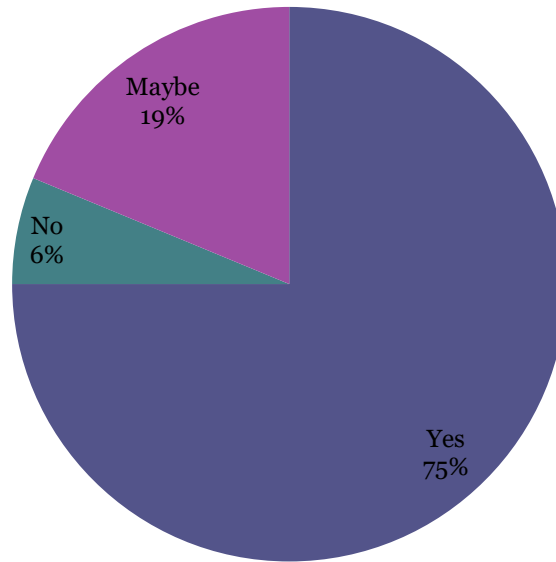
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- Several students have answered that they are not sure about it, because they do not know about other aspects of the curriculum

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

- Student have answered that he would like to know about real standards in graphic design, probably thinking about real world opportunities regarding graphic design

What new would you like to learn in school?

We could divide most students' answers into two parts:

- One part said that they would like to learn about new opportunities in business regarding graphic design and about the process of finding and applying for a job
- Another part said that they would like to learn to work in graphic design applications
- Several of the other students said that they would like to know more about the process of making books and printing

3.1.3. Survey for teachers

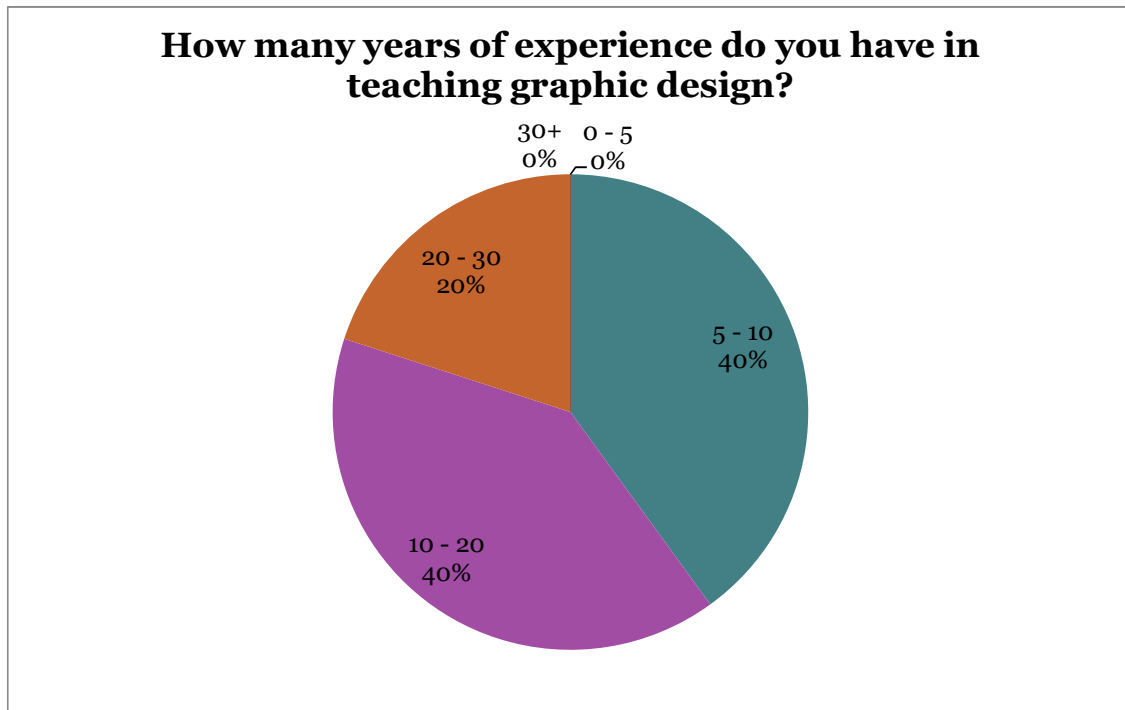
In all schools, a survey was conducted with graphic design teachers using the Forms digital tool.

In this report, we highlight the key answers of the teachers that we believe are important for the analysis of the curriculum.

3.1.3.1. Croatia

There are two design teachers working at the School of Fine Arts, Split, and the survey was completed by computer teachers (2) and a professional associate pedagogue of the School.

We highlight the most important answers for curriculum analysis.



When was the graphic design curriculum written in your country?

- Teachers have mostly answered correctly

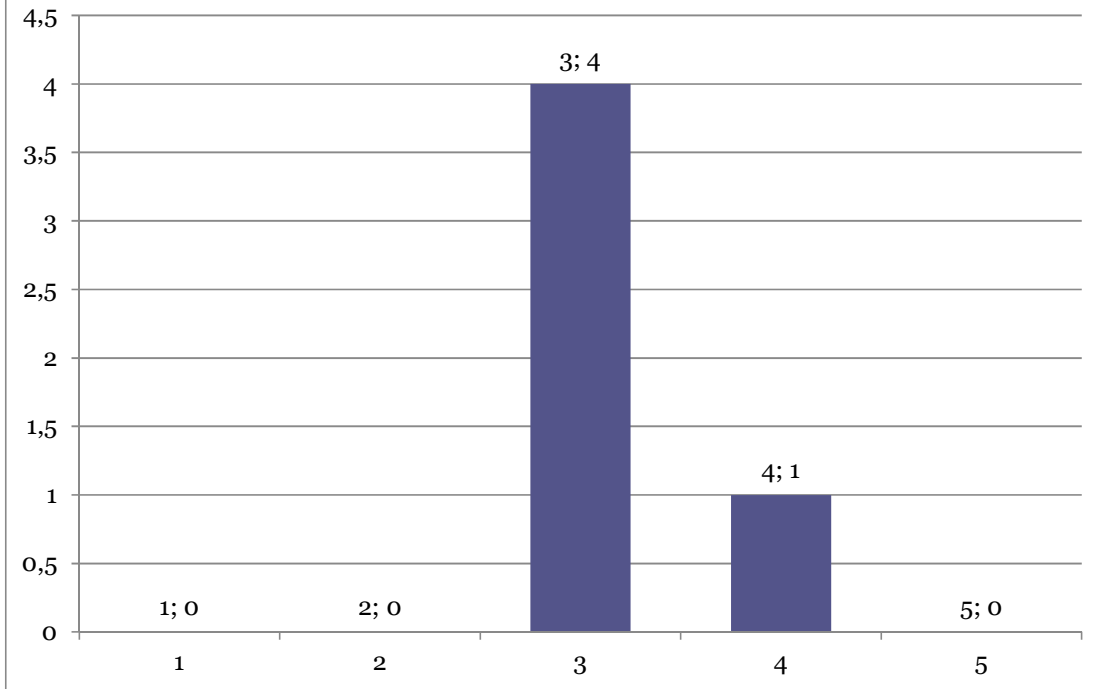
Which area / topic of the curriculum (programme of study) gives you the most problems?

- Teachers said that digital tools and most of the new techniques give them problems
- Also few said that they are not sure

Why?

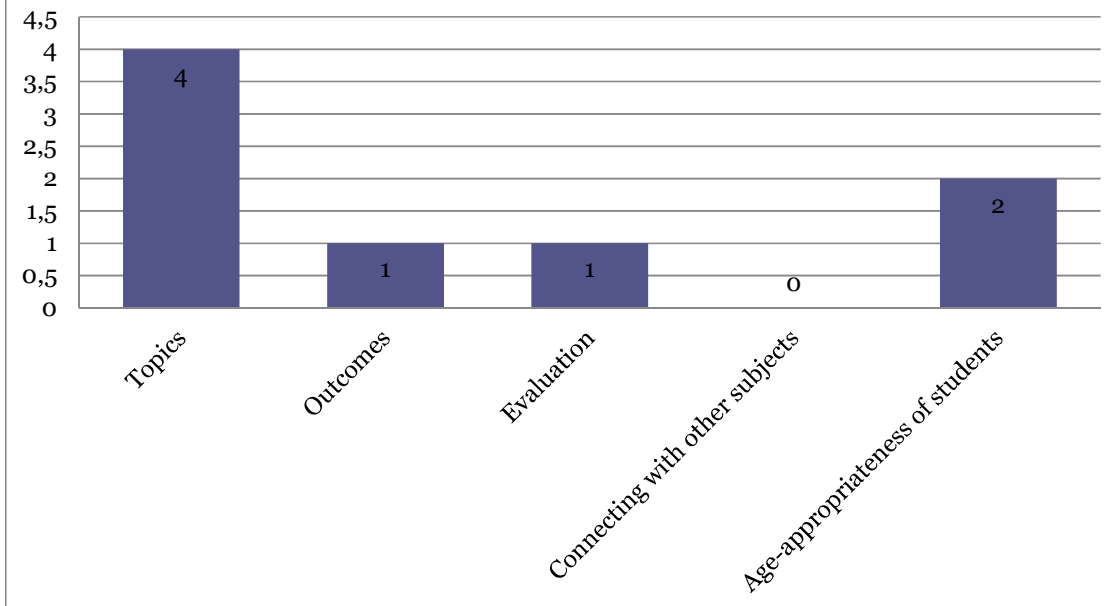
- They are used to some different techniques of working with students, note that most of them are educated in times when computers are rarely used for design

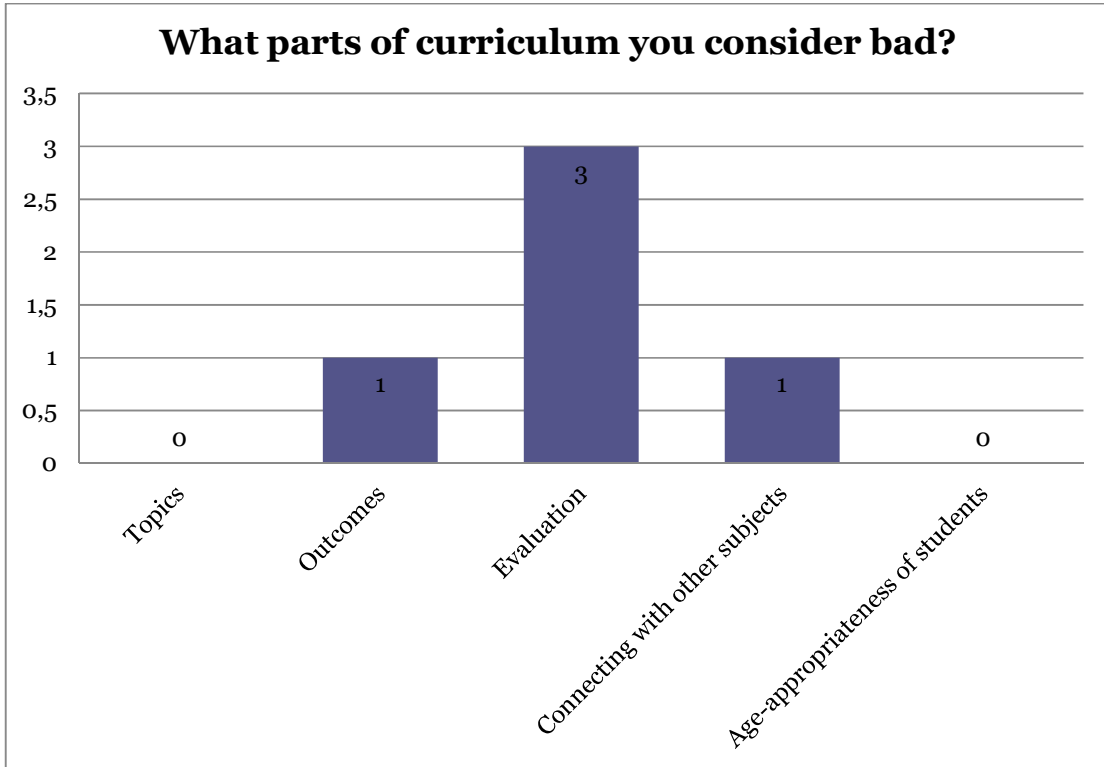
How would you grade curriculum (programme of study) from 1 to 5 (5 is the maximum)?



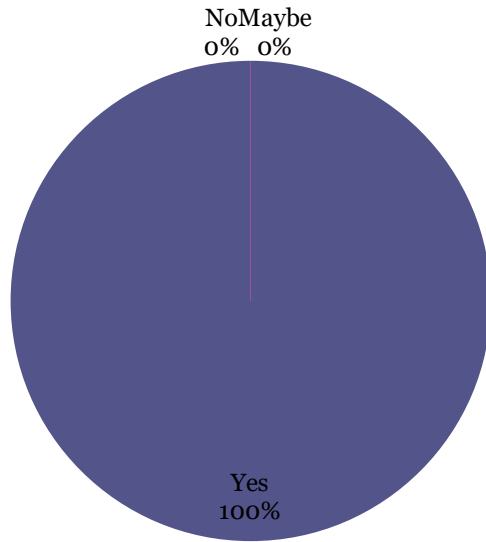
Medium grade is 3.2.

What parts of curriculum you consider good?

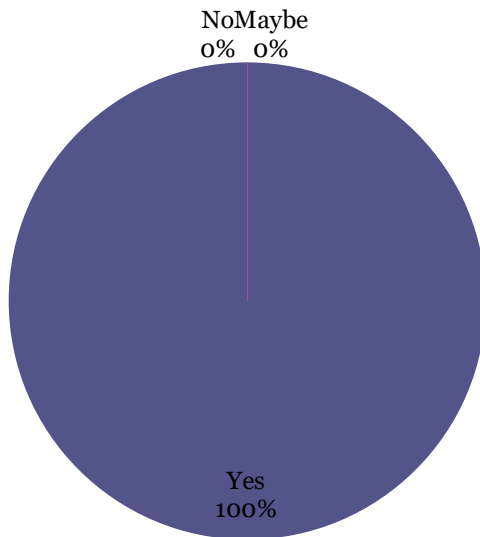




Does the curriculum provide enough knowledge about graphic design?



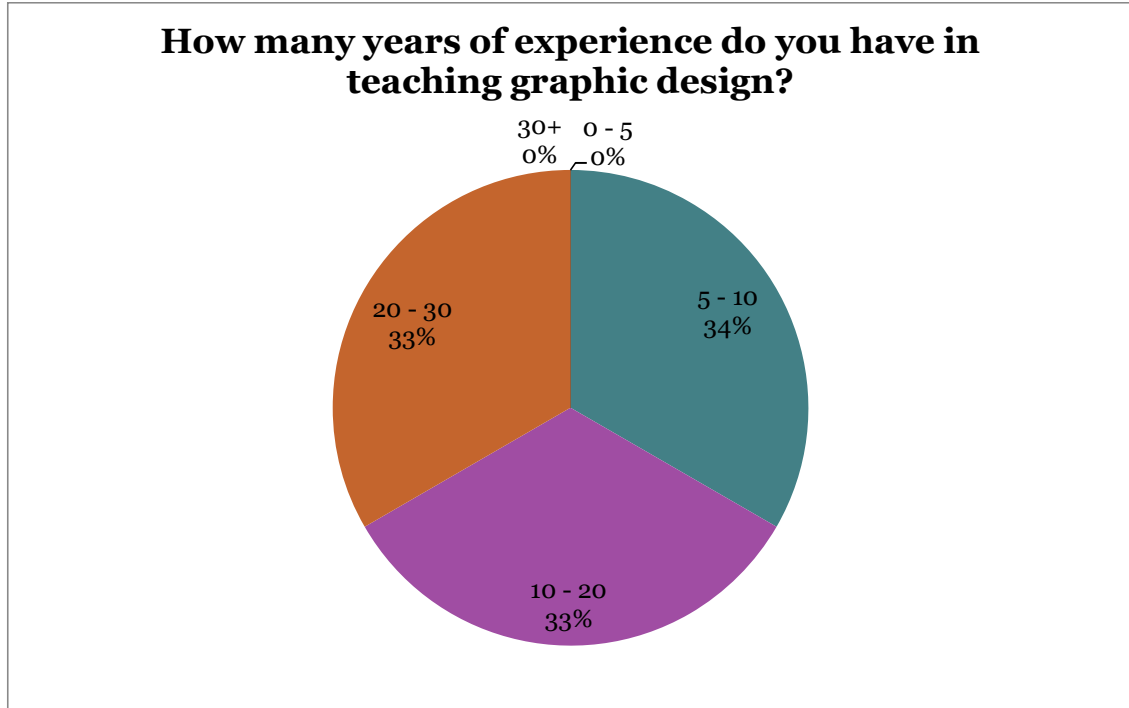
Does the curriculum provide enough skills in graphic design?



If you had a chance to add something to your curriculum to adapt it to modern graphic design, what would it be?

- Most of the teachers would very much like to introduce animation and web design classes to the curriculum
- Modernization of the way of working, approach to design and as many specific tasks as possible through which the student as a young designer would gain knowledge, experience and skill.
- Greater education of teachers with modern graphic computer programs for design and introduction of a special subject within informatics that would deal with training students to work in those programs.

3.1.3.2. Portugal



When was the graphic design curriculum written in your country?

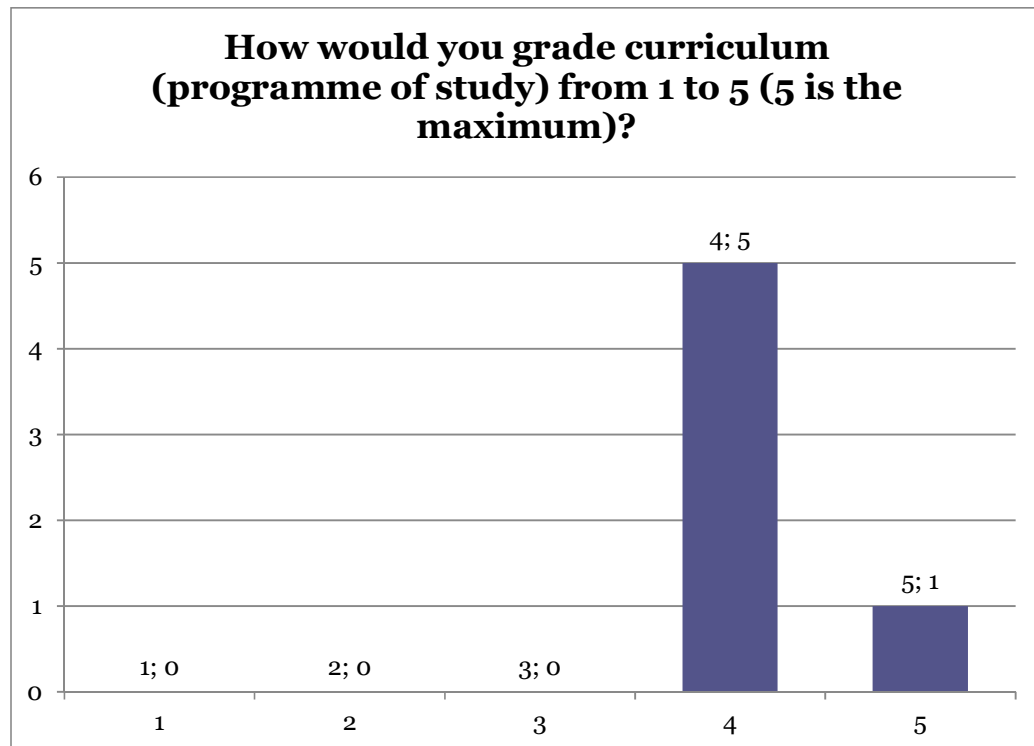
- Teachers have answered differently, which means that they do not have enough information about it or that they are not sure

Which area / topic of the curriculum (programme of study) gives you the most problems?

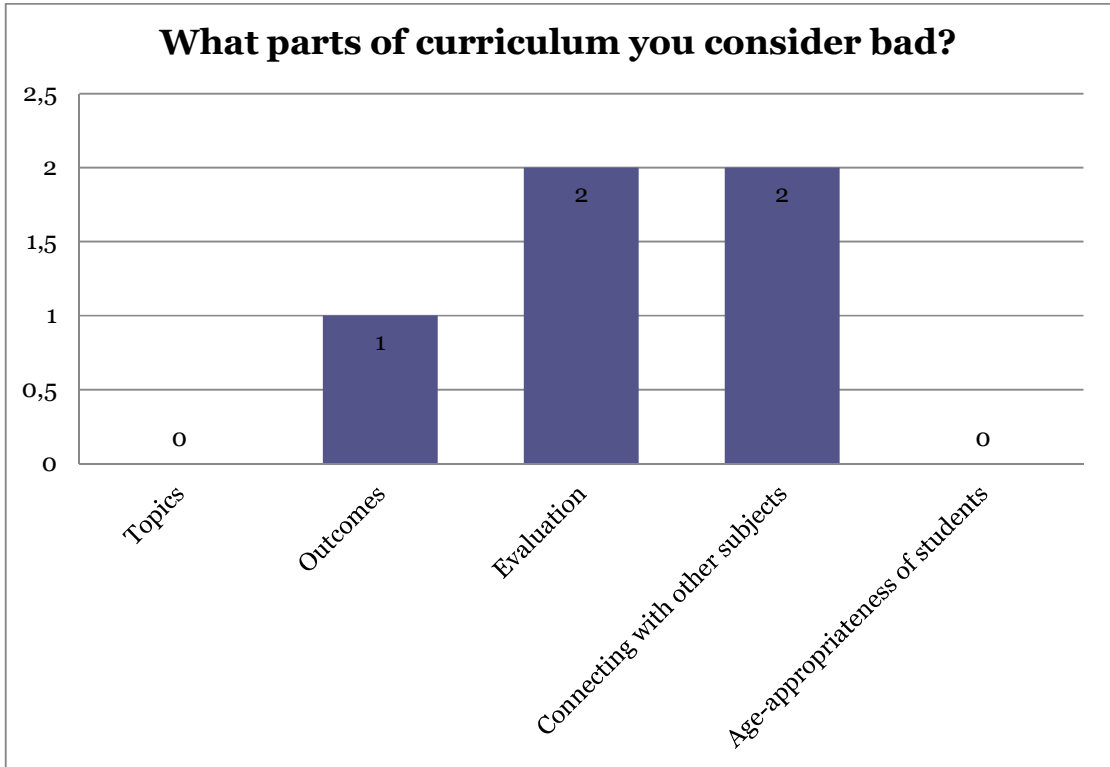
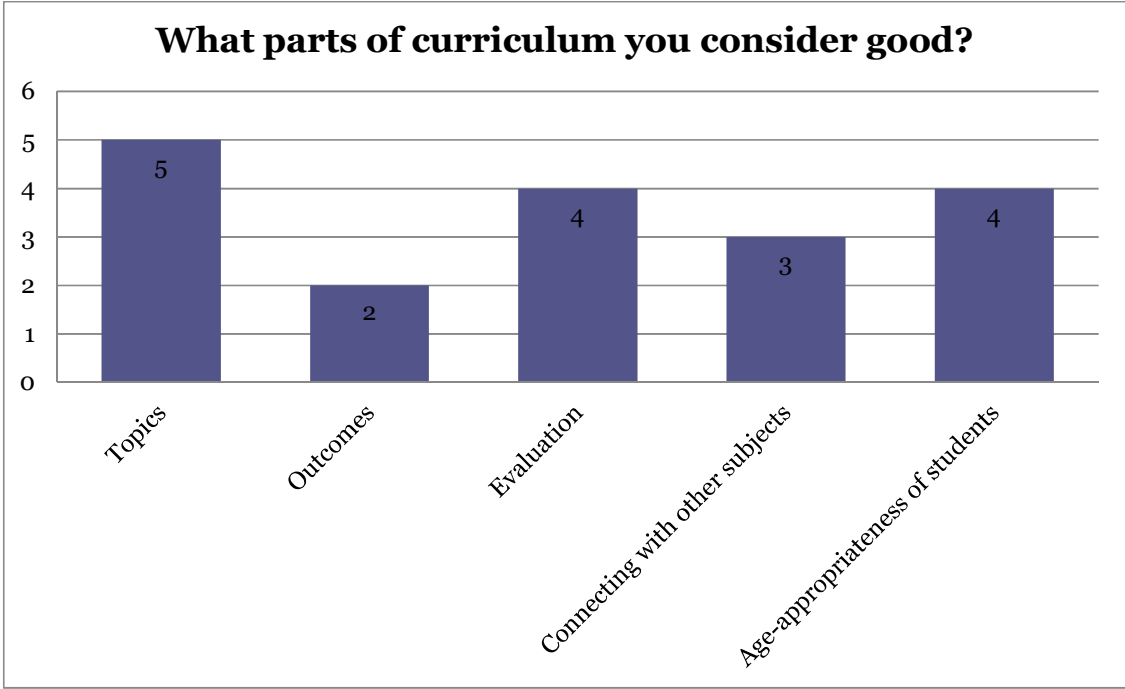
- Printing
- Maybe the exploration of the potential of typography
- 3D modeling
- Project development

Why?

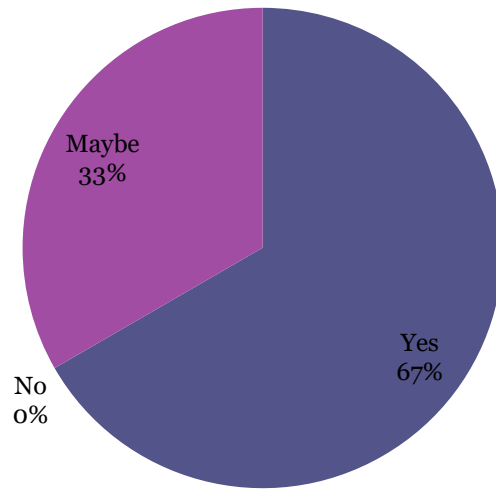
- Teachers said that it is standard for teachers to be constantly improving. Sometimes there is not enough time for that
- Also the best way of teaching is to learn from mistakes and usually there is not enough time



Medium grade is 4.17.



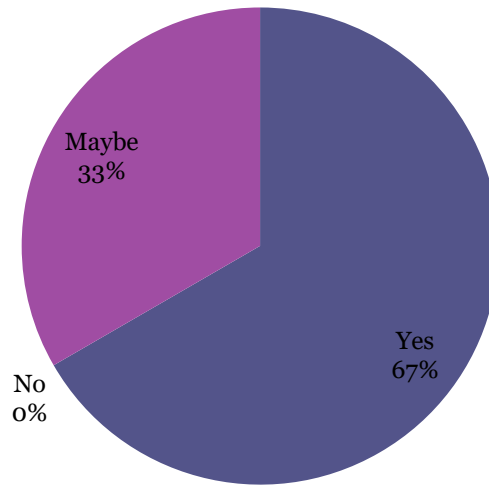
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- Teachers said that there is not enough time for students to use that knowledge and to apply it in practice
- One of the teachers said that there is always something new to discover and that they cannot manage to include everything

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

- The answers are the same as in the previous question, lack of time and too much of everything you should involve in the curriculum

If you had a chance to add something to your curriculum to adapt it to modern graphic design, what would it be?

- A better approach to the digital side of this area. Creating content not just for paper but for other media as well
- "Maybe alternative techniques of print"
- "More manual experimentation. Without fears. Creative freedom"

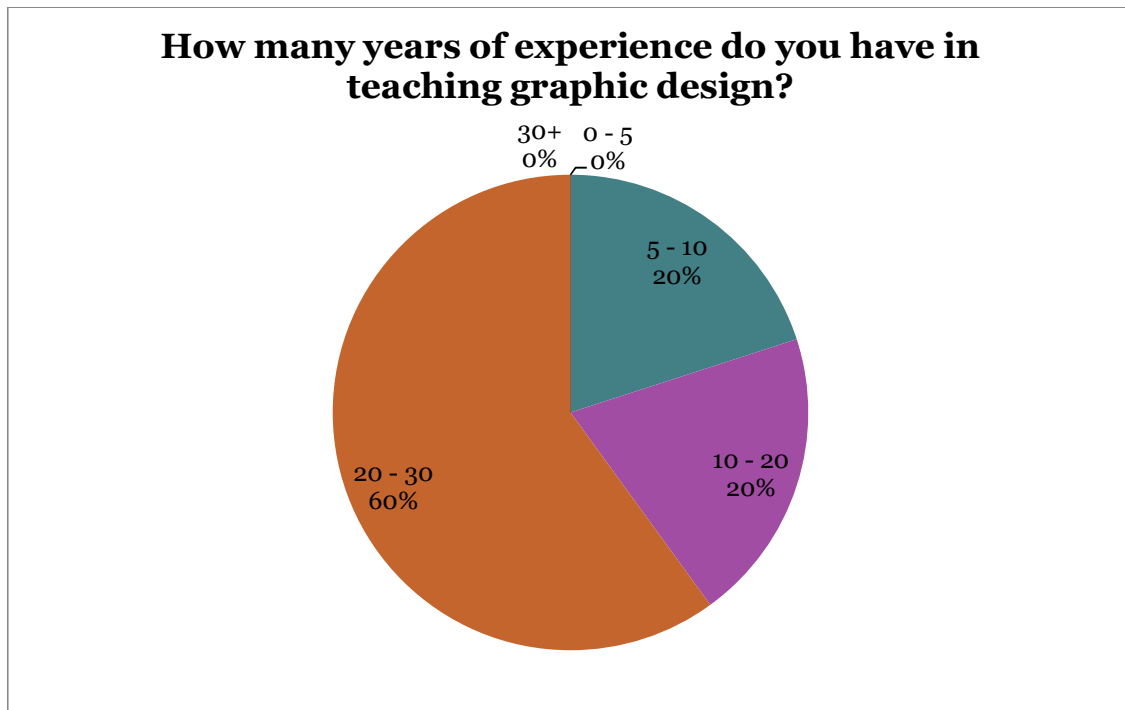
3.1.3.3. Slovenia

In all schools, a survey was conducted with graphic design teachers using the Forms digital tool.

In this report, we highlight the key answers of the teachers that we believe are important for the analysis of the curriculum.

There are three graphic design teachers employed at SPTŠ (Vocational and Technical Secondary School) Murska Sobota, and the survey was also completed by a teacher of art theory and art history (which is also a specialist subject in the program) and drawing. 5 teachers teach professional subjects in the graphic design program

We highlight the most important answers for the curriculum analysis.



When was the graphic design curriculum written in your country?

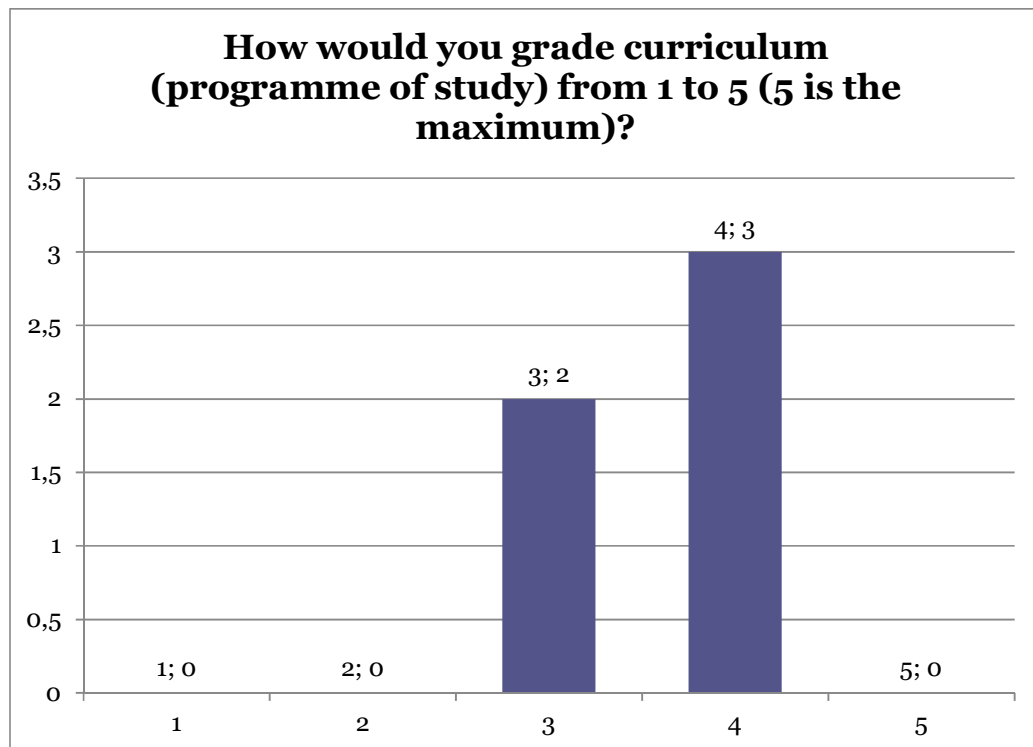
- The renewed program for graphic design within the framework of design techniques was approved at the 2006 expert council. Teachers have mostly answered correctly.

Which area / topic of the curriculum (programme of study) gives you the most problems?

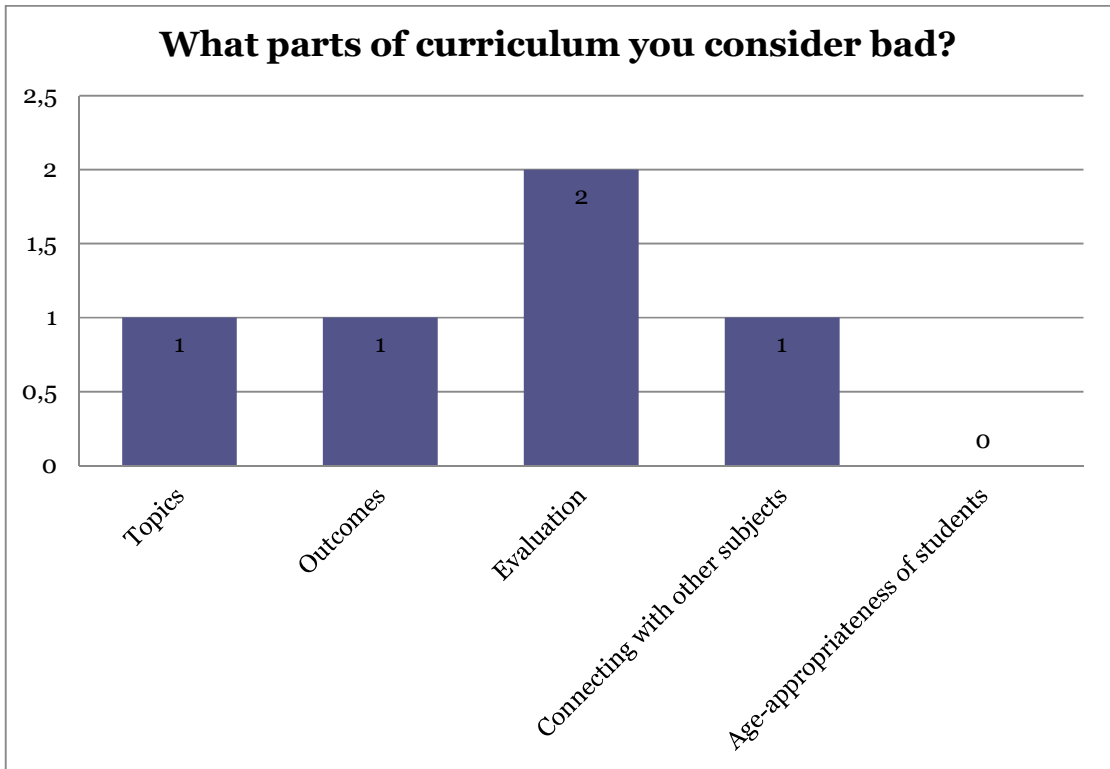
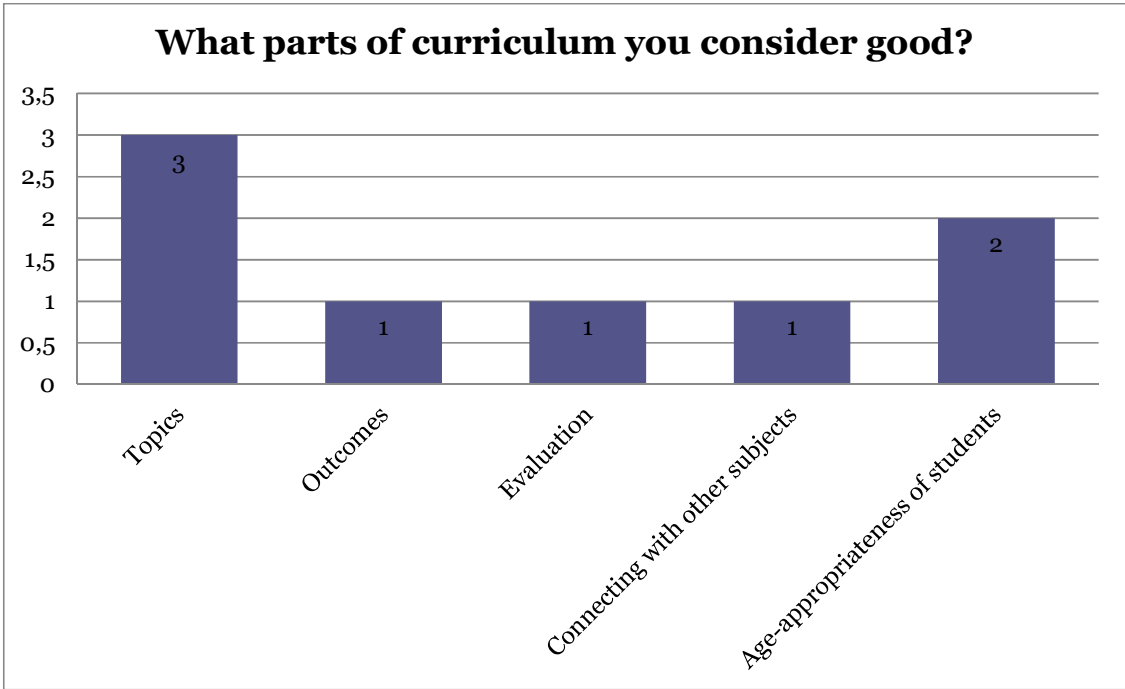
- Since graphic design on computers changes very quickly, the teachers explained that new things and familiarization with them cause them problems due to lack of time.

Why?

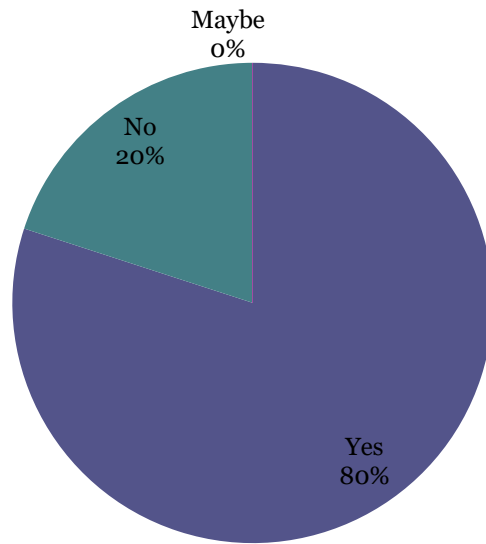
- They are used to different techniques of working with students. Students have to adopt different programs for work, technology is advancing, and the school does not have the opportunity to buy all the innovations that students get to know when they go to practice in design studios.



Medium grade is 3.6.



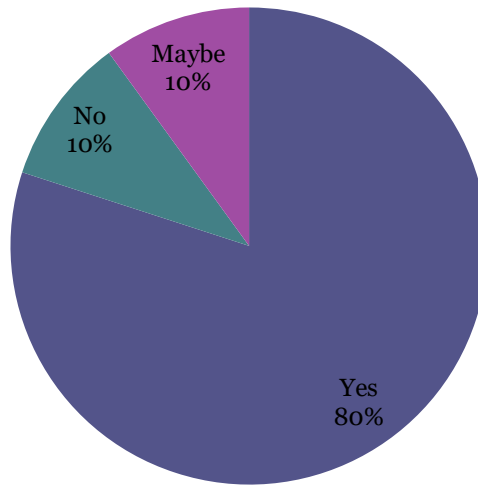
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- Teachers said that there is not enough time for students to use that knowledge and to apply it in practice

Does the curriculum provide enough skills in graphic design?



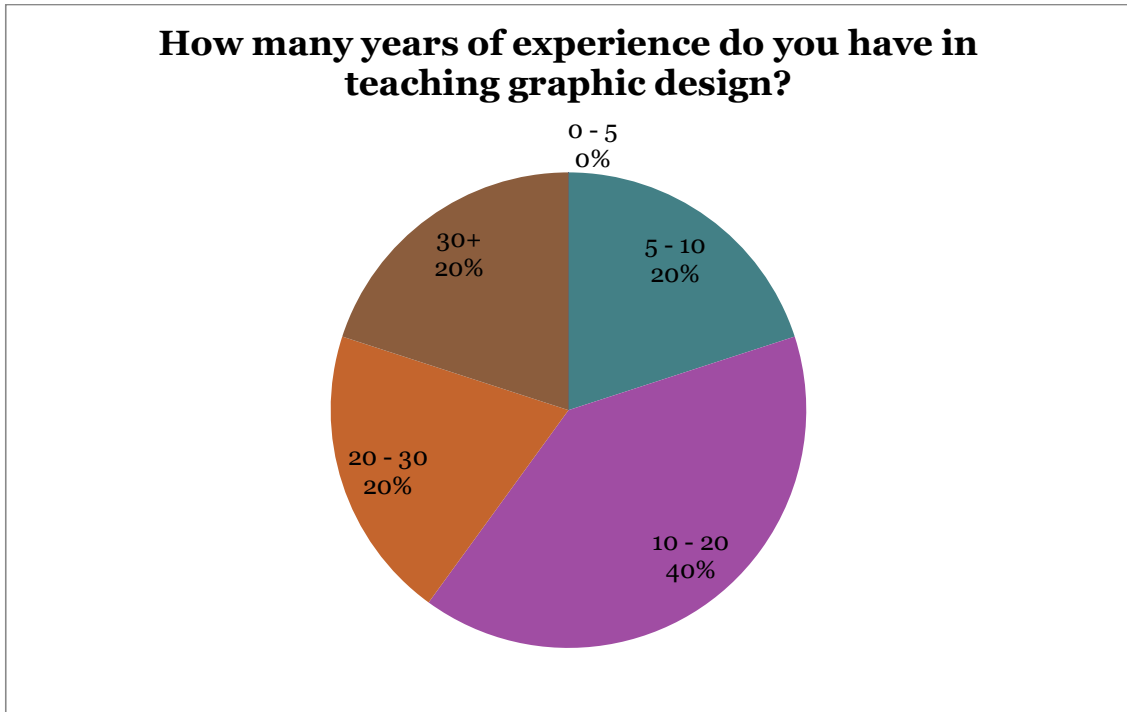
If the answer is "no" and "maybe" - why?

- The answers are the same as in the previous question, lack of time and too much of everything you should involve in the curriculum

If you had a chance to add something to your curriculum to adapt it to modern graphic design, what would it be?

- Updating the way of working, the approach to design and as many specific tasks as possible, through which the student as a young designer would gain knowledge, experience and skills.
- Greater education of teachers with modern graphic computer programs for the design and introduction of a special subject within informatics, which would deal with training students to work in these programs.
- visiting various design studios and introducing students to the diverse work in a design studio
- lectures by renowned designers in the field of graphic design

3.1.3.4. Serbia



When was the graphic design curriculum written in your country?

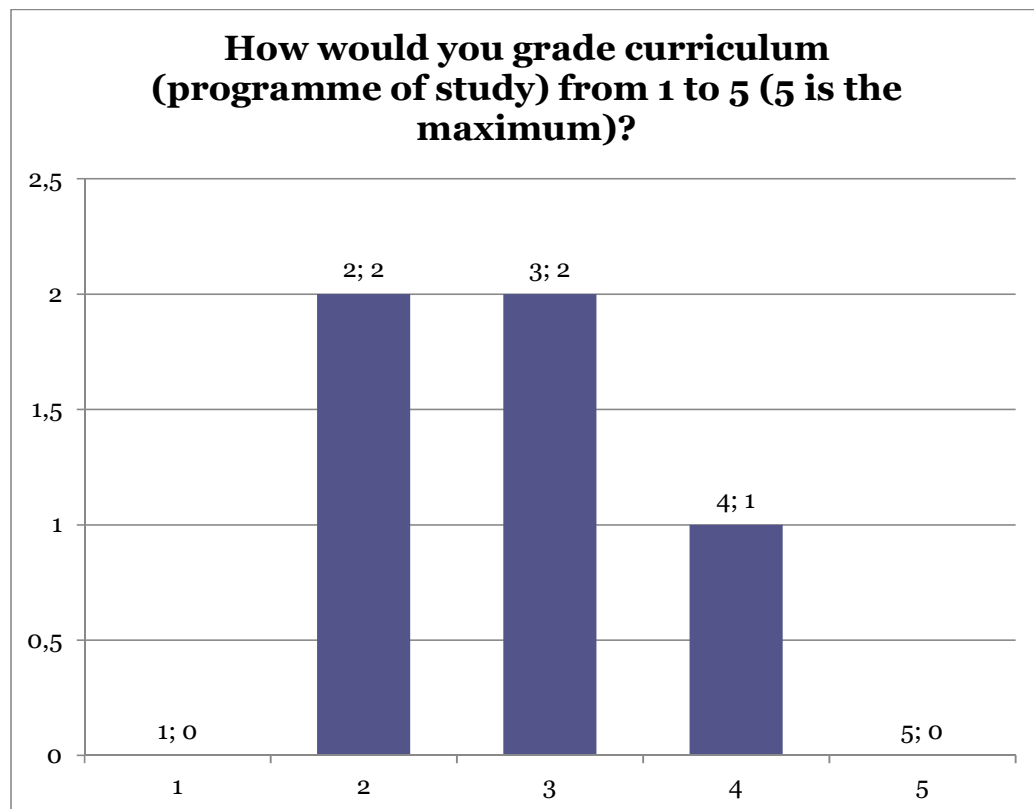
- Teachers have answered correctly that it is older than 30 years
- Also there are some who answered correctly that photography is about 9 years old

Which area / topic of the curriculum (programme of study) gives you the most problems?

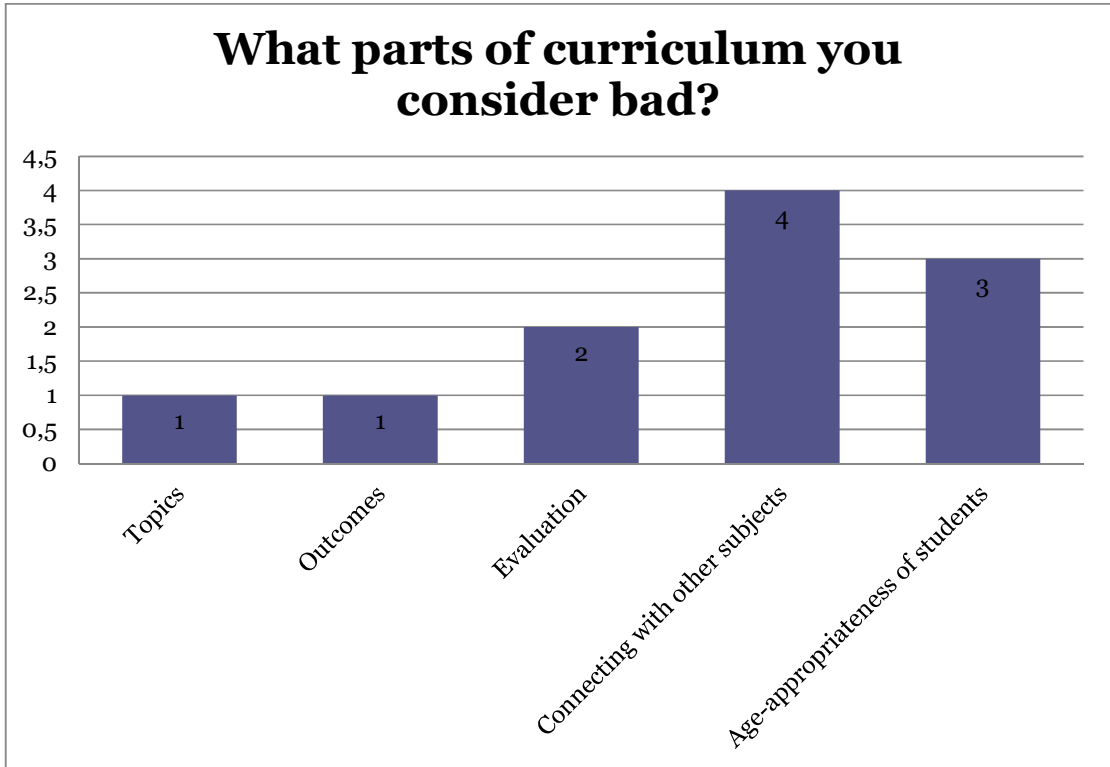
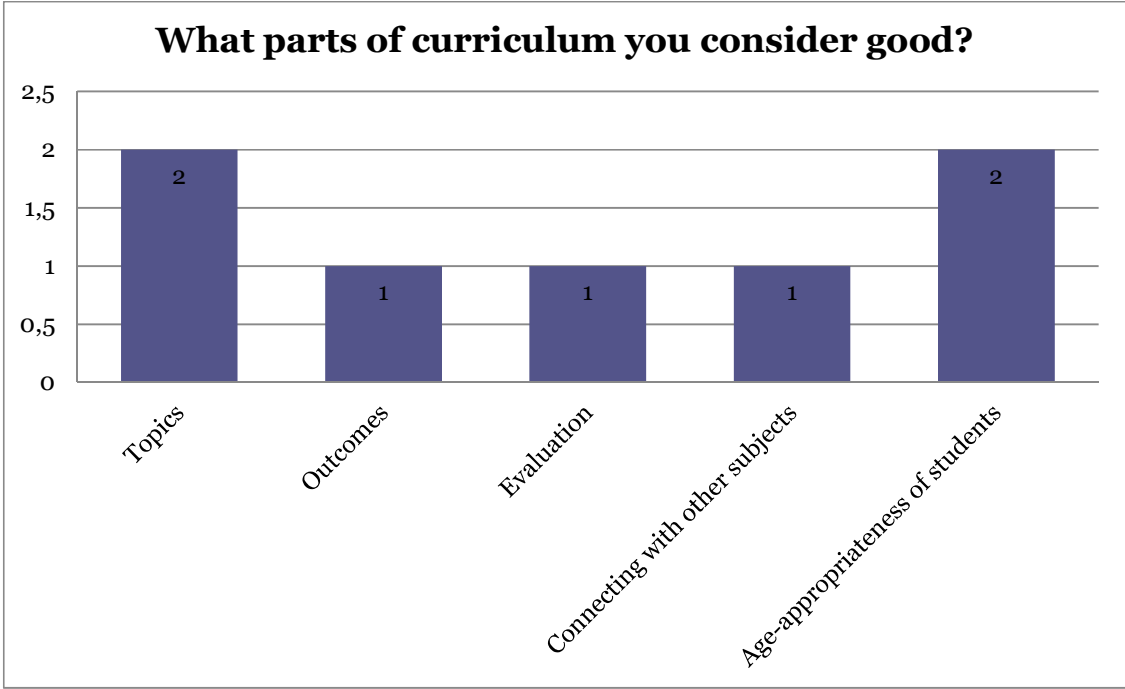
- Teachers said that the problem is that the curriculum is too old
- Few have answered that they don't have a problem with the curriculum

Why?

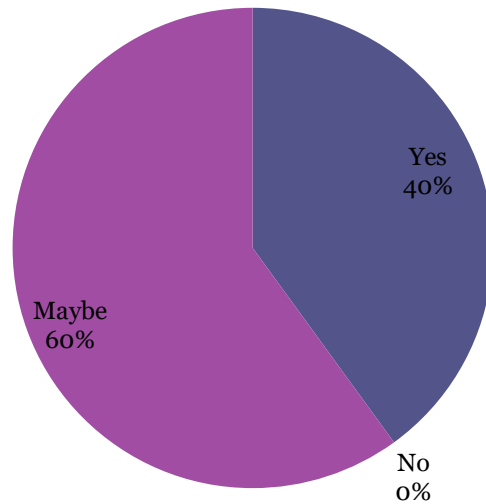
- Teachers said that because it is old it doesn't follow what is new in business and to stay relevant you need to be updated with new trends in graphic design



Medium grade is 2.8.



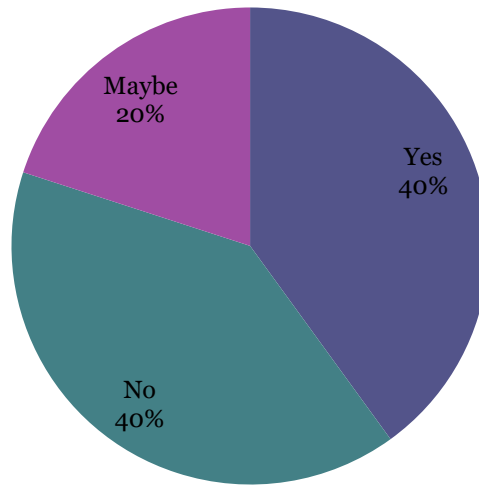
Does the curriculum provide enough knowledge about graphic design?



If the answer is "no" and "maybe" - why?

- The curriculum itself is not adapted to the students, but it is up to the teacher to adapt the topics to the students. In case the student wants to learn something from the textbook, it is not possible.

Does the curriculum provide enough skills in graphic design?



If the answer is "no" and "maybe" - why?

- Obsolescence, and inadequacy in setting goals, because design in high school is, in addition to the art that should be represented, also a craft, which implies constant work in adequate software and practical work that should be connected with printing houses or companies
- "I think it is impossible to be competitive today in the field of graphic design without knowledge of working in graphic and web design applications"

If you had a chance to add something to your curriculum to adapt it to modern graphic design, what would it be?

- Modernization of the way of working, approach to design and as many specific tasks as possible through which the student as a young designer would gain knowledge, experience and skill.
- Greater education of teachers with modern graphic computer programs for design and introduction of a special subject within informatics that would deal with training students to work in those programs. More of the practical part of the program and just a basic introduction to analog photography. Basing on digital photography and working on specific practical topics
- It includes subject Informatics with adapted topics and content for the field of graphic design

3.1.4. Focus groups

The use of the focus group method as a qualitative form of research is a key source of analysis and interpretation - the interaction between respondents.

Participants of the focus group clarify the possibilities, ways and methodology of problem research.

Application in scientific practice, which is increasingly common, after decades of successful application for market research purposes, especially in marketing and public relations. In the social sciences, it is mostly used as a complementary method, that is, as a complement to related methods, and as a method for pretesting and operationalizing research instruments. Focus groups can be used to deeply explore reasons, attitudes, values, motives, meanings, beliefs...

3.1.4.1. Croatia

In the focus group of the School of Fine Arts, Split, all the teachers of graphic design participated, two teachers: Željka Milošević Paro and Višnja Orlić Mach, two computer teachers: Damir Žitko and Josip Špika, and the professional associate pedagogue Aleksandra Dužević.

After looking at the results of the SWOT analysis and surveys, we came up with a new and improved graphic design curriculum. This curriculum meets all the needs of our School, students and the modern world of work.

See the result of our Focus Group.

NEW CURRICULUM OF GRAPHIC DESIGN
School of Fine Arts, Split, Croatia
THE SUBJECT OF GRAPHIC DESIGN – FIRST YEAR
BASIC LEVEL

The main idea of the curriculum is that students should go through the same content every year, but with varying intensity. In the first year, the students would go over all the content on a surface level, but would go into more detail each subsequent year.

Teachers need to educate themselves in the usage of new digital tools and design programs (InDesign, Photoshop, Illustrator...)

NO.	TOPIC	OUTCOMES
1	Typography	- develops aesthetic impressions and expressions with words and texts

2	Visual identity, book of standards	<ul style="list-style-type: none"> - analyzing market examples - offers conceptual solutions - assesses options and recommends the best option - creates the final solution: book of standards
3	Illustration: <ul style="list-style-type: none"> - books for children - books for adults 	<ul style="list-style-type: none"> - selection of and work on a specific book - technical blueprint - preparation for printing
4	Visual communication design <ul style="list-style-type: none"> - newspapers - packaging labels - posters 	(sketch creation) <ul style="list-style-type: none"> - analyzing market examples - offers conceptual solutions - assesses options and recommends the best option - creates the final solution: book of standards - presenting the events (text and image)
5	Visual Narrative: <ul style="list-style-type: none"> - story board - comic - animation - interactive media 	(sketch creation) <ul style="list-style-type: none"> - analyzing market examples - offers conceptual solutions - assesses options and recommends the best option - creates the final solution: book of standards - presenting the events (text and image)

**SECOND YEAR OF LEARNING THE COURSE SUBJECT GRAPHIC
DESIGN
INTERMEDIATE LEVEL**

NO.	TOPIC	OUTCOMES
1	Typography	- builds a personal aesthetic experience and expression using letters-text

2	Visual identity, book of standards	<p>analyzes examples on the market;</p> <ul style="list-style-type: none"> - reviews and creates several conceptual solutions; - evaluates and proposes the best option, creates the final solution - a book of standards
3	<p>Illustration:</p> <ul style="list-style-type: none"> - A picture book - a book for children - a book for adults 	<p>(typographic and artistic design of the cover)</p> <ul style="list-style-type: none"> - Selection and work on a particular book - Technical drawing - Fracture - preparation for printing
4	<p>Design of visual communications:</p> <ul style="list-style-type: none"> - Poster; - Newspaper page break (comic) -Packaging (Redesign; Product design; production of promotional packaging related to the project) 	<p>(legalities, drafting and execution)</p> <p>analyzes examples on the market;</p> <ul style="list-style-type: none"> - reviews and creates several conceptual solutions; - evaluates and proposes the best option, creates the final solution <p>display events (text and image); the work should be attractive, legible, and the most important parts emphasized (color, size...)</p>
5	<p>Visual Narrative:</p> <ul style="list-style-type: none"> -Story board; -Comic book; -Animation (classic, digital); -Interactive media (eg video games) 	<p>analyzes examples on the market;</p> <ul style="list-style-type: none"> - reviews and creates several conceptual solutions; - evaluates and proposes the best option, creates the final solution <p>display events (text and image); the work should be attractive, legible, and the most important parts emphasized (color, size...)</p>

**THIRD YEAR (FINAL) OF GRAPHIC DESIGN
HIGHER LEVEL**

NO.	THE THEME	OUTCOMES
1	Typography	- builds a personal aesthetic experience and expression using letters-text
2	Visual identity, book of standards	analyzes examples on the market; - reviews and creates several conceptual solutions; - evaluates and proposes the best option, creates the final solution - a book of standards
3	Illustration: - A picture book - a book for children - a book for adults	(typographic and artistic design of the cover) - Selection and work on a particular book - Technical drawing - Fracture - preparation for printing
4	Design of visual communications: - Poster; - Newspaper page break (comic) -Packaging (Redesign; Product design; production of promotional packaging related to the project)	(legalities, drafting and execution) analyzes examples on the market; - reviews and creates several conceptual solutions; - evaluates and proposes the best option, creates the final solution display events (text and image); the work should be attractive, legible, and the most important parts emphasized (color, size...)
5	Visual Narrative: -Story board; -Comic book; -Animation (classic, digital); -Interactive media (eg video games)	analyzes examples on the market; - reviews and creates several conceptual solutions; - evaluates and proposes

		the best option, creates the final solution display events (text and image); the work should be attractive, legible, and the most important parts emphasized (color, size...)
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3.1.4.2. Portugal⁵⁶

At Soares dos Reis School of Arts the focus group was held with three graphic design teachers (Daniela Marqueiro, Pedro Teixeira and Susana Queirós), two webdesign teachers (Alexandre Martins and Agostinho Serra).

In an initial phase, the group analyzed the results of the surveys and the SWOT analysis. It should be noted that this group has been developing a continuous work of updating and improving the official curriculum.

In Portugal, schools have the autonomy to adapt official programs to their reality.

As an example, the official curriculum included several projects in the area of multimedia (cd-roms, dvds, etc). Recently, professors from the communication design department decided that this area is obsolete and that it should be updated to address web design content.

In this sense, the group's proposal for the planning and implementation of the curriculum is as follows.

1st YEAR communication design

(6h/week)

GRAPHIC DESIGN 1st term

1. an intro to graphic design	areas of action; project methodologies, tools and practices; project evaluation criteria.
2. vector drawing	infographics; color theory; shapes. Adobe Illustrator; tools; file saving and export formats.
3. typography	anatomy of the type; uppercase and lowercase; typographic groups and families; sizes and characteristics; typographic weights; kerning; leading; emphasis and hierarchy; composition; power of contrasts.

⁵ Morgan, D.L. (1997) Focus Groups as Qualitative Research. Sage Publications, Thousand Oaks.

⁶ Santos, Cristina. (2017) Grupos focais: uma reflexão metodológica. CIES e-Working Paper N.º 211/2017, Lisboa, Centro de Investigação e Estudos de Sociologia, Instituto Universitário de Lisboa.

4. visual identity	
4.1 the graphic composition	visual Identity functions; problems of recognition and memorization; coherence, rhythm and originality; application in different supports; organization of graphic elements in a delimited space: shapes, lines, text.
4.2 the shape	visual meaning of shapes; composition and scale.
4.3 the typography	visual weight; metric and optical spacing; typographic selection.
4.4 the color	color as visual code; CMYK, RGB and Pantone colors.

GRAPHIC DESIGN 2nd term

1. layout an publication	
1.1 paper sizes and grids	formats; books; margins, bleeds; composition grids.
1.2 text processing	hierarchy; type size and readability; columns and gutter; alignment; tracking; kerning; leading; paragraphs and hyphenation; color as a readability factor.
1.3 image	proper choice of images; bitmap image resolution; bitmap image color system.
1.4 adobe indesign	
1.5 introduction to adobe photoshop	

GRAPHIC DESIGN 3rd term

1. poster design	
1.1 the graphic architecture	formats; structures; grids; composition.
1.2 typography	typography families; type size; measures; hierarchies.
1.3 color	color as a communication tool.
1.4 image	hand and digital drawing;

2nd YEAR graphic design and technologies

(12h/week)

DESIGN PROJECTS 1st term

1. visual syntax	addition; subtraction; proportion contrast; filled and contoured shapes; symmetrical and asymmetrical shapes; geometric and organic shapes positive and negative forms; fragmentation, radiation and distortion; textures and patterns; organization of graphic elements in a delimited space.
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2. color	color circle with primary, secondary and tertiary colors; quality, quantity, saturation and mixed contrasts; cool and warm colors.
3. visual identity project	
3.1 the graphic composition	visual Identity functions; problems of recognition and memorization; coherence, rhythm and originality; application in different supports; organization of graphic elements in a delimited space: shapes, lines, text.
3.2 the shape	visual meaning of shapes; composition and scale.
3.3 the typography	visual weight; metric and optical spacing; typographic selection.
3.4 the color	color as visual code; CMYK, RGB and Pantone colors.
3.5 stationery	letter paper, envelope and personal card.
3.6 guidelines of visual identity	logo; articulations; monochrome version and high contrast; positive and negative; geometric construction; minimum size; exclusion area; chromatic code; typographic code; applications and other graphic supports of the logo.
4. poster design	
4.1 the graphic architecture	formats; structures; grids; composition.
4.2 typography	typography families; type size; measures; hierarchies.
4.3 color	color as a communication tool.
4.4 image	hand and digital drawing;
4.5 adobe photoshop	

DESIGN PROJECTS 2nd term

1. layout an publication	
1.1 paper sizes and grids	formats; books; margins, bleeds; composition grids.
1.2 text processing	hierarchy; type size and readability; columns and gutter; alignment; tracking; kerning; leading; paragraphs and hyphenation; color as a readability factor.
1.3 image	proper choice of images; bitmap image resolution; bitmap image color system.
1.4 adobe indesign	
1.5 adobe photoshop	

INTERNSHIP 2nd term

3.1.4.3. Slovenia

At the Secondary Vocational and Technical School (SPTS) Murska Sobota Slovenia, the analysis took place with three graphic design teachers (Tanja Horvat, Sandi Červek and Teja Kodela), art theory teacher Cvetka Hojnik and drawing teacher Mirko Rajnar. In the initial phase, the team analysed the results of surveys and SWOT analysis.

Graphic design lessons follow the educational program approved by the expert council in 2006. Teachers of professional subjects from all schools with graphic design programs participated in the renewal of the program. After renewal the program and analysing the surveys, a group of teachers in the professional design techniques program found that the program needs renewal. In Slovenia, schools work according to publicly valid educational programs, and during the hours of the open curriculum, they can adapt the curriculum to the needs of the students.

Open curriculum lessons are currently in 3rd and 4th year. In the 4th year, they are intended for final assignments.

In this sense, the proposal of the group for the planning and implementation of the curriculum is as follows. The work is done on a project basis. Students solve the task from idea to finished product. Each student approaches the task individually, each student has the teacher's corrections individually. All projects are also connected to the subject of art theory.

Based on all the results, we came to the following conclusions:

- a digital graphic design manual is required
- it is necessary to modernize its curricula
- the curricula generally do not match, but there are common points of all the curricula
- we considered the needs of our school
- we considered what other schools could offer to our school
- we brought a selection of content that our school can offer for the digital manual
- we agreed on the form of the manual

1 YEAR graphic design and practice
(7 hours/week, 4 hours of practice, 3 hours of theory)

Introduction to the fields of graphic design	project methodology, tools and practices; project evaluation criteria.
Outline and outlined art elements	Point, line, light-dark
Designing endless patterns	Ornaments, patterns, frames
Vector drawing infographics	color theory; forms, surface, space
Adobe Illustrator tools	formats for saving and exporting files
Typography	Uppercase and lowercase typography;

	typographic groups and families; sizes and characteristics; light – dark, density
The letter and its 3D	Uppercase or lowercase letters; typographic groups and families; letter sizes and properties; light - dark, density, design of different textures
Designing your own typography	Texture, density, artistic elements
Visual identity	Visual identity of graphic composition; principles of artistic order, text design Visual meaning of forms; composition and scope. Visual weight of typography. Colour as a visual message Colour circle, colour body
Design methods	design of trademark (logo)
Perception	formation of two different patterns into one common one, the principles of artistic order, colour

2ND YEAR Graphic design and practice
(7 hours/week, 3 hours of practice, 4 hours of theory)

Publication design	Paper sizes and grid formats; books; edges; component networks. Text processing (font size and readability; alignment, font colour as a readability factor) Image (correct bitmap selection and resolution) Adobe Photoshop
Designing a poster, business card, logo, flyer	Formats of graphic products Typography of graphic products Colour and its importance in poster design Transferring a hand drawing to digital format
Design styles (recognition of different styles)	
Presentation of the selected graphic designer	
hand comic, hand animation	hand drawing

3RD YEAR Graphic design and practice
(9 hours/week, 4 hours of practice, 5 hours of theory)

Shapes	(positive / negative, organic / geometric, subtraction / addition, realistic / abstract), Textures and patterns: organization of graphic elements in limited space Colour wheel with primary, secondary and tertiary colours; quality, quantity, saturation and mixed contrasts; cool and warm colours.
Visual identity project	Visual identity functions of graphic composition: coherence, rhythm and

	<p>originality; use in different carriers; Integrated image: organization of graphic elements in a limited space: shapes, lines, text. Visual weight of typography; metric and optical spacing; typographic selection. CMYK, RGB and Pantone colors. Letterhead, Letterhead, Envelope and ID Card (Comprehensive Corporate Image) Logo: monochrome and multi-color version; positive and negative; geometric construction; smallest size; exclusion zone; chromatic code; typographical code; applications and other graphic supports of the logo</p>
Poster design	<p>Graphic Architecture Formats; structures; grids; composition. Typography family of typography; type size; measurement hierarchies. Color as a communication tool. hand made image and conversion to digital drawing Adobe Photoshop Adobe InDesign program</p>
Illustration	
Magazine and newspaper design	
Photobook	
Website design	

4TH YEAR: Graphic design and practice
(9 hours per week, 5 hours of practice, 4 hours of theory)

Publication layout, website layout	<p>Paper sizes and grid formats; books; edges, bleeding; component networks. Word Processing Hierarchy; Image correct selection of images; bitmap resolution; bitmap color system. Adobe InDesign program Adobe Photoshop Adobe Premiere Pro Catalog design Animation Video</p>
Researching and studying different brands	CGP (holistic graphic image)
Photograph	Digital-analog photography, advantages, disadvantages, differences
Digital comic	
visits to graphic design studios	
lectures by important and renowned graphic designers	
Final assignment on a prescribed topic	Final assignment on a prescribed topic (The

	school graduation board announces topics for final assignments. Each student chooses a topic that suits them (e.g.: Integrated graphic image, Photo book, Designing a calendar, short video, animation, etc....)
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3.1.4.4. Serbia

In the focus group of the School of Textile and Leather Design, Novi Pazar, all graphic design teachers participated: Ajla Rebronja, Jasmina Bihorac, Enes Sejfić and Edin Malićević, two computer teachers: Benijamin Mahmutović and Elvir Džanković, and expert associate of the school's deputy director Sebiha Hasanović .

After looking at the results of the SWOT analysis and surveys, we came up with recommendations for improving the existing curriculum through joint reflection. Only curriculum improvement changes are included in the results. According to the focus group, changes to the curriculum would bring modernization and efficiency of teaching.

See the result of our Focus Group.

SECOND YEAR OF LEARNING THE TEACHING GROUP OF THE SUBJECT GRAPHIC DESIGN

Teachers should be educated in new digital tools and design programs (InDesign, Photoshop, Illustrator...). It was concluded that within the teaching there should be a space for acquiring digital skills, i.e. work on modern programs for graphic design.

NO.	TOPIC	Teaching tasks
1	Printing technology	Getting to know modern printing machines and making graphic machines. Acquiring skills to use plotters, printers and other modern machines. Recognition of different types of paper/cardboard and their intended use.
2	DESIGNING GRAPHICS	- Acquiring digital work skills on the Illustrator program with at least 60 hours. Basic level. - Design for mobile phone applications. Basic level.
3	PHOTOGRAPHY	Acquiring digital skills in Photoshop basic level. Getting to know modern

		technology for photography .
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THIRD YEAR OF LEARNING THE TEACHING GROUP OF THE SUBJECT OF GRAPHIC DESIGN

The focus group of teachers concluded that in this class there are teaching contents that are not adapted to the modern era, so their recommendations are to replace them with the current needs of the modern labor market. With such changes, teachers need support in the form of training and teaching materials.

NO.	TOPIC	OUTCOMES
1	Typography	- acquiring knowledge of digital creation of a new creative letter - IT skills to create your own font
2	DESIGNING GRAPHICS	Acquiring digital work skills on the Illustrator program with at least 30 hours. Advanced level. Instead of acquiring the skills of creating an artistic solution of CD design, it is recommended to insert an artistic solution of website design at the basic level. Ability to draw digitally. Design for mobile phone applications. Intermediate level.
3	Book graphics	Ability to draw digitally. Mastering the work on the InDesign program as a program intended for layout and book design. Basic level. Acquiring basic knowledge for creating a digital book. Acquisition of basic knowledge for the design of digital brochures.
4	Poster	Ability to create templates for posters basic level

FOURTH (FINAL) YEAR OF LEARNING OF THE GRAPHIC DESIGN SUBJECT GROUP

The focus group of teachers concluded that in this class there are teaching contents that are not adapted to the modern era, so their recommendations are to replace them with the current needs of the modern labor market. In this class, it is recommended to cover topics at an advanced level so that students are able to do project tasks independently. It is very important that the teaching is planned and that the students within the projects have realistic tasks from the labor market. With such changes, teachers need support in the form of training and teaching materials.

NO.	TOPIC	Teaching tasks
1	DESIGNING GRAPHICS	<p>Training to independently create an artistic graphic solution for a website.</p> <p>Empowerment to independently create mobile phone applications. Advanced level.</p>
2	GRAPHICS OF THE BOOK	<p>Ability to draw digitally. Advanced level.</p> <p>Mastering the work on the InDesign program as a program intended for layout and book design. Advanced level.</p> <p>Acquiring advanced knowledge for creating a digital book.</p> <p>Acquiring advanced knowledge for digital brochure design.</p>
3	POSTER	<p>Ability to create templates for posters advanced level.</p>

4. CONCLUSION OF THE OVERALL CURRICULUM ANALYSIS

We performed the overall analysis of all the obtained results and the in-depth analysis of the curriculum at the Transnational meeting in Maribor, Slovenia.

Participants from all schools took part in the meeting:

- School of Fine Arts, Split, two people
- Art School de Soares dos Reis Porto, three people
- Secondary vocational and technical school, Murska Sobota, three people
- School for textile and leather design, Novi Pazar, six people

Based on all the results, we came to the following conclusions:

- all schools need a digital graphic design manual
- all schools definitely need to modernize their curricula
- the curricula generally do not match, but there are common points of all the curricula
- we considered the needs of each school
- we considered what each school can offer the other school
- we made a selection of content for digital's manual
- we agreed on the form of the manual

At the end of the mobility, we realized the mobility evaluation.

The participants received Certificates of participation in the mobility.

The main conclusion of the analysis of the curriculum in secondary schools in Croatia, Slovenia, Portugal and Serbia is that the curriculum must be more up-to-date with areas that are currently current on the labor market, such as creating a website, digital books, brochures, as well as creating applications for mobile phones and digital tools.

In order to implement modern teaching and create a modern curriculum, it is first of all necessary to educate teachers in the form of trainings or seminars to acquire skills in using new software for design. What has proven to be necessary in all schools are textbooks/manuals that are guides for the curriculum and a support for teachers for quality teaching. In no school is there a textbook/manual for teachers to use, nor are there trainings for teachers to improve and follow the modern course of graphic design, which is in constant progress.

It is inevitable that a modern curriculum, the existence of textbooks/manuals and professional training/ seminars are necessary for modern teaching.

5. LITERATURE

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