Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 6, July, 2021: 8887 - 8897

# The Role of Modern Technologies and Applications in Social Studies

# Dr. Haitham Abdelrahman Alawaad

Associate Professor in Public Relations & Journalism Dean of Mass Media College Umm Al Quwain University United Arab Emirates Email: dhaytham@gmail.com

# Dr. Elsir Ali Saad Mohamed

Associate Professor in New Media Umm Al Quwain University United Arab Emirates Email : <u>elsir71sd@gmail.com</u>

## Abstract

Learning tools in modern systems, Information & Communication Technology (ICT) has a seminal role and increasing its importance every day. The education systems of schools, colleges, and universities are using ICT at various stages, and the utilization of it grows with each higher level of education. The intensity of usage of ICT tools varies in university education streams like humanities & Social sciences, commerce, management, science, medical, engineering, etc. In this article, we have reviewed the usage & feature of ICT tools in Social Sciences for research and higher study. This article may facilitate researchers & scholars for the selection of appropriate ICT tools for their research work.

## Keywords: ICT, Social Studies, modern Technologies, Role, Higher, Education

# 1. INTRODUCTION

Currently, education systems can achieve their goals by using appropriate and adequate ICT tools. The education system of the school, college and university is using ICT at different levels. Its usage in the higher education system is rapidly increasing. The university education system uses these tools for all the streams humanities & social sciences, commerce, management, science, medical, engineering, etc. but its intensity of usage varies.

It is essential that students, research scholars should choose the appropriate ICT tools and methods for their study and research. The usage of ICT is related to complicated tools to help in educational activities. It includes digital tools, cloud classes, e-books, audio-video lectures, web content, etc. The execution of methods is done with the help of web broadcasting, extranet, internet, e-books and presentation - rooms [1].

The scholars from the social sciences stream, humanities & commerce are less tech-savvy than science and engineering. The major problem with ICT tools is that students and researchers must identify the appropriate tools and learn them. Other issues are that these tools are changing very fast, and updating them is a key challenge [2]. In

all the above cases, the usage and details of ICT tools available for study and research need to be mentioned to help the students and researchers.

It is necessary for less tech-savvy students and researchers to provide all the information regarding usages of the ICT tools for preparing study material, research proposals, collecting data, analysing the data and present the final reports. In the current scenario, a single mechanism is not enough to fulfil all the requirements of a researcher scholar. The teaching requires different types of tools, and the research requires other types of tools. So, there is a need to discuss the usage of ICT tools to assist students and researchers.

With the globalisation of education and research, the researchers have to compete with global standards, and it is eased with the active and adequate usage of such tools. The existing scenario provides enough infrastructure and facilities [3] to students and researchers to adopt the ICT tool. The use of smart devices and the internet attracts them to access the tools from anywhere at any time. In this article, we describe the usage & feature of ICT tools for the scream of Social Sciences used for research and higher studies. The tools mentioned in this paper are easy to use, and they may be of great assistance to students and researchers for understanding and selecting the appropriate and adequate means for their study and research work.

The article is divided into various sections. In Sec - II, we describe the process of research in social sciences, commerce and management streams. In Sec - III, we present ICT tools for education, literature resources, documentation, checking of correctness, analysis and investigation, etc. Finally, we conclude our article in Sec - IV.

# II . RESEARCH IN SOCIAL SCIENCES ( RSS )

It refers to the analysis of individual behaviour or behaviours of people in different aspects. It deals with the how and why of individual behaviour. Broadly, it is of two types, i.e. qualitative and quantitative research. Qualitative research is that in which data are collected by public and informal communication, while in quantitative analysis, some statistical and computational methods are used. Social science research follows different scientific

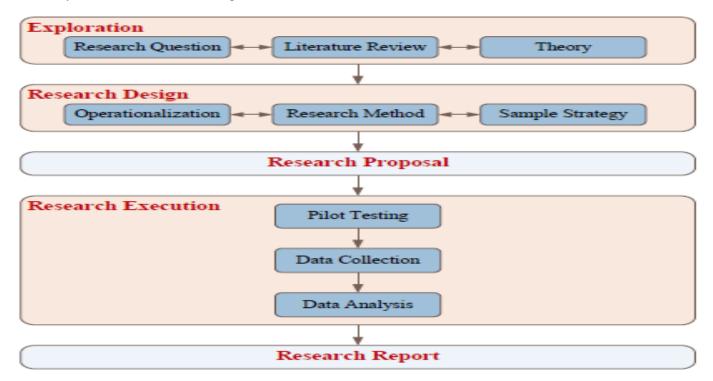


Figure 1: Social Sciences Research Process

ways for different types of data sets. It contains various steps [4] which Pa have to be followed by the researcher before conducting any research process. Fig 1 describes the actions of the research work in social sciences.

Researchers should first concern with the research idea they want to perform, and then research questions should be formulated. These questions are the basis on which the research project is conducted. A research question can be formulated by examining the issues and challenges faced by the economy or a specific community, or else; researchers can develop their interest in the particular subject matter. However, before making any research question, one should keep in mind that the questions should be answerable and not too large or not too constricted.

Literature review refers to studying the published research or articles from different sources on those matters in which a researcher is concerned. It can be in the shape of books or articles or magazines or other published sources. It gives the researcher to understand the facts and findings of others and can help as a base of their research. Theory can be in the form of a hypothesis that a researcher has to prove in his / her research process. Various econometrics tests are used to show the significance of the interpretation. These tests can be of parametric or non - parametric depends on the nature of the hypothesis .

Research design [5] is a process of collection and analysis of data required for the research. It shows one's research operation, which will be applied in the research process and provides information about the techniques used in the study. Thus, while preparing an efficient and effective research design, data collection methods and analysing them should be taken into account. There are two types of research design, i.e. formal and informal research design. Formal research design enables more control and includes a precise statistical process for analysing the data. In contrast, informal designs use a less complicated form of investigation based on variations in magnitudes.

Research methods are the tools and techniques used for conducting research. Research in social sciences has different types of methods used for different types of research. In table 1, we mention some research methods.

# Table 1:

Type of research	Research methods	
Field research	Participant inspection . Non - participant inspection, Mass inspection , Questionnaires , Interviews, etc.	
Library research	Historical records and documents study.	
Laboratory research	Random behaviours study of different groups	

#### Social Sciences Research types and methods

Sample strategy refers to selecting a sample from a population or a large group of items for the research purpose. It includes two types of strategies, probability sampling and non - probability sampling. Probability sampling is that in which every element of the sample has an equal probability of selection.

Probability sampling is also called random sampling or chance sampling, while in non - probability sampling has limited selection based on the researcher's convenience. It is also known as purposeful sampling, purposive sampling and judgement sampling.

A research proposal is the research plan that a researcher is going to conduct. It includes the research questions, objectives of the research, the methodology that the researcher will apply, then indicators chosen by the researcher on which data analysis has to be done. In these sources, data will be collected, etc.

The pilot testing/study introduces a small scale examination or review or feasibility testing of research tool/methods selected for a research work such as a questionnaire or interview scheduling etc. it is a crucial component of a well-designed research plan. It helps to reduce the risk of project failure. In advance, it warns the researcher regarding the failure and weak points of the research project whether the tools methods are appropriate or not.

Once the research problem and research design are defined, then the next step is data collection. There are principally two types of data, primary data and secondary data. Primary data consists of data that the investigators personally collect through questionnaires and interviews and other methods for collecting primary data. Secondary data are mainly collected from the published sources such as newspapers, government publications etc.

After collecting data, it is analyzed through various statistical techniques to get the reliability and validity of data for the research. There are different methods for different types of study, such as if a researcher has to prove the hypothesis introduced in the research, then there are various statistical tests that can be applied for testing the significance of the interpretation. Data analysis has become easy and can be done with various software tools other than MS Excel such as SPSS, E views etc. Finally, the researcher prepares a research report and mentions the details of the procedure adopted, tools used, and outcome of the research work.

## **III** . ICT TOOLS FOR RSS

The RSS is a study of individual behaviour or behaviour of people in different aspects. It has two types of studies, qualitative and quantitative research. It requires various statistical, computational, scientific methods & tools. The ICT tools are very useful for designing research plans, getting accurate results, analyzing data and preparing documents. In the subsequent section, we describe various ICT tools and summarized them in table 2 for researchers.

Educational: Videos: YouTube is an extensive network and provides various educational content videos to the students. YouTube EDU is announced in 2009 where the educationists can put their videos [6] lectures and anyone can see them. Vimeo, like YouTube, contains various contents with high definition (HD) videos. Meta cafe is easy to use and contains short and original content with different categories according to the content searched. However, its limitation is that some specific videos might be limited National Geographic site, full of inspiring educational videos. Other tools for learning online from videos are Archive.org, Teacher Tube, For a TV, NASA Videos, etc.

Presentations: For a long time, PowerPoint is regarded as the easiest and useful tool for making presentations in every field of education, but now many other tools that have been developed containing features that are rarely found in PowerPoint. E maze is an up-gradation on Power Point, and it includes a wide range of templates and visual learning aids and provides one to design 3D presentations. Cloud-based software can be used on any computer for editing or for doing any change in the previous presentations, but it requires an internet connection to Google Presentation, an alternative to PowerPoint and have all those features that are not present in PowerPoint. If one wants to present its research for that, it has a Google research tool. It is also cloud-based, but it does not require the internet and is enable for editing offline. Apply Keynote provides one to create, modify and present its presentation anywhere once the app is downloaded. Other tools which are mostly used for the Tools creation of presentations are Prezi, Nearpod

# , Tellagami, etc.

Sample strategy refers to selecting a sample from a population or a large group of items for the research purpose. It includes two types of strategies, probability sampling and non - probability sampling. Probability sampling is that in which every element of the sample has an equal probability of selection.

Probability sampling is also called random sampling or chance sampling, while in non - probability sampling has limited selection based on the researcher's convenience. It is also known as purposeful sampling, purposive sampling and judgement sampling.

A research proposal is the research plan that a researcher is going to conduct. It includes the research questions, objectives of the research, the methodology that the researcher will apply, then indicators chosen by the researcher on which data analysis has to be done. In these sources, data will be collected, etc.

The pilot testing/study introduces a small scale examination or review or feasibility testing of research tool/methods selected for a research work such as a questionnaire or interview scheduling etc. it is a crucial component of a well-designed research plan. It helps to reduce the risk of project failure. In advance, it warns the researcher regarding the failure and weak points of the research project whether the tools methods are appropriate or not.

Once the research problem and research design are defined, then the next step is data collection. There are principally two types of data, primary data and secondary data. Primary data consists of data that the investigators personally collect through questionnaires and interviews and other methods for collecting primary data. Secondary data are mainly collected from the published sources such as newspapers, government publications etc.

After collecting data, it is analyzed through various statistical techniques to get the reliability and validity of data for the research. There are different methods for different types of study, such as if a researcher has to prove the hypothesis introduced in the research, then there are various statistical tests that can be applied for testing the significance of the interpretation. Data analysis has become easy and can be done with various software tools other than MS Excel such as SPSS, E views etc. Finally, the researcher prepares a research report and mentions the details of the procedure adopted, tools used, and outcome of the research work.

# **III** . ICT TOOLS FOR RSS

The RSS is a study of individual behaviour or behaviour of people in different aspects. It has two types of studies, qualitative and quantitative research. It requires various statistical, computational, scientific methods & tools. The ICT tools are very useful for designing research plans, getting accurate results, analyzing data and preparing documents. In the subsequent section, we describe various ICT tools and summarized them in table 2 for researchers.

Educational: Videos: YouTube is an extensive network and provides various educational content videos to the students. YouTube EDU is announced in 2009 where the educationists can put their videos [6] lectures and anyone can see them. Vimeo, like YouTube, contains various contents with high definition (HD) videos. Meta cafe is easy to use and contains short and original content with different categories according to the content searched. However, its limitation is that some specific videos might be limited National Geographic site, full of inspiring educational videos. Other tools for learning online from videos are Archive.org, Teacher Tube, For a TV, NASA Videos, etc.

Presentations: For a long time, PowerPoint is regarded as the easiest and useful tool for making presentations in every field of education, but now many other tools that have been developed containing features that are rarely found in PowerPoint. E maze is an up-gradation on Power Point, and it includes a wide range of templates and visual learning aids and provides one to design 3D presentations. Cloud-based software can be used on any computer for editing or for doing any change in the previous presentations, but it requires an internet connection to Google Presentation, an alternative to PowerPoint and have all those features that are not present in PowerPoint. If one wants to present its research for that, it has a Google research tool. It is also cloud-based, but it does not require the internet and is enable for editing offline. Apply Keynote provides one to create, modify and present its

presentation anywhere once the app is downloaded. Other tools which are mostly used for the Tools creation of presentations are Prezi, Nearpod

, Tellagami, etc.

# Summary of ICT Tools for RSS

Category	Require-ment	Tool Usage	ICT tools
	Recorded/ Integrative Lectures Animations,	Make & view educational video lectures, online in lectures	Archive.org, Discovery Channel, Teacher Tube, For a TV, NASA Videos, Zoom, Webex etc .
	presentations	Presentations	PowerPoint, Open Present, LaTeX, Prezi, Nearpod, Tellagami, etc.
	eBooks	Online publication and reading	EPUB, iBook's, Calibre, Kindle, PDFs, Digital/Open Library, National Digital Library of India, UGC-InfibNet .
	Classes	Cloud Classes	MOOCs, NPTEL, Coursera, Edx.org, Cloud
Web	Webinars	Interactive Web Seminars	Academy, etc Webinar Jam, Demio, Webinar Ninja, Go To Webinar ,Live Storm, Webinar On Air, Any Meeting, Zoom, Webex etc.
	Literature for researcher	An online search for related research publications	IEEE Digital Library, Elsevier, Springer, Online Journals, Conference Proceedings, Shodhganga etc
Data Preparation	Questionnaires	Electronic forms for the collection of data	Google, Forms, PDF forms, Web/HTML pages, HTML Emails, etc.
	Documentation Correctness	Documentationofresearchworkforpublication/ presentation	MS-Office, PDF-Creator, Open Word, LaTeX, etc Pro Writing Aid,

		Checking of correctness and grammar	Grammarly, Reverso, Sapling, Sentence Checkup, Paper Rater, Ginger, White Smoke etc.
Data Analysis &Investigation	Qualitative data analysis Quantitative Data analysis	Analysis of qualities Analysis of Data Science	NVivo,MAXQDA.t,Atlas.ti,Socialsuite,IntraStage,HyperResearch,Advise etc.MLib,RStudio,Anaconda,Python's R &STATAfunctions,SPSS,MATLAB,SASAdvancedAnalytics etc.
Citation	Bibliographic	Reference maintenance	Zotero, MENDELEY, Citavi, Paper Pile, RefWorks, EndNote
Similarity Check	Similarity Index	Plagiarism Tools	Turnitin, Dupli Checker, Copy leaks, Scriber, ques text, plug tracker etc.
Indexing	Spreading Reach of publication	Indexing in databases	Science Citation Index (SCI), Web of Science, Scopus/Elsevier, ICI (Indian Citation Index), Google Scholar etc.

Ebooks: EPUB is a highly flexible eBook reader with interactive features, but it does not support many devices. It has two primary varieties of the reflowable and fixed layout. It can be read on computers using iBook's on MAC OS X and Calibre for MAC, Windows and Linux. Kindle Book, a collection of eBooks used within Amazon.com's Kindle Reader podium, has similar features to EPUBs and can only be read with the help of the Kindle reader. Portable Document Format (PDF) can be accessed on any device. Some eBooks that can be found on the web are International Children's Digital Library. Open Library, looks National Digital Library of India, etc.

Cloud Classes: There are many resources for the cloud professional, which help individuals learn and join many online courses for both free and paid. Some of these are Amazon Web Services which provide short courses for free with important information. Professional and educational institutions use Udemy to deliver high-quality To Views Window Help tools A content related to education and offers various courses on different topics. It enables both paid and free courses for beginners, middle or professionals in multiple languages. Other sources for effective learning through cloud classes are MOOCs [7], NPTEL, Coursera, Edx.org, Cloud Academy, etc.

Webinars: The word means 'web' and 'seminar', an event organized on the internet and is attended by the participants by an online link sent by the organizer to the participants. Other terms used for the webinar are web event, webcast, online seminar, etc. They offer various opportunities such as ask a question, chat, poll,

survey, etc. and contain various interactive training activities, categorized as a general To Eat Window Wrap 24 workshop for a mixed audience & closed workshops for specific group training. The conference is a formal meeting where people or professionals confer or discuss a matter or subject. There are one or more important speakers who convey speech on the subject matter. It has various types such as Symposium, Seminar, Round table, etc.,

Literature Resources: IEEE Digital Library: Is Institute of Electrical and Electronics Engineers [8] where more than 4 million scientific and technical documents, journals and articles were published. It has the world's most cited publications in streams like electrical engineering, computer science and electronics. It contains documents in a robust, dynamic HTML & PDF formats.

Elsevier: It includes journals such as the lancet and cell, the direct science collection of electronics journals, the online citation database Scopus etc. It publishes more than 40 thousand articles in a year. It helps the researcher to in discoveries and provides them knowledge which they want to find a grant. It helps administration and institutions to improve their research strategies.

Springer: Publish academic journals and books mainly from nursing, social work, psychology, etc. it also has vast ebooks and archives. It provides researchers with quality content in academia, scientific institutions and corporate research and development.

Online Journals: A service given by the non - profit international association of online engineering. It aims to contribute to innovations in science in a very efficient and effective method that enables researchers and others easy access. It also offers their support to the researcher concerning copyediting, design of articles in the format LaTex, OpenOffice and Microsoft word.

Conference Proceedings: A record or collection of the published articles presented in conferences, symposiums or other meetings sponsored by associations or other institutes. Data Preparation :

Questionnaires: A type of primary investigation in which bode data are collected through schedules that are to be filled either by the investigators or with the help of enumerators, or it can be filled by the individuals themselves, whom the investigator or researcher selects. It contains questions required by the researcher's subject matter. Things that should be remembered while designing a questionnaire are the minimum number of questions: Questions should be too easy & clear to understand; Questions should be answerable as yes or no, or they should contain options that help participants answer. A questionnaire should have multiple choice questions simple, alternate questions, specific information questions, cross-check questions etc. The researchers may use Google forms [9], PDF forms, etc., to design and collect responses to a questionnaire. The researcher may create an online form and HTML emails to record the answers of responders.

Documentation: User guides, white papers, online help etc. it often provided via websites, software products, and online applications. David Berger has given several ethics of document writing, terms used, etc. The guides & which deal with each field and type are a ) documentation in health care, b ) theory writing, c ) papers for scholarly journals publishing. Documentation consists of a procedure while writing the thesis. It involved SOPs convene steps such as drafting, formatting, submitting, reviewing, approving etc. and dictatorial diligence.

Correctness checking is a process that verifies one's knowledge of English grammar, its style to express. In recent times, many software tools are available for checking the English language, which helps professionals with their writings. Some of these software tools commonly used are Pro Writing Aid [10] for checking grammar online: Grammarly easy and affordable tool for checking spellings and grammar. It also grants free online content editor and free browser expansion for chrome, Safari, and Firefox. White smoke is used for editing through grammar and checking punctuations. It also suggests to the writer where he should improve his writing. It works mostly on MS Word and Outlook, Ginger online for text editing most commonly used as it combines with MS word. Others tools for checking and testing grammar and other writing mistakes are grade proof, language tool, online correction, paper rater etc. Data Analysis & Investigation :

It is the process of analyzing and applying different statistical techniques to evaluate and define the data collected for the research. The reprehensible methods will alter the analyzed results and will mislead researchers, and can have a negative influence the society. Thus proper and correct techniques should be applied for better results. The best tool for the analysis of data in MS - Excel. Besides this, other software tools developed nowadays are also commonly used for analysis; moreover, the statistical software provides accurate results. These tools are designed for both qualitative and quantitative data sets.

Qualitative data analysis tools: NVivo developed by QSR and designed for qualitative data analysis. It requires rich text-based multimedia information where a small or large amount of data can be analyzed. MAXQDA.ti is similar to The Window to NVivo [11] and allows association, colour coding, and data recovery. Atlas. Ti is a package of outsized bodies of textual, graphical, sound and video data.

Quantitative Data analysis tools: Apache Spark was developed on data science and is an engine for processing large data sets. It has MLib, a library that contains techniques such as classification, regressions and other statistical methods. Python includes the functions of R and STATA [12]. Its usage has been growing over the years. R is software that is free to access and is used for analyzing data and graphics. It provides various types of statistical and graphical techniques. SPSS (Statistical Package for the Social Sciences) [13] is used for editing, analyzing and presenting data in academic research. Stata is a general-purpose package. It is generally used in the streams like economics, sociology, political science etc. it has facilities such as graphics, data management, custom programming, statistical analysis, regression and simulations.

Citation :

A bibliographic section where references from different12 AE D & > sources for the related work of others to the subject of discussion form where the references appear are given. The citation can be done in various styles, which are common to science and social sciences. Some styles are the Chicago manual of style, MLA and APA styles. Among this APA style is commonly used. Various tools for citation or references have been developed, which helps to arrange and layout citations easily. Zotero is a reference tool that is freely available to collect, refer to, organize and share research sources. It automatically resolves its data or references PDF files sources and takes out the reference in turn, and lists it to the library. MENDELEY is also available for free, which manages and helps arrange the research, pool resources online, and ascertain new research. It is easy to 12 let OOO install the Mendeley desktop tool on the computer. One can arrange its reference in Mendeley library by merely copying or dragging files from the drive. It can be used for the MS Word and LibreOffice EndNote, which provides the facility to copy references from online sources directly, i.e. PubMed, Library of Congress etc. One can also input its reference manually if the sources are unpublished. However, it has to be purchased and is somehow costly. RefWorks [14] is the same as EndNote. It is a web-based tool where references are stored online. Other citations tools are Citavi, Paper Pile, JabRef etc.

Similarity Check :

These are used for checking the similarities of the articles or manuscripts with the previously published works. Many publication organization's use these tools for checking similarities or plagiarism. Several software tools are now available for plagiarism checking. Some of these are free and used after purchasing their licenses. Dupli Checker | 15 ] is a free tool and easy to use and is widely used. It provides researchers to either copy-paste text for the similarity check or can upload text or document. It enables 50 documents to be checked per day. Copy leaks are based on cloud certification and provide one to follow eLearning substance on the internet. It allows checking multiple files or articles of all Universal characters encoding standard languages, enables the API tool for plug check, and provides a mobile app. Turnitin [ 16 ] is a plagiarism checker based on the internet and commercialized by America. Other plagiarism checker tools are Scribbr, quest text, plagtracker [ 15 ] etc. Indexing :

It is the list of articles that are cited, each along with a list of citing articles. It must have an online indexing service for the success of a journal. It is a reference database where citation indexing is done between publications, enabling researchers to access and establish the articles easily and cite previous articles. The primary indexing services are SCI, whose electronic version is known as 'web of science', Scopus or Elsevier, ICI (Indian Citation Index), Google Scholar, etc.

# IV. CONCLUSION

This article presents the ICT tools required for the research in social sciences (RSS)

. In the sec - II, we briefly described the research process followed in social sciences. Sec - III presents the various ICT tools available for RSS at different stages of research like educational, literature resources, data preparation, data analysis & investigation, citation, loos Test similarity check and indexing. This provides the information regarding the ICT tools required during research planning, literature review, collection data analysis of research data for the less tech-savvy scholars in a single place. It will help the researchers in the quick and right selection of ICT tools for their work.

#### References

[1]	<ul> <li>F. Johari , M. H. Alias , A. A. Rahman , and M. F. Ibrahim , " The Usage of ' Turnitin as an Innovative Educational Tool : Inculcating Critical Thinking in Integrating Naqli and Aqli for Subject of Malaysian <i>Economy</i>, " <i>Procedia - Soc</i>. Behav . Sci vol . 195. pp . 821-827 , 2015 .</li> </ul>
[2]	D. K Saini and M. R. Salim Al - Mamri , " Investigation of Technological Tools
	used in Education System in Oman, "Soc . Sci . Humanit . Open, vol . 1, no
	. 1, p. 100003, 2019.
[3]	N. Alalwan , W. M. Al - Rahmi , O. Alfarraj , A. Alzahrani , N. Yahaya , and A.
	M. Al - Rahmi, " Integrated three theories to develop a model of factors
	affecting students ' academic performance in higher education, " IEEE Access
	, vol . 7. pp . 98725-98742 . 2019.
[4]	A. Bhattacherjee, Social Science Research : Principles, Methods and Practices
	Creative Commons Attribution, 2012.
[5]	C. R. Kothari, Research Methodology: Methods and Techniques, 2004th ed.
	New Age International, 2004
[6]	C.B. Novak, L. Mak, and M. Chang, " Evaluation of written and video education
	tools after maller finger injury, "J. Hand Ther. vol. 32, no. 4, pp. 452-456,
	2019 .
[7]	J. L. M Nunez , E.T. Caro , and J. R. H. Gonzalez , " From Higher Education to Open

Education : Challenges in the Transformation of an Online Traditional Course, "

IEEE Trans. Educ., vol. 60, no. 2. pp. 134-142, 2017.

[8] "IEEE Xplore . " [Online]. Available : https://iceexplore.ieee.org.

[9] "Best Google Forms Alternatives . " [Online]. Available : https://wpforms.com. [10] "BEST Grammarly Alternatives For Error - Free Writing . " [Online]. Available :

https://www.softwaretestinghelp.com

- [11] "MAXQDA Alternatives . [ Online ) Available : <u>https://sourceforge.net/software</u> product / MAXQDA alternatives ,
- [12] "IBM SPSS Competitors and Alternatives . "[Online]. Available : https://www.trustradius.com products ibm - spss competitors .
- U Sebjan and P. Tominc, "Impact of support of teacher and compatibility with needs of study on usefulness of SPSS by students, "Comput. Human Behav., vol. 53, pp. 354 365. 2015.
- [ 14 ] "Mendeley Alteratives & Competitors . " [ Online ]. Available : <a href="https://www.g2.com">https://www.g2.com</a>.
- [15] Top Research Tools and Software for Academics and Research Students
  ." [Online]. Available : <u>https://www.ref-n-write.com</u>.
- [16] M. Li and J. Li, "Online Peer Review Using Turnitin in First Year Writing Classes, "Comput. Compos., vol. 46, pp. 21-38, 2017.