



STUDENTS' ATTITUDES TOWARDS DIDACTIC CHARACTERISTICS IN GRAPHIC DESIGN CLASSES

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Abstract/Povzetek Contemporary education enables the development of creative expression in students, while the role and significance of didactic approaches in secondary school have not yet been comprehensively studied. The article presents the results of research into students' attitudes towards didactic characteristics of Graphic Design classes in secondary school. We were interested in the attitude of 3rd-year students (17-18 years old) towards the characteristics of the subject Graphic Design, and their level of satisfaction with the use of teaching methods, learning techniques and didactic communication in Slovenian schools. The results show that little attention is paid to the concept of effective methodologies in practice. There is a need for a range of didactic approaches that would contribute to active, interesting, creative and dynamically based Graphic Design classes.

Stališča dijakov do didaktičnih značilnosti pri pouku grafičnega oblikovanja Sodobno izobraževanje omogoča razvijanje ustvarjalnega izražanja dijakov, vloga in pomen didaktičnih pristopov v srednji šoli pa celoviteje nista raziskana. V prispevku predstavljamo rezultate raziskave odnosa dijakov do didaktičnih značilnosti pouka grafičnega oblikovanja v srednji šoli. Zanimala so nas stališča dijakov 3. letnikov (17–18 let) do značilnosti predmeta *Grafično oblikovanje* in nivo zadovoljstva z uporabo učnih metod, učnih oblik in didaktične komunikacije v slovenskih šolah. Rezultati kažejo, da se koncipiranju učinkovitih metodičnih postopkov v praksi namenja malo pozornosti. Nakazuje se potreba po drugačnih didaktičnih pristopih, ki bi prispevali k aktivnemu, zanimivemu, ustvarjalnemu in dinamično zasnovanemu pouku grafičnega oblikovanja.

Introduction

Modern pedagogical theories define learning as a personal creative process, involving active acceptance and processing of facts, individual interpretation and organization of knowledge and its use in varied situations, whereas teaching is defined as a process of appropriate support for learning (Smith, 1999; Senge, 2000; Marentič-Požarnik, 2004; Pluto Pregelj, 2008). A shift from the transmission approach to teaching and learning - where students passively accept the teacher's knowledge - to a transactional approach, where the teacher uses a problem-based approach and promotes creativity and research, solving problematic artwork with diverse methods and work procedures, while stimulating the active participation of pupils and contributing to greater student satisfaction. This kind of learning stimulates critical thinking and is characteristic of holistic, reflexive, interactive, personal, experiential and lifelong learning (O'Sullivan, 1999; Marentič-Požarnik, 2000; Mezirow, 2000). It is important that curricula in secondary schools include more than just the competences of knowing formal art language and practical work by students, since it is of utmost importance that the work in school relates to current events in fine arts (Zupančič, 2015).

Quality and comprehensive learning depend to a large extent on the teachers' choice of teaching methods, learning techniques, didactic communication, etc. with which they influence student activity, motivation and learning. When delivering content, the teacher should proceed from an integrated approach, combining elements of different strategies into an integrated teaching method (Shepherd, 2005). The results of research at the elementary school level showed that a didactic approach with a dynamic, diverse mix of learning methods, forms and didactic communication has a positive effect on artistic development, as well as creativity, knowledge and appreciation abilities (Spirit, 2004). At the secondary school level, we also established the positive effect of introducing an innovative approach in the form of minor didactic changes (Kač Nemanič, 2017) on the development of artistic appreciation and artistic creativity (Duh and Kač Nemanič, 2018), which enables the creation of quality Graphic Design classes that contribute to greater student satisfaction.

Didactic characteristics of Graphic Design classes

The choice of teaching methods at the level of the educational process in the fine arts classes (Karlavaris, 1991) is determined by the characteristics of this subject or the specifics of aesthetic communication and creative processes, the complexity and individual, subjective characteristics of the artistic phenomenon. By using modern

teaching methods, we adapt the process of teaching and learning to the needs and development potential of each student, promoting their curiosity and intrinsic motivation, and contributing to the reduction of decontextualized learning. Students should be given a learning experience which, by activating both brain hemispheres, stimulates holistic (cognitive, emotional and motor) development (Terhart, 2001).

Methods in the field of art must be adapted to the peculiarities of fine arts classes, since the specifics of the phenomenon also dictate the specificity of the path (Karlavaris, Berce Golob, 1991). Meyer (2005) emphasizes that one of the conditions for quality teaching is diversity of teaching methods. "Dynamically changing and interweaving individual learning methods encourage pupils to visualize evaluation criteria and to discuss the criteria and compare them with exhibited artwork" (Duh, 2004, p. 193). The use of learning methods and learning forms is effective when it develops the interests of students, motivates them to act and activates their capacities in the learning process (Mušanović, Vrcelj, 2001). Herzog and Strnadova (2014, p. 85) furthermore point out that in persons with special needs, a significant pedagogical approach to the perception of art is [...] "adapted to the individual art piece as well as to the recipient, as the essence of aesthetic experience is the dialogue established between the art and the person."

In addition to the general teaching methods, Karlavaris (1991) lists specific learning methods in fine arts classes, which can be used by adapting to the methodological particulars and characteristics of Graphic Design classes. Duh (2004, p. 74) adds that, in order to achieve [...] "active creative work, it is, in addition to the general teaching methods, also worthwhile to include some specific teaching methods in the pedagogical practice. Specific artistic methods are working methods that have emerged from the peculiarities of the art field, its characteristics and problems." In art education, it is not only intellectual development that is promoted, but also qualitative processes, which act as a factor in the cultivation of personality, and which are generated by stimulating the emotional and creative component (Berce Golob, 1993; Karlavaris, 2007). The significance of specific artistic methods is therefore reflected in the promotion of aesthetic and creative aspects of personality, since general methods are mainly aimed at promoting intellectual activity (Duh, 2004).

Specific artistic learning methods, combined with general teaching methods, allow for greater flexibility and dynamism in teaching and learning. However, at the same time, for the successful implementation of specific teaching methods, it is necessary to increase teachers' competence in the knowledge of visual language, differences

in the potential for artistic expression, the way of perceiving artistic concepts, and the specifics of handling fine arts, as well as the students' interests and inclinations (Duh, 2004; Tacol, 2003). When these methods are employed, learners are better able to develop the ability to observe, their imagination, the ability to think and express their thoughts in an artistic way, their free creative expression and the independent and creative handling of fine arts and tools (Duh, 2004; Berce Golob and Karlavaris, 1991; Tacol, 2003). The aesthetic communication method thus has a broader useful value for various art disciplines, since students using the aesthetic communication method [...] "spread sensitivity for individual artistic components, design structures and thought elaborations" (Duh, 2004, p. 60). "It is a set of didactic decisions aimed at creating optimal conditions for the development of aesthetic sense and aesthetic activity among the participants in the pedagogical process" (Duh and Zupančič, 2013, p. 73). For classes in graphic design, the method is important because, with its help, students learn about design structures, observe characteristics, seek solutions to design problems and explain their experience regarding the design products of other students. Duh and Korošec (2009) add, "Perceiving, experiencing and accepting works of art is an important part of the art of children, as it promotes the development of man in order to be able to establish a critical attitude towards contemporary art, visual communications and other information that we receive from the environment." The method of complexity and interweaving is important because it directs the attention of students to different layers of artistic creativity, as well as other aspects of design. In designing design products, it is necessary to consider other aspects such as technical limitations, the wishes of the client, purpose, etc., in addition to visual arts. Also interesting in terms of the nature of the work of graphic design is the method of transposing and alternatives. Students with transposed reality in the process of abstraction and stylization create their own design expression. In the creative sense, the use of the indirect stimulus method is often very effective, which is expressed in the form of unexpected impulses that can lead to a jump in quality in a creative act (Duh, 2004). Its use is extremely important in Graphic Design classes, as it encourages students to find new design solutions.

Blažič et al. (2003) state that forms of learning during the educational process appear as an integral part of methods that regulate the relation between the positions and roles of teachers and those of pupils. Applying varied learning methods and learning forms can provide more meaningful and more persistent knowledge, along with understanding (Plut Pregelj, 2008). Given the importance of the role of the teacher and the work of the students themselves, we recognise direct and indirect forms of work, which include frontal work, working with individuals (individual work), group work and work in pairs (Blažič et al., 2003; Bognar,

Matijević, 1993). Graphic Design classes are mostly characterised by the use of individual, independent work, while group and pair work are used to a lesser extent. The researchers Pibernik, Milčić and Bonta (2010) believe that teachers should train students for group work: "[...] the benefits of group work are a more in-depth analysis of ideas, a more diversified approach to the conception of concepts, greater criticality at work, abundance and diversity of knowledge, faster manufacture of the art piece, creation of a sense for community and a special atmosphere, etc." (ibid., 2010, p. 5).

The authors Littlejohn and Foss (2007) emphasise that the development of interaction and communication activities between teachers and students is of great importance in the design of modern classes. The sincerity, coherence and symmetry of didactic communication contribute to the creation of a relaxed climate and to the active evaluation of one's own artistic efforts (Duh, 2004). What is important is a two-way and reciprocal, empathic "[...] creative, open communication that is targeted, direct, clear, responsible, positive, honest, attentive and cooperative" (ibid., p. 66). Bognar (2012) also believes that creativity can be promoted through appropriate didactic communication and is committed to changing the relationship by asking unusual questions and initiatives and using special methods and procedures. To achieve successful didactic communication between the teacher and the students, it is important that the teacher adapt their professionalism and terminology to the developmental level of the students, use both verbal and non-verbal communication and regularly check the effectiveness and comprehensibility of communication through feedback. Successful didactic communication requires of a teacher the ability to project empathy, that is, the ability to project into the internal states or the personality of the participants (Duh, 2004).

Certain sets of didactic guidelines in Slovenia are intended for the wider field of artistic didactics at all levels of education. In the field of graphic design, these can be used as a basis for the design of an approach to planning and delivering lessons, and effective learning and teaching. The basic starting point for the conception of an effective didactic approach may be the ability to translate and adapt teaching methods, teaching forms and didactic communication to the graphic design area, which could contribute to greater student satisfaction with didactic characteristics.

Methodology

Research method

We designed a survey questionnaire consisting of three closed-ended questions and one open-ended question on student attitudes towards the features of the Graphic Design subject, which is followed by four closed-type questions about the satisfaction of pupils with the didactic characteristics (a five-point Likert type scale). In the study, we used the descriptive empirical non-experimental method of pedagogical research. The survey was conducted in classes of Graphic design. The selected education program for Design Technicians runs at the Secondary School of Design and Photography in Ljubljana, the Secondary School of Design in Maribor and the Secondary Vocational and Technical School in Murska Sobota.

Analysis of the measurement characteristics of the questionnaire

The objectivity of the questionnaire for students was ensured by specifying detailed and simple instructions for its completion, as well as with unambiguous, clear-cut categories on the objective scale. The answers to the open-ended question were categorized and the categories sorted by frequency of repetition.

To determine the constructive validity of the questionnaire (for questions with a five-level Likert type scale), factor analysis was used, namely the percentage of variance explained by the first common factor. When testing the questionnaire, the percentage of variance explained by the first factor of the variable is as follows:

- satisfaction with general learning methods, 22.86%;
- satisfaction with specific learning methods, 30.99%;
- satisfaction with learning forms, 38.64% and
- satisfaction with didactic communication, 31.30%.

Their values are therefore higher than the assumed lower limit criterion (20%), which means that these are satisfaction scales that are appropriately valid; that is, they measure the expected satisfaction of pupils with the learning methods, learning forms and didactic communication to an adequate extent.

The reliability of the questionnaire was checked using the Cronbach alpha reliability coefficient (α). The value of the coefficient of the alpha variable was as follows:

- satisfaction with general methods, 0.62,
- satisfaction with specific methods, 0.66,
- satisfaction with learning forms, 0.64 and
- satisfaction with didactic communication, 0.61.

The values are therefore sufficiently high and confirm the satisfactory reliability of the instrument.

Research sample

The study included 73 randomly selected third-year students (17-18 years old) from three secondary schools in the Osrednjeslovenska, Podravska and Pomurska regions. The sample comprised 36 boys (49.3%) and 37 girls (50.7%). Twenty-five (34.2%) students from Ljubljana, 24 students from Maribor and 24 students (32.9%) from Murska Sobota secondary school were included in the survey.

Data processing

We used the parameters of basic descriptive statistics: sample size - N, frequencies - f, percentage -%, average grade - x, standard deviation - s. The data were processed using the SPSS computer program for statistical data processing.

Results and interpretation

We were first interested in whether the Graphic Design subject is popular among students.

(t1) Do you generally like Graphic Design classes?

Table 1: Perception of the importance or the popularity of the subject Graphic Design.

	f	f%
I don't like it	3	4,1
Yes, I like it	4	5,5
Yes, I really like it	5	6,8
Not particularly	28	38,4
I like it a lot	33	45,2
	73	100,0

The results of the survey show that the largest share comprises those (45.2%) who like Graphic Design averagely. A very small number of students (6.8%) said that they were very fond of Graphic Design classes, and as much as 38.4% that they did not particularly like Graphic Design classes. From this point of view, the need for different didactic approaches and an improvement in the efficiency of graphic design didactics is demonstrated and confirmed. We were additionally interested in student attitudes towards the importance of individual goals in Graphic Design classes. Regarding this issue, students had the opportunity to encircle multiple responses.

(t2) What do you find very important in Graphic Design classes?

Table 2: Perception of importance in individual goals of graphic design instruction.

	f
1 development of creativity	60
2 special knowledge	58
3 sensitivity to aesthetics	44
4 personal development	35
5 practical knowledge	11
f = number	

For these students, the most important goal in Graphic Design classes is the development of creativity, which is consistent with the statements of many contemporary researchers, who agree on the importance of integrating creativity in school (Hennessey and Amabile, 2010; Flint, 2014). Williams and Askland (2012) add that creativity is an important part of design and education. We allow the possibility that the listing of personal development in penultimate place shows the neglect of educational goals in practice. Other possible reasons could be the individually different and overall lower level of social maturity among the students, the discouraging influence of the environment, a negative atmosphere in the class, etc. The listing of practical knowledge last among the goals was partly anticipated, since these students do not have much practical content included in the curriculum (Curriculum, 2006). This was followed by the question regarding the development of creativity in the classroom.

(t3) Is creativity sufficiently developed in Graphic Design classes?

Table 3: Perceptions of effectiveness in the development of creativity.

		f	f %
1	Yes	10	13,7
2	I do not know	30	41,1
3	No	33	45,2
		73	100

f = number; % = percentage

To the question of whether creativity was sufficiently developed in Graphic Design classes, student responses were mostly negative (45%) or undecided (41.1%). The researcher Tudor (2008) similarly notes that little attention is paid to improving learning approaches in promoting creativity.

We were also interested in suggestions from students for improving their lessons. The responses were categorized and ranked by frequency of occurrence.

(t4) What could the teacher improve in class?

Table 4: Ranges of suggestions from students for improving their lessons.

		f	f %
1	evaluation criteria	38	52,1
2	demonstration of diverse fine art techniques	19	26,0
3	dynamism and attractiveness of lessons	8	11,0
4	connection with practice	5	6,8
5	diversity of design topics	3	4,1
		73	100

f = number; % = percentage

Student proposals are most often related to the integration of evaluation or more clearly defined evaluation criteria (52%). The results for the student perception of evaluation criteria are related to theoretical findings that the evaluation criteria in schools are not of high quality or clearly defined (Duh, 2004). The latter is followed by the suggestions by the students to include a demonstration of diverse fine art techniques (26%). One possible reason that teachers are less likely to perform demonstrations of fine arts is that they lack skill in a variety of fine art techniques. The demand for greater dynamism and attractiveness of lessons (11%) may be related to the rare use of specific methods, which could be one reasons why classes of Graphic Design do not seem to be sufficiently attractive and dynamic for the students. The diversity of design topics in the curriculum is rich (Curriculum, 2006), which is why the students' proposal for greater diversity of design topics (4.1%) is surprising.

The latter is followed by a set of questions about satisfaction with didactic characteristics. We first asked the students what they thought about using general teaching methods.

(t5) How satisfied are you with the use of general teaching methods in Graphic Design classes?

Table 5: Satisfaction level with the use of general teaching methods.

		\bar{x}	s
1	Method of demonstration	3,986	1,047
2	Method of practical work	3,958	0,422
3	Method of conversation	3,561	0,833
4	Method of explanation	3,082	0,276
5	Method of explanation	2,890	0,393
6	Method of conversation	2,397	0,877
7	Method of conversation	2,397	0,877

\bar{x} = mean score, s = standard deviation

The students are most satisfied with the use of the demonstration method (3.98) and also with the method of practical work (3.95). We assume that the method of demonstration motivates the students, who get to observe interesting expressive opportunities, primarily with the potential for their own individual work and artistic expression. The students are most satisfied with this method; on this basis, we can confirm that they are very satisfied with the demonstration of work procedures, tool use and art techniques. Students are very satisfied with the method of practical work, as they can create independently while the teachers unobtrusively help them. Student satisfaction with the method of conversation (dialogue between the students and the teacher) is interpreted as the fulfilment of one or more aspects of the quality of the performance with the method of conversation, for example: two-way communication between the students and the teacher, creating a trustworthy and emotional relationship, which helps create a pleasant and stimulating atmosphere in the classroom. The students are least satisfied with the method of writing (2.38%). We allow the possibility that the method of writing is used unimaginatively, or that the students find it unusual to write about design work.

Furthermore, we were interested in satisfaction with specific learning methods, which are of great importance for both wider artistic as well as design development, as they derive from the particularities of the artistic field, its characteristics and problems. In order to facilitate understanding and answering the questionnaire, the

students received a table of specific methods with explanations and examples of their use.

(t6) How satisfied are you with the use of general teaching methods in Graphic Design classes?

Table 6: Satisfaction level with using specific teaching methods.

		\bar{x}	s
1	Method of aesthetic communication and cultivation	4,397	0,812
2	The method of raising your own sensibility	3,643	0,631
3	Method of complexity and interlacing	3,616	0,679
4	Method of spreading and elaboration	3,589	0,703
5	Method of alternative impact	3,575	0,599
6	Method of autonomous fine arts	2,684	0,940
7	Method of transposing and alternatives	2,534	1,259
8	Method of indirect stimulus	1,328	1,054

\bar{x} = mean score, s = standard deviation

Regarding their views on satisfaction with specific methods of work, the students expressed greatest satisfaction with the method of aesthetic communication and cultivation (4.39). Based on this, it can be concluded that appropriate aesthetic communication has been established between the teachers, the students and the fine art design, so that, through the learning process, the aesthetic values of artistic design can be realized and adopted. The students are least satisfied with the use of the indirect stimulus method (1.32), which can be traced to several possible reasons, one being that the teachers themselves do not feel competent to use this method properly.

In the last three questions, we were also interested in the use of learning forms and didactic communication.

(t7) How satisfied are you with learning forms in Graphic Design classes?

Table 7: Satisfaction level with forms of learning.

		\bar{x}	s
1	Individual form	2,356	0,805
2	Group form	2,274	0,507
3	Pair work	1,917	0,276

\bar{x} = mean score, s = standard deviation

The students are most satisfied with the use of the individual form (2.35), which is followed by the group form (2.27) and lastly by pair work (1.91). Student satisfaction with the use of the individual form can be interpreted to mean that students often enjoy creative work, as they have more opportunities for independent work.

(t8) How satisfied are you with the didactic communication in Graphic Design classes?

Table 8: Satisfaction level with didactic communication.

		\bar{x}	s
1	Honest, equal and equivalent communication	3,082	0,276
2	Open, clear, responsible, positive, attentive and cooperative communication	3,027	0,499
3	Interesting and imaginative approach	2,753	0,434
4	Empathic communication	2,712	0,513

\bar{x} = mean score, s = standard deviation

The students are most satisfied with didactic communication with honest, equal and equivalent communication between the teacher and the student (3.08), which means that there is an emotional attitude and trust between teachers and students; the communication climate includes open, spontaneous behaviour; the teachers treat the students as equal interlocutors. The results of the research confirm the problem of adequacy of evaluation, which is shown by the perception of the students about the smallest share of satisfaction with regular feedback on their work and at the conclusion (2.21).

Conclusion

With a descriptive survey of student attitudes and opinions, we recognised the attitude of students toward the characteristics of the subject Graphic Design and the level of satisfaction through the use of teaching methods, forms of learning and didactic communication in classes of Graphic Design.

The results of the study of the first set of student views and opinions regarding the characteristics of the subject Graphic Design show that a considerable proportion of the students (86.4%) stated that they generally like the classes of Graphic Design, like it less or do not particularly like it. This points to the need to improve the efficiency of graphic design didactics, which was also noted by Alhajri (2013), who

argues that more attention should be given to the improvement of learning approaches.

Furthermore, we find that the development of creativity is the most important goal for students in Graphic Design classes. The perception of the students is consistent with the findings of foreign researchers (Williams and Askland, 2012), who find that creativity is a very important part of design and education.

When asked whether in Graphic Design classes creativity is sufficiently developed, students mostly gave negative (45%) or undecided (41.1%) responses. Foreign researchers, e.g. Tudor (2008), similarly note that little attention is paid to improving learning approaches to promoting creativity.

We were also interested in suggestions from students in Slovene secondary schools about teachers' improvements in class. These are most often associated with the integration of evaluation and more clearly defined evaluation criteria (52%). The results for student perception of the evaluation criteria are related to theoretical findings that the evaluation criteria in schools are not of high quality or clearly defined (Duh, 2004). The diversity of design topics in the curriculum is rich (Curriculum, 2006), which is why the student proposal for greater diversity of design topics (4.1%) is surprising.

In the second set of questions on didactic characteristics, we analysed student perceptions of their satisfaction with general methods. The greatest satisfaction was expressed by the students regarding the use of the demonstration method (3.98%). The students are therefore very satisfied with how the work procedures are demonstrated, the use of tools and art techniques. We assume that when this method is in use, students are primarily motivated by the opportunity to do their own individual work and artistic expression. The students are very satisfied with the method of practical work (3.95%), as they can create independently while the teachers unobtrusively help them. The students are least satisfied with the method of writing (2.38%). We allow the possibility that the method of writing is used unimaginatively, or that students might find it unusual to write about design work.

Regarding their views on satisfaction with specific methods of work, the students expressed the greatest satisfaction with the method of aesthetic communication and cultivation (4.39 %). Based on this, it can be concluded that appropriate aesthetic communication has been established between the teacher, the students and the fine art design, so that, through the learning process, the aesthetic values of artistic design can be realized and adopted. The students are least satisfied with the use of the indirect stimulus method (1.32 %), which could be related to several possible

reasons, one being that the teachers themselves do not feel competent to use this method properly. Regarding the analysis of student satisfaction with forms of learning, the results are predictable. According to the nature of the work, the students feel closest to and favour the use of individual work (2.35%), which is followed by group work (2.27%), and lastly by pair work (1.91%). Student satisfaction with the use of individual work can be interpreted to mean that students often enjoy creative work, as it offers more opportunity for independent work. The students are most satisfied with didactic communication with honest, equal and equivalent communication between the teacher and the student (3.08), which means that there is an emotional attitude and trust between the teachers and the students, and the communication climate comprises open, spontaneous behaviour; the teachers treat the students as equal interlocutors. The results of the research confirm the problem of adequacy of evaluation, which is shown by student perceptions about the smallest share of satisfaction being with regular feedback on their work and at the conclusion (2.21).

The results show that little attention is paid to the conception of effective methodologies in practice. There is a need for different didactic approaches to learning and teaching in Graphic Design classes, which would contribute to greater student satisfaction and present a special challenge for both researchers and teachers of art subjects.

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