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**SEVILLE (SPAIN)
11-13 NOVEMBER 2019**



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POSSIBILITIES FOR EVALUATION OF THE VISUAL CULTURE OF STUDENTS IN HUMANITARIAN SPECIALTIES

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Abstract

This report focuses on the understanding that visual literacy as a concept based to and related to the essential characteristics of modern culture is closely linked to the transition from the classic view of the artwork to its contemporary development in the direction of a technologically created image. The aim of this report is to build a questionnaire for evaluating the visual literacy of students in humanities bachelor degree programs, based on the existing framework for visual literacy and imposed technological trends. Motivated by the aims listed above, the research addresses the following questions:

- 1 What is the level of understanding and application of visual literacy by students in solving problems?
- 2 To what extent does the visual culture help students solve problems?
- 3 Are changes in the training programs needed to increase the theoretical understanding and practical improvement of visual thinking.

We have examined principles of visual thinking, many relevant tests such as Visual Reasoning Test Assessment, critical thinking, problem solving skills tests, Visual-Spatial Intelligence Test, etc. As a result, a questionnaire has been developed that explores the visual competences in several ways - understanding, interpreting, evaluating, creative use of learning and creation skills. The questionnaire will serve to assess students' incoming visual culture, and the results of the survey will allow for steps to be taken to update educational plans and teaching methods.

Keywords: visual culture, visual literacy, visual competence, visual thinking assessment.

1 INTRODUCTION

The concept of visual literacy emerges in relation to the understanding of media, technologies, the increasing importance of visual communication and information and their importance in our lives. Contrary to popular belief, visual literacy today does not require a person to be an artist, to draw skilfully or to make films [7]. There is a noticeable extension of the term and its application, which is a consequence of the entry of new technologies into the process of art creation. In addition, visual literacy as a concept is already associated with the media and graphic design, and is viewed more as a consequence of the visual arts than as a concept directly related to it.

Today, the term visual literacy refers to a set of capabilities that enables an individual to effectively find, interpret, evaluate, use and create images and visual media. In this line of thought, visual literacy involves problem solving and critical thinking and can be applied to all areas of learning [1] and knowledge.

A review of the literature related to visual literacy has shown that many authors view it only in the context of media literacy. Two trends can be traced:

- Emphasis on mastering technical skills in dealing with technologies, producing and using images;
- Emphasis on understanding the visual message – developing critical thinking. Visual literacy, understood as an aspect of media literacy, should be present in this discipline as a developing knowledge and ability to create and understand visual messages.

This report focuses on the understanding that visual literacy, as a concept that originates and relates to the essential characteristics of contemporary culture, is closely linked to the transition from the classical view of the work of art to its modern development towards a technologically created image.

The goal of this paper is to build a questionnaire to assess the visual thinking and visual literacy of students in humanities bachelor's degree programs, based on the existing visual literacy framework and technological trends imposed. The questionnaire will serve to evaluate the incoming visual culture of the

students, and the results of the study will allow for actions to be taken to update the curriculum and teaching methods.

2 VISUAL LITERACY SKILLS

Visual literacy skills provide the understanding and analysis of contextual, cultural, ethical, aesthetic, intellectual and technical components involved in the production and use of visual materials [2].

According to a research of the American Library Association [2] a visually literate individual is able to:

- Determine the nature and extent of the visual materials needed;
- Find and access needed images and visual media effectively and efficiently;
- Interpret and analyse the meanings of images and visual media;
- Evaluate images and their sources;
- Use images and visual media effectively;
- Design and create meaningful images and visual media;
- Understand many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and access and use visual materials ethically.

Some authors examine visual literacy with respect to specifics in the process of submitting and perceiving the visually presented information. According to Seels [3] areas of study in visual literacy are total of 3:

- Visual thinking – refers to visualization through images;
- Visual Learning – refers to the acquisition and building of knowledge as a result of interaction with a visual phenomenon;
- Visual Communication – uses visual symbols to express ideas and transmission of meaning.

The authors Avgerinou and Pettersson [5] add to that theory two more components: visual perception and visual language. According to the authors: „The visual literacy skills are not isolated from other sensory skills. It is generally believed that there is exchangeability of information received and transmitted by all sensory channels. Given this, VL is thought to improve the development of verbal (written and oral) literacy [6]. The visual literacy skills are (a) learnable, (b) teachable, and (c) capable of development and improvement“.

In this line Oblinger reviews our technology and culture as „producing a large crop of visual learners — “digital natives” who are “intuitive visual communicators” and “more visually literate than previous generations” [4].

Based on the theories previously discussed, we can argue that the competences that form the visual literacy framework are the intersection between formal literacy (reading and writing skills), analytical and critical thinking, information literacy, ethical skills, and real-time thinking. In turn, any level of competence achieved is not a static dimension. There has been an evolution in the application of knowledge and skills, often dependent on factors such as technological advancement, social status, opportunities, motivation, etc. It is interesting for us to determine whether non-specialists in the arts have a visual culture and what is the level of application of their visual thinking and literacy when solving problems.

The main questions that motivate our study are:

- 1 What is the level of understanding and application of visual literacy by students in solving problems?
- 2 To what extent does the visual culture help students solve problems?
- 3 Are changes in the training programs needed to increase the theoretical understanding and practical improvement of visual thinking.

The next section will discuss the process of creating a special questionnaire to collect data that will help us answer some of the questions so defined.

3 ALGORITHMIZATION OF THE PROCESS OF CREATING A VISUAL THINKING QUESTIONNAIRE

In relation to the formation of a course in Visual Literacy in university specialties in the field of public communications and information sciences, our main tasks are to monitor the level of application of visual skills by potential candidates, and on the other hand, to find the gaps in the analytical, critical and visual thinking. The data will allow us to analyse the need to change curricula for specific specialties. Such programs are: Library and Information Management, Archives and Documentary Studies, Library Studies and Bibliography, Press Communications, Information Resources of Tourism, Communications and Information, Public Policies and Practices; and Master's Degrees - Library Collections, Library and Information and Cultural Management, Business and Administrative Information Technologies and Communications, Protection of the Cultural and Historical Heritage in the Republic of Bulgaria, Publishing Business and Electronic Resources, Cultural Tourism, Cultural and Historical heritage in the modern information environment, Media Information and Advertising, Document and Archive Management, Museum and Art Management, Religious cultural heritage, Management and Information in Strategic communications, Community Centre work, State, Spirituality and Leadership practices, Cultural Policies and Intercultural Relations in Southeast Europe.

The whole process of designing Visual Literacy Skills Questionnaire is depicted in Figure 1. We will consider all the steps separately as followed:

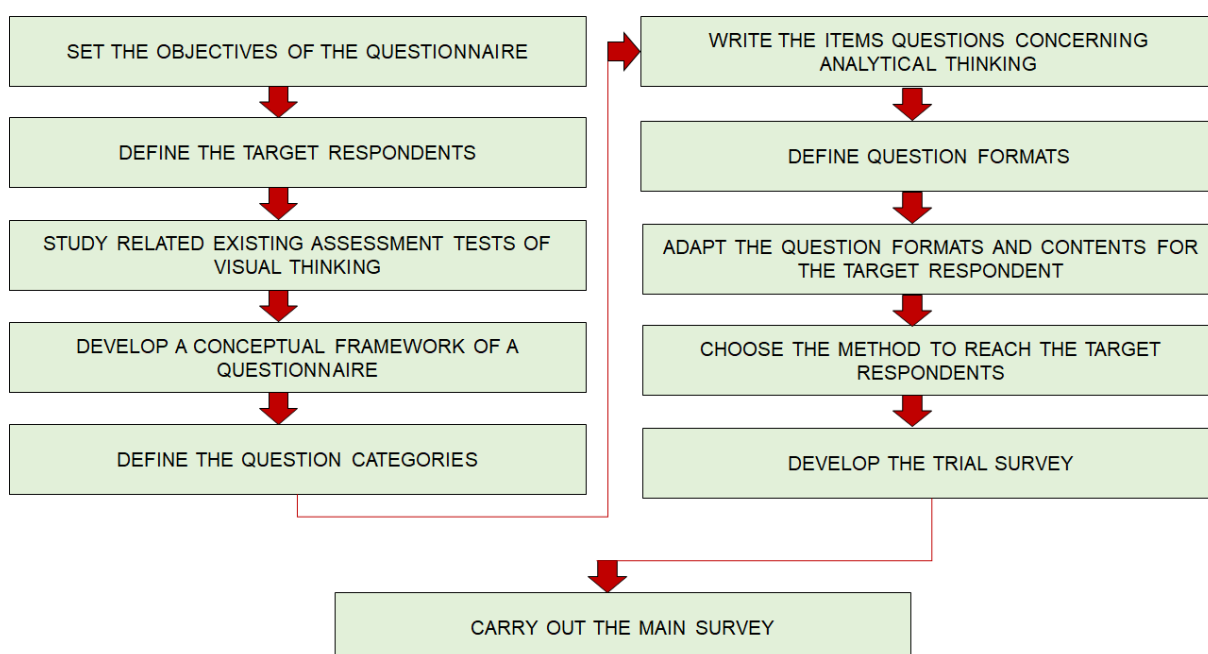


Figure 1. Visual literacy skills questionnaire development process (modelled on [8]).

Each of the stages involved in the process will be discussed in stages in the next subsections.

The questionnaire is intended to examine the visual competences of students at the University of Library Studies and Information Technologies, Sofia, Bulgaria.

3.1 Determining the main purpose of the questionnaire

The developed questionnaire needs to be able to evaluate the incoming visual competences possessed by students, learning in the field of public communications and information sciences. Target respondents are provided with various questions to evaluate their visual skills related to understanding, interpreting, and solving various problems and tasks. The questions are organized into 3 categories:

- Category 1: Respondents' awareness of visual literacy;
- Category 2: Self-assessment of knowledge and skills in the field of visual literacy;
- Category 3: Students' visual skills assessment questions.

3.2 Identifying the target respondents

The study includes a survey of students who are potential candidates for a Master's class in "Digital Visual Culture". We think that the most interesting for the research are students who have no preliminary preparation in visual arts and are not with technical profile. The preliminary analysis showed that ULSIT's students learning in the field of Public Communications and Information Sciences in the specialties of Library and Information Management, Archives and Documentary Studies, Library Studies and Bibliography, Press Communications, Information Resources of Tourism, Communications and Information, Public Policies and Practices, who are in the first year of their specialty training meet the set criteria. For the control group were selected students learning "Informatics and Computer Sciences" at ULSIT, whose profile focuses on the formation of technical skills.

3.3 Examining existing tests for assessing visual thinking and visual literacy

We have examined principles of visual thinking, many relevant tests such as Visual Reasoning Test Assessment, critical thinking, problem solving skills tests, Visual-Spatial Intelligence Test, etc. As a result, a questionnaire has been developed that examines visual competences in several directions – understanding, interpreting, assessing, creatively use of the acquired knowledge and skills to create.

3.4 Development of a conceptual framework for the questionnaire

This questionnaire is created to reveal the quantitative and qualitative aspects of the application of visual thinking by students. It is necessary to define the conceptual framework of the questionnaire, which accurately reflects the results of the review of existing tests for assessment of visual thinking, the purpose of the questionnaire, and to check the visual competence of respondents. This step

- The number of questions included in the questionnaire – to ensure that the respondents did not get bored, we asked a total of 24 questions, including questions, clarifying the demographic status of the respondents;
- Methods for evaluating the results obtained – the collected data will be united, processed and analysed using statistical software;
- Deadlines – we have set deadlines for both designing the questionnaire and collecting and analysing data. We work on a predefined schedule with clearly defined responsibilities and roles;
- Methods of reaching the respondents – the questionnaire is planned to be distributed on paper. For easier access to the control group, as well as for extending the scope of the study, an online accessible analogue of the paper form was prepared.
- Possible survey formats – two survey formats are planned – by interviewing and by questionnaire.

3.5 Defining Question Categories

The questionnaire includes a self-assessment section where we rely on students rely to evaluate by themselves their visual competences.

An essential part of the questionnaire requires the student to answer multiple-choice questions involving between 3 and 9 choices. The distribution of the questions into the categories discussed earlier are as follows:

- Visual literacy awareness questions – 8 questions in total;
- Self-assessment questions – 3 questions;
- Visual thinking assessment questions – 7 questions in total;
- Demographic and profile related to respondent – 6 questions in total.

The questions from the different categories were mixed at random.

3.6 Determination of the form of the questions

The most important of the research is the group with questions on assessment of visual literacy and visual thinking. The constructed questions in this category present problems in three different forms: figurative thinking, design thinking, and analytical thinking. They are configured so that students can

choose from multiple options from a pre-offered list. We also have Likert-type questions that measure students' self-esteem over their visual skills and thinking.

3.7 Creating questions

The questions were randomly mixed between different categories and formats.

The following are examples of different categories:

- Determine the type of the figure shown by its shape: (a) Geometric (b) Organic (c) 2-D (d) 3-D;
- Define the design principle in the visual example given: (a) Movement (b) Accent (c) Rhythm (d) Contrast (e) Unity;
- Which image should be placed in place of the "?" Sign, and What should be the next figure in the row?

3.8 Adjust the form and content of the question to the target respondents

Some elements are accepted or adapted from existing tests, others are new ones specifically designed for this questionnaire. We analyse the questions and adjust them to the target respondents and their likely level of visual skills. The questions were written in such a way that the respondents understood them correctly in order to guarantee their active participation, motivation and precise work during the survey.

3.9 Choosing a method to reach the respondents

The survey was designed in two forms – online and in paper.

3.10 Conduction a pilot study

As the primary function of the pilot test is to identify gaps in the content, grammar and format questionnaire, we asked our colleagues (university teachers) and PhD students in the professional field "Public Communications and Information Sciences" to complete the visual literacy assessment questionnaire and give us their feedback. As a result of this step, formal adjustments were made.

3.11 Conduction of the basic research

The survey is scheduled to start in September 2019, according to a predefined timetable. Around 200 respondents are expected to take part in the survey.

4 CONCLUSIONS

The questionnaire developed is useful for students and teachers in assessing their visual thinking. The questionnaire will identify individual and collective weaknesses in the visual culture. This will allow an opportunity for proper planning of all the disciplines covered in the curricula so that specific and innovative topics addressing areas of weakness in the study are included in them. This, in turn, will ensure the development of visual thinking. On the other hand, this approach should help develop thinking about how teachers teach students, balancing the right mix of skills and competencies.

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