Qc³ (QR CODE CONTACTLESS CHECK-IN): A DIGITAL MONITORING SYSTEM OF RETRIEVAL AND DISTRIBUTION OF LEARNING MATERIALS

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ABSTRACT

In order to comply with DepEd Order No. 12 s. 2020 -Adoption of Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020-2022 in Light of the COVID-19 Public Health Emergency, this study is conducted to have a safer way of monitoring retrieval and distribution of learning materials. It investigated the effectiveness of **Qc³** (QR Code Contactless Check-In) for a safer way of monitoring the system of retrieval and distribution of learning materials of among 623 parents of Grade 1-6 pupils and 23 teachers who participated in the study during the School Year of 2020-2021.

This study used a questionnaire sheet with 5 -point Likert scale adapting the different areas to be evaluated in the process. The indicators includes the process flow, duration of the entire process, data gathering and documentation of released and submitted learning materials and safety of parents and teachers. Document analysis was conducted to validate the data.

Data revealed that there were significance difference before and after the project was implemented. It can be concluded that the effectivity was evident to both parents and teachers during the school year. The results shows highly significance with an over all t-stat of 6.118. All indicators were described to have a highly significance in difference. As shown on the table Process flow has a t-stat of 5,092, duration of entire

process t-stat is 5.814, documentation of retrieved and distributed materials has a t-stat of 6.606 and adherence to Safety Protocols During Submission and Retrieval of Learning Materials has a t-stat of 6.034.

There were limitations in the utilization of the research due to resources and the pandemic. Nonetheless, participants are coordinated actively.

Therefore showing in responds that it is easier and accurate to monitor and document the retrieval and distribution of learning materials and use of **Qc³** (QR Code Contactless Check-In) was effective.

INTRODUCTION

The outbreak of the cntagious strain of COVID-19 continues to pose unprecedented challenges in the continuity of learning of Filipino learners. The biggest impact of the pandemic is the need to practice stringent social distancing to prevent or mitigate its spread. The basic education is among the sectors heavily affected as schools and community learning centers are closed for physical conduct of classes.

In order to provide clear guidance to all schools of the Department of Education (DepEd), learners and their parents and stakeholders, the Department released the DedEd Order No. 12 s. 2020 -Adoption of Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020-2022 in Light of the COVID-19 Public Health Emergency, DepEd engaged internal and external stakeholders for inputs in the design of the delivery strategy and operational direction that ensures the health, safety and well-being of all learners, teachers and personnel of the schools.

The development of BE-LCP enable learners of basic education to continue learning, and for the teachers to be able to deliver instruction in a safe work and learning environment amidst the threat of COVID-19.

Based on the Learners Enrollment Survey Form answered by the parents, Modular Distance Learning, Soro-Soro Elementary School adopted Modular Distance Learning as the as alternative learning modality of its learners for school year 2021-2022.

Modular Distance Learning involves individualized instruction that allows the learners to use self-learning modules (SLMs) in print or digital format whichever is applicable in the context of the learner and other learning resources like learner's materials, textbooks , activity sheets, study guides, and other study materials.

Projected scenarios by DOH and the Inter-Agency Task Force for the Management of Emerging Infectious Diseases in the Philippines (IATF) were taken into consideration in implementation of the schools BE-LCP and chosen learning modality.

In accordance with the with the IATF and DOH Guidelines on the Risk-Based Public Health Standards for COVID-19 Mitigation (DOH AO No. 2020-0015), children are restricted to go out of their homes including school premises and parents whose children are currently enrolled in school picked up self-learning modules in the school's catchment areas.

Soro-Soro Elementary School made sure to follow the basic health standards imposed by the IATF and DOH during the weekly distribution and retrieval of learners learning kit.

For additional precautionary measures for safety of both parents and teachers during the retrieval and distribution of

Learning Kits, the use of Learners with IDs' were proposed to be utilized by Soro-Soro Elementary School. With these scheme, the weekly process will be safer, efficient and faster. The point of this study was to create an innovative system of monitoring the distribution and retrieval of learning kits of learners on utilizing QR IDs' in relation to the DepEd Order No. 12 s. 2020 -Adoption of Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020-2022 in Light of the COVID-19 Public Health Emergency.

With the drastic change in the delivery of learning in the country due to the ongoing threat of COVID-19, the safety of learners, parents and school personnel is the primary concern of SSES. With this in mind the researches has taken interest in creating an innovative and safe process of conducting the retrieval and distribution of learners' learning kit using QR IDs wherein all the smart devices of SSES Teaching personnel regardless of what grade and section can scan the these QR IDs, as long as they are logged in with their DepEd account.

The result of the research greatly contribute on the safety of schools' teaching and non -teaching personnel and the parents/guardian of the learners and to be use with the adjustment of school's BE-LCP.

METHODOLOGY

This study is focused on having a safer way of monitoring retrieval and distribution of learning materials. It investigated the effectiveness of **Qc³** (QR Code Contactless Check-In) for a safer way of monitoring the system of retrieval and distribution of learning material

To gather data and to attain the objectives of the study, the researcher utilized school personnel and parents of learners of Soro-Soro Elementary School. The participants were selected according to the ongoing activity of retrieval and distribution of learning materials within the school year.

To solve the research problem, the researcher us quasi-experimental research design in order to determine if the utilization of QR ID helped in an innovative, safe and efficient way retrieval and submission of learning materials through quantitative data analysis.

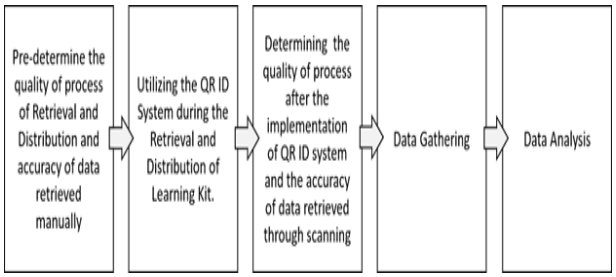
This study used a questionnaire heet with 5 -point Likert scale adapting the different areas to be evaluated in the process. The indicators include the process flow, duration of the entire process, data gathering and documentation of released and submitted learning materials and safety of parents and teachers.

The questionnaire was prepared for validation and evaluation. The selection of the participants and secure consent to participate in the study were also made. The questionnaire was utilized in pre-determining the qualitative data. Information dissemination through online orientation were made for the utilization of **Qc³** (QR Code Contactless Check-In).

The process of data gathering include preliminary stage wherein crafting of tools and instruments are developed as well as checking and validation of the tools to be used in this study.

The identification of the respondents were made during the stage of gathering the needed data. The validated tools/questionnaire was used to identify the quality of the distribution and retrieval of learning materials before and during the utilization of **Qc³** (QR Code Contactless Check-In). Next stage is Data Analysis where in Mean, Standard deviation and t-test were used for statistical results.

The steps in data gathering ishown on the chart below:



RESULTS

The study's main purpose is to come up with an innovative, safe and efficient system of retrieval and distribution of learners' learning kit and recording of the materials retrieved and distributed.

Table 1: Quality of Distribution and Retrieval of Modules and Learning Materials Before Utilization of QR Codes

Indicator	Mean	SD	Verbal Intrerpretation	Rank
Process Flow	3.82	1.95	Good	2
Duration of the Entire Process	3.99	1.99	Good	1
Documentation of Retrieved and Distributed LM's	2.70	1.64	Acceptable	4
Adherence to Safety Protocols During Submission and Retrieval of Learning Materials	3.74	1.93	Good	3
Over All	3.56	1.88	Good	

The results in **Table 1** shows that he quality of submission and retrieval of modules before the utilization of **Qc³** (QR Code Contactless Check-In). As the table shows. The respondents described the quality of submission of modules and learning materials as Good with an overall mean of 3.56. The duration of entire process ranked 1 with mean of a 3.99 while process flow ranked 2 with mean of 3.82. The respondents also described the adherence to safety protocols as good with mean of 3.74 and ranked 3. The documentation of retrieved and distributed LM's ranked 4 with mean of 2.70.

Table 2: Quality of Distribution and Retrieval of Modules and Learning Materials During Utilization of QR Codes

Indicator	Mean	SD	Verbal Intrerpretation	Rank
Process Flow	4.97	2.29	Very Good	1
Duration of the Entire Process	4.95	2.22	Very Good	3
Documentation of Retrieved and Distributed LM's	4.78	2.18	Very Good	4
Adherence to Safety Protocols During Submission and Retrieval of Learning Materials	4.96	2.27	Very Good	2
Over All	4.92	2.21	Very Good	

The quality of submission and retrieval of modules during the utilization of **Qc³** (QR Code Contactless Check-In) were described by the participants, as the **Table 2** shows. The respondents described the quality of submission of modules and learning materials as Very Good with an overall mean 4.92. The process flow ranked 1 with mean of a 3.99 while adherence to safety protocols during Submission and Retrieval of Learning Materials ranked 2 with mean of 4.96. The respondents also described the duration of the entire process as Very Good with a mean of 3.74 and ranked 3. The documentation of retrieved and distributed LM's ranked 4 with mean of 4.78.

Table 3: Quality of Distribution and Retrieval of Modules and Learning Materials During Utilization of QR Codes

Quality of Submission and Retrieval of Modules and Learning Materials	Mean		*t*-stat	*p*	Interpretation
	Before	During			
Process Flow	3.82	4.97	5.092	<0.01	Highly Significant
Duration of the Entire Process	3.99	4.95	5.814	<0.01	Highly Significant
Documentation of Retrieved and Distributed LM's	2.70	4.78	6.606	<0.01	Highly Significant
Adherence to Safety Protocols During Submission and Retrieval of Learning Materials	3.74	4.96	6.034	<0.01	Highly Significant
Over All	3.56	4.92	6.118	<0.01	Highly Significant

There is a significance difference before and after the project was implemented. Comparing the results of the gathered data as shown in Table 3, the quality of monitoring of retrieval and submission of modules and learning materials before and during the utilization of **Qc³** (QR Code Contactless Check-In) shows highly significance with an overall t-stat of 6.118. All indicators were described to have a highly significance in difference. As shown on the table Process flow has a t-stat of 5,092, duration of entire process t-stat is 5.814, documentation of retrieved and distributed materials has a t-stat of 6.606 and adherence to Safety Protocols During Submission and Retrieval of Learning Materials has a t-stat of 6.034. Therefore, showing in responds that it is easier and accurate to monitor and document the retrieval and distribution of learning materials.

The parents find the using of **Qc³ is** safer, efficient and faster thus ensuring that the safety protocols imposed by IATF and DOH are followed. Also, securing the

parents that the transmission of the virus will be reduced and avoided during the retrieval and distribution of the LMs. The usage of **Qc³** is very convenient for teachers in terms of monitoring and documentation since it linked to their google accounts, also like the parents, ensuring their safety during the retrieval and distribution. The student's performance are improved due to regular dissemination of LMs.

With the results and summary, this study concludes that the of utilization **Qc³** (QR Code Contactless Check-In) for efficient monitoring, safe distribution and retrieval of modules and learning outputs is effective. The gathered data of responses and results showed a positive impact in process flow, duration of the entire process, documentation of distribution and retrieval of learning outputs, adherence of safety protocols and monitoring of activity,

DISCUSSION

With the results and summary, this study concludes that the of utilization **Qc³** (QR Code Contactless Check-In) for efficient monitoring, safe distribution and retrieval of modules and learning outputs is effective. The gathered data of responses and results showed a positive impact in process flow, duration of the entire process, documentation of distribution and retrieval of learning outputs, adherence of safety protocols and monitoring of activity.

The school should continue to make use of the **Qc³** (QR Code Contactless Check-In) in monitoring system for retrieval and distribution of learning materials, checking of attendance of learners, data gathering, checking of learner's out puts and other processes. It is an efficient, easy and fast way of monitoring the process thus ensuring the safety of both parents, teachers and the learners in terms of retrieval and distribution of Learning Materials.

Overall, **Qc³** (QR Code Contactless Check-In) was effective way of monitoring system for retrieval and distribution of learning materials, checking of attendance of learners, data gathering, checking of learner's out puts and other processes.

Therefore showing in responds that the utilization of **Qc³** (QR Code Contactless Check-In) makes it easier and accurate to monitor and document the retrieval and distribution of learning materials and use

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