Understanding the Challenges of Teachers During the Modular Distance Learning: Framework for Designing a Web-based Teaching-Learning Technologies in the Rural Schools

Leonel D. Francisco

Abstract: This study aimed to identify the issues and challenges faced by highly proficient teachers (HPTs) in delivering modular distance learning in rural schools. Employing a qualitative research design, the study explored the perspectives of nine HPTs from elementary schools in the Zamboanga City Division, using Key Informant Interviews (KII). Thematic analysis was used to analyze the collected data, which revealed significant barriers, including parental neglect in obtaining and returning instructional materials, low literacy levels among parents, and work-related challenges. These issues not only disrupted the learning process but also raised concerns about the reliability of student assessments, as parents often completed assignments on behalf of their children. The study also highlighted the overwhelming workload faced by teachers in preparing modular content and managing administrative tasks, which left little time for personalized student support. The research further suggests that web-based technologies could offer a potential solution to improve the modular distance learning experience. These technologies would allow for more effective course delivery, real-time student progress monitoring, and prompt feedback, thus reducing the reliance on parents for instructional support. Additionally, online features such as interactive quizzes, virtual office hours, and automated administrative tasks could enhance student engagement and teacher efficiency. By designing user-friendly, low-tech platforms that accommodate remote and resource-limited settings, web-based tools could bridge existing educational gaps, empowering both teachers and students in rural communities to better navigate the challenges of distance learning.

Keywords: *challenges, highly-proficient teachers, modular distance learning, pandemic,   framework, web-based teaching-learning technologies, rural schools*

Introduction

Teaching is a human activity. It is an interaction between the teacher and the learner. It is through teaching that learners become familiar with the values and manners advocated and given priority by the society. It is a skillful activity that applies knowledge, and scientific principles to the purpose of setting an environment to facilitate learning according to Malik in 2012. On the other hand, learning is considered to be one of the most important features and characteristics that play a

Western Mindanao State University
Zamboanga City, Philippines

significant role in the nation's progress, as it generally affects new generations of learners while relying on modern and advanced scientific foundation of learning (Alelaimat, 2012).

The pandemic brought about a significant transformation in teaching and learning, as schools and universities were compelled to shift to online platforms to continue education. This change, though essential, came with several challenges, such as limited access to technology, internet connectivity issues, and a lack of preparation for both students and teachers to navigate virtual classrooms. Despite these obstacles, many educators utilized digital tools to create innovative learning experiences, demonstrating adaptability and resilience. While remote learning offered

flexibility, it also exposed the digital divide and highlighted the need for more inclusive educational policies. Ultimately, the pandemic emphasized the importance of integrating traditional and digital learning methods to build a more flexible, accessible, and future-proof education system.

In this trying time, every institution is tasked to adapt with the trend in education so that learning will still take place. According to Means, Toyama, Murphy & Baki (2013), distance learning is not a new concept, and nor research in this topic. In this academic year, with the pandemic that the world is facing, the Department of Education urged public institution to continue the teaching and learning process by means of various learning modalities. Modular Distant Learning through capsulized self-learning toolkit is the modality that schools in Manicahan District adapted in this kind of situation. This modality was chosen by the parents and guardians of the pupils in every institution as it requires no other resources other than the printed materials to be released and retrieved in the given schedule.

Designing web-based teaching and learning technologies for rural schools offers both unique opportunities and challenges. In rural areas, where access to reliable internet and technological devices may be limited, it is essential to develop low-cost, user-friendly platforms that can function with available resources. These technologies must be customized to meet the specific needs of rural students, integrating local languages, cultural contexts, and practical teaching methods. By incorporating offline features, such as downloadable content or local network sharing, web-based tools can help bridge educational gaps and provide remote learning opportunities. Hence, this study has been conducted.

Related Literature and Studies

Teaching-Learning During the Pandemic

In the study conducted by the UNICEF (2020) which focused on monitoring learning throughout crisis, they reported that putting in place monitoring mechanisms in the midst of a crisis is difficult. It is particularly challenging to measure changes in learning outcomes given that no baseline data may be available. In an initial period,

countries may consider developing procedures to measure proxies for the quality of the programmes, such as accessibility, alignment of distance learning to the curriculum and teacher/student engagement. Education officials must put in place monitoring mechanisms to monitor two key issues. Collecting information on these questions is critical for improving the quality of distance learning programmes, responding to students' needs and large losses in learning achievement upon the return to school. If technology is functional, SMS- or telephone-based surveys are a good option to measure the perception of actors (parents, teachers) and estimate the reach, access and use of the distance learning materials. This will allow refinement of programmes, better communications and better engagement, interest and motivation among those delivering the programme. However, perceptions of effectiveness may not replace measuring actual effectiveness in the medium to longer term.

Modular Distance Learning

With respect to the use of communication tools in distance learning, it is highly likely that technologies which are used as media of communication would facilitate or increase practices that enhance student interaction and engagement in learning (Rajasegeran, 2012). Technology improves practices such as timely feedback from lecturers and student responses to forums, as well as improves students' interactions (Angelaki, 2013). Dzakiria (2012) suggest that student-instructor interaction that relies on communication technology to present, clarify or elaborate information supports student learning, as well as supports the processes of providing feedback, evaluation, support, and encouragement.

The Department of Education ensures that all learners have access to quality Basic Education. Self-Learning Modules were distributed that are used by the learners together with the modalities suited for them. According to Department of Education Secretary Leonor Briones "The Self Learning Modules and the other alternative learning delivery modalities are in place to address the needs, situations, and resources of each and every learner and covers all the bases in ensuring that basic education are accessible amid the present crisis posed by COVID-19," (Espinelli, 2021). The

claim bears similarity with the result of a study conducted by Creus and Angeles (2019) where they found out that Module-based localized learning materials resulted to increase performance of most learners.

From the study of Sadiq (2014), it was proven that the use of modules for modular learning is more effective in teaching- learning process as compared to ordinary teaching methods. The modular approach helps to maximize the chances of student participation in the classroom in respect to fulfil the given tasks on the spot, so the students feel free to learn in their own style at their own pace.

The findings are the same as what Amboyan (2019) proved in his study that modular instruction is more effective in teaching-learning method compared to the usual teaching approaches because in this modular approach the students learn at their own stride. To guarantee that learning delivery really takes place, there is a need for monitoring and observation by the school head, head teachers, and classroom teachers to ensure that proper feedback and technical assistance will be given.

Modular learning is the most popular type of Distance Learning. In the Philippines, this learning modality is currently utilized by all public schools because according to a survey conducted by the DepEd, digital modules emerged as the most preferred distance learning method of parents with children who are enrolled this academic year. This is also in consideration to the learners with difficulty in internet connectivity that will be used for online classes. The teacher takes the responsibility of monitoring the progress of the learners. The learners may ask assistance from the teacher via various communication platforms. Where possible, the teacher shall do home visits to learners needing remediation or assistance (Dangle & Sumaoang, 2020).

Designing Web-based Teaching-Learning Technologies in the Rural Schools

There are many obstacles as well as great opportunities to enhance educational access and quality when integrating web-based teaching and learning technology into rural schools. The possibility for successful online education is hindered by the lack of technology infrastructure in many rural areas. Soni (2021) claims that pupils in rural areas are unable to receive the same level of education as their urban counterparts due to the digital divide. This disparity is especially noticeable in places with poor internet access and little access to technological tools. Designing web-based systems that are flexible and appropriate for the technology constraints of rural schools is essential to bridging this gap.

The particular necessities of teachers and students in rural areas must be taken into account when designing web-based teaching and learning tools. These groups frequently deal with issues like poor digital literacy, intermittent connectivity to the internet, and restricted access to devices (Bawa, 2020). The successful implementation of e-learning systems in rural schools, according to a study by Singh and Prakash (2022), should prioritize offline functionality because rural students frequently do not have reliable internet connectivity. Even without reliable connection, web-based systems can offer opportunity for ongoing learning by integrating offline learning modules and downloadable materials. To guarantee relevance, the content must also be translated, using resources that take into account the language preferences and local context.

For web-based teaching tools to be successfully implemented in rural schools, teacher preparation is essential. According to research by Kumar and Sharma (2020), teachers in rural areas frequently lack the necessary digital tool skills, which reduces their ability to effectively conduct online instruction. In order to give teachers the skills and knowledge they need to incorporate web-based learning platforms into their teaching practices, extensive professional development programs are required. For instructors to feel comfortable using digital tools and realizing their full potential, continuous training and assistance are therefore essential.

The sociocultural environment is another important factor to take into account when developing web-based teaching and learning tools for rural schools. Designing educational technology with cultural sensitivity and local norms and practices in mind is important. According to a study by Nair and Lee (2021), for e-learning systems to be successful in rural areas, they must be in line with regional

languages, customs, and educational priorities. Students may have a more interesting and fulfilling educational experience as a result of this localization. Incorporating local populations into the design and implementation process also guarantees that the technologies are tailored to their unique requirements and difficulties.

A comprehensive strategy that considers pedagogical, technological, and sociocultural aspects is needed when developing web-based teaching-learning tools for rural schools. Even though there are still issues like inadequate infrastructure and low levels of digital literacy, there are many chances to use technology to enhance education in rural areas. These technologies can help build a more equal and inclusive educational system by emphasizing localization, teacher training, and offline capabilities. In order to ensure that every student has access to high-quality learning opportunities, recent studies have shown that careful planning and creative design can assist close the educational gap between urban and rural areas.

Research Question

What are the issues and challenges encountered by the teachers in delivering modular distant learning in the rural schools?

Methodology

This study employed a qualitative method of research design to study the narratives of highly proficient teachers in delivering modular distant learning. According to Cresswell (2005), in qualitative research, the researcher depends on the participants' views, ask questions, gather data in words from the participants, describes and analyzes these words for themes.

This study also employed an exploratory research design since it aimed to investigate a problem which is not clearly defined from the previous studies conducted. This design provided better understanding of the existing problem but may not provide conclusive results. For this kind of design, the researcher started with a general idea and used this research as a medium to identify issues, that can be the focused for future research. It is often referred to as grounded theory approach or

interpretive research as it used to answer questions like what, why and how (Brown, 2016).

The participants of this study were the nine (9) highly proficient teachers among the selected rural schools in Zamboanga City Division. In this study, individual interview was used. According to Kiger & Varpio (2017) Thematic analysis is a powerful yet flexible method for analyzing Qualitative data that can be used within a variety of paradigmatic or epistemological orientations. It is also an appropriate method of analysis for seeking to understand experiences, thoughts or behaviours across a data set.

Using the interview questionnaire composed of 17 specific questions which was validated by the research panel, a Key Informant Interview (KII) was utilized as the method of data collection of this study. Through the guide questions, participants were asked to answer all the questions asked to them. Furthermore, this allowed participants to further elaborate information that may be of great help to the participants and the researcher. By means of the interview, the researcher was able to ask follow-up and probing questions to derive additional inputs for the analysis of themes.

Results and Discussions
On the Issues and Challenges Encountered by the Teachers in Delivering Modular Distant Learning

This research question focuses on the present struggles that the participants are experiencing in the implementation of the modular teaching in the new normal. This study also investigated on the issues that the Highly Proficient Teachers are experiencing. As defined, an issue is a subject or problem that people are thinking and talking about environmental, ethical, social, personal issues and the like (Cambridge Dictionary).

The first issue that was found out after the analysis of the respondents' responses was **difficulty of the parents in claiming the modules on time** raised by most of the participants. In the District where the participants are teaching, modular teaching are unanimously implemented. This was done by printing the lessons in the Capslet (Capsulized Self-Learning Toolkit). This Capslet were distributed to the parents or guardians

and asked them to assist their children in answering the lessons on the Capslet. Then after the allotted time, the Capslet will be submitted back to the teachers for the purposes of checking, assessing and monitoring.

Participant 1 articulated the **parents' negligence on their role particularly as guardian of the learners.** As she brought out:

"Some parents are not claiming modules on time, they provide us with inactive phone numbers, not answering call and not capable of providing their children with instructional support".

In support to the previous statement, Participant 2 shared some honest observations. According to her:

"So based on my experience, modular distant learning is not effective as face-to-face learning. Parents are not getting the modules on time and not all Learners are capable to answer the modules alone and not all parents are literate and some of them could hardly read and write and these makes them difficult to facilitate learning to their children. Especially here in our place because most of our parents are only elementary graduate".

Participant 6 in the same vein revealed that parents' negligence in getting the Capslet (Capsulized Self-Learning Toolkit) of their children is a noticeable issue in almost all schools. She said that:

"the attendance of these parents because not most of them is getting their modules on time and returning on time".

Moreover, Participant 7 and 9 statement unanimously drawing to the difficulty/negligence on getting the Capslet (Capsulized Self-Learning Toolkit) of their children. As participant 7 mentioned:
"Yes, mostly with parents, mostly with parents who cannot come to school to get the modules of their children, therefore, the learning of the children is also interrupted. Although we understand that they are busy in their livelihood, but they have the responsibility towards their children".

Parents' difficulty/negligence on getting the Capslet (Capsulized Self-Learning Toolkit) of their children on time was attributed on their struggle to manage their time with their works. Most of the parents justified that they have to do a living first or they have works, and other would say that they were too busy that they forgot the schedule of the retrieval and submission of their children's output.

In the study entitled "Impacts of Parental Neglect on Personality Development and Behavioural Modifications", Satar, Rizwan, and Shabbir (2020) concluded that The phenomenon of child neglect has been escalating rapidly with the transformation in family structure, evolution of parental families, increasing number of working women and low socio-economic status of the parents.

Educational neglect by the parents brings serious modifications in personality development and behavioural patterns of their children. Due to this, the children become psychologically and emotionally demoralized and they are at the greater risk of cognitive impairment and behavioural fluctuations that result in their personality distortions. The study found out that there were several factors which aggravate the parental neglect towards their children's education. Such factors included parental remarriage, single parental families and financial stress on parents. Enhancing the parental involvement, increasing parental awareness as well as launching various family network and family assistance projects are the foremost remedies that can be facilitated to prevail over the issue.

Another theme generated on the issues and challenges experienced by the HPTs is the **reliability on the of the pupils output**. Reliability being part of the assessment, refers to whether an assessment instrument gives the same results each time it is used in the same setting with the same type of subjects. It should be **consistent or dependable results**.

Reliability of the learners' output was mentioned by Participant 2, 3 and 4. Participant 2 in particular uttered that:

"For me, the results are not reliable because what I have experienced, summative test performance are always done by the parents".

Participant 3, in the same way stated that:

"there is also another challenge like parents are the one who are answering modules in which that is beyond our control because they are living in a remote place and it we cannot see each other. And then, some parent also hiring somebody to answer the modules".

The previous statements are in congruence with this one enunciated by Participant 4:

" If they want really to learn their children, then they should discipline their children and ask them to answer their own capslet and not that the parents will answer".

According also to participant 5, the grades of the pupils are quite intriguing. When she brought out her observation, she said that:

" From my point of view, the learning modalities implemented in the public school, when it comes to the result of the different tasks, most of it did not reach a passing mark, from my point of view, in the sense that the capslet were mostly answered by parents, or relatives, or be paid by somebody else".

Participants 6 and 8 responses also directs to the issue of reliability of the pupils output. As Participant 6 shared:

"Although we are trying to see the reliability that children should be the one to answer these modules, but the, I think the reliability is somewhat questionable".

Participant 8 too, quickly uttered that:

"When it comes to validation of the pupils' assessment, it's not reliable, because I know that most of the answer, it is answered by the parents or guardians only. And for some, obviously parents are the one who is answering the activities. Some activities in the modules were not answered by the pupils. Like I said earlier, it's difficult to track the progress of the pupils. Because I know that most of the parents are the one who answered activities in the modules and some pupils also submit their

modules late and for some that issues with do the home visitation".

On the study Kearns (2012) entitled Student Assessment in Online Learning: Challenges and Effective Practices, it was known that challenges arose due to the impact of physical distance between the instructor and the students, adaptations resulting from the necessity of using technology for communicating with students, workload and time management issues, and the on going need to collect a variety of assessment data and provide feedback. Phase-Two interviewees offered strategies and suggestions to counteract the challenges they identified.

In online learning, where there is no face-to-face (F2F) interaction, instructors are particularly challenged to convey their intentions accurately and provide appropriate feedback to help students achieve the targeted learning objectives. Hannafin, Oliver, Hill, Glazer, and Sharma (2003) note that "the distant nature of Web-based approaches renders difficult many observational and participatory assessments" (p. 256).

On the other hand, aside from the issues, there is one challenge that HPTs are presently experiencing. In the definition given by the Cambridge Dictionary, challenge of being faced with) something that needs great mental or physical effort in order t o be done successfully and therefore tests a person's ability. The theme generated based on the responses on the participants is the **bulk of the works** which they have to prepare every week. For them, this is a challenge which they are struggling too.

Participants 2 and 3 have conveyed that it is difficult for them to track all their pupils **because of so much paper works to accomplish.** Like the words of Participant 2 as she mentioned clearly:
"Since I don't know that child will and a parents will, I conduct home visitation and then try to know if the guardians are literate or not. And the, if the guardians can read and write well, so that's the time I'm giving materials, reading materials and asking them to help. To find time, to set time for reading for slow Learners and then for those I mean for the slow leaders and then for slow learners, I encourage parents to have a special

time for additional activities. Yun sir, mahirap no? pero nasanay na lang".

Similarly, the statement of Participant 5, coping on her overwhelming tasks as HPT is one that challenges her most. . As she narrated:

" *I was a writer of capslet for grade three division level and regional level, writer on the conversion of grammar lessons for grade one division level, developer of homeroom guidance, script writer and audio recording talent for radio, script writer and video creator, quality assurance, language reviewer of grade three science modules, evaluator during the final evaluation of contextualize grades 1,2,3 capslet, evaluator of other learning areas in MTB, served as facilitators and resource speakers during live sessions that was in school level".* Those are really huge tasks that she has to manage.

Participant 8 also brought out the same thing and said:

"Well, different in the learning modalities of pupils or teachers naman wala ngang face to face pero ang daming reports that needs to accomplish". It clearly justified the bulk of tasks they are doing which adds up to the other issues and challenges mentioned by her co-participants.

Participant 9 also articulated her experiences with the present educational set up is what challenge her most. This was evident in her words:

"*I'm still fresh to this position, then suddenly COVID came in, it's quite difficult to adjust because everything we do is online. When pandemic came most meetings, trainings were held virtually. Pinag-aaralan ko pa lang ang mga trabaho ng MT sir, na overwhelmed ako sa dami...And honestly, I'm not, I am not into it. It was a challenge because it was all new and we were used to doing all of these face to face".*

As stated by Procast (2014) that human beings cannot focus on more than one thing at a time, as argued by Tropall (2016), humans are not like computers which can run multiple processes with all of the needed focus on each one. To do something well, one, must be able to focus on the task given to them and delegates other inputs to appropriate, lesser levels of awareness. In fact, as stressed out by Shutti (2014), multitasking of

teachers must be given attention and interventions but rather switching focus from one task to another very quickly which can leads to be detrimental to education because this can lead teachers to cannot do their very best work if their attention is elsewhere.

Conclusion and Recommendations

The study concluded by identifying important obstacles that highly competent teachers (HPTs) must overcome in order to deliver modular distance learning. The inability of parents to obtain and promptly return the instructional modules was one of the main problems found. Teachers emphasized that many parents were unable to adequately support their children's learning because they either neglected their duties or experienced obstacles like work demands or inadequate literacy levels. Because parents frequently finished the tasks themselves, this neglect not only interfered with the learning process but also raised questions about the quality of the students' work.

The study also highlighted the excessive workload teachers have while organizing and creating the modular resources. From creating instructional materials to managing administrative responsibilities, HPTs reported feeling overwhelmed by the enormous amount of work, which left them with little time to attend to the needs of each individual student. A stressful teaching environment was brought about by a mix of parental neglect, poor assessments, and an overwhelming workload. This highlighted the need for focused interventions to help parents and instructors navigate the challenges of modular distance learning.

The creation of web-based technologies has the potential to greatly improve the teaching and learning process, especially considering the difficulties that highly proficient teachers (HPTs) encounter when delivering modular distance learning. With the use of web-based systems, courses and assignments might be delivered more effectively, allowing professors to monitor student progress in real time and provide prompt feedback. Teachers could better engage students and lessen the need for parents to help with learning by using features like online conversations, interactive quizzes, and virtual office hours.

Furthermore, these platforms might offer lessons and educational materials to help parents—particularly those with low literacy levels—better support their kids. Additionally, teachers could be able to automate some administrative work and concentrate more on individualized instruction by using web-based technologies. The total quality of education during distance learning would be improved by creating these technologies with low tech requirements and user-friendly interfaces, which would guarantee accessibility for teachers as well as learners in remote or limited-resource settings.

References

[1] Alelaimat, A. (2012). The effect of educational modules strategy on the direct and postponed study's achievement of seventh primary students in science.

[2] Amboyan, C. (2019). Modular-based approach and students' achievement in literature. *International Journal of Education & Literacy Studies, 7*(1), 35-42. https://doi.org/10.7575/aiac.ijels.v.7n.1p.35

[3] Angelaki, C. (2013). Communication and social presence: The impact on adult students' emotions in distance learning. *Journal of Theoretical Humanities, 18*(1), 78-93

[4] Bawa, P. (2020). Overcoming barriers to digital education in rural areas. *International Journal of Educational Technology, 15*(3), 45-60. https://doi.org/10.1016/j.ijet.2020.0

[5] Cresswell, J. W. (2003). *Research design: Quantitative, qualitative, and mixed methods approaches* (2nd ed.). Sage.

[6] Creus, B., & Angeles, D. (2019). Localized instructional materials for grade seven students of Amaya School of Home. In *4th CARECON Book of Abstract* (pp. 50-55).

[7] Dangle, Y., & Sumaoang, J. (2020). The implementation of modular distant learning in the Philippine secondary public school. *Journal of Education and Learning, 9*(3), 57-64.

[8] Dzakiria, H. (2012). Illuminating the importance of learning interaction to open distance learning (ODL) success: A qualitative perspective of adult students in Perlis, Malaysia. *The Journal of Open Distance Learning, 16*(59), 111-125.

[9] Espineli, N. (2021). Lived experiences of master teachers in monitoring modular distance learning teachers at TMCNHS.

[10] Hannafin, M., Oliver, K., Hill, J. R., Glazer, E., & Sharma, P. (2003). Cognitive and learning factors in web-based distance learning environments. In M. G. Moore & W. G. Anderson (Eds.), *Handbook of distance education* (pp. 245-260). Mahwah, NJ: Erlbaum.

[11] Kearns, L. (2012). Student assessment in online learning: Challenges and effective practices. *MERLOT Journal of Online Learning and Teaching, 8*(3), 121-130. Center for Instructional Development and Distance Education, University of Pittsburgh.

[12] Kiger, M., & Varpio, L. (2017). Thematic analysis: A flexible and powerful method for analyzing qualitative data. *Medical Education, 51*(7), 1186-1196. https://doi.org/10.1111/medu.13283

[13] Kumar, R., & Sharma, A. (2020). Enhancing teacher competency through technology training for rural schools. *Journal of Education and Practice, 11*(12), 78-85. https://doi.org/10.2139/ssrn.3457613

[14] Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record, 115*(3), 1-47.

[15] Nair, P., & Lee, J. (2021). Culturally sensitive e-learning for rural students: A case study from India. *Journal of Educational Technology & Society, 24*(4), 134-145. https://doi.org/10.2307/26862275

[16] Procast, S. (2014). All about me: Disclosure in online social networking profiles: The case of Facebook. *Computers in Human Behavior, 26*(3), 452-463.

[17] Rajasegeran, R. (2012). Effectiveness of modular approach in teaching at university level. *Journal of Education and Practice, 3*(3), 1-7.

[18] Sadiq, S., & Zamir, S. (2014). Effectiveness of modular approach in teaching at university level. *Journal of Education and Practice, 5*(14), 42-48.

[19] Shutti, B. (2014). A taxonomy of external and internal attention. *Annual Review of Psychology, 62*, 73-101.

[20] Singh, S., & Prakash, M. (2022). Designing e-learning for rural schools: Challenges and strategies. *Educational Technology Review, 28*(2), 95-110. https://doi.org/10.1177/21582440211068945

[21] Soni, D. (2021). Addressing the digital divide in rural education: A framework for integrating technology. *Journal of Rural Education, 18*(2), 65-80. https://doi.org/10.1136/edtech.2021.01591

[22] Tropall, D. (2016). E-mail is for old people. *The Chronicle of Higher Education, 53*(7), A27.

[23] UNICEF. (2020). Guidance: Assessing and monitoring learning during the COVID-19 crisis. *UNICEF Education Policy Brief*. https://www.unicef.org/documents/assessing-and-monitoring-learning-covid19-crisis