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ABSTRACT

Educators and teachers' media competencies are a prerequisite for children and youth's successful media use as future active democratic citizens. In Croatia, however, they are not yet systematically acquired and are mostly studied in general, in elementary schools, while student populations and television competencies are marginalized. Therefore, we conducted a quantitative empirical study of future educators and teachers' television competencies on a sample of the 140 first-year undergraduate students of the Juraj Dobrila University of Pula. The data were collected by a questionnaire while descriptive and inferential statistics were used in the processing of the collected data. The results show students' low TV competencies in general and a difference in relation to the study and educational module. Students studying Preschool Education (which includes the Media Culture course) are more competent than their colleagues are, while future teachers have less TV competencies than others do. Such an outcome highlights the need to upgrade the university curricula for educators and teachers.

1. Introduction

Croatia is still one of the countries in which scientific and professional efforts have not yet succeeded in encouraging a comprehensive change in educational policy in the direction of systematic integration of media competencies (MC) in the school system where they are only "characterized" (Erjavec & Zgrabljić Rotar, 2000, p. 95). Thus, MC is not acquired as the result of a separate course and part of compulsory elementary school educational outcomes except from the content of the mother tongue course and few socio-humanistic subjects. In addition, MC is not thoroughly integrated in high school education as well as they are rarely found in study programmes for educators and teachers. That is why many Croatian scholars dealing with contemporary media research believe MC need firm vertical curriculum systematization (e.g. Erjavec

& Zgrabljić Rotar, 2000; Perišin & Mlačić, 2014; Ciboci, Kanižaj & Labaš, 2014, Vukić, 2015; Vukić & Youens, 2015; Bileta, Zuliani and Vukić, 2015).

Although, the latest political endeavours present more serious understanding towards media competencies[1] as well as there are new educational initiatives of media literacy for the audience at all ages[2], it is still not enough. Although the two basic approaches to defining MC are those of general media competencies and those that describe functionalities or outcomes, one must not neglect the fact that every medium, especially the mass media - press, radio, television, internet (Jurišić, 2007), are specific to at least three perspectives - technology, content and performance. It directly implies different educational strategies, methods, means, resources, and so on, which is necessary for teaching. All mentioned opens the problem of non-educated teachers 'for media and media communication, creative work and critical media analysis' (Maletić, 2014, p. 156). Media competencies are, hence, particularly important to all those who in any way care about children especially future educators (Livingstone et al., 2011). They need to be able to perform high-quality activities and teaching connected in any way with the media, and actively participate in the process of curriculum designing. Therefore, at the highest educational level, MC need to be integrated by introducing content from media pedagogy as in most EU countries (Tolić, 2009, p. 223), but as well as communication sciences content (Minnkinen, 1978).

In the broader sense, the MC research in Croatia is especially rare on university students; it is mainly carried out on the younger generation (kindergarten and elementary school). Since television is mostly investigated in that context, our work deepens the subject. The above described network of relationships is the reason for thinking about the knowledge, skills and independent responsible use of the television as a mass medium in our community, respectively of the students in Pula who are about to become educators and teachers.

2. Theoretical background and previous television competencies research

While the appearance of the various internet content and social networks potentially jeopardize the status of television as the most widely used mass medium encouraging viewer passivity, TV is still the centre of domestic socialization (Ogonowska, 2014:96). Even though it is considered as *masses opium* (Maletić, 2014:193), watching it is *family ritual*, television is actively involved in our everyday activities (Castro Vásques, 2015:33; Morduchowicz, 2001:4), and the most important means of informing (Perišin, 2011:142). This is especially noticeable since TV is being watched online as well, primarily using smartphones, computers or tablets.

In short, television programs are actually available via various platforms, channels and resources, and produces content whose proper use assumes different types of higher competence levels as it appears in many forms and types of extremely sophisticated audio-visual records, goals and purposes. Therefore, it is not surprising that television issues, as an actual interdisciplinary topic, are explored from different perspectives of the communication process – e.g. media organization, television content, TV distribution channels, television technology, audience influence, especially on children and youth.

From a pedagogical view, presuming television is a space for public dialogue and should be actively used as a pedagogical tool, television competencies (TVC) are defined as:

> (…) the ability of a modern man to make a significant interaction with this audiovisual media, which will be able to (…) generate and assume roles, behaviours and meanings that gain value in the social sphere and are built without greater effort in the field of cultural dynamics (Bustamante, Aranguren, & Argüello, 2005, p. 40).

Talking about the pedagogical approach of TVC, it is also inevitable to present all interrelated levels of television education:

- *Education about television* as a medium that results with the knowledge on television (genres, formats, television media and production modes, viewership research methods, sources of funding, broadcasting on other media platforms - internet, mobile) etc.
- *Education via television* is about different contents that imply the knowledge of (non)educational programmes, educational values at all, especially entertainment and information programmes, television messages, analytical abilities as one of the sources of social knowledge, and
- *Education for television* which creates 'conscious recipients and creators of content that can influence the media market sector associated with television offerings', i.e. acquire competencies for the critical evaluation of existing TV shows and production of individual audio-visual communications (Ogonowska, 2014:69).

That mode in addition differs three key components of developing TV competencies - *technological, linguistic* and *discursive* (Pérez Tornero, 1994, p. 44), while Ogonowska (2014, p. 69) has transformed media education (ME) characteristics into three basic features of television competencies - *technical, cognitive* and *social*.

Even though empirical research of media competencies in a broader pedagogical context in Croatia is not carried out on a regular basis, it is not methodologically unison, nor is it conducted on large samples, each contribution to this issue is rare and should be welcomed. Most of them can be understood as actual, as the latest ones show that children and youth, albeit to a somewhat lesser extent, still favour TV and are inclined to the same and/or similar type of television content as about ten to fifteen years ago. Hence, watching television programs via TV set, until recently, was the dominant daily entertainment activity for children, youth and adults (Ilišin, 2003, p. 29) and the most common activity of the Croatian population in their free time, with informative-political programmes, films and series as mostly watched TV contents (Šiljan Bembić, 2009, p. 7). Young people still primarily engage in TV for entertainment and leisure, but besides adults, children and young people mostly watch inappropriate television content (violence, eroticism, etc.). Between the preferences of older children and adolescents there is almost no difference - the most watched television content are movies and series, reality shows, youth shows, quizzes and prize games, while the least watched are cultural-artistic, informative-political and documentary programmes (Ilišin, 2003, p. 22; Šiljan and Bembić, 2009, p. 7). In general, excessive television watching affects a weaker development of self-consciousness, the

ability to autonomously resolve life issues, and ultimately encourages the alienation from the community and oneself (Dominiković, 2010). The comparison of spending their free time, Croatian youth show that in 2013 they watched television just 27% of time less than in 2004 (Ilišin et al., 2013, p. 71). The same research reveals that only slightly less than 50% of the respondents from 5th to 8th grade use TV (extensively for watching entertainment content), while children mostly use internet (different online contents and platforms) for informational and communication purposes. One of the few Croatian studies about the television competencies researching the 5th grade students in Pula found that:

> Although the interest in TV content has fallen, pupils spend approximately four hours a day in front of the screen, indicating that at that age they do not have the knowledge nor the awareness of the long-term consequences brought by watching TV content (Vukić & Youens, 2015, p. 90).

A similar thing was determined by two more studies investigating pupils' media use. Firstly, television content is still on the second place according to the children and youth frequency of media use in Croatia, (they spend about two hours a day using TV) (Labaš & Marinčić, 2018 on *Youth on line*, 2011). Secondly, although the different media platforms on the internet are on the top of the media usage list (96%) for information, education and entertainment purposes, students aged 13 and 14 in two primary schools in Zaprešić still use TV the most (around 83% of time) although belonging to the group of traditional mass media (Labaš & Marinčić, 2018).

Presented findings concerning children and youth are consistent with the newest data of the Reuters Digital News Report (Peruško, 2019)[3] about adults' media habits in Croatia primarily regarding news. Results show that while Croatians were collected news mostly online including social networks (89%), TV is on the second place (78%) as a news source.

Hence, indicators that television competencies should unambiguously be included in the constituent part of compulsory education from the earliest age are still highly television usage in recent years in Croatia (even though only slightly reduced) and the fact that television has significantly high influence on the ability of receiving information and on learning, as well (McLuhan, 2008, p. 275; Linebarger, 2001, p. 291). That equally includes pupils with special needs (Bagon, Gačnik, Istenič Starčič, 2018, p. 64).

Scientists from other fields also advocate vertical ME as research shows that the modern way of using television strongly affects pre-scholars and scholars. Today a large number of preschool children have television in their rooms (Hardy et al, 2013) which affects a shorter period of sleep (Mindell et al, 2009) and weaker sleep hygiene (Grady et al., 2019, p. 59). Likewise, watching TV supports a sedentary lifestyle and it is connected to '(…) poor health outcomes and unhealthy weight gain' (Magriplis et al., 2019 according to Gable, Chang & Krull, 2007 and Grøntved, Ried-Larsen, Møller and others, 2014).

Listing skills related to TVC, based on the Piaget's stages of child development, Ogonowska (2014, p. 77) combines television competencies with cultural ones, considering that they 'significantly determine other social skills and cognitive abilities, e.g. they are related to the understanding of selected social phenomena'. Every

message, broadcast, programme, and commercial produced by the mass media is imaginary and constructed with a particular purpose and intent (manipulate, entertain, inform, sell, etc.). Besides, the media convey attitudes and values (especially consumerisms) into the interests of capital and profit (Hadžiselimović, 2004, p. 34). Thus, teaching critical media literacy using television programmes that show popular culture has long been successful (Alvermann, Moon & Hagood, 1999). TVC, therefore, are crucial in a critical understanding of the background. Otherwise, children and young people will not be able to learn basic theoretical concepts, will continue to choose low quality television content, primarily using it for entertainment purposes, and will not be able to actively and responsibly use and create audio-visual content. Unfortunately, we are already witnessing the before mentioned; a prediction of negative consequences of unsystematic and unplanned mass media teaching, especially about television, and unused possibilities of implementing television program in teaching (Vukić & Youens, 2015, p. 96).

Recalling that television is a social phenomenon abundant in various contents, many of which are inadequate and highly accessible to children and youth, Bautista Vallejo, Gata Amaya and Mora Jaureguialde (2005) see educational staff as key mediators who need to have 'audiovisual and critical literacy' so that their students could reasonably argue about TV content and accordingly teach them how to act. They emphasize the need to strive for '(…) increasing the audience's capacity in the rational and critical spending of television, or its television competencies.' Moreover, a necessity for higher educated professors are digital MC as well (Müller, Begović & Baumgärtner, 2018), as they are today strongly connected with acquiring TVC. There are actually two options - to use the television automatically or to be able to independently direct the personal use of television in a reflexive, conceptual and creative sense (Pérez Tornero, 1994, p. 39). In that context, mediators and all those who in any way care about children have the ability to use four media strategies for television watching - *restrictive*, *instructive*, *joint* and *supervisory* (Nimrod, Elias and Lemish, 2019, p. 344). Therefore, TVC are particularly important for the university student population that has included the educational module[4] in their study program. That is because as teachers and educators they will teach children and young people about mass media (including television) in general, their impact on our daily lives and optimal use. They are also going to incorporate TV as a teaching aid and television content as a teaching source.

Even though television is the most used in the research of children's and young people's media competencies and media literacy in Croatia, similar researches within the university student population is very rarely carried, also on the students studying communication sciences (Peran & Raguž, 2016), so it was perceived as a challenge.

More research is found internationally. The most recent one of such a student population at the international level in Lima (Peru) established that their future teachers also lack ME. Being aware, they were claiming that more specifically related content should be included in all curriculum years (Mateus & Hernández, 2019, p. 40). Sánchez Campos, Romera and Jurado Torres (2016, p. 4 according to Caro Valverde, 2009) also believe that, in the absence of adequate and structured vertical ME, it is necessary to train teachers in the field of TVC (especially semiological)

tending to the critical and reflective integration of ICT technologies in their educational practice. Referring to Aguaded and Díaz (2008), the same authors argue that it is the only way teachers will be prepared to stimulate critical knowledge, empower and favour the students for the development of television competencies so that they can know, interpret, judge and create a television medium. At the same time, students will develop habits, strategies and values of a "good viewer" with an active and rationalized use of media, or developing critical perceptive attitudes and creative suggestions associated with television' (Sánchez Campos, Romera & Jurado Torres, 2016, p. 4). They therefore offer a didactic model of development of semiological and television skills for secondary education suggesting analysing the various current programmes on Spanish television networks, using social networks as technological support.

Finally, Ranieri and Bruni (2018, p. 112) bring the fact that 'over the last 10 years, there has been an increasing interest from international bodies in elaborating comprehensive frameworks of digital and media literacy for teachers'. The authors, among other, conclude, 'Media education in higher education is a new topic which requires changes to the academic curriculum in order to make it sustainable' (Ranieri & Bruni, 2018, p. 124). They are, however, not the only one in such a perception (e.g. Fedorov, 2007; Burke, 2008; Fedorov & et al., 2014; Chelysheva, 2017; Fedorov & Levitskaya, 2018).

Based on previous review, it can be concluded there are numerous different theoretical and practical approaches to media education, while there is no consistent instrument to measure them (Hobbs, 2010). Mateus and Hernández (2019:35) argue that instruments for the research of teachers' media (or digital) skills are more numerable, and the media are seen rather as teaching aids than the main research subject. Those authors also emphasize Simons, Meeus, and T'Sas (2017) argumentation about the need of 'developing and empirically validating new instruments' and the one of Henriquez-Coronel, Gisbert, and Fernández (2018) asserting measuring students' media competencies are 'not always clear and divergent'.

In measuring TVC, we are relying on the common international practice of the research tradition using quantitative surveys, while for determination of the research variables continuing on pedagogic approach in developing TV competencies.

3. Study objective and hypotesis

The subject of our study was the television competencies of the students of the Faculty of Humanities and Faculty of Educational Sciences of Juraj Dobrila University of Pula. The main aim was to analyse the whole sample and to determine the potential differences between the students TVC in relation to the inclusion of the educational module in the study programme and the correlation of time spent watching television. Considering the so defined objective of research, two hypotheses were defined:

H_1 - The level of student television competencies depends on the study programme and the inclusion of the educational module; students that study educational module are negatively correlated with the poor-quality TV programme content.

H_2 – There is a positive correlation between watching entertaining TV channels and thematic content of poor-quality depending on the inclusion of the educational module.

Hypotheses were chosen in order to test not only a declarative level of knowledge but also its application in the student's real life. Their skills and responsibilities i.e. conceptual understanding of the content of the educational module was tested as well.

4. Method

4.1. Participants

This research was conducted on a total sample of 140 regular students, varying by age (19-25 years old) and enrolled in the 1st year of undergraduate studies at the Juraj Dobrila University of Pula. It included students from the Faculty of Humanities (History, Croatian Language and Literature, or a two-subject combination of the two, as well as Italian Language and Literature study programmes) and Faculty of Educational Sciences (integrated professional Study of Preschool Education and university Study programme of Teacher Education) (Table 1).

This is not nationally representative data, as it was not the goal of the study. The main criterion for the sampling process was the educational module. Namely, the aforementioned study programmes offer students the choice to enroll to the educational module within which they will acquire the necessary pedagogical competencies and conditions to work in educational institutions. Even though the specific module for teacher-education does not include a separate course dealing with media subject, the Media Culture course[5] is a part of integrated study programmes - professional study of Preschool Education (on the 1st year) and university study programme of Teacher Education (on the 3rd year)[6].

4.2. Instrument

Taking into account all previously reviewed references, especially about the rare media competencies studies in Croatia, we designed a questionnaire[7] based on main television competencies features according to the pedagogical approach of media education (Pérez Tornero, 1994; Ogonowska, 2014). It consisted of 13 items to measure students' knowledge, skills and responsibilities related to television as a mass medium focusing on its semiotic and discursive domain, examples of which are disposable in

Table 1. Structure of research respondents.

	Faculty of Educational Sciences		Faculty of Humanities / FH			
	Preschool education/ PE MC[10]	Study programme of Teacher Education/ TED	Italian Language and Literature/ ITAL	History/ HI	Croatian Language and Literature/ CRO	Croatian Language and Literature with another subject/ CRO2
EDU YES	45	27	4	11	8	10
Total	45	27			33	
EDU NO	–	–	6	18	11	
Total		0			35	
TOTAL			140			

Table 2. Examples of the categories and questions of questionnaire.

Categories	Questions	Type of question
Knowledge	Social functions of TV	O
Skills	The frequency of viewing certain TV content	L
Responsibility	Awareness of forms and ways of manipulation via TV with regard to individual content	L

Table 2. In other words, we were questioning students' knowledge about TV and via TV (Ogonowska, 2014:69) in seven open-ended (O) and ten closed questions for which a Likert continuum scale divided into 5 categories marked by an epithet was applied (L)[8].

4.3. Process

The research was self-administered and carried out by one of the study's author for the purpose of its bachelor final work in May of 2014/15 A. Y. during regular classes for students respondents. The research was conducted with the consent of the students, who filled the questionnaire anonymously for 20 minutes. We found the results actual because the content of those study programmes and the educational module were, at the time this article was written, still the same.

5. Results and discussion

The collected data for the purpose of hypotheses verification were analysed quantitatively by standard methodological methods. Descriptive and inferential statistics were used in the processing of the collected data - correlation, frequency and response percentages and t-test. ANOVA was applied to examine differences in arithmetic means between individual groups for each variable. LSD Post Hoc tests were made to determine which arithmetic mean contributes to the effect of statistically significant differences, i.e. to adequately and objectively determine groups that are statistically significantly different from others. ANOVA is a robust method, so it is also used when the data are not normally distributed, without damaging the validity of the test itself (Morgan et al., 2004). This also applies to the justification of the analysis for groups with less than 30 respondents. The results are presented according to the set of variables in the research plan, respectively as students' knowledge, as well as skills and responsibilities regarding television.

5.1. Knowledge about and via TV

The basic knowledge on and over television as a mass medium was investigated by open-format questions. Taking into account the whole sample, more than a half of the respondents (57.86%) do not know or consider that there is no difference between public and commercial television (Graph 1) while most of the remaining students see the difference in the programme content (Graph 2). Whilst the amount of advertising related to the difference in television ownership is not recognized by almost a third of students claiming the difference exists, or even 90% of all students,
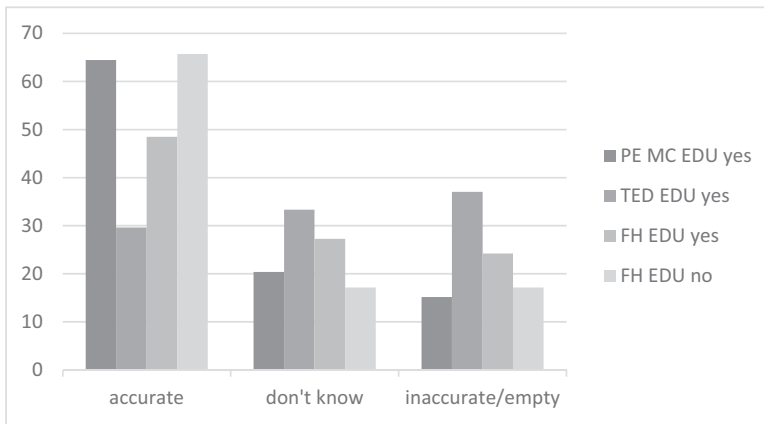
Graph 1. Determination of public and commercial television channels.
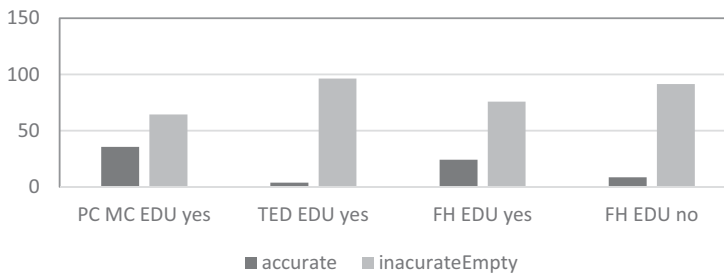
**Graph 2.** Determination of thematic television content.

media organizations management by ownership and financing is not differed by even 2% of all students. Furthermore, just over half of the students (54.29%), or more than two thirds of the study groups, can list the current public and commercial television channels in Croatia. Those who study Italian Language and Literature and the Study programme of Teacher Education stand out because not even a third of them responds correctly. The weakest results are shown by the Italian Language and Literature study programme students; 70% of them do not know the answer. In addition, a significant difference between the students of the study groups of the Study programme of Teacher Education and the ones studying pre-school education is determined. The latter had more knowledge about and via television, but at the time of infill the questionnaire, they completed the Media Culture course.

Then it was found that as many as 80% of all respondents are not able to enumerate the thematic television content. While a group of students without EDU gave the most accurate answers (65.72%), following by the group of students studying pre-school education (64,44%), the group of Study programme of Teacher Education gave the least correct answers (29.63%). Those and four findings that are about to follow are strong indicators that students are poorly educated about television (Ogonowska, 2014:69).

On the other hand, more than half of the respondents in all study groups (62%) were able to explain the media manipulation through television enter (Graph 3).

The presented results are in accordance with those defining the number of students (86.43%) who can report inappropriate television content for children (Table 3). However, soap operas, TV-series, news and commercials are to an unnoticeable extent seen as harmful television content for children. The phenomenon that TV content is not perceived negatively can be explained in the context of the idea that todays' generation of students are over-exposed to advertisement blocks and news so they do not even notice them. The media today present a kind of industry about the reality of the modern society producing a great deal of information, beliefs, value judgments, discourses that create and inspire desires; thus distancing people from themselves and creating unsafe users (Ilišin, 2003:11).

The fact that almost half of the total number of students did not know how to list potentially harmful media content regardless the viewers' age (shown in Table 4), also confirms they are not adequately educated via television (Ogonowska, 2014:69). More than half of them were History students (51.72%), 40% of those were studying Croatian Language and Literature in a combination with one more subject, more than a third was studying pre-school education (37.78%), and a third were teacher study students (29.63%). Surprisingly, a small number of questioned (2.14%), in the case of harmful television content knowledge regardless of their age, were not able to define advertisements as the content that promotes stereotypes, and consumerism. This indicates that only a minimal number of respondents were aware of the media
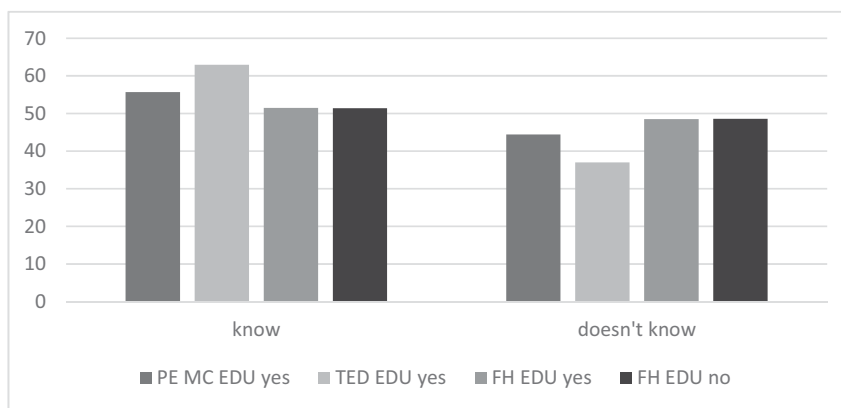
Graph 3. Defining media manipulation through television.

Table 3. Students' knowledge of an inappropriate television content for children.

Inappropriate children's TV content	Total sample
Violent movies, horror movies, reality show, new cartoons, pornography	72.16 %
Does not know the answer or hasn't answered the question	13.57 %
Cartoons, soap operas, TV-series	8.57 %
All but children's programmes	2.14 %
News and commercials	1.43 %
All of the above	1.43 %
Partisan films (one respondent)	0.77 %

manipulation through advertisements and are accustomed to consuming the content, which creates and maintains a consumeristic society. It is contrary to the ultimate goal of media competencies – ruling the media and using them in a meaningful, correct, creative and positive way, primarily because they offer information intentionally to transform 'self-thinking individuals' into 'consumerism' (Miliša & Ćurko, 2009, p. 13). Because only the awareness of the media manipulation and multiplicity of media content provides resistance to media captivity and addiction (Hadžiselimović, 2004, p. 31).

Correctly, however, most of the total number of respondents know how to rank the media social functions of the television so that their information function is placed first, followed by the educational, and least important entertaining one, which is in Graph 4 visible in details.

5.2. Television skills and responsibilities

Students wrote that they spent up to an hour watching TV every day, which is on the trail of previous researches (e.g. Labaš & Marinčić, 2018). T-test demonstrates that there is not statistically significant difference between both groups of students (SD = 1,3154; p > 0,05), including the one with educational module (M^9=1.53) and the one without it (M = 1.39), television is no longer the primary mass medium they use, at least not in that traditional sense (watching it at home). The most significant results

Table 4. Students' knowledge about harmful television content at all.

Potentially harmful media content regardless the age	Total sample
Has not answered the question	40.71 %
Violent movies, cartoons and pornography	22.14 %
Political campaigns, talk show, reality show, soap opera, quiz	20.71 %
All of the above	4.29 %
Horror movies	3.57 %
Astro night programme	3.5 %
Diary, wrong information	2.88 %
Commercials	2.14 %
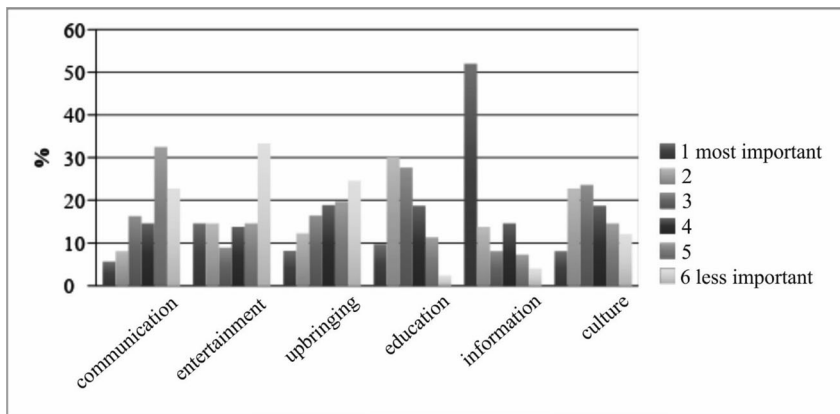
Graph 4. Students' ranking of the social functions of television as a mass media.

of correlation analysis shows on the one hand, that those who consider manipulation through education TV programmes, find documentary programmes ($r = 0.62$) manipulative as well, and on the other hand there are those who experience manipulation through talk shows and reality shows ($r = 0.58$). Those findings signify low students' abilities for a critical analysis of the media offer. Hence, challenging the new media, media pedagogues prescribe greater consumption of media content in all its forms (Miliša & Ćurko, 2009, p. 13). Although the analysis shows positive correlations for questions about competencies that are included in ML, a statistically significant difference between groups that can define ML and those who cannot ($p > 0.05$) has not been established for all questions.

Further, by analysis of variance (ANOVA) and the LSD Post Hoc test of the four particular study groups it was found that there was a statistically significant difference in the viewing of certain TV channels and programs regarding of the inclusion of the educational module. It was especially detected from those who attend the Faculty of Educational Sciences for Preschool Education (PE) or the Study Program of Teacher Education (TED) and have an module versus students attending the Faculty of Humanities (FH) who may or may not have an educational module. Further, analysis results determine statistically significant difference about viewing HRT1 considering the inclusion of the educational module ($p = 0.002$, $M = 2.17$). Continuing to ANOVA, the LSD Post Hoc test results follows. Firstly, it showed statistically significant difference in the viewing of the HRT1 program for students FH without EDU (FH EDU no), and those who viewed HRT1 more than all the other groups of students. E.g. PE CM EDU yes, with media subject ($p = 0.007$; $M = 1.73$), TED EDU yes ($p = 0.011$, $M = 1.69$), FH EDU yes ($p = 0.028$, $M = 1.79$). Secondly, there is statistically significant difference in the viewing of the RTL channel for FH EDU students ($p = 0.004$, $M = 2.51$) compared to the students studying PE CM EDU yes ($p = 0.0003$, $M = 3, 44$) who often viewed RTL. The same test confirmed, as well, statistically significant difference in the viewing of the RTL2 channel for FH EDU students ($p = 0.020$, $M = 2.25$) who viewed the channel less than the other groups of students: PE CM EDU yes ($p = 0.023$, $M = 2.84$), TED EDU yes ($p = 0.011$, $M = 3.00$), FH EDU yes ($p = 0.005$, $M = 3.03$). Besides, it also demonstrated statistically significant difference in the viewing of DOMA TV for students FH EDU no ($p = 0.041$, $M = 2.03$) who viewed TV channel less than the PE CM EDU group ($p = 0.004$; $M = 2.75$).

In addition, statistically significant difference was determined in the viewing of the educational program for the group FH EDU no, which more often viewed the program compared to the PE CM EDU group ($p = 0.004$; $M = 2.65$). Further, there was a statistically significant difference in the viewing of reality shows for students of FH EDU no ($p = 0.008$; $M = 1.54$) who less viewed such a program compared to PE CM EDU groups ($p = 0.001$; $M = 2.33$) and TED EDU yes ($p = 0.019$; $M = 2.19$). Last, but not the least, result of the LSD Post Hoc test is the statistically significant difference in the viewing of soap operas for student FH EDU no ($p = 0.044$, $M = 1.88$), which saw them less than PE CM EDU groups ($p = 0.046$; $M = 2.48$) and FH EDU yes ($p = 0.013$; $M = 2.69$).

Those findings are similar to the one of the rare studies of television competencies in Croatia conducted on the same Faculty of Educational Sciences in Pula. Focusing

on those student's awareness of the impact of the trash on television shows (Rotar, 2008) it stipulated that more than half of students watch the Big Brother Show in their leisure time. On one hand, the function and quality of this kind of broadcast is questionable in developing students' personal MC, respectively the awareness of the negative impact of such content, and on the other, their professional competencies as future educators in this mediatized world is doubtful.

Besides, as detailed in the Tables 5–7, a statistically significant difference was established between:

- groups of students from different study programs in their frequency of TV channels watching, selection of specific TV content and experiences of TV content manipulation
- the ability to define the media literacy concept versus other variables
- groups considering the possibility of defining the concept of media literacy and the involvement of EDU and
- programme contents and television channels that students watch and the involvement of EDU, with the exception of those surveyed by the History study programme which, compared to other respondents, generally watch different television programmes and content.

Table 5. Differences of the students' TV channel watching frequency, TV content choice and experiences of media manipulation by study groups.

Study group	Watching TV channels, selecting TV content, and experiencing media manipulation	Arithmetic mean (M)	$p<$
History	frequently watching HRT1	2.50	0.05
	frequently watching HRT2	2.44	0.05
Preschool Education	frequently watching RTL	3.44	0.05
History	frequently watching documentary content	3.56	0.05
	frequently watching information content	2.94	0.05
	frequently watching educational content	3.17	0.05
	manipulation is done by information programmes	3.61	0.005
	manipulation is done by documentary programmes	3.17	0.005
	manipulation is done by educational programmes	3.17	0.005

Table 6. The students' ability to define the term *media literacy* and the frequency of watching TV channels and selecting TV content.

Study group	Watching TV channels, selecting TV content	The ability to define the media literacy concept	Arithmetic mean M	$p<$
History	frequently watching HRT1	yes	2.67	0.05
		no	2.31	0.05
	frequently watching HRT2	yes	3.67	0.05
		no	2.19	0.05
Preschool Education	frequently watching RTL	yes	3.22	0.05
		no	3.57	0.05
History	frequently watching RTL	yes	4.33	0.05
Preschool Education	frequently watching documentary programmes	yes	2.67	0.05
		no	2.83	0.05
History	frequently watching educational programmes	yes	3.00	0.05
		no	2.96	0.05

Table 7. Inclusion of the educational module into study programmes and the students' ability to define media literacy as to the frequency of watching TV channels and selecting TV content.

Educational module	Watching TV channels, selecting TV content	The ability to define the media literacy concept	Arithmetic mean (M)	p<
Yes	frequently watching educational programme	yes	3.33	0.05
Yes	frequently watching HRT2	yes	3.00	0.05
Yes	frequently watching HRT1	yes	2.67	0.05
Yes	frequently watching *reality shows*	no	2.21	0.05
Yes	frequently watching RTL2	yes	3.13	0.05
		no	2.88	0.05
No	frequently watching RTL	No	3.33	0.05

As seen in Table 7 and according to all before mentioned, the first hypothesis was not confirmed. Generally, it has been established that students that studied Educational module positively correlated with the poor-quality TV program content, not negatively, as it was expected. Further, students with educational module are in correlation with watching certain TV channels and thematic programs. Specifically, it was found that only the students who have the EDU module included in the curriculum and who are educated for the teacher's vocation often use television for entertainment, choose commercial channels and watch reality shows and soaps, while students without EDU module use television for informational and educational purposes. The second hypothesis has been confirmed, i.e. there is a positive correlation between watching entertaining TV channels and thematic content of poor-quality depending on the inclusion of the Educational module.

Regarding three levels of television education (Ogonowska, 2014) we partly explored just education about and via television. Results show that those students without EDU module and those who completed Media Culture course (N = 80) are on *education via television* level. Others (N = 60) do not even have basic knowledge about television as mass media; therefore they are neither on the first level - *education about television*.

Those important findings opens up new questions to guide some future research, like for instance – What is the structure and previous knowledge (media and culture in general) of students who choose preschool and school teaching studies? Is there a higher level of television competencies in the students who choose the scientific studies in view of its research character? Is the educational module contentually deficient given that, for the time being it does not include a course(s) directly dealing with increasing the television (and/or media) competencies of future teachers and pre-school educators? Nevertheless, the results obtained, in the context of the irreplaceable role of the pedagogic staff in the development of media competencies at all, not only those of television, in pre-school, primary and secondary school children, can be seen as an pointer which should be taken into account when planning the future curriculum content of study programmes training preschool educators and teachers. This quantitative study of the students' television competencies hence does not intend to make generalized conclusions but it can still be seen as a modest contribution and stimulus for further development of this area of scientific interest, specifically because Croatia lacks scientific research on the student's media competencies at all.

6. Conclusion

Although research around the world in the last few years shows that children and young people are more likely to use different internet platforms and sources than traditional television content, they still actively watch TV because, apart from its habitual form, todays' television is also mediated through various digital platforms with which they are daily surrounded. However, judging by the content of current elementary, secondary and university education programmes in Croatia (Nefat, 2017), as well as from the outcomes of presented study, preschool educators and teachers have no possibility to acquire structurally television competencies during their education. The similarities were found to the wider international context results that, regardless of age, almost always show the same - lack of television competence (e.g. Fedorov & Levitskaya, 2017; Çetintaş & Turan, 2018). In general, we highlight three important findings. First, level of student television competencies depends on the study programme and the inclusion of the educational module, while students studying educational module positively correlate with the poor-quality TV programme content. Secondly, a positive correlation between watching entertaining TV channels and thematic content of poor-quality depending on the inclusion of the educational module was determined. Finally, students studying Preschool Education who attended the Media Culture course had higher-level knowledge about television than others did. As conducted research is limited in two ways - from the perspective of the sample size and the nature of media competencies self-observation method, as similar one usually are (Tolić, 2009, p. 207), we appeal to further exploration of this important topic.

Notes

1. In the context of the process of National Educational Curricular Reform in the Republic of Croatia, after the public hearing about the elementary school curricula proposals, the emphasis is on the acquisition of ICT in the digital environment. Media competencies in the broader sense will be adopted in several areas: technical and informatics, linguistic-communication, artistic and socio-humanistic and, to a larger or smaller extent, in all intercourse topics (Retrieved at 18th of December 2018 from the link <https://mzo.hr/hr/rubrike/nacionalni-kurikulum>).
2. This is seen from the media literacy development support of the Electronic Media Agency. It constructed a web portal www.medijskapismenost.hr, financially backup the realization of ML projects, organizes the Media Literacy Day, and supports writing and publishing publications for different age groups and types of users.
3. Retrieved on 17th February 2020 from the link http://www.digitalnewsreport.org/survey/2019/croatia-2019/
4. The educational module is a set of courses that students who have chosen the teaching direction of the study have the obligation to take and with which they acquire pedagogical competencies to work in elementary and high school. 'The courses of the Educational package are aimed at acquiring the core competencies of future teachers and teachers in areas of knowledge (on teaching and learning, assessment and monitoring, development and diversity of students), skills (planning (extra)curricular activities, establishing a stimulating learning environment, encouraging teamwork and co-operation) and the role of teachers regarding relationships with students, parents, colleagues, regulators, self-advancement)'. (Retrieved on 14th December 2018 from the link <https://ffpu.unipu.hr/ffpu/studijski_programi/edukacijski_paket/o_modulu>)

5. The course is enabling students to teach Croatian language and literature and other subjects in the context of multimedia, focusing primarily on the film and television. It aims to teach students how to use those media in the education process while understanding cultural values, interpreting expressive possibilities and critically analysing and evaluating shows, cartoons, and films for children (Lastly retrieved on 18th of February 2020 from https://e-ucenje.unipu.hr/course/info.php?id=2412).

6. During the study, students of the professional Study of Pre-school education have already completed Media Culture course, which has allowed us to investigate whether there is a statistically significant difference in the television competencies with respect to the one not attended to that course.

7. The first version of the questionnaire in the pilot study of students' TVC was tested on the Study of Culture and Tourism graduates in the 2012/2013 A. Y. (4th year, sample of 22 students (M/F) 21-31 years old) of the Juraj Dobrila University of Pula. This group was selected due to the fact that their undergraduate study programme included obligatory and elective courses and topics related to mass media. The questionnaire was redesigned in a way so that the open type questions number was reduced for better data processing (Nefat, 2017, p. 25).

8. Closed questions of the ordinal scale were ranked from 1 to 5 meaning the following: 1 - never, 2 - sometimes, 3 - often, 4 - very often and 5 - always.

9. M - arithmetic mean.

10. A group that attended the Media Culture course.

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