Research and Research-Related Activities in the COVID-19 Era: Implication for Higher Education Institutions

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Abstract

The purpose of this paper is to explore different perspectives of how to go about conducting academic research in COVID-19 era and to trigger greater debate in Ethiopian context. A May 27, 2020 Science Magazine article outlines that Universities are expected first and foremost to come up with safe protocols/guideline for safe practices in order to move forward. Schiffer and Walsh (May 20, 2020) hinted that America's top research institutions identify and explore the challenges that research operations are facing. They are related with social distancing requirements, university finances are stretched, the expectations of pre-pandemic research grants and contracts, and international activity, and recruitment. As cited in Clay (March 19, 2020) members of APA's Board of Scientific Affairs, offer advice among other thing to: work remotely, modify the research and analysis, protect the human participants and animal subjects, cross-train staff, do the things that researchers never have time for, support junior colleagues, and keep things in perspective. The Leaders of Africa (July 6, 2020) suggested that the COVID-19 era presents us with a learning process in which survey organizations and partners must adapt and be flexible. The Canterbury Christ Church University (April 17, 2020) advises students that there is a need for guide to decide whether their research can continue at the start, followed by some generic resources and suggestions. These are followed by some more subject specific suggestions, and finally by suggestions for Desk Based Research and Action Research. The University suggested that there are a number of alternative research strategies that students could consider. For example, analysis of existing media content, analysis of archival data and texts acknowledging shortcomings in the thesis, meta-analysis of published studies, and systematic literature review.

Finally, regarding COVID-19 and private higher education, Wondwosen Tamrat assessed the Ethiopian context. In his newsletter article in the University World News (May7, 2020), he stressed the immediate mounting difficulties on private higher education vis-a-vis public higher education institutions. Accordingly, the private sector was not and still is not able to move smoothly toward online provision to ensure continuity of teaching and learning. He emphasized that while the obstacles are substantial and still growing in many cases, now is the time to scrutinize the major issues explicitly and prepare for the decisions needed in the months ahead. In this regard, recommendations include: revisiting the national directives, bailing out the private sector and, planning and preparing to enter the post-pandemic era by making hard decisions.

Keywords: Research, COVID-19, Higher Education Institutions

Introduction

Though the novel coronavirus started in China, it is now spreading out across the world, with almost all countries affected. According to WHO report on September 04, 2020 globally there were 26,489,636 confirmed cases and 873,552 deaths. In Ethiopia, as per the report of the

Ministry of Health and Public Health Institute on September 4, 2020, there were 55,213 and 856 confirmed cases and deaths, respectively. At the frontline, medical staff is fighting to cope with one of the biggest challenges in care workers' careers. At the same time, specialists are working day and night to develop a vaccine.

In this small desk-based research, attempt has been made to bring together thoughts and experiences for doing research in COVID-19 era. The ideas compiled come from journal articles, newspaper articles, blogs and webpages, and include experiences of doing participatory, qualitative and quantitative research, through to ethical issues that may be faced and how to deal with them.

Beyond the frontline, social scientists have a crucial role to play in foreseeing, understanding, and analyzing the on-going societal transformations, and in developing solutions that help our societies to move forward. Over the coming years, social scientists will tackle different societal issues. And they will often do this in field that is also part of their home, interconnected with their personal lives. How can we safeguard the health of our scholars? How can we reinforce researchers' strength? Here, I invite participants to think and converse on how to adequately cope up with the challenges of research in COVID-19.

Thus, the purpose of this paper is to explore different perspectives of how to go about conducting academic research in COVID-19 era and to trigger greater debate in Ethiopian context.

Moving Academic Research Forward During COVID-19

COVID-19 is not just altering everyday life; it's also upsetting research. As universities and colleges across most countries go virtual, researchers need to attempt to protect their participants, subjects, scholarship and careers.

The coronavirus crisis has challenged higher education institutions in many and unexpected ways. As universities have to take radical measures and make major efforts to slow the infection and to better understand the virus; they are making new paths in crisis management. This brings both challenges and opportunities to most universities in developing countries like Ethiopia in particular in relation to digitalization and digitally enhanced learning and teaching, opens science, research, quality assurance, funding and civic engagement.

A May 27, 2020, Science Magazine article outlines the difficulties of pursuing research during the COVID-19 pandemic stating the unprecedented disruption of society. The Magazine also points out that many universities are expected to be online in the coming months. Initially, most on-site research "ground to a halt." Now, sites are ready to ramp-up research by working with public health experts, staff, etc. to come up with safe protocols moving forward. Across the world, early mitigation strategies hampered research sites and projects. In the countries most effected, most "nonessential" research was at least temporarily halted. This included lab research, field work, and educational research, but exceptions were made for work needed to maintain machinery and monitor certain long-term projects. In the

U.S., researchers have been working closely with government agencies to get clarification of what activities are allowed, especially under active grants.

According to the Magazine in resuming on-site research, sites in China, Europe, and the U.S. have been developing guideline for safe practices. Science looks at six representative public and private institutions, which have developed "overlapping yet distinct guidance" for research communities. Recommended actions include the health of workers and study subjects and "fair and transparent processes for [safety-related] decision-making." Specific challenges can be occupancy levels, facility prioritization, and library usage.

Resuming University Research in the Post COVID-19 Era

Schiffer and Walsh (May, 2020) hinted that there are no clear best practices to copy and no good instances to follow. We can, however, identify the issues to be faced and prepare for decisions needed in the months ahead. To them, America's research universities have long been a source of national prosperity and tremendous intellectual progress in service of the entire world. The university research enterprise is indeed a fundamental source of the nation's strength and resiliency, yet the pandemic is forcing adaptations that were unimaginable a few months ago. They indicated that they have connected with research leaders at some of the top research institutions in the nation to identify and explore the challenges that research operations are facing. They include:

- Social distancing requirements are nearly impossible to meet for many research areas.
- University finances are stretched, along with almost every other sector of the economy.
- The expectations of pre-pandemic research grants and contracts are often incompatible with the current situation.
- International activity, and especially student and postdoc recruitment, is highly inhibited by travel restrictions and increased logistical hurdles to visa processing.

According to Schiffer and Walsh, while the obstacles are substantial and still growing in many cases, now is the time for planning and preparing to enter the post-pandemic era with Hard Decisions Required. The areas included are:

- Any transition toward full research activity will be impacted by larger societal issues: how the pandemic progresses, how effectively medical advances can fight the virus and how societal, governmental and economic expectations evolve.
- Even when full return to work begins, the broad rejuvenation of university research will likely be staged to keep density in labs and on campuses low. Universities can expect a period of uncertainty, both economically and under the threat of possible reinstatement of social distancing measures.
- Planning must weigh the needs of research and researchers' careers against the risks of infection and substantial financial costs. The decisions will necessarily vary significantly by field.

For other research, however, hard decisions will be required on what should get prioritized. These include:

- The work most related to the pandemic or other health concerns;
- The work that is easiest to conduct with continued social distancing;
- The work with the highest scientific promise or the largest implications for technology transfer or national security;
- The work that most impacts the careers of graduate students, postdocs, contingent faculty and pre-tenure faculty members or the work that does not depend on supplies, equipment and other resources that are needed for health care during an active phase of the pandemic.

In responding to such questions, university communities will need to reflect on their paramount educational mission. Beyond the researchers themselves, planning also must include the infrastructure of dedicated administrative and technical staff that support and sustain researchers and the operations of research. Finally and critically, universities and government agencies must attend to the needs of international students and scholars.

Doing Research during the COVID-19 Pandemic

Jeff Zacks, PhD, of Washington University in St. Louis, who chairs APA's Board of Scientific Affairs (BSA), says that the research that will be affected first is a kind of study that involve bringing groups of people together in close proximity. To mitigate the impact, Zacks, his fellow BSA members and other experts offer the following advice:

a. **Prepare to work remotely**

Make sure you have a laptop, charger, webcam, contact information for team members and access to any electronic materials you'll need. If you don't yet know how to use Skype, Zoom and Hangouts, now's the time to learn.

b. **Check in with your program officer**

Since it's not clear when the pandemic will be over, it's important to think creatively about how to sustain your research over at least the next three to five months, says Carmela Alcántara, of Columbia University's School of Social Work. Then reach out to your program officer/funder and share how the crisis is affecting your work and how you plan to keep making progress.

c. **Modify your research and analysis**

Researchers who rely on face-to-face interaction to collect data will have to hit pause or go online. If you're shifting to remote data collection and storage, keep in mind that changing methodologies means modifying your institutional review board approval and doing another round of consents, says Alcántara.

d. Protect your human participants and animal subjects

Universities have to stop any and all face-to-face human research because of the risks involved, says Sangeeta Panicker, Director of Research Ethics at APA, pointing to the risks for participants traveling to and being in labs as well as risks to the personnel keeping labs open.

e. Cross-train staff

"You want to reduce the likelihood of institutional knowledge being locked up with one person," says Bethany A. Teachman, of the University of Virginia. "We don't want people to feel pressured to come in." By training other staff to do data management, for example, another team member can step in if someone gets sick.

f. Maintain communication with your team

Frequent communication is key to not only keep the research going but also safeguarding your team's mental health, says Teachman. In addition to weekly Zoom meetings, she has written to her team members to ask about their concerns and offer problem-solving help. "A big part of it is telling them that these are not normal times, and that it's OK not to be as productive" she says.

g. Do the things that you never have time for

"While it's frustrating not to be able to do data collection, this is a great chance to work on a paper, take an online course, build that skill you were always saying you were going to do," says Teachman. "It's also a good time to write grant proposals."

And keep research staff busy, too. "We can't say, 'I'm going to fire you temporarily but rehire you when we can recruit again,'" says Evans, who is putting staff to use checking data for journal articles in preparation.

h. Support junior colleagues

Students, trainees and early career researchers are most vulnerable right now. As faculty, do what you can to help ensure they can continue progressing toward their goals and be flexible about deadlines. Reach out to junior colleagues and offer data sets they can work with or opportunities to collaborate with you. If you're an early career researcher yourself, document how the crisis is affecting your research and talk to your chair about how you can protect your chances of tenure, says Major.

i. Keep things in perspective

"Right now, this is very traumatic for everyone," says Evans. But, she and other researchers say, it is important to remember that you are not the only one in this situation and that normal research activities will eventually resume. Zacks says, "It's going to be OK."

Conducting Survey Research in the COVID-19 Era (Leaders of Africa July 6, 2020)

The Leaders of Africa is an independent and non-partisan collaborative that shares the experiences of thought leaders, and educates and conducts research on leadership in Africa. The collaboration indicated that surveys play an important role in gathering the perspectives of citizens concerning pertinent political, economic, and societal matters. During the present COVID-19 global pandemic, understanding citizens' opinions is perhaps even more essential given the need to achieve positive public health outcomes and ensure endangered livelihoods are protected.

However, in the era of the COVID-19 pandemic, survey data collection has been hindered in part due to lockdown measures and legitimate fears about putting survey teams and respondents in harm's way.

The collaboration suggested that the COVID-19 era presents us with a learning process in which survey organizations and partners must adapt and be flexible. They further revealed important insights about some of the ongoing adaptations and techniques survey teams can take to conduct field surveys. Here are five insights:

i. Rethink data collection strategies while acknowledging the shortcomings

Face-to-face field research generally yields fairly high response rates, and there is more control over the random selection process. But, with the advent of COVID-19, many survey and polling organizations have begun to rely on other data collection methods including telephonic surveys and in some cases SMS polls.

ii. Protect enumerators in face-to-face interactions

The panelists agreed that measures need to be in place to protect enumerators and respondents, including providing masks to enumerators and maintaining some spatial distance. The one concern raised is how respondents would perceive enumerators coming from outside the community

iii. Acknowledge the variation of experiences with COVID-19 and what it means for fielding surveys

One of the suggestions is to acknowledge the competence of research boards in African countries to take the lead, particularly in countries where COVID-19 has been largely in control and local survey organizations have an approach to field surveys with minimal health risks.

iv. Understand how fear of COVID-19 is linked to experiences with the virus and other threats to livelihoods

With studies beginning to capture citizens' views on the COVID-19 threat and the response of their government, it is expected that some of the effects of worsening economic conditions

will top the list citizens' most important problems. This does not mean that COVID-19 is not a serious concern or that citizens are not aware of its presence. But, the impact varies and more immediate livelihood concerns may be a priority of citizens.

v. Broaden some of the themes we include on surveys, particularly those related to COVID-19

The panellists mentioned how surveys can enhance evidence-based discussions of misinformation, local COVID-19 remedies, mental health, and the opinions of young people under the traditional survey baseline age of 18. There was agreement among the panellists that youth's voice needs to be amplified in survey work, including gauging how young people experience stressors associated with COVID-19 and their opinions on pertinent topics, such as the opening of schools. Ultimately, surveys will play a crucial role in ensuring that a broader set of voices shape public and policy discussion related to COVID-19 and political, economic, and societal matters.

COVID-19: Alternative Research Strategies –Advice for Students

According to Canterbury Christ Church University (17 April 2020), there is a need for guide to decide whether your research can continue at the start, followed by some generic resources and suggestions. These are followed by some more subject specific suggestions, and finally by suggestions for Desk Based Research and Action Research.

Deciding whether research can continue-generic information

Any advice contained must be subject to published policies and advice in the order of precedence below:

i. Government legislation, advice or guidance relating to measures to combat COVID-19

ii. The University statement on Continuity of Research and Research-Related Activities

iii. Policies, procedures, guidance and advice under the University Research & Enterprise Integrity Framework.

There are a number of alternative research strategies that you could consider. For example:
- Analysis of existing media content
- Qualitative and quantitative analysis of archival data and texts
- If your project is empirical, but due to data collection being foreshortened, discuss with your supervisor whether any alternative/additional data analysis procedures could be applied
- Whilst you do not have sufficient statistical power to carry out your original data analysis, whether sufficient data is available for a more limited analysis and this can be acknowledged in the thesis
- Meta-analysis of published studies
- Systematic literature review

Tertiary Education and COVID-19: Impact and Mitigation Strategies in Europe and Central Asia

It has been stated that, though, as the result of the arrival of COVID-19 and the subsequent lockdown in many Europe and Central Asia (ECA) countries, tertiary education institutions have had to move swiftly toward online provision to ensure continuity of teaching and learning, the transition seems to vary from country to country. For those countries that had invested in the sector and approached digitalization in a strategic way pre-crisis (for example, Denmark, Estonia, Finland, France, Germany), it seems that this transition was comparatively easy. Countries that had not developed a strategic approach toward digitalization did not provide the support; those that, more broadly, had seen decreasing investment in higher education faced significant difficulties.

Nevertheless, the following 10 key recommendations were forwarded to policymakers and tertiary education institutions, and to donors and multilateral agencies, on how to address the crisis.

I. **Account for all staff and students,** particularly those who were engaged in any mobility programs away from their home institutions, and support to the extent possible the return of staff and students to their home countries.

II. **Address infrastructure issues and lack of equipment swiftly**, to the extent possible. Share educational materials and resources among institutions. Many countries provide open-access resources; make sure they are known and available.

III. **Take timely decisions on the academic calendar** (exams, admission, and graduation) based on epidemiological guidance and available information. Communicate them clearly so that all the involved actors, particularly students and their families can plan.

IV**. Make equity a priority during the crisis and beyond**. Provide additional support to at-risk students who are particularly affected by the crisis, to the extent possible. Where learning is discontinued, plan flexible measures to bring students back on board as soon as possible and help them catch up.

V. Institutions should **consider a freeze on staffing arrangements as long as it is feasible**. The end of the crisis will provide a more opportune moment to consider medium-term staffing needs.

VI. **Communicate with current and prospective international staff and students**, take care of their specific needs, and where decisions cannot be taken right away, provide flexibility and facilitate decision making.

VII. **Work with quality assurance agencies** to adjust quality assurance mechanisms to the crisis and the evolving situation. This concerns not only online learning but also established schedules and mechanisms for the accreditation and evaluation of programs and institutions.

VIII. **Liaise with pre-tertiary decision makers** to find suitable joint solutions in countries where university access is based on high-stakes exams.

IX. **Ring-fence public funding for tertiary education**. Decreasing funding for teaching and learning, research, and innovation will harm post crisis economies in a lasting way.

X. **Plan for a gradual reopening**. Prioritizing the areas that would need to be accessed at the earliest opportunity, and analyzing the precautions (such as masks and number of people in the building), which should apply and could help speed up the process of reopening.

COVID-19 and Private Higher Education: The Ethiopian Context

According to Wondwosen Tamrat's news article in the University World News, an international newspaper and website posted on 07 May 2020, the Ethiopian government decided to close all types of educational institutions on 16 March 2020 followed by establishing a national taskforce that started mobilizing the public towards combatting the impacts of the pandemic. Most private institutions responded swiftly to the call by contributing money, sanitary items, essential supplies and even their buildings to be used for quarantine and storage purposes. In the article, Wondwosen stressed the immediate mounting difficulties on private higher education vis-a-vis public higher education institutions. This is because among other things:

- The vast majority of PHEIs across the country depend almost entirely on student tuition and fees;
- Most PHEIs run their programs in rented buildings owned by individuals and private businesses;
- They employ tens of thousands of people and incur substantial expenses on rentals and salaries;
- PHEIs pay taxes and duties, and they repay loans from financial institutions at exorbitant rates;
- They receive little or no direct or indirect assistance from the government.

As the result, according to Wondwosen, the private sector was not and still is not able to move smoothly toward online provision to ensure continuity of teaching and learning and, at least to some extent, exams. The challenges include poor internet connectivity, exorbitant internet costs, and lack of appropriate technology. The pervasive lack of a well-developed learning management system has forced many institutions to revert to social media platforms like Telegram, Facebook, etc. as an immediate resort to send lessons to students. Another serious challenge is the mounting number of students that do not have the opportunity or capacity to access the digital platforms created. These challenges continue to be a source of unhappiness for students and disagreement between students and institutions.

Finally the author stressed that while the obstacles are substantial and still growing in many cases, now is the time to scrutinize the major issues explicitly and prepare for the decisions needed in the months ahead. In this regard, the following recommendations were suggested:

- Revisiting the national directives in order to accommodate the challenges of private higher education;
- Bailing out the private sector to alleviate the negative impacts of the pandemic;

- Planning and preparing to enter the post-pandemic era by making hard decisions. Even when fuller return to work begins the private sector can expect a period of uncertainty, both economically and under the threat of possible reinstatement of social distancing measures.

References

Ansoms, An (May 14, 2020).*Research in Times of Crisis: Caring for Researchers' Mental Health in the Covid-19 Era.* Retrieved fromhttps://items.ssrc.org/covid-19-and-the-social-sciences/social-research-and-insecurity/research-in-times-of-crisis-caring-for-researchers-mental-health-in-the-covid-19-era.

Canterbury Christ Church University (17 April 2020). COVID-19: Alternative Research Strategies–Advice for Students. Retrieved from https://www.canterbury.ac.uk/research-and-consultancy/documents/COVID-19-Alternative-Research-Strategies-Advice-for-Students.pdf.

Clay, R.A.(March 19, 2020).*Conducting research during the COVID-19 pandemic: Advice from psychological researchers on protecting participants, animals and research plans.* Retrieved fromhttps://www.apa.org/news/apa/2020/03/conducting-research-covid-19.

Leaders of Africa (July 6, 2020).Conducting Survey Research in the COVID-19 Era. Retrieved from https://www.leadersofafrica.org/live/conducting-survey-research-in-the-covid-19-era/.

Nelson, A. Covid-19 and the Social Sciences. Retrieved from https://covid19research.ssrc.org/mobilizing-social-science-ssrc-responds-to-covid-19/

Schiffer, P., Walsh. (May 20, 2020). *Rebooting University Research for the Post-Pandemic Era.* Retrieved from https://www.insidehighered.com/views/2020/05/20/how-university-research-enterprise-must-prepare-months-ahead-opinion.

The European University Association (EUA) (27 May 2020). Covid-19 and universities. Retrieved from https://www.eua.eu/issues/27:covid-19-and-universities-in-europe.htm

Trial Site News Jun 6, 2020 | Blog, Clinical Research, COVID-19, News. Research in the COVID-19 Era. Retrieved fromhttps://www.trialsitenews.com/research-in-the-covid-19-era/.

Wigginton , N.S.(12 June 2020).Moving academic research forward during COVID-19 Science Vol. 368, Issue 6496, pp. 1190-1192.Retrieved fromhttps://science.sciencemag.org/content/368/6496/1190?rss=1

Wondwosen Tamrat (07 May 2020). *COVID-19 – Private higher education faces precarious future.* Retrieved from https://www.universityworldnews.com/post.php?story=20200506081039701

World Bank (25 May/20). *Tertiary Education and COVID-19: Impact and Mitigation Strategies in Europe and Central Asia.* Retrieved fromhttp://pubdocs.worldbank.org/en/783451590702592897/ECA-TE-and-COVID-19-long-FINAL-25May20.pdf