GOCE DELCEV UNIVERSITY, SHTIP, NORTH MACEDONIA

FACULTY OF ELECTRICAL ENGINEERING

ETIMA 2021

FIRST INTERNATIONAL CONFERENCE

19-21 OCTOBER, 2021

TECHNICAL SCIENCES APPLIED IN ECONOMY, EDUCATION AND INDUSTRY

УНИВЕРЗИТЕТ „ГОЦЕ ДЕЛЧЕВ” - ШТИП
ЕЛЕКТРОТЕХНИЧКИ ФАКУЛТЕТ

UNIVERSITY „GOCE DELCHEV” - SHTIP
FACULTY OF ELECTRICAL ENGINEERING

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FIRST INTERNATIONAL CONFERENCE

ЕТИМА / ETIMA 2021

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CIP - Каталогизација во публикација
Национална и универзитетска библиотека "Св. Климент Охридски", Скопје

62-049.8(062)
004-049.8(062)

МЕЃУНАРОДНА конференција ЕТИМА (1 ; 2021)
Зборник на трудови [Електронски извор] / Прва меѓународна конференција ЕТИМА 2021, 19-21 Октомври 2021 = Conference proceedings / First international conferece ETIMA 2021, 19-21 October 2021 ; [главен и одговорен уредник Сашо Гелев]. - Штип: Универзитет "Гоце Делчев", Електротехнички факултет = Shtip: University "Goce Delchev", Faculty of Electrical Engineering, 2021

Начин на пристапување (URL): https://js.ugd.edu.mk/index.php/etima. - Текст во PDF формат, содржи 358 стр.илустр. - Наслов преземен од екранот. - Опис на изворот на ден 15.10.2021. - Трудови на мак. и англ. јазик. - Библиографија кон трудовите

ISBN 978-608-244-823-7

1. Напор. ств. насл.
а) Електротехника -- Примена -- Собири б) Машинство -- Примена -- Собири
в) Автоматика -- Примена -- Собири г) Информатика -- Примена -- Собири

COBISS.MK-ID 55209989

Прва меѓународна конференција ЕТИМА
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PREFACE

The Faculty of Electrical Engineering at University Goce Delcev (UGD), has organized the International Conference ***Electrical Engineering, Informatics, Machinery and Automation - Technical Sciences applied in Economy, Education and Industry-ETIMA*.**
ETIMA has a goal to gather the scientists, professors, experts and professionals from the field of technical sciences in one place as a forum for exchange of ideas, to strengthen the multidisciplinary research and cooperation and to promote the achievements of technology and its impact on every aspect of living. We hope that this conference will continue to be a venue for presenting the latest research results and developments on the field of technology.
Conference ETIMA was held as online conference where contributed more than sixty colleagues, from six different countries with forty papers.
We would like to express our gratitude to all the colleagues, who contributed to the success of ETIMA'21 by presenting the results of their current research activities and by launching the new ideas through many fruitful discussions.
We invite you and your colleagues also to attend ETIMA Conference in the future. One should believe that next time we will have opportunity to meet each other and exchange ideas, scientific knowledge and useful information in direct contact, as well as to enjoy the social events together.

The Organizing Committee of the Conference

ПРЕДГОВОР

Меѓународната конференција ***Електротехника, Технологија, Информатика, Машинство и Автоматика-технички науки во служба на економија, образование и индустрија-ЕТИМА*** е организирана од страна на Електротехничкиот факултет при Универзитетот Гоце Делчев.
ЕТИМА има за цел да ги собере на едно место научниците, професорите, експертите и професионалците од полето на техничките науки и да представува форум за размена на идеи, да го зајканува мултидисциплинарното истражување и соработка и да ги промовира технолошките достигнувања и нивното влијание врз секој аспект од живеењето. Се надеваме дека оваа конференција ќе продолжи да биде настан на кој ќе се презентираат најновите резултати од истражувањата и развојот на полето на технологијата.
Конференцијата ЕТИМА се одржа online и на неа дадоа свој допринос повеќе од шеесет автори од шест различни земји со четириесет труда.
Сакаме да ја искажеме нашата благодарност до сите колеги кои допринесоа за успехот на ЕТИМА'21 со презентирање на резултати од нивните тековни истражувања и со лансирање на нови идеи преку многу плодни дискусии.

Ве покануваме Вие и Вашите колеги да земете учество на ЕТИМА и во иднина. Веруваме дека следниот пат ќе имаме можност да се сретнеме, да разменime идеи, знаење и корисни информации во директен контакт, но исто така да уживаме заедно и во друштвените настани.

Организационен одбор на конференцијата

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UDC: 005.336.5:004.9]:35(100)

ASSESSING DIGITAL SKILLS AND COMPETENCIES OF PUBLIC ADMINISTRATION AND DEFINING THEIR PROFICIENCY LEVEL

INVITED LECTURE

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Abstract

The focus of the research study is on analyses, assessment and evaluation of the digital skills and competencies of administration and defines their proficiency levels in order to offer a solution for a better development in administrative work. Every individual is meant to have a certain level of proficiency in digital skills. However, the current education system has fallen short of providing our future generations with the basic understanding of what it takes to succeed in a digital environment. The goal of this paper is to assess the digital skills and competencies of administration and define their proficiency levels. Depending on their findings, the study suggest recommendation and ways by which universities can improve on their curriculum so that students are better equipped when they enter the workforce. Digital competency is a term used to describe the skills and knowledge required to be digitally literate. Given the widespread use of digital technologies across the administration, competencies are needed to properly drive the digital change. Technologies are increasingly complex, diverse and with a fast-paced evolution that requires governments to increase efforts to keep the skill sets of public officers updated, but also to anticipate the needs associated with emerging change. This assessment in the form of strategic digital skills from an educational viewpoint is an essential measurement of the required skills of the future workforce.

Key words Digital Skills, Assessment, Public administration proficiency, digital competences

1. Introduction

The internet and other digital technologies have changed our lives dramatically. Nowadays, we feel like we can't escape the digital world and its influence on our daily life. Digital literacy is a part of our everyday life. It helps us communicate with others, find information, solve problems and much more.

Digital literacy is not just about knowing how to use computers or smartphones - it includes many different skills such as using social media networks or using mobile payment apps, knowing how to create content online, understanding cybercrime and safety issues etc.

Peter Drucker is famously quoted as saying, "You can't manage what you can't measure." Drucker's axiom according to [1] embodies the recent spike in efforts to define, measure and assess digital skills — steps essential toward building and managing a digitally skilled workforce.

The main skills that all adults should have so that we can safely and effectively take part in digital life.

Digital literacy is a set of skills and competencies which enable people to use digital technology in ways that create value for themselves and others. The following will assess the digital skills and competencies of administration and define their proficiency levels. Digital literacy can be assessed to determine the proficiency levels of an individual. The assessment

should measure the digital literacy skills and competencies, identify gaps in knowledge and recommend ways to fill them.

The assessment should be conducted by professionals who are knowledgeable in the field of digital media communication, learning design, educational assessment or instructional design.

Digital skills and proficiency, which are fundamental for human development [2], have been a matter of intense debate for decades. The proficiency levels of the digital skills depend on how well it applies to an individual's work.

Any knowledge worker in today's world needs to have a basic proficiency in digital skills as discussed by [3]. And this is not just true for administration but also for college graduates but also for high school graduates. Digital skills and proficiency, which are fundamental for human development, have been a matter of intense debate for decades. The proficiency levels of the digital skills depend on how well it applies to an individual's work.

Any knowledge worker in today's world needs to have a basic proficiency in digital skills. And this is not just true for college graduates but also for high school graduates. Digital skills and competencies are essential for today's workforce in order to meet the needs of an ever-changing digital environment.

Digital literacy is a vital skill for all professionals, but it is especially important for administration professionals because their jobs focus on day-to-day operations within a business. This means that they need to be able to read and understand instructions, instructions, and manuals written in digital formats. They also need to know how to use different software programs and applications that are prevalent in the workplace.

An assessment of digital skills should take into account five different levels: foundation, intermediate, advanced, specialized, and professional. It should also include a variety of tasks relevant to the individual's job responsibilities such as using email, using social media platforms like Facebook or Twitter, or creating documents with different word processing

There are many different ways to assess the digital skills of an administration. However, it is difficult to define their proficiency level based on these assessments.

2. Literature review

Digitalization has been identified as the most significant technological trend according to [6] that is changing, society, education and business [4]. Nowadays, firms are constantly under pressure to use digital technologies and to adapt their business models to this new reality [5].

On June7th, 2021, a search was conducted using Google Scholar citation database of peer-reviewed literature. The initial search criterion was based on the word "digitalization in administration "in the article titles. The initial search revealed 56,700 documents, which included journal articles in the English language to enable interpretation. Table1presents an overview of the review process.

Table 1 . Literature Review

Google Scholar database		Documents
Search term "Digitalizationin administration"	All fields	56627
	Title-Abstract-Keywords	43954
	Article title	7441
Language	English	2218
Source type	Journal	1572
Document type	Article	1442

Self-assessment surveys can easily be added to existing surveys or other large-scale sampling measures. The ITU and Eurostat (Eurostat) are examples of organizations incorporating self-report surveys as part of their larger data collection process. The total number of specific skills questions is fewer than other methods because the survey covers other topics as well. In the ITU ICT Household Survey Questionnaire, question HH15 raised 9 ICT skills, mainly computer-based skills, covering basic and intermediate skills, and a computer programming question [7]. The rest of the survey covers other problems of access and use of ICT. Eurostat has developed a digital skills indicator based on in DigComp [8]. A person reports if they have performed various activities in the four competency areas: information skills, communication skills, problem-solving skills, and software skills. A person's score is "no ability", "low", "basic" or “higher than basic" [9]. The use of the Eurostat digital skills measurement standard has items restricted to European countries.

Other evaluations are implemented as independent investigations. Digital Skills to Tangible Outcomes (DiSTO) was originally built and verified in the UK and in the Netherlands [10]. Recently, through association, these surveys have been used as part of specific research projects in Australia, Chile, Brazil, Uruguay, and the United States (London School of Economics and School of Political Science, date unknown). DiSTO uses the Likert scale, which covers mobile and online skills. Another survey developed as part of the research project is the ICT Skills Index (ISI). This online survey using the Likert scale asked 4,444 advanced ICT skills in young people aged 16-35 in small island developing States [10].

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3. Devising Public Administration Profficiency Levels

Based on a comparison framework for curriculum and competencies conducted by [6] and the number of categories covered in total by these frameworks and curriculums, it can be concluded that the following four categories cover the most relevant skills and competencies required to make use digital technologies adequately.

Communication and collaboration. In terms of communication, it includes exchanging information with the other users on digital platforms using various strategies to collaborate, share, and communicate.

Digital content creation. The category of creation includes engaging in digital spaces to design, create, and revise online content.

Privacy and Security. Include the key functions comprised of maintenance of practices to secure digital identity, recognize threats, and understand the broader safety implications of working in a digital environment.

Information and data literacy Skills. The category of information skills includes the required skills to apply, evaluate, and manage information across digital and physical environments.

Problem solving - To identify needs and problems, and to resolve conceptual problems and problem situations in digital environments

Table 2. **Digital Skills Profficiency Levels**

Levels	Levels expressed in number	Complexity of Tasks	Aythonomy	Cognitive Domain
Foundation	1	Simple	With guidance	Remembering
	2	Simple	Guidance and help	Remembering
Intermediate	3	Well defined	Certain Autonomy	Understanding

	4	Well defined	Autonomy on their own	Understanding
Advanced	5	Different tasks	Independent	Applying
	6	Most appropriate	Independent and guide others	Applying
Specialized	7	Resolve complex tasks limited solutions	Integrate contributions	Evaluating
	8	Resolve complex tasks interacting	Integrated solutions	Evaluating
Professional	9	Resolve complex tasks with no delays	Propose new solutions	Creating
	10	Resolve complex tasks multitasking	New creative solutions and ideas	Creating

The assessment will be conducted through a survey at the link (https://forms.gle/XpzhfEZqJmZaNx6a6).

The following questions have been set: 1) What type of computing device do you use at work? 2) How often do you use your device? 3) How would you grade your level (1-10) of digital skills? 4) Do you know how to solve problems when using computers or mobile devices? 5) Grade your ability to identify spam, phishing, malware, viruses? 6) Can you troubleshoot your device such as printer, keyboard, mouse, etc.? 7) How would you grade your skills for creating content for a report, essay? 8) Can you evaluate and analyze properly content? 9) Grade your ability to use social media accounts for communication and collaboration? 10) Can you recognize threats in internet?

An example of a lower-level digital skill would be, "Albert can identify how and where to organize and keep track of job ads in a job app on his laptop in order to retrieve them when he needs them." At level 5, an employment example of proficiency would be one's ability to "use a specialized app (e.g. Photoshop, IBM SPSS), to provide instructions to develop a report to introduce a new procedure, and to resolve issues such as printer would not print and to fix problems with installing the drivers."

4. Outcomes from the pre-research study

A pre-research study was conducted through a survey with 34 administrators in University, whereby the survey was used as an instrument to analyze their skills in the usage of digital platforms, word processing, publishing, communication and collaboration, social media platforms and features.

Within the survey, students were asked to provide the following information:

-The forms of media that admi nistration post on social media platforms. (text, image, etc.)
-The safety level applied to their social media engagement. (private, public, etc.)

According to Figure 1, most of the participants with 66% responded that they use text and image combined while posting, followed by 34% that preferred only images, and 14% use mostly video and audio.

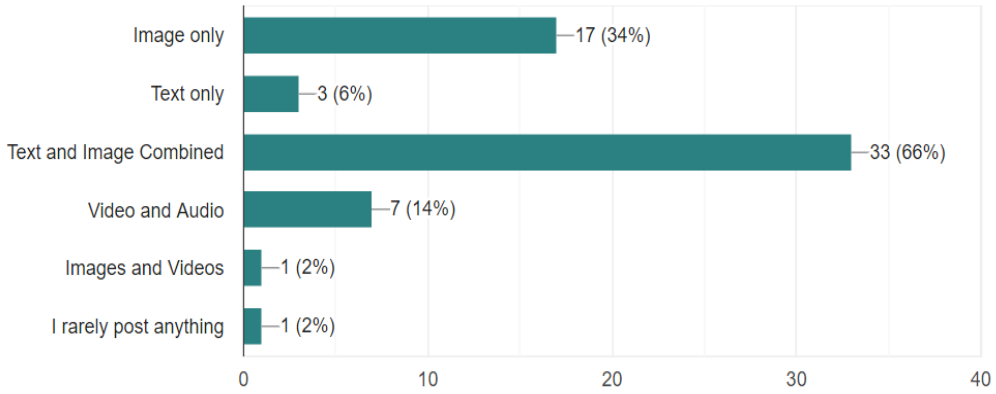

Fig. 1. What do you usually use while posting?

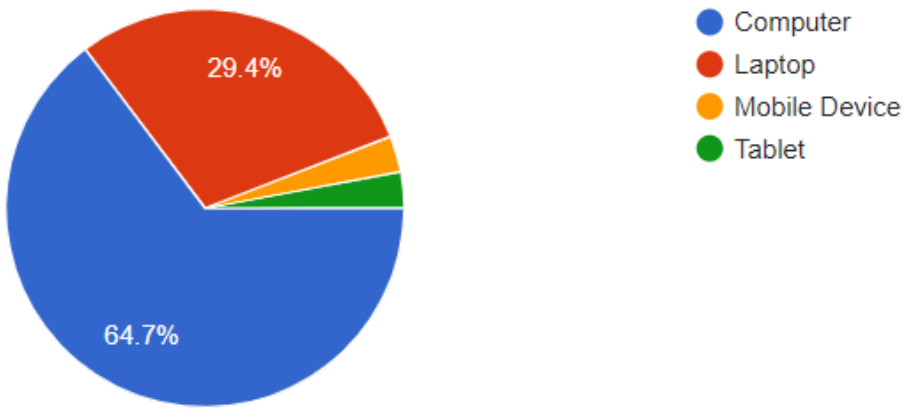

Fig.2. What type of computing device do you use at work?

From the feedback can be concluded that most of the participants with 64.7% responded that they use mainly computers, followed by 29.4% that use laptops and 1% using mobile device and tablet.

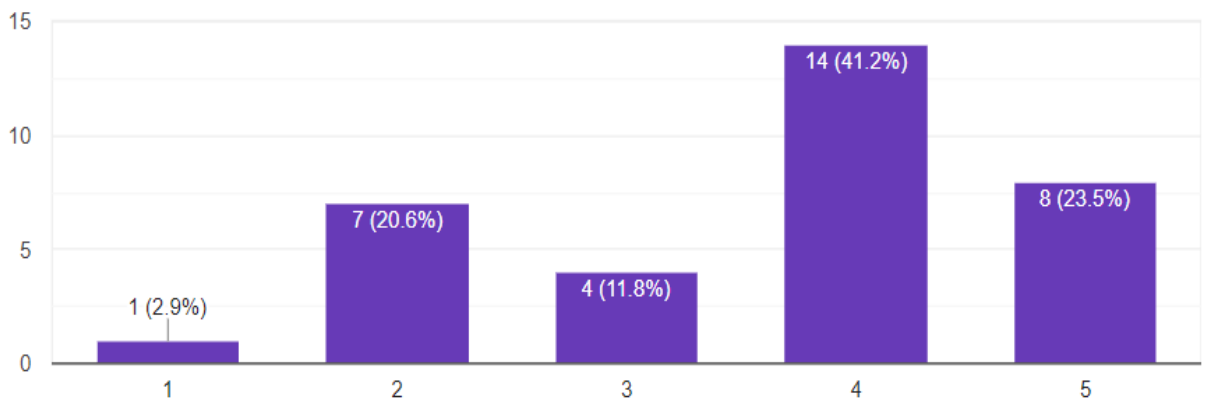

Fig.3. How often do you use computing device do you use at work?

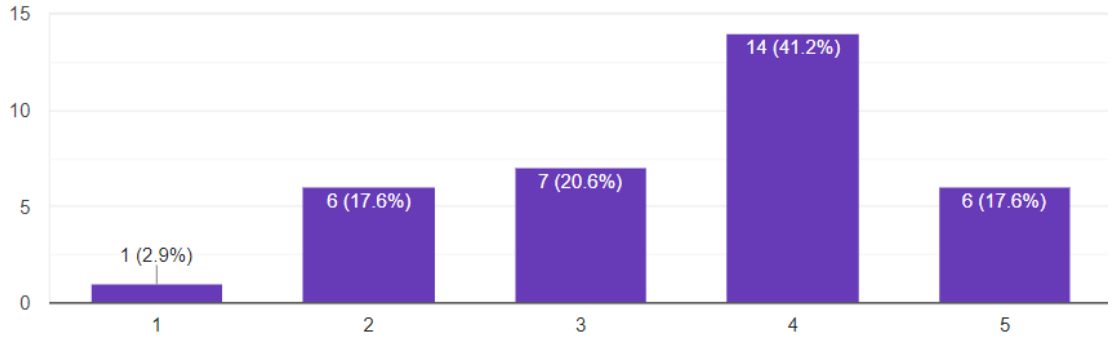

Fig.4. Do you know how to solve problems when using computers or mobile devices?

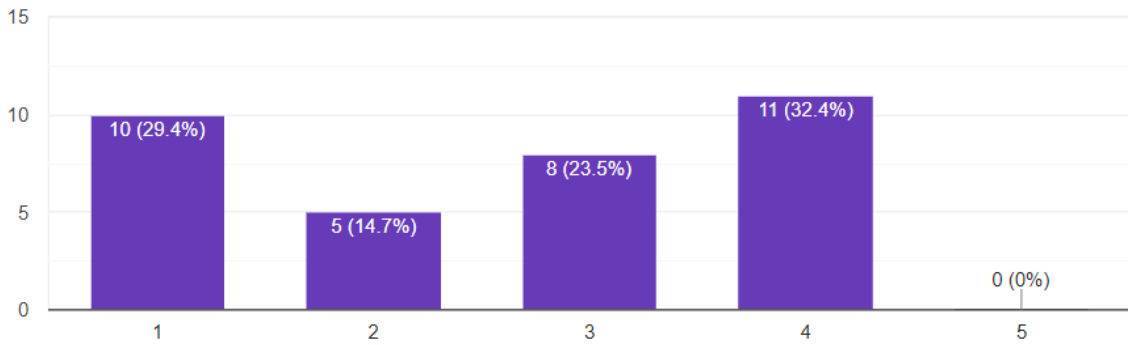

Fig.5. Grade your ability to identify spam, phishing, malware, viruses?

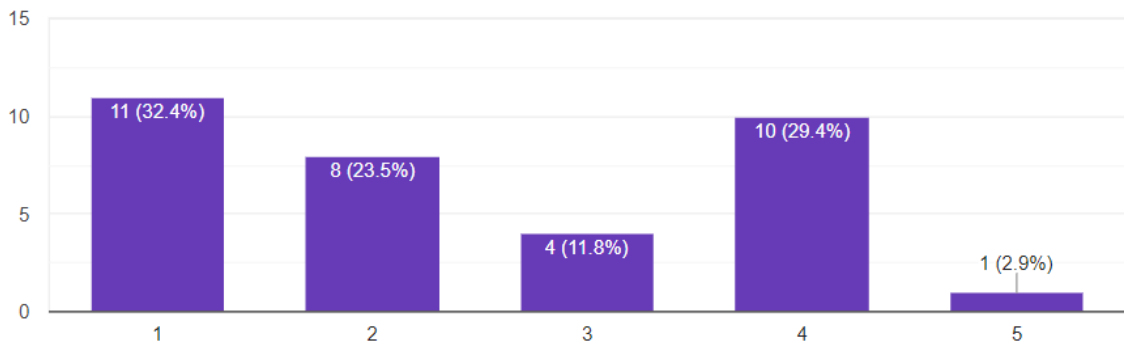

Fig.6. Can you troubleshoot your device such as printer, keyboard, mouse, etc.?

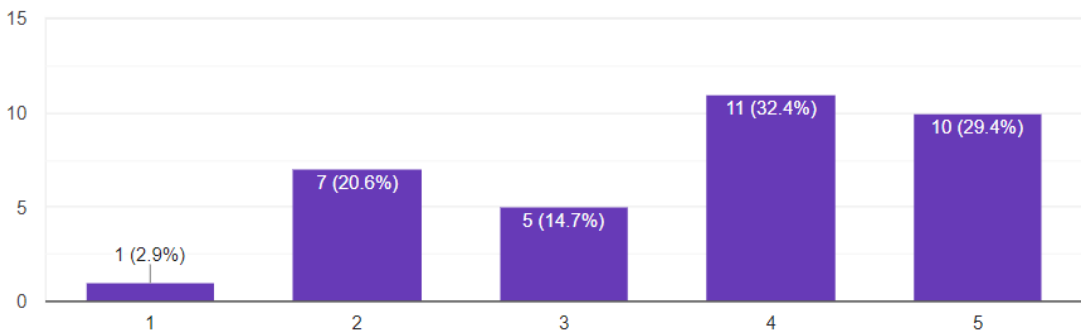

Fig.7. How would you grade your skills for creating content?

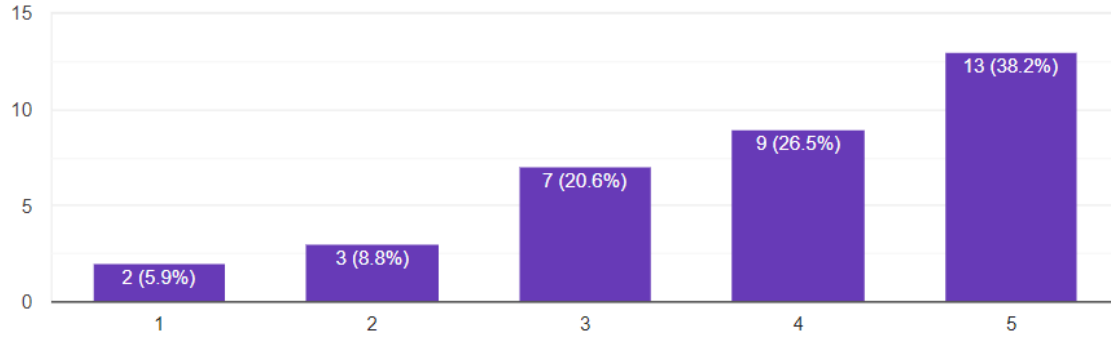

Fig.8. Can you evaluate and analyse properly content?

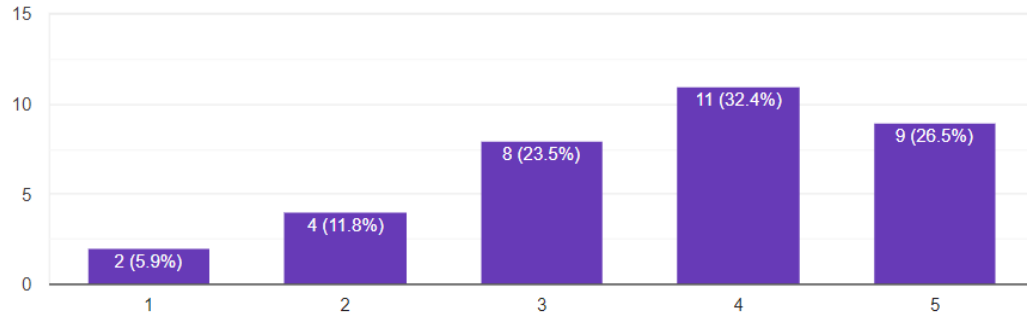

Fig.9. Grade your ability to use social media accounts for communication and collaboration?

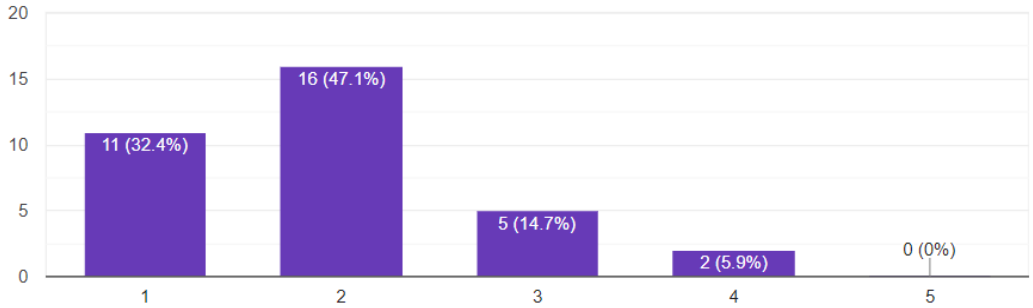

Fig.10. Can you recognize threats in internet?

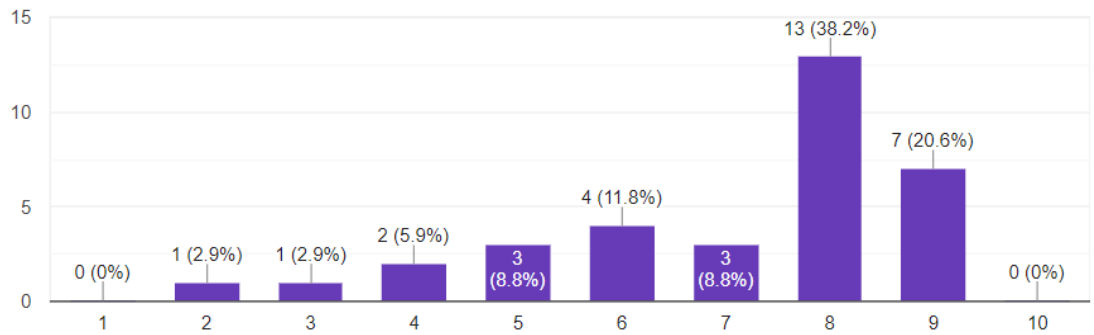

Fig.11. How would you grade your level (1-10) of digital skills?

5. Results and Discussion

Analyses were further carried out through IBM SPSS Statistics. Descriptive statistics and correlations between variables were firstly calculated. Table 1 shows descriptive statistics, Cronbach's alpha (α) and the matrix of correlations of Skills and Competences, which were used to carry out multiple regression analyses. Two multiple regressions were performed on

the digital skills considered as independent variables and subsequently as dependent variables, Time to Finish the Task (TFT), Correctness Level (CL), Number of Errors (NE), Self-Esteem (SE) and Satisfaction (S).

Table 1. Multiple regression, Digital Skills and Competences

	Skills			**Competences**		
	B	**SE**	**β**	***B***	**SE**	**β**
Information and data literacy	16.563	4.721		7.635	3.238	
Communication and collaboration	0.153	0.042	0.201**	0.061	0.051	0.131
Privacy and Security	0.217	0.557	0.162	0.003	0.071	0.021
Digital content creation	0.069	0.065	0.024	0.015	0.015	0.036
Problem solving	0.346	0.186	0.115	0.155	0.174	0.128
Time to Finish the Task (TFT)	0.159	0.052	0.203**	0.067	0.052	0.134
Correctness Level (CL)	0.047	0.246	0.032	0.061	0.120	0.075
Number of Errors (NE)	0.046	0.035	0.084	0.045	0.035	0.073
Self-Esteem (SE)	0.304	0.237	0.162	0.007	0.074	0.023
Satisfaction (S).	0.243	0.309	0.063	0.152	0.133	0.143
	$R^2 = 0.29$			$R^2 = 0.139$		
	$F = 7.13$, $p < 0.001$			$F = 3.54$, $p < 0.01$		

**p < 0.10, **p < 0.05, ***p < 0.01.*

6. Conclusion and Future Work

The impact on Digital Skills and Competencies has been analyzed, and insights and results have been provided. Our method shows that finding out whether different ways of participating in these asesement can lead to the realization of Competencies is novel. For this reason, we consider digital skills as a relevant factor. The results show that when young workers have the necessary skills, they tend to establish and maintain strategic relationships to provide critical information and improve their workstatus. This means that young people should know how to identify the correct information to connect with their inner circle to actively plan an activity and to consciously participate in a group to achieve a specific goal. The aim is for them to

know whom to add as friends to their contacts based on the information shared by these people so that when they know how to work together through speciazed apps, they get social capital. Having strategic skills can also improve the self-esteem, life satisfaction, and SW of young graduates. This means that when administrator workers acquire the strategic skills necessary to use to achieve specific goals, they feel better because they have a more positive image of themselves. The security that strategic digital skills provide can also encourage them to feel more satisfied with their lives. When young people have these digital skills, it has also been observed that psychosocial variables increase, this variable considers indicators such as social support, perception of support, feelings, business, and community awareness.

References

1. Kemp, S (2021). Digital 2021: Global Digital Overview. Datareportal.com, published 15 March 2020, https://datareportal.com/reports/digital-2021-global-overview-report
2. Commission, E. (2017). New report shows digital skills are required in all types of jobs, https://ec.europa.eu/digital-single-market/en/news/new-report-shows-digital-skills-are-required-all-types-jobs
3. Jashari, X., Fetaji, B., Nussbaumer, A., &Gütl, C. (2020, February). Assessing Digital Skills and Competencies for Different Groups and Devising a Conceptual Model to Support Teaching and Training. In International Conference on Remote Engineering and Virtual Instrumentation (pp. 982-995). Springer, Cham.
4. Ahmad, M., Murray, J.: Understanding the connect between digitalisation, sustainability and
5. performance of an organisation. IJBEX 17(1), 83–96 (2019)
6. Wedlake, S., Keyes, D., & Lothian, K. (2019). Digital Skill Sets for Diverse Users: A Comparison Framework for Curriculum and Competencies. Available at SSRN 3427252.
7. EC (2014). Measuring Digital Skills across the EU: EU wide indicators of Digital Competence. https://ec.europa.eu/digitalagenda/en/news/measuring-digital-skills-across-eu-eu-wide-indicators-digital-competence
8. Eurostat. (n.d.-a). Individuals who have basic or above basic overall digital skills by sex (tepsr_sp410). Retrieved 25 May, 2021, from https://ec.europa.eu/eurostat/cache/metadata/en/tepsr_sp410_esmsip2.htm
9. Van Deursen, A.J.A.M., Helsper, E.J. &Eynon, R. (2014). Measuring Digital Skills. From Digital Skills to Tangible Outcomes project report. Available at: www.oii.ox.ac.uk/research/projects/?id=112
10. Redeker, D. & Sturm, I. (2019). ICT skills in small island developing states: ICT capacity building, economic opportunities and brain drain. ITU Digital Insights, 73–84