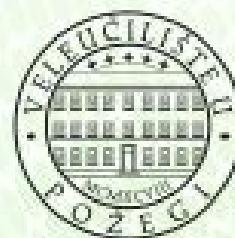


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This paper is based on a part of the data collected within the implementation of a wider research the basic goal of which was to verify the existence of age discrimination in the system of science and higher education of the Republic of Croatia.

DIRECT AGE DISCRIMINATION OF OLDER AND YOUNG EMPLOYEES IN THE SCIENTIFIC AND HIGHER EDUCATION SYSTEM OF THE REPUBLIC OF CROATIA

Abstract:

Age discrimination comes to the fore at all stages of the employment process and can imply a number of negative consequences for both young and older people.

The goal of this paper is to check the existence of direct age discrimination of older and young workers in the hiring process in the system of science and higher education of the Republic of Croatia. The paper should answer the questions of whether and to what extent respondents have ever personally experienced discrimination in employment by being told or written that they are too young or too old.

In order to achieve the said goal, an empirical research was conducted, and employees of two Croatian universities were selected for the research group: Josip Juraj Strossmayer University of Osijek and the University of Rijeka.

Data collection was conducted using an online questionnaire posted on the Google Drive platform between May 29 and June 21, 2017. The list of contacts and e-mail addresses of the respondents were obtained from the official websites of the constituent universities and their

Rectors' offices, and a total of 2958 addresses were identified: 1506 at the University of Rijeka and 1452 addresses at the Josip Juraj Strossmayer University in Osijek.

The empirical research results indicated the following:

1. 12.97% of respondents experienced direct age discrimination in the hiring process by being told/informed in writing that they were too young
2. 7.52% of respondents experienced direct age discrimination in the hiring process by being told/informed in writing that they were too old
3. there is a statistically significant difference between respondents with regard to age. Elderly respondents were more likely to experience direct age discrimination by being told/informed in writing that they were too old
4. there is a statistically significant difference between respondents with regard to years of service. Respondents who were told/informed in writing in the hiring process that they were too old on average have more years of work experience (21,05 years) than those who were not told/informed in writing (15, 47 years)

Keywords:

direct age discrimination; hiring process; science and higher education system

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Introduction

6 Since the paper deals with the issue of age discrimination of older and young workers, it is necessary to indicate at the very beginning who is considered an older and who a young worker. According to the World Health Organization, every person over the age of 60 is considered older, while according to the Organization for Economic Cooperation and Development, a person aged 55 to 64 is considered an older worker, and a person aged 15 to 24 is considered a young worker. For the purposes of this paper, the age limits provided by the said Organization will be used. The emphasis in the paper is on age discrimination, which is when one particular age group is treated differently from another age group based on chronological age. [12] In this sense, age discrimination can be considered a practical manifestation of ageism, which is generally reflected negatively in relation to the elderly. Age discrimination can be defined as different and discriminatory treatment based on age, a series of prejudices or negative assumptions and stereotypes about the elderly. [10] Furthermore, it should be noted that age discrimination in the hiring process consists in using the age of the individual as a decisive factor in making decisions related to employment, dismissal, promotion, but also mandatory retirement. Since some authors consider the institute of compulsory retirement as a "form of age discrimination par excellence", it is necessary to look back at the situation in the Republic of Croatia with regard to the above issues. In accordance with the provisions of Article 112. of the Labour Law, employment, inter alia, terminates at the age of 65. However, it should

be noted that there are exceptions to this rule which, as such, are provided by special regulations. Speaking of exceptions, there are categories of workers who, according to the provisions of special laws, may remain in employment after the age of 65, and on the other hand, those categories of workers who are by special regulations allowed to exercise the right to an old-age pension before the age of 65. [4] There is no doubt that in practice "ageism" and age discrimination will be closely intertwined, for example, in the way that employers' negative prejudices stemming from their fear of their own aging and inability in some way affect staffing policy towards older workers. [8] Research shows that 11% of older people in Europe often experience discrimination and that older people with higher levels of education as well as those with higher incomes experience discrimination less often than the others. [16] Research conducted by psychologists to determine the existence of age discrimination in older workers in the hiring process has shown that respondents would usually choose a younger one between two candidates. [6] Van den Heuvel and van Santvoort conducted a survey on the experience of age discrimination in 2011 focusing on direct age discrimination against the elderly (aged 65 and over) in 28 EU countries. The results showed that women aged 62 and over experienced age discrimination to a greater extent than men. Furthermore, research has shown that people with a higher level of education, people with high incomes, older people who are satisfied with their lives, who are in good health and who have confidence in their fellow citizens experience age discrimination to a lesser extent. The question

arises as to why employers are reluctant to hire older workers? The reason for this seems to lie in the prejudices that employers have towards older workers. Namely, aging usually results in negative prejudices [17, 11, 14], and they lead to discrimination against the elderly. Speaking about the prejudices of employers towards older workers, it should be pointed out that employers see the main reason for not hiring older workers in the unprofitability of investing in human capital which has a shorter potential. Other reasons for not hiring older workers cited by employers concern the prejudice that older workers have less energy, are less flexible and expect higher wages. Furthermore, employers have higher expenditures than older workers when it comes to various forms of social security and fear of frequent sick leave. Older workers are perceived by employers as unprepared for training and as an obstacle to the advancement of younger workers. Finally, the reason for not employing older workers lies in the suspicion of employers regarding their competencies, but also in the fear of possible lawsuits for discrimination to which older workers could expose them. [6, 18] One of the reasons for not employing older workers certainly lies in the fact that employers perceive them as less productive compared to younger workers. Since it is only a matter of prejudice, research is needed to determine why employers prefer younger workers. This approach to older workers has changed in recent years due to demographic changes that are reflected in the reduction of workforce. In the context of discrimination against young people, it should be emphasized that in 2016, according to estimates, young people accounted for over 35% of all unemployed

people in the world. [6] If we address the issue of youth employment or unemployment in the world, the data published in "The World Factbook" by the Central Intelligence Agency of the US government are relevant. According to the Agency, Bosnia and Herzegovina ranks first in the world in terms of unemployment with 62%, while Croatia is in the ninth place with 43% of unemployed young people. [21] Today, indirect discrimination against young people is increasingly present in the labor market, especially in the form of their employment on the basis of fixed-term employment contracts and part-time employment contracts as one of the atypical forms of employment. This is especially true if we keep in mind that workers employed under atypical employment contracts do not exercise the same rights compared to workers employed under permanent employment contracts with full-time employment. [2,3] The situation is not better in the Republic of Croatia either. Namely, the research conducted in 2010 as part of the project "Youth in the labor market" shows that about 52% of young people were employed under a permanent employment contract, while other employees concluded a permanent employment contract in about 87% of cases. Furthermore, the same survey showed that young people were twice as often employed under a fixed-term contract (16%) as other employees (9%). [5] Furthermore, during 2014, employers in the Republic of Croatia hired a total of 171,693 persons through atypical forms of employment (temporary service contract, author's contract, student contract, contract through a temporary employment agency), which is about 52.5% of total employment under an employment contract. [1] Numerous

studies support the existence of age discrimination against young people. However, according to some authors, discrimination against young people differs from discrimination against the elderly. In this regard, Sargeant states that discrimination to which young people are exposed because of their age may be different from that which affects the elderly, but still constitutes direct or indirect discrimination and harassment. [13] Of exceptional importance in the context of the possibility of recognizing areas in which age discrimination may occur, is a study cited in 2001 on a limited number of people between the ages of 16 and 30, which concerned the perception of discrimination. [13,20] This study showed that discrimination can be present in the field of employment, [9] in particular where various job advertisements containing the lowest age limit are taken into account. Furthermore, the area of selection is also subject to age discrimination when it comes to, for example, entering a service for which a minimum age of 18 is required. Age discrimination is also present in terms of the amount of paid salary, since the results of the research showed that younger people are paid less compared to other people who do the same or similar work. It is interesting to note that regarding the existence of age discrimination in the field of "training", the opinions of the respondents were divided. While some felt that younger workers were in a better position than others in this respect, others felt that for employers their own promotion was a priority. [9] Speaking of discrimination against young people, it is important to mention a study conducted by the UK Department of Labour and Pensions in 2012. [18] The importance of the

study is reflected in the fact that it gave rise to several possible reasons for discrimination against young workers. Namely, according to the study, younger workers are perceived as more demanding compared to other workers, and what may be disincentive for the employer who wants to hire them are the expectations of young workers to have a flexible schedule of work and leisure. Furthermore, the study showed that the apparent lack of responsibility of younger workers may speak in favor of their discrimination. [18] The allegations of discrimination against young people are also stated by Stern and others, according to whom young people are poor in terms of the quality needed for employment, and to a greater extent cynical, and less motivated in terms of the opportunity to do a good job. [15]

In view of all the above, it could be concluded that recent trends in labor markets in OECD countries and related to young workers (reduction in the relative amount of wages and reduction in the employability rate) support the fact that age discrimination can play an important role in their marginalization.

Methodology

Data collection was conducted using an online questionnaire posted on the Google Drive platform in the period from May 29 to June 21, 2017. The questionnaire consisted of 22 questions, three of which were open-ended (no pre-offered answers) and the rest closed-ended. Attitudes about discrimination were measured using Likert-type questions with five levels of agreement (from "completely agree" to "strongly disagree"). Such a questionnaire

was sent by e-mail with a request to participate in the research to all employees of the aforementioned universities. It is important to point out that, in addition to the invitation to participate in the research, the respondents are also guaranteed the anonymity of their answers. Anonymity, which was extremely important in this case due to the sensitivity of the topic, was complete, taking into account the fact that the identity of the research participants could in no way be revealed from their answers, and the Google Drive platform does not allow the person who posted the questionnaire to identify the person who filled it out (using IP addresses or in any other way), with which fact the respondents were familiar. A total of 96 messages remained undelivered as part of this research, mainly because the addresses were non-existent (due to out-of-date lists on the university website) or due to the e-mail boxes being full. A total of 532 completed questionnaires were received, which makes a response rate of 18.59% that can be considered acceptable for this type of research. In relation to variables of nominal type, i.e. when there was no more-or-less ratio between the categories, the chi-square test was used and Cramer's V as a correlation coefficient if the chi-square indicator was statistically significant. It should be noted that within the subject research, in addition to the frequency of answers to certain questions, demographic differences in the answers to the questions were also investigated with regard to age, gender, level of education, type of job, year of service, type of employment contract, and belonging to one of the universities covered by the research (University of Osijek or University of Rijeka).

Results of empirical research

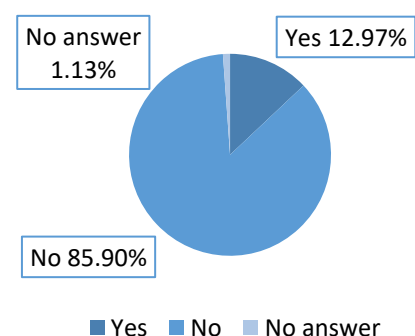
In order to check the existence of direct age discrimination of older and young workers in the hiring process in the system of science and higher education of the Republic of Croatia, they were asked questions:

“1. Have you ever personally experienced discrimination in the hiring process by being told or informed in writing that you were too young?” and

“2. Have you ever personally experienced discrimination in the hiring process by being told or informed in writing that you were too old?”

The results of the survey showed that 12.97% of participants stated that they had personally experienced discrimination by being told or informed in writing that they were too young (Chart 1).

Graph 1. Proportion of respondents who were told/informed in writing in the hiring process that they were too young



Source: Author's processing according to the results of empirical research

When it comes to differences between respondents with regard to gender, no statistically significant difference was found.

Thus, the share of those who were told/informed in writing in the hiring process

that they were too young is very similar for both men and women, i.e. it is 13.16% and 13.13%.

Table 1. Respondents who were told/informed in writing in the hiring process that they were too young - gender differences

	Yes	No	Total
Male	25 13,16%	165 86,84%	190 100,00%
Female	44 13,13%	291 86,87%	335 100,00%
Total	69 13,14%	456 86,86%	525 100,00%

$\chi^2=0,00$; $p=0,99$

Source: Author's processing according to the results of empirical research

No statistically significant difference was found between teaching, administrative, technical and support staff (Table 2).

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Table 2. Respondents who were told/informed in writing in the hiring process that they were too young - teaching, administrative and technical and support staff

	Yes	No	Total
Teaching staff	50 12,85%	339 87,15%	389 100,00%
Administrative and technical staff	14 12,50%	98 87,50%	112 100,00%
Support staff	5 21,74%	18 78,26%	13 100,00
Total	69 13,17%	455 86,83%	524 100,00%

$\chi^2=1,56$; $p=0,46$

Source: Author's processing according to the results of empirical research

No statistically significant difference was found among the respondents with regard to the level of education (Table 3).

Table 3. Respondents who were told/informed in writing in the hiring process that they were too young - educational differences

	Yes	No	Total
Graduate study and higher	60 12,71%	412 87,29%	472 100,00%
Undergraduate study	3 17,65%	14 82,35%	17 100,00%
Secondary school	6 16,22%	31 83,78%	37 100,00%
Total	69 13,12%	457 86,88%	526 100,00%

$\chi^2=0,69$; $p=0,71$, Source: Author's processing according to the results of empirical research

Likewise, there is no statistically significant difference, in this respect, either between fixed-term and part-time employees (both full-time groups) and part-time employees.

Table 4. Respondents who were told/informed in writing in the hiring process that they were too young - according to the type of employment contract

	Yes	No	Total
Permanent full-time	52 15,03%	294 84,97%	346 100,00%
Fixed-term full-time	15 9,15%	149 90,85%	164 100,00%
Part-time	2 13,33%	13 86,67%	15 100,00%
Total	67 13,14%	443 86,86%	510 100,00%

$\chi^2=3,58$; $p=0,19$, Source: Author's processing according to the results of empirical research

The employees of the two universities covered by the research do not differ in this respect.

Table 5. Respondents who were told/informed in writing in the hiring process that they were too young - the difference between the University of Osijek and the University of Rijeka

	Yes	No	Total
University of Osijek	38 13,38%	246 86,62%	284 100,00%
University of Rijeka	31 12,81%	211 87,19%	242 100,00%
Total	69 13,12%	457 86,88%	526 100,00%

$\chi^2=0,04$; $p=0,85$ Source: Author's processing according to the results of empirical research

When it comes to age, it is interesting that there is no statistically significant difference in terms of age among those who are told/informed in writing that they were too young.

Table 6. Respondents who were told/ informed in writing in the hiring process that they were too young - age differences

	N	\bar{X}	S	t	p
Yes	69	40,49	9,19	-1,56	0,15
No	446	42,43	10,47		

Source: Author's processing according to the results of empirical research

The same result is obtained when comparing the shares of those respondents who were told/informed in writing in the hiring process that they were too young and between three age categories - younger respondents, middle-aged respondents and older respondents. From this result, it can be concluded that age discrimination in this respect is probably at a similar level as before, given that middle-aged and older employees at some point in their lives experienced such discrimination to a similar extent as younger respondents.

Table 7. Respondents who were told/informed in writing in the hiring process that they were too young - age groups

	Yes	No	Total
Young age	6 10,71%	50 89,29%	56 100,00%
Middle age	56 15,01%	317 84,99%	373 100,00%
Older age	7 8,14%	79 91,86%	86 100,00%
Total	69 13,40%	446 86,60%	515 100,00%

$\chi^2=3,24$; $p=0,20$, Source: Author's processing according to the results of empirical research

When it comes to length of service, no statistically significant difference was found between those who were told in the hiring process that they were too young and those who were not.

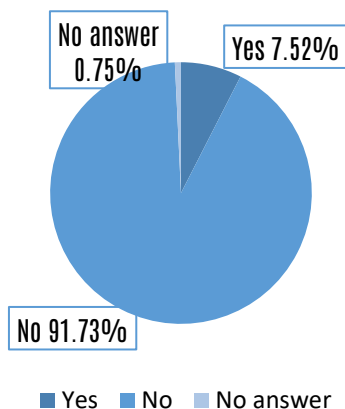
Table 8. Respondents who were told/informed in writing in the hiring process that they were too young - differences in work experience

	N	\bar{X}	S	t	p
Yes	64	15,13	9,20	-0,68	0,50
No	424	16,06	10,33		

Source: Author's processing according to the results of empirical research

An even smaller share is 7.52% of those who were told/informed in writing in the hiring process that they were too old (Graph 2).

Graph 2. Share of respondents who were told/informed in writing in the hiring process that they were too old



Source: Author's processing according to the results of empirical research

Furthermore, in this respect, there are no differences by gender, i.e. both men and women who have ever been told/informed in writing in equal proportions that they were too old.

Table 9. Respondents who were told/informed in writing in the hiring process that they were too old - gender differences

	Yes	No	Total
Male	11 5,73%	181 94,27%	192 100,00%
Female	29 8,66%	306 91,34%	335 100,00%
Total	40 7,59%	487 92,41%	527 100,00%

$\chi^2=1,78; p=0,18$, Source: Author's processing according to the results of empirical research

No statistically significant difference was found between teaching, administrative, technical and support staff

(Table 10). Table 10. Respondents who were told/ informed in writing in the hiring process that they were too old - teaching, administrative and technical and support staff

	Yes	No	Total
Teaching staff	25 6,39%	366 93,61%	391 100,00%
Administrative and technical staff	12 11,11%	100 88,89%	112 100,00%
Support staff	3 13,04%	20 86,96%	23 100,00%
Total	40 7,60%	486 92,40%	526 100,00%

$\chi^2=3,33; p=0,19$ Source: Author's processing according to the results of empirical research

The differences between the respondents according to the level of education were not statistically significant either (Table 11).

Table 11. Respondents who were told/ informed in writing in the hiring process that they were too old - educational differences

	Yes	No	Total
Graduate study and higher	35 7,38%	439 92,62%	474 100,00%
Undergraduate study	2 11,76%	15 88,24%	17 100,00%
Secondary school	3 8,11%	34 91,89%	37 100,00%
Total	40 7,58%	488 92,42%	528 100,00%

$\chi^2=0,47$; $p=0,79$, Source: Author's processing according to the results of empirical research

Also, no statistically significant difference was found when it comes to groups of employees divided on the basis of employment status into (1) those who work on permanent basis full-time, (2) those who work part-time full-time and (3) those who work part-time.

Table 12. Respondents who were told/ informed in writing in the hiring process that they were too old - due to the type of employment contract

	Yes	No	Total
Permanent full-time	32 9,25%	314 90,75%	346 100,00%
Fixed-term full-time	7 4,22%	159 95,78%	166 100,00%
Part-time	1 6,67%	14 93,33%	15 100,00%
Total	40 7,59%	487 92,41%	527 100,00%

$\chi^2=4,07$; $p=0,13$

Source: Author's processing according to the results of empirical research

The employees of the University of Osijek and the University of Rijeka do not differ in this respect either.

Table 13. Respondents who were told/ informed in writing in the hiring process that they were too old - the difference between the University of Osijek and the University of Rijeka

	Yes	No	Total
University of Osijek	21 7,37%	264 92,63%	285 100,00%
University of Rijeka	19 7,82%	224 92,18%	243 100,00%
Total	40 7,58%	488 92,42%	528 100,00%

$\chi^2=0,04$; $p=0,85$ Source: Author's processing according to the results of empirical research

The following table shows that there is a relationship between age and whether the respondent was ever told/ informed in writing in the hiring process that he/she was too old. This connection is completely understandable if we take into account that younger respondents could hardly have been in a situation where they were told or informed in writing in the hiring process that they were too old precisely because of their younger age.

Table 14. Respondents who were told/ informed in writing in the hiring process that they were too old - age differences

	N	\bar{X}	S	t	p
Yes	40	47,55	8,98	3,48	0,00
No	476	41,71	10,31		

Source: Author's processing according to the results of empirical research

The same result is obtained when comparing three age groups - this situation happened more often to older respondents, followed by middle-aged and finally younger respondents.

Table 15. Respondents who were told/ informed in writing in the hiring process that they were too old - age groups

	Yes	No	Total
Young age	0 0,00%	56 100,00%	56 100,00%
Middle age	27 7,22%	347 92,78%	374 100,00%
Older age	13 15,12%	73 84,88%	86 100,00%
Total	40 7,75%	476 92,25%	516 100,00%

$\chi^2=11,38$; $p=0,00$, Cramer's $V=0,15$

Source: Author's processing according to the results of empirical research

In terms of length of service, a statistically significant difference was found (Table 16). Namely, as expected, the respondents who were told that they were too old in the hiring process have, on the average, more completed years of work experience than those who were not told such a thing (21.05 vs. 15.47).

Table 16. Respondents who were told/ informed in writing in the hiring process that they were too old - years of work experience

	N	\bar{X}	S	t	p
Yes	37	21,05	9,43	3,24	0,00
No	453	15,47	10,14		

Source: Author's processing according to the results of empirical research

Discussion - application of the results of empirical research in order to answer the questions presented in the paper

The first question "Have you ever personally experienced discrimination in the hiring process by being told or informed in writing that you were too young?" aimed to check whether and to what extent the respondents had ever experienced direct age discrimination in the hiring process by being told or informed in writing that they were too young. The results of the survey showed that 12.97% of respondents had experienced such direct age discrimination, 85.90% had not experienced such discrimination, while 1.13% of respondents had not answered the question (Chart 1). Regarding the demographic differences among respondents, it was found that there is no statistically significant difference ($p = 0.99$) between men and women, more precisely the share of men who were told or informed in writing in the hiring process that they were too young is 13.16% and is very similar to the share of women who experienced such type of discrimination which is 13.13%. It is interesting to note that the results of the research showed that there is no statistically significant difference between teaching, administrative, technical and support staff (12.85%; 12.50%; 21.74%; $p = 0.46$), between respondents with completed graduate studies, undergraduate studies and secondary school (12.71%; 17.65%; 16.22%; $p = 0.71$), employees under a permanent employment contract full - time, employees under fixed-term full - time and part - time employees

(15.03%; 9.15%; 13.33%; $p = 0.19$), as well as between employees of the University of Osijek and the University of Rijeka (13.38%; 12.81%; $p = 0.85$). Thus, it can be concluded that these groups of respondents similarly experienced direct age discrimination in the hiring process by being told or informed in writing that they were too young. Of particular interest are the results of research that have shown that there is no statistically significant difference in this regard ($p = 0.15$) when it comes to the age of the respondents. Namely, the average age of those who experienced this type of discrimination is 40.49 years, and those who did not experience it 42.43 years. (Table 6). By the division of respondents into three age groups (young, middle and older age) the same result was obtained. Specifically, young, middle-aged, and older respondents similarly experienced direct age discrimination by being told or informed in writing that they were too young (10.71%; 15.01%; 8.14%; $p = 0.20$). From the above indications, it can be concluded that this situation is probably due to the fact that older and middle-aged respondents experienced this type of discrimination at some point in their lives and that therefore the ratio of discrimination experienced is similar to the ratio of age discrimination experienced by young respondents. Since the first question aimed to check whether and to what extent the respondents had ever experienced direct age discrimination in the hiring process by being told or informed in writing that they were too young, the second question was "Have you ever personally experienced discrimination in the hiring process by being told or informed in writing that you were too old?" on the other hand, aimed to check whether and to what

extent the respondents had ever experienced direct age discrimination in the hiring process by being told or informed in writing that they were too old. An empirical study in this regard found that 7.52% of respondents had experienced this type of discrimination in the hiring process, 91.73% had not experienced this type of discrimination, while 0.75% of respondents had not answered the question (Graph 2). If the demographic differences among the respondents are analyzed, it should be noted that it was found that there is no statistically significant difference between men and women ($p = 0.18$), which indicates that both men and women have a similar ratio (M 5.73%, F 8.66%) who in the hiring process were told or informed in writing that they were too old. Furthermore, there is no statistically significant difference ($p = 0.62$) between teaching, administrative, technical and support staff (6.39%; 11.11%; 13.04%), between respondents with completed graduate studies, undergraduate studies and secondary school (7.38%; 11.76%; 8.11%; $p = 0.79$), as well as between employees of the University of Osijek and the University of Rijeka (7.37%; 7.82%; $p = 0.85$), which indicates that these groups had experienced this type of discrimination to a similar extent. There is no statistically significant difference ($p = 0.13$) between the respondents employed under permanent full-time employment contract, full-time employees and part-time employees. Such results may indicate the legal regulation of the employment process in the system of science and higher education. It should be noted that, unlike the previous question, which referred to the "youth" of the respondents, the connection between age and the experience of age

discrimination ever in the hiring process was found here in a way that the respondents were told or informed in writing that they were too old ($p = 0.00$). Namely, the average age of respondents who experienced such discrimination is 47.55 years, and those who did not experience it is 41.71 years. (Table 14). An identical result was obtained by dividing the respondents into three age groups. Thus, younger respondents did not experience this type of age discrimination at all, which is understandable since these are people under the age of 30, so it is difficult to expect that someone could tell them that they were too old in the hiring process. On the other hand, the respondents who mostly (15.12%) experienced this form of age discrimination are older respondents (Table 15).

Conclusion

The results of the research speak in favor of the existence of direct age discrimination of older and young workers in the hiring process in the system of science and higher education of the Republic of Croatia. Furthermore, the research showed that older respondents were more likely to experience direct age discrimination by being told/informed in writing that they were too old and that respondents who were told/ informed in writing in the hiring process that they were too old on the average had had more years of service than those who were not so told/informed in writing. Age discrimination of older workers is reflected in the labor market in their poorer treatment by young workers compared to young workers, lower demand for their labor force or the reluctance of employers to hire older workers due to

prejudices against them. Taking into account the fact that discrimination in general and age discrimination can have its basis in stereotypes and prejudices, it is necessary to sensitize the public to combat stereotypes and prejudices, in which the media and civil society organizations should play a significant role since combating prejudice and stereotypes is also in part combating discrimination. Furthermore, it is necessary to work on promotional activities with the aim of raising the level of awareness of citizens, but also institutions about discrimination as an inadmissible difference in treatment. The most common problems that young people face due to their age are reduced training opportunities, lower salaries, longer probationary periods and performing jobs that often involve having more skills and poor career potential. However, a particular problem for young people is their exposure to indirect age discrimination, especially in the context of their getting employed under atypical contractual arrangements, which do not provide certainty for the future and significantly affect workers' rights. In order to protect young workers as much as possible from such indirect discrimination, the purpose of such non-standard forms of employment should be clearly indicated in laws or collective agreements. Precise and unambiguous regulation would reduce the possibility of abuse, primarily bearing in mind the possibility of such arrangements to replace a permanent employment contract. There is no doubt that the best solution would be for such provisions to be implemented in collective agreements, where possible and where they exist.

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ACCOUNTING IN CRITICAL PARADIGM

Abstract:

This article discusses the critical paradigm in accounting research. Accounting can be included in the critical paradigm. Critical paradigm offers a holistic approach and avoid deterministic and reductionistic thinking. Critical paradigm always see the social reality in a historical perspective, using both objective and subjective approach in looking at social change.

At the end, in addition to discussing qualitative methods in critical research, this article also tries to conduct a brief discuss of review articles in the critical paradigm.

Keywords:

Critical paradigm; Critical science; Accounting research

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Introduction

Every scientific research conducted, the results always depend on the point of view or paradigm used in the research. This is because each paradigm has its own theoretical basis. Most of the research in the field of accounting so far has used a conventional view. So that the development of accounting scientific disciplines is difficult for some people to accept.

This can be proven by the limited definition of accounting. For example, according to the American Accounting Association, accounting is “the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information”. According to this definition, accounting is placed only as a decision-making tool for its users. This means that conventionally accounting is assumed to play a role in agency relations in relation to profit alone. Even though today profit cannot be the only measure of a company's success, because the company must also contribute to preserving the environment.

Paradigm is a set of beliefs, values, a view of the world, the way we see the world [1]. Then a different paradigm will lead to a new perspective, giving rise to a new paradigm in conducting research. Paradigms can change along with the development of science so that a deeper understanding of the world can be obtained.

Positivism has a view that researchers should not be directly involved in what they observe so

that research results are objective. The research results are considered value-free from the object under study because the object of research is considered to be independent of the influence of the researcher, between the researcher and the object under study there is a separation. This is because for positivism reality and truth are considered to already exist so that to obtain them, observation does not need to be accompanied by subjectivity.

While post-positivism does not accept the existence of one truth because the theory must be open. While the positivism paradigm uses hypotheses to verify or reject a theory, post-positivism tends to be inductive in nature and tries to find or reconstruct a theory so that a new theory is more open to discover.

In addition, the limitations of the positivism paradigm according to Sudarma [1] are aimed at making generalizations that are used to predict without understanding the meaning of an object contextually; then it is atomistic or breaks reality into limited variables, which means that it does not look at reality holistically; and only observing the problem on the outside without studying and trying to get a deeper picture of an object under study.

Economics is dominated by the influence of positivism. While accounting science is not only based on economics, but also sociology. Because in sociology there are various views that are not only dominated by the influence of positivism, it can be said that accounting is a multiparadigmatic science [2]. In this article, we will discuss how accounting research is in a critical paradigm, starting from its

theoretical basis to methods that can be used in accounting research.

Radical Humanist and Radical Structuralist

Radical humanist as a scientific paradigm has the main characteristics, namely subjectivity and the belief that science is a tool that aims to liberate or elevate the humanity of those who are oppressed by the existing system or in short it can be said to be emancipatory. On the other hand, there is also a radical structuralist paradigm which also aims to carry out emancipation through scientific activities, the difference is that the radical structuralist does not have a subjective and constructivist commitment. Interestingly, critical theory which is the basis for the critical paradigm uses both of them to carry out a kind of revision effort on other paradigms, especially the positivist paradigm which still holds tightly to what we know as grand theory or meta-narrative [3].

In scientific development, the postmodernism paradigm also exists between the radical humanist and radical structuralist, in addition to the critical paradigm based on critical theory. The main ideas of postmodernism are deconstructivism and anti-establishment. Then it can be said that the main philosophical idea that underlies or underlies the radical humanist and radical structuralist paradigms is Marxism. This can be seen from the orientation of materialism, anti-establishment, and emancipatory.

Critical studies in accounting usually depart from a strong desire to emancipate or increase the degree of those who are oppressed and disadvantaged (at least not benefited) by social processes that produce or involve the use of accounting information, either in the public sphere or in the realm of individual organizations [3].

Accounting as Critical Science

Dillard [4] wrote an article explaining that accounting is a science that is in a critical paradigm. If we read some literature on accounting, there is something very dominant, namely accounting is a component of a logical technology. But it turns out that accounting is not a technology that is free from ideology. In accounting, the axioms and laws are not based on observed phenomena as in the physical sciences, but originate from the social environment. Accounting, although objectively obvious, its framework is a social construction. Accounting technology is definitely wrapped by an ideology.

According to Dillard [4] our perception of "reality" like staring into a mirror surface. We can only see what is reflected back to us. Different surface (ideological frame) reflects a different reality. But the more we looked in the mirror, the reflection is increasingly becoming "objective reality". Output of accounting technology projected onto a reflective surface and distortion which is interpreted as an objective representation of the "real" phenomenon. This is an iterative process, in which frames the community determines accounting technology and accounting

technology in turn affects the social, which in turn affects the accounting technology, and so on. If there is no intervention, if the image is not directed towards the existence of an alternative ideology and distorted mirror, but differ distorted, "reality" to be considered, then the accounting will continue to strengthen and make real social system from which it originates.

There are different levels in which accounting and social systems can be seen. At the level of fairly specific, action and interaction of social factors can be observed directly between accounting technology offered and implementation and those affected. The dominance of the power of the capitalist state, then the accounting is applied to these countries is capitalist technology, not merely techniques, actions, determined capitalistic force, accompanied by professional ideology.

Functionalist paradigm is the most dominant perspective in view of accounting as well as in other social sciences. Language is thinking, and communication, accounting is functionalism. This creates difficulties in accounting in the posture of critical social science.

Accounting of functionalist perspective based on the idea that the change of state, typically defined as economic events or transactions have occurred. Basis to determine what is the most basic accounting atom located in, and determined by the dominant economic system of society. The process of identifying, measuring and communicating (implemented operationally as practices and accounting

procedures) determined in this context. Control of the dominant economic system, after gaining power as a result of the system, control specification accounting activities.

Accounting theory when viewed through a critical social science is a derivative of the functional philosophy of the capitalist economic system. Thus, this theory is not concerned with alienation but only with the technical process of assessment, which is defined as the value of an objective assessment based on the concept of marginalist economy. Following the traditional accounting perspective, there is no consciousness or false consciousness, crisis, education or transformative action. There is no recognition of the social good except in a state of distorted, skewed belief that all are best served by the permanence of the capitalist system.

As a result of the economy of monopoly capitalism. It is based, and built, on this basis and solely geared towards that goal. Do so deeply embedded in the existing system that greatly restricted the potential for changes other than dictated, or permitted by the system. A fundamental change in the underlying economic structure must occur before any changes occur in accounting technology. It also shows that the accountant, at least professionally, dominated and shaped by the dominant system. Given this context, where the accounting being pragmatic becomes legally impossible to see the accounting, the discipline and the practice thereof, as anything other than a technical artifact of the dominant system. Thus, it would

appear difficult for the accounting, as observed in the reflector capitalist, to be critical of himself or the dominant system, and much more difficult to take a proactive role in the systematic transformation.

Accounting in a functionalist perspective, cannot maintain a reflective view outside the system running. Accountants today reflects the surface by filtering the tension arising from systemic conflicts and ignore or distort the local crisis in a manner geared to maintain and reinforce the status quo. Thus, there is no valid theory of false consciousness, crisis, education or transformative action. Accounting when seen from the perspective of social science to provide a richer picture. Investigating the relationship between accounting and social systems provide an opportunity for researchers of social criticism in accounting to engage in critical evaluation by questioning the false consciousness, pay attention to the crisis, pay attention to education, and also the related approach to transformative action.

Critical Paradigm

Critical paradigm offers a holistic approach and avoid deterministic and reductionistic thinking. Critical paradigm always see the social reality in a historical perspective, using both objective and subjective approach in looking at social change. Critical paradigm in the classification Burrell & Morgan [5] found in the upper two quadrants. He divides these two paradigms into two paradigms: structuralist radical and radical humanist. Radical humanism looked at changes in consciousness, while radical structuralism see

that changes could be made through a structure or system.

Chua [6] does not distinguish critical paradigm into two, because he saw some difficulties with the classification in Burrell & Morgan [5], among others: first, the whole assumption is represented as a strict dichotomy; second, that framework includes a relativism that strongly about scientific truth and reason. Chua [6] explains that the study of accounting as a social critique has had some important characteristics. First, no further accounting is seen as a rational technique, which is separated from service activities in a rational relationship more broadly. In fact, accounting as a discourse in the style of a particular calculative rationality, argued for was organized and hosted by the macro conflict between the different classes.

Second, the criticism that emphasizes the totality of relationships. The impact is a perspective that raises a new interest in the macro-structural phenomena certain neglected in mainstream accounting research. Thirdly, there is a question that not only emphasizes the importance of the state as a constitution, they focus on an accountant as organized interest groups. Fourth, focus on the totality of the study also promote organization that integrates the analysis of micro and macro level. This has the effect waiver traditional distinction between financial and management accounting. Fifth, claimed to be the accounting services activity which is something that is neutral when in fact the purpose of the capital owners are implicitly given priority.

In seeing reality, this critical paradigm is different from the positivism paradigm. If the positive paradigm ultimate reality is not the fact of birth can be seen sense, but rather in the spirit or idea, social science is better understood as a catalyzing process to free human beings from all injustice [7]. Critical paradigm wear both objective and subjective approach to explain the changes that always occur in every social relationship.

Dominant assumption of critical perspective according to Chua [6], "criteria for judging theories are temporal and context bound. Human beings have inner potentialities which are alienated through restrictive mechanism. Objects can only be understood through a study of their historical development and change within the totality of relations. Empirical reality is characterized by objective, real relations which are transformed and reproduced through subjective interaction. Human intention, rationality and agency are accepted, but this is critically analysed given a belief in false consciousness and ideology. Fundamental conflict is endemic to society, conflict arises because of injustice and ideology in the social, economic and political domains which obscure the creative dimension in people. Theory has a critical imperative, the identification and removal of domination and ideological practices."

Qualitative Methods in Critical Research

Accounting research in critical paradigm aims to liberate (to emancipate) and change (to transform) [5,6]. For this paradigm, science or

social structure is an entity that oppresses a group of people. This paradigm is very concerned about how the oppressed can be released. Then, after being released, these people changed their lives towards a better direction. Examples of more concrete example is the modern accounting [8]. Accounting modern capitalist by this paradigm is seen has made domination (colonialism) to the business community. Because it is so strong and the duration of this repression, so that people who are oppressed to the extent not feel that he is being persecuted.

This paradigm with the research seeks to raise awareness of the oppressed people to perform self-liberation. Having set themselves, then they can make changes to business and accounting practices to a better direction. Thus, the new accounting forms will be generated by this paradigm. Forms of knowledge generated by this paradigm is concrete (can shape a person's life) and freeing and simultaneously can be converted into a better direction. Of course science in this paradigm full value, because it is loaded with a variety of interests.

Qualitative-critical research can use the case study research design, critical, action, feminist, and critical ethnography. Ontological assumptions in the study design options remain grounded on the assumption of radical change (radical change) within the continuum line objectively and subjectively [5]. Other research design can be used all be within this sense. The analysis tool used is critical theories, such as Habermas action communication theory, psychoanalysis, Marxist

theory, critical hermeneutics, political economy, and others. These theories serve as an analytical tool, not meant to be a theory that will receive contributions from accounting research. Thus, accounting research with qualitative-critical method is still being done in order to contribute to the science of accounting itself [8].

Critical Paradigm Article Review

In this section this article will discuss article of Lehman [9], entitled A critical perspective on the harmonisation of accounting in a Globalising World. In this article Lehman explore the implications of cosmopolitan project accounting harmonization, to explore the process of globalization.

The dominant perspective on international accounting, he argues, is based on the principles of economic rationality that is designed to achieve global harmonization, thus creating win-win opportunities and political finance, together with an open and accountable world order. In combining and respecting local values in the conception of the common good, it is very likely that the process of accountability may be assuming the legal process, the harmonization and internationalization of accounting criticized.

As a result of the acceleration of globalization, a number of free-market accounting institutions have been made both at national and international levels. In recent times, moreover, the dominant model of international accounting harmonization is based on the assumption that maintaining the benefits of

accounting decision that the company can continue their operations if they achieve results efficiently and effectively. Accounting internationalization has been characterized by a highly skilled orchestration of the whole world and lobbying pressure from industry audits that have the power to control the agenda and create control technology. In addition, through the process of harmonization of accounting internationalization has been given a further boost by the recent deregulation and privatization trends that advocated Total Quality Management, Activity-Based Costing, Balanced Score Card and Harmonisation of Accounting Standards. Effect of accelerated global development has been perpetuated a culture of acts related to the process of globalization of the underlying power of the Western world.

The argument of this article, ideas and Kantian Foucaultian been used to navigate the complexities of globalization. This section extends that analysis to investigate the notion of the sovereignty of nations and how it affects the accounting system. Especially, it is argued that this strategy helped 'crack accounting lens' to consider not only political but also social and environmental reporting practices. More importantly, it offers a new way to explore globalization and its relationship with the cosmopolitan strategies are often based on the assumption of positivistic. It is also known that the positivistic method ignores differences and diversity. Namely, the liberal conception this accountability overlap with the free-market reforms backed by the government. Effects of new international accounting technique is to push globalization worldwide. Accountability

structures projecting cultural role of calculation and control and ignores the other value systems that may contain new ways to manage society.

In conclusion, the central argument in this article that the accounting profession and the big transnational corporations prefer accounting policies which will be determined according to the process of self-regulation. Globalization impact on the nation's sovereignty and accounting involved. Then to manage the global commons involves the democratization of organizational relations and involves working to combat the adverse effects of global capitalism. It is said that the discourse of the dominant accounting regime based on a framework, which reflects the assumption of strict liberal individuals and organizations supported by the private sector as the most efficient and effective engine of social change.

Through this article Lehman try to explain how accounting firms of the world have been using auditing as a means of control, and through the harmonization agenda accounting and auditing standards that run international lobby groups to impose its interests to pave the way for the expansion and intensity of their power. In a very unfortunate conditions in which standard-making bodies generally just follow the dictates internationally, the process of harmonization or even now "standardize" internationally has caused an imbalance strength (power imbalances) were greater among countries.

European-Americans on the one hand with the countries of the third world on the other side. After criticizing the process that produces international accounting standards which is claimed to have been "harmony", the article Lehman then tried to offer alternative solutions are considered to be noticed aspect is forgotten by the process of harmonization of international accounting standards, namely the harmonization of the fixed attention the importance of commitment to the value of "kindness together", citizenship and democracy so that the international community does not even hegemony by the interests of multinational corporations (MNCs) are increasingly dominate the life of many. Lehman's article view that the harmonization of accounting standards is a social process. The social process has been beneficial to certain groups at the expense of another larger group. Therefore, there is reason to question why this is so, and why not do or take any other approach that is more equitable for all.

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DIGITAL TECHNOLOGY AND SECOND LANGUAGE ACQUISITION IN PRE-SCHOOL AGE

Abstract:

This paper presents a study investigating the use of digital technology - tablets and mobile phones by six pre-school children in Požega, Croatia and the way this technology facilitated the English language learning process through its content. The children involved were two boys and four girls aged between four to five. The paper's introduction reflects on today's widespread use of digital technology amongst the young learners. The study itself was conducted using two quantitative research methods - contextual interviews with the pre-school children and interviews with the children's parents. The study findings indicated that the children preferred multimodal content such as cartoons and video games with colourful themes or characters, that prompt or ask questions, i.e. encourage participation. A strong preference for English speakers changing pitch and tone within the content was also indicated in the findings.

The findings pointed to children's preference towards music videos - nursery rhymes teaching letters, numbers or colours. Finally, gaming videos and tutorials were a common choice of content for all six children, where they were mostly exposed to visual and aural prompts. In conclusion, the children independently selected multimodal content: cartoons, videos games, tutorials, gaming videos and nursery rhymes which all shared visual, aural, linguistic and spatial modes of communication. The research provided a valuable insight into the type of digital content that pre-school children opt for in non-educational environment and how they acquire basic communication skills in English as a result.

Keywords:

digital technology; apps; pre-school children; English as a second language; L2

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Introduction

Digital technology is integrated into our everyday lives and it would be difficult to imagine performing the simplest activities without it. As a result, learners of all ages including infants and pre-school children in Požega, Slavonia and globally are exposed to digital technology, more specifically tablets and mobile phones. Young children start using handheld devices early on and rely heavily on them in order to learn about the world around them, including how to communicate. This way, young children are exposed to a variety of multimodal content in English (L2). A large number of pre-school children in Požega develop basic L2 competence however, these children have no formal or informal education at that stage. Contrarily, they are exposed to digital technology such as handheld devices from infancy.

The objective of this research was to determine what types of apps and content pre-school children used to facilitate the L2 learning process at home. Since the aim of the research was not only to find out what kind of L2 content pre-school children accessed at home, but also how they interacted with it, two qualitative research methods were used to collect the necessary data: contextual interviews with pre-school children, followed by interviews with their parents. Contextual interviews provided a valuable insight into how the participants utilised the content including L2 and interviews with their parents served as a complement to contextual interviews. This was to confirm whether the participants normally accessed the type of content demonstrated in the contextual interviews, and to provide parents an

opportunity to share any additional information.

Previous studies suggest that the interaction of young children with digital technology has a positive influence on language learning. More specifically, it has a positive influence on emergent literacy skills, such as vocabulary recognition and retention [1], phonological awareness, expressing ideas and develop their motor skills through touchscreens [6].

Methodology

The research was conducted Požega, Požeško-Slavonska County, where pre-school children are generally not intentionally taught English by their parents or family. The participants were aged between four to five, two boys and four girls; and one parent per child. All six children had lived in the same neighbourhood and frequently spent their free time together either indoors or in their gardens. The objective of the research was to determine what types of apps and content pre-school children used and how this facilitated the L2 learning process in a non-educational setting.

Since the objective was not only to establish the type of content used, but also how the content facilitated the learning process, two qualitative research methods were used to collect the data. In *Paradigms of Social Research*, Piergiorgio Corbetta supports the concept of a researcher 'putting [themselves] in the position of the participant' in order to gain a better understanding of their interaction with the technology [3].

Contextual interviews with pre-school children

The first qualitative method was a twenty-minute long contextual interview with each child. A classic observation sessions would not be applicable for the sensitive age group of four to five year olds who appreciate a verbal and gestural input from the observer in order to feel comfortable. A verbal interaction with the researcher through an open-ended interview created a more natural, child-friendly environment, which yielded more accurate

results. Any unpredicted behaviour and lack of focus was also avoided. The aim was to gather data regarding particular apps and content that the children used on tablets and mobile phones (types of apps or content, names), multimodality in the apps or content (visual, aural, spatial, linguistic) and nonverbal communication (body language and gestures) [9]. Data was collected in writing by completing contextual interview sheets as well as writing down answers to the questions that the participants provided during the interviews.

Contextual interview sheet:

Participant name:			
Age:			
Gender:			
<i>Date and time:</i>	<i>Types of apps or content, names</i>	<i>Multimodality: visual, aural, spatial, linguistic,</i>	<i>Body language, gestures</i>

Interviews with the parents

Interviews with the parents were conducted with one parent of each child, and they were applied as the second qualitative research method to add credibility to the research. The interviews served as a complement to the contextual interviews with the children in order to verify whether the participants accessed the same type of content regularly. The interviews were open-ended and prompted by the written guide. They also provided parents an opportunity to contribute with their own opinions on the children's learning process and provide any additional information.

Interview guide examples:

1. Describe what type of content or apps your child uses on tablet or mobile phone?

2. Describe how your child participates in tutorials or nursery rhyme videos.
3. Tell me how your child navigates a video game or an operating system in L2? (with ease, struggling)
4. Describe how and in which situations your child uses L2?

Findings & Discussion - L2 Content Type & Multimodality

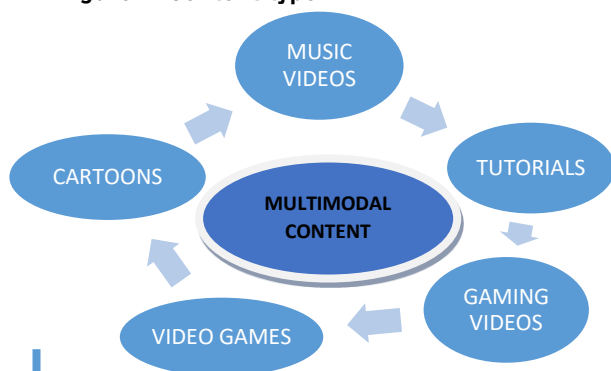
Contextual interviews

According to the findings, all six participants had a strong preference for five types of L2 content while using tablets and mobile phones:

cartoons, video games, tutorials, gaming videos and music videos.

The most accessed L2 content during the contextual interviews was YouTube cartoons Pokoyo, Peppa Pig, and Masha and the Bear, although this type of content was preferred amongst the girls. Overall, half of the participants considered Pokoyo their favourite cartoon.

Figure 1. Content type



Source: author

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Content type

The analysis of the content indicated that all categories shared variety of multimodal characteristics [10] that captivated children's attention and encouraged their participation in L2 learning: visual: fluid and gestural characters with colourful clothes or features who run, dance, move quickly, do sports, perform activities with friends - usually animals or toys, changing viewpoints and distance from one character to another, changing angles; aural: sound effects - loud horn, stomping, (train) whistling as well as songs and background music, which children often repeated the lyrics to; and spatial: usage of hardware buttons on tablets on mobile

phones to turn the volume up or down, or the navigation bar to play video games.

Participation of the children to either repeat the movement, sing a song or form an utterance was directly encouraged through linguistic mode across all content including cartoons. This was achieved in delivery of questions such as 'Narrator: Can you tell Pokoyo what to do with the whistle?' in Pokoyo or 'A dressing up' song in Peppa Pig, which encourages children to dress appropriately for the weather conditions while singing a song. Introduction and reiteration of words is also present in cartoons, for example, 'Narrator: And look. It's Pocoyo's musical flower. Pokoyo: Flower! Music!' which also encouraged children to memorise and repeat certain vocabulary. Pokoyo narrator successfully utilised exclamatory utterances such as 'Yes! It worked!, You've got it!' through frequent changes in pitch and tone in order to convey excitement and encourage the children to pay attention. On other occasions, by expressing approval and praising Pokoyo 'It's that one! Great job, Pocoyo', he motivated the children to continue paying attention. Praising and approving is a recommended ESL teaching practice with both children and adults, as it has a positive effect on learners' motivation [2]. Finally, the narrator was frequently using questions such as 'Could it be? Are you, um, looking for something? You are?' in order to intrigue the participants and prompt them to wait and expect an answer either by being provided one verbally or being shown the solution on screen. Questions were mainly used by the narrator throughout the series in order to elicit vocabulary from the participants. This approach is supported by the study with five-

year-old immigrant children which involved learning vocabulary through e-storybooks [11]. The control group used static while listening to stories while the experimental group had video content instead. The results showed that the children who were exposed to the e-storybook with the video content acquired expressive L2 vocabulary more efficiently.

All three cartoons did not exceed 7 minutes in length. According to previous research, the concentration span of a four-year-old is approximately 8 minutes long [5] so the length of these cartoons appeared ideal to hold participants' attention.

The participants showed an equal interest for video games, and three out of six accessed Peppa Pig Sports Day, which included an ice-cream making activity; and two out of six accessed the KidsEnglish app.

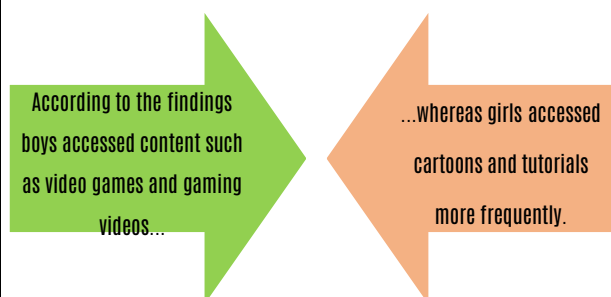
The Peppa Pig Sports Day video game included a variety of activities such as racing, dressing up, and making an ice cream. This game combined a linguistic mode with visual and aural. Utterances such as 'Let's make delicious ice cream after all that exercise', or 'Move whisk to mix all the ingredients together' alongside with floating, interactive images of the ingredients and whimsical background music encouraged the participants to use L2 and progress in the game. The three participants completed all the activities with ease. When asked how they knew which images to select, the participants provided the following answers:

Participant 1: I move these here (moves images of the ingredients to the mixing spot).

Participant 3: Milk and chocolate go here (moves images of the ingredients to the mixing spot).

The possibility of children using video games as a way to scaffold their way through the L2 learning process was previously explored by Sandvik, SmørDAL, and Østerud [7]. The apps with multimodal texts - letters with sound representation were used in kindergartens, which supported the children's literacy development and phonemic awareness. The study concluded that 'multimodal texts [...] scaffold the children's learning process and encourage them to make the meaning themselves.

Figure 2. Type of content accessed



Source: author

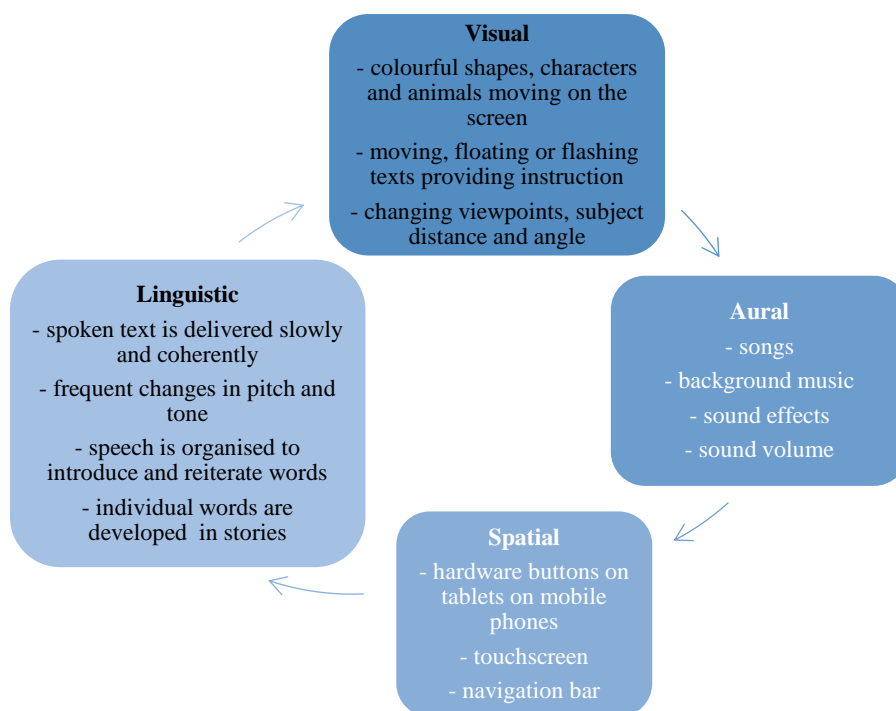
Two out of six participants - two boys used the KidsEnglish app designed to encourage vocabulary learning through video, a look and choose an activity, a listen and guess activity, and a quiz. After a visual or aural prompt, the participants completed activities requiring selection from the drop-down menu with ease, selecting correct items (colours, animals, flowers, etc.) by either touching or swiping the screen. The app had categories presented in a variety of colours and colourful images illustrating a particular object. The pronunciation was provided upon correct selection. A study by Xin and Affrunti where iPads were used by children with learning difficulties in order to learn English vocabulary

indicated that auditory and visual approaches for each word presented encouraged better word recognition and understanding of vocabulary [12].

When asked how they decided what the correct answer was, one of the participants stated:
Participant 2: It's easy...I like this game. I just look, then choose.

The Aglilara and Tamjid study indicated that children's perception of L2 vocabulary learning appeared to be a game rather than conventional learning [1]. The study suggested that the children who learned vocabulary through a video game combining multimedia and text had a significantly better score than the group which used non-digital resources such as blackboard and paper.

Figure 3. Multimodality in content



Source: author

Gaming videos such as and Thomas and Friends Magic Tracks were also selected amongst the two out of four boys during the observations. The gaming video featured a popular digital character with a colourful design - Thomas the Tank Engine, the railway track running through his village, and a multimodal design of instructions to encourage the progress in the game. Visual mode included flashing signs and arrows pointing at the right direction and displayed at the appropriate time, and names

of villages and buildings. Aural mode included background music as well as the train whistle. The participants were prompted to use L2 and progress in the game through linguistic modes of 'Choose your engine.' and 'Watch out for that rolling boulder!'. Examples such as 'Where shall we go next? Forward leads to The Boulder Cliffs.' encouraged participants to carry on by providing different outcomes, whereas 'Look how wonderful your train set is!' created player investment, attachment, and sense of reward,

encouraging the participant to proceed with the game [1]. The Sandvik, Smørødal and Østerud study with the app Puppet Pals and the engaging visuals demonstrated how and the teacher's scaffolding of vocabulary allowed children to manipulate images from smaller to larger while progressing through the app [7]. A previous study by Hutchinson and Beschoner supports the claim that children who are exposed to multimodal response opportunities such as visuals and audio prompts, can easily utilise those responses better [4].

According to the findings, girls preferred craft tutorials over gaming videos. Participant 1 explained she liked watching paper being cut into a braid and Participant 5 referred to YouTube Tangled Bookmar DIY tutorial as 'cut and fold' video in L2. The tutorial demonstrated how to make Rapunzel's face and the braid out of paper through visual mode: paper cutting, colouring and gluing, aural mode: the whimsical background music and the linguistic mode where the narrator provides verbal instruction on how to complete the activity 'Bring the sharp corner up to the fatter corner at the top, We're going to trim the top. We can also trim that later.'

YouTube nursery rhymes were also popular amongst the girls according to the findings. The examples included an hour long compilations of classic nursery rhymes such as the ABC song, The Alphabet Song, One Potato - Two Potatoes, Wheels On The Bus, Itsy Bitsy Spider, Head Shoulders Knees and Toes, etc. The rhymes were accompanied by visuals - videos featuring either cartoon characters including children and animals or adults and children singing and dancing. The dancing characters prompted the participants to use body

language and gestures to sing and dance along with them. The characteristics of nursery rhymes generally include verse repetition. In these videos, the verses were uttered very slowly the first time, then speeded up gradually with every repetition. This allowed the participants to retain lyrics easier and it encouraged them to participate. Previous study by Verhallen and Bus established that the learners who were exposed to video content during storytelling acquired expressive L2 vocabulary more efficiently than those who were exposed to static content only [11].

According to the findings, a 100% of the participants demonstrated excellent motor skills and were able to use handheld digital devices with ease. This was supported by the Neumann study from 2016, which suggested that touchscreens encouraged the development of motor skills in children [6]. In the present study, the participants navigated operating systems in English efficiently as well as downloaded app games without difficulties. Fast screen touching and swiping motions were prominent while managing a variety of options asking the user to select or confirm a choice in order to proceed: 'Would you like to upgrade? Yes or Upgrade later'. An example included Participant 4, who appeared to know which option to select in order to proceed without being interrupted by the updates. Participant 4 explained that the particular option meant the message would just disappear and would allow him to continue to the app he wanted to access. All participants were able to successfully install the apps of their choice from the App Store or Play Store, such as Talking Tom Gold Run and Roblox while navigating the App Store or Play Store with ease

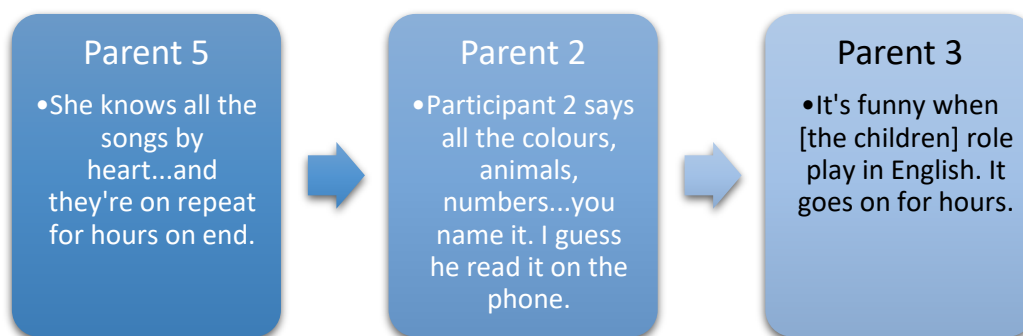
on the touchpad. All the children were also able to confirm the appropriate choices in messages such as 'Download now'.

Interviews with the parents

According to the results, four out of six parents indicated their children accessed cartoons such as Pokoyo, Peppa Pig and Masha and the Bear on a regular basis. Two out of six parents stated their children also accessed cartoons, but preferred video games. All six parents

stated their children played video games such as Disney Magic Kingdoms, Peppa Pig Sports Day, Talking Tom Gold Run and KidsEnglish every day. It was also confirmed by all six parents that the participants accessed gaming and craft videos, however gaming videos were accessed more frequently by the boys and craft videos by the girls. The parents also confirmed that the girls accessed nursery rhymes videos rather than the boys.

Figure 4. Examples of parent statements



Source: author

All parents stated their children had excellent motor skills and were able to navigate the operating systems on the devices within days of first using them. Also, all participating parents agreed that the children had no issues following instructions in L2 when using apps or games. According to the findings, the children frequently engaged with videos and apps either verbally - repeating words when prompted, singing, or nonverbally - dancing, whistling, jumping, when prompted. According to parents, the children often imitated the characters they had listened to and were speaking in English with their friends, e.g. role play with dolls, general communication in English while bicycle riding, etc. It was also

stated that the children specifically repeated words such as animals, colours and numbers or sentences such as 'How are you today? I'm fine, thanks.' in cartoons and nursery rhymes videos. Parents also believed that digital devices helped their children develop cognitive and language skills.

Conclusion

The research objective was to establish the type of digital content that pre-school children used to learn L2. The objective was achieved through two methods: contextual interviews with six pre-school children and interviews with one parent per child. According to the findings, the

participating pre-school children mainly accessed cartoons, video games, tutorials, gaming videos and nursery rhyme videos during the research. The content shared multimodality characteristics [10]: visual mode: colourful shapes, characters and animals moving on the screen, moving, floating or flashing texts providing instruction, changing viewpoints, subject distance and angle; aural mode: songs, background music, sound effects and sound volume; spatial mode: hardware buttons on tablets on mobile phones, touchscreen and navigation; and linguistic mode: spoken text, frequent changes in pitch and tone, speech - organised to introduce and reiterate words. It appeared that multimodal content encouraged participants to develop basic L2 competence such as ability to utter short sentences and recognise and speak a variety of words. In the present study the participants presented excellent motor skills - touching and swiping as well as navigating the operating system in L2. The research provided a valuable insight into the type of digital content that pre-school children opt for in non-educational environment and how they acquire basic communication skills in English as a result. Following the study, it remains unclear whether prolonged usage of tablets and mobile phones has any negative impact on the children's wellbeing and everyday life. The Aghlara and Tamjid study also did not establish how the interaction with digital technology supported children's lives generally, i.e. whether it was beneficial or harmful [1]. It also remained unclear whether the participants progressed through video games fast due to a multiple trial and error or whether the children made their own meaning through the multimodal

presentation of the game using all the resources including L2 on the screen. Further research with a greater number of participants over a longer period of time would need to be conducted in order to explore the meaning-making process through video games as well as potential harmful effects of long-term use of digital technology in pre-school children.

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