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A PATH FOR HORIZING YOUR INNOVATIVE WORK

APPLICATION DEVELOPMENT FOR CERTIFICATION OF AANGANWADI WORKERS TO IMPROVE QUALITY

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Abstract: The primary objective of project is to create a sustainable model to enhance the Aanganwadi program for improved quality of Aanganwadi workers. Integrate and enhance the government's existing Aanganwadi Program with local resources in the private and education sectors to create a higher-impact program for early childhood development (ECD) of indigenous tribal groups. In India, Aanganwadi workers (AWW), local community based workers under Integrated Child Development Scheme (ICDS), established in 1975, provide supplementary nutrition, preschool education, nutrition and health education and referral services It provides different types of services for achieving their objective and recruits the Aanganwadi related officer using by development test module. Until now the work was being held manually. The project will create enhanced curriculum for early childhood development and use a tablet/PC-based smart register to enable staff to track child progress and optimize health service utilization. The Project also keeps objectives for training of the staff, field research officers (FRO's), and Aanganwadi workers associated with the program and their required assessment.

Keywords: Aanganwadi Certification, ICDS: Objectives and Services, Stepping Stones.



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INTRODUCTION

Time at disposition and skills of AWW are major challenges for them to satisfactorily carry out childhood development activities. Stepping stones aims providing training and certification of staff to deliver the new curriculum and procedures, first for private preschool teachers who will also be trained as mentors, and then for AWW. Next step of that project is based on the previous step so conduct online test for AWW. In next step handle the android base application/devices to the field research officer.

Instruments and Tools:

Instruments to measure the Behavioral and Cognitive Development (gross motor, fine motor, visual perception, expressive language, repetitive language and socio-emotional development) of the children in the age group of 0 to 5 years at baseline and at 18 months. To study the home environment and maternal well-being (maternal depression and maternal agency) as a moderator for early childhood development. Home Observation for the Measurement of the Environment (HOME) Inventory. Field Research Officers leads the team of Aanganwadi workers. They are expected to keep the information about the ICDS plan. The ICDS objectives are sought to be achieved through a package of services comprising:

- supplementary nutrition,
- immunization,
- health check-up,
- referral services,
- pre-school non-formal education and
- Nutrition & health education.

The concept of providing a package of services is based primarily on the consideration that the overall impact will be much larger if the different services develop in an integrated manner as the efficacy of a particular service depends upon the support it receives from related services. The FROs test module based on above services.

On the bottom tier we have Aanganwadi workers who are largest in the number and are responsible in actual implementation of project. Basically Aanganwadi workers are not very

much educated persons. Sometimes they are the candidates with minimum qualification requirement i.e. passed 8th standard. They are expected to have undergone the courses needed to be an Aanganwadi worker commonly known as montassary. Montassary provides the training for growing procedure of the children. Hence Aanganwadi workers are expected to have knowledge about child's nutrient requirement for the physical and mental development.

II. OVERVIEW

The Existing system of conducting examination process is manual. It has so many problems, so we introduce an online exam system, which is fully computerized. Existing system is a large man power process and is difficult to implement. Working of existing system is given below:

Candidate Registration is the first process. As the part of the registration, the candidate has to enter his details and candidate type into the registration form. After the registration, make the question papers and it will give to the prospective candidate. The question papers contain total mark, subject, duration, question paper etc. A group of person does evaluation of answer sheet. After the evaluation of the Answer sheet, the result is published.

III. PROPOSED SYSTEM

The main objective of the online examination system is that it helps stepping stones to conduct exams to any number of candidates at a time, in an automated manner. It reduces the time consumption and workload that exist in the current system of examination. It also helps in storing the record of each examination and the results are also stored in the system. This makes the searching of the records easier than the existing system.

Objectives of the Proposed System

The main purpose of the system is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a lot of time but also gives fast results and provide certification.

The administrator of the system prepares the tests and questions for each exam. The candidates can login through the client computers with their register number given to them and can take the exam. Administrator will assign test and test category to candidate before proceeding. The questions are shuffled in a random order so that possibilities for getting questions in the same order for the students who are sitting near, is very less. A timer will monitor the time and after the time limit the system itself submit the test. If it is before time,

candidates can submit it to view their result. The result analysis is very easy as it is done by the system. So it saves a lot of time since no manual correction is needed in the system. No restriction is there that the invigilator has to be present when the students take the test.

IV. APPLICATION ARCHITECTURE

In the hierarchy, we kept project staff at the top panel. We need to ensure. Administrator is directly in concern with the Field Research Officers(FRO's) and Aanganwadi Workers(AWW). Administrator prior work includes, maintain the data and analyze that data.

All the users of system including administrator have same procedure for the login into system. All users need to follow same procedure after successful login except administrator. Every candidate who is examinee needs to attempt one demo test before main exam, then main exam and their work is over. Administrator needs to be in touch of system for all the time from the time candidate registers for exam to candidate finishes his/her test.

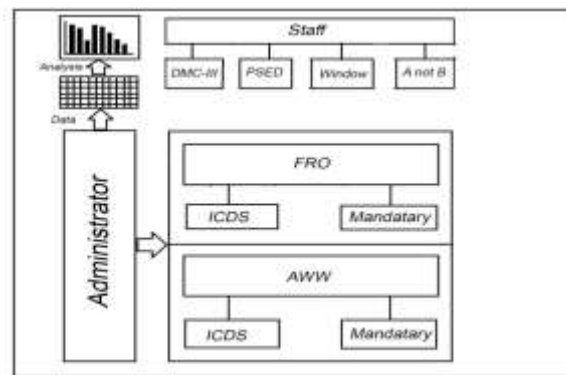


Fig.1: System Architecture

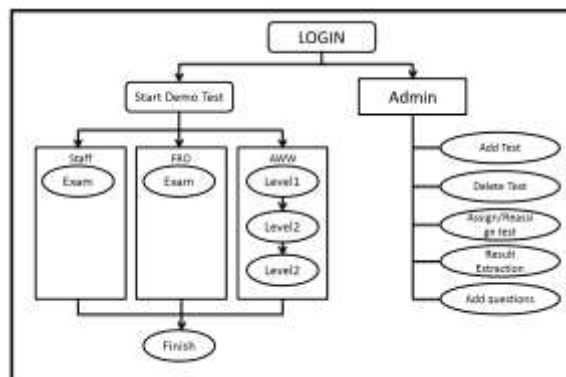


Fig.2: Generic control flow

V.APPLICATION IMPLEMENTATION

In this certification, First of all candidate need to register themselves on the portal. We have kept the same registration form for all the users, but they have to provide the candidate type they are for further activities. Here, the administrators work is started. Administrator needs to assign the right test and test category to candidate. Without this candidate can't process further. We have created three categories for the staff certification i.e. CAT-1, CAT-2 and CAT-3. In CAT-1, candidate can navigate through sections in the test. sections in the certification is described later. Candidates also have flexibility to change the options they have answered before. In CAT-2 candidate can visit to any section in the test but restriction is applied that he/she cannot change the previously answered option. The CAT-3 neither allow candidate to navigate randomly to sections nor he/she can revisit questions once answered. Hence needs some special care while attempting this category. As we have stated earlier staff needs the information about ICDS scheme, we have sections that examines the knowledge about instruments and tools which are used for development of child and there surrounding i.e. Developmental Milestones Checklist (DMC –III), Profile of Socio-Emotional Development (PSED), A and B task, Windows test (Measures executive function).



Fig.3: Staff Certification Window

There is no need to make certification test for the Field Research Officer a complicated one. They are the peoples who lead the Aanganwadi workers. On the group of 5-6 Aanganwadi workers one FRO is there. That's why there test includes both, the knowledge about ICDS program and the knowledge an Aanganwadi workers have. There test structure is simple. No categories and no sections neither levels, appears just flat 100 questions.



Fig.4: FRO Certification Test

The third and last test is for the Aanganwadi workers. We will provide questions in Marathi as Aanganwadi workers are not well educated always. And hence may have problem while understanding English. Aanganwadi workers needs to undergo three test consecutively which are considered as levels. Aanganwadi workers can join the project only if they cleared all the three levels. If she fails in any of the level she will be disqualify for next round and ultimately cannot be a part of the Stepping Stones.



Fig.4: Aanganwadi Certification Test

At the top of all the users single administrator is there for administration. We have three categories for the staff certification. But candidate is not going to select the category himself neither a system does. Then who is going to decide? The answer is administrator having responsibility to assign category and test pattern among the available test pattern. Administrator's prior responsibilities includes Design test pattern for staff certification, Assign the test to staff candidate, Delete test pattern, Reassign test pattern or category, View and save results, Upload questions to database. Administrator first design the test pattern for the staff type candidate, Since we have divided entire staff test into four sections, priority can be given to specific section. This includes total number of questions include in test and number of questions from each section. Whenever staff wants to start exam, it can't until administrator assign test to candidate. System keeps CAT-1 as default category. There may chances where

administrator needs to change the test category or change the test. For that purpose it needs to provide those mechanisms to reassign test or category.



Fig.5: Administrator Test Assigning Window

After some time specific test will be no longer needed. At that time administrator can delete that test. After test result is calculated immediately but candidate is not supposed to know about it, but administrator can. Administrator can view result according to date, in between two dates i.e duration, or simply whole result. After that he needs to make announcement about that. Data for passed and failed candidate is kept separate for some purposes. Administrator can also download same result in excel. The last one most important activity conducted by administrator is to upload question for test. Uploading questions to database is quite easy task than it appears. Administrator only needs to select the questions category where the questions belong. Then select the spreadsheet stored at local storage. Note that extension to spreadsheet should be .xls and to number of fields in sheets should exactly match the requirements.

VI. CONCLUSION AND FUTURE SCOPE

The online application has been designed for improving quality of Aanganwadi workers with advantages over off-line test conduction. In off-line test portal, test conduction is very difficult as compare to online. In off-line test conduction more and more man power is required, maximum time spend to achieving the successful test conduction. While at the one end online test portal is easy to handle, time savings, provides analysis of the result at any time, and basically transparency can be there about previous results. And machine doesn't make mistakes. But Connectivity can be a serious disadvantage of this online certification test. Connection either in a internet cafe's or at home can drop at any time for various reasons. Hence this will cause the candidate to inadvertently submit tests that are incomplete with currently existing system

Since, certification program is for the specific users related with the Stepping Stones project; it is not usable for others at all. But what if it is made usable for all? The project can be converted into such an online exam portal where anyone can use it for their respective needs. A new user logs into system, enter the details of exam he needs to conduct like number of questions in exam, categories, marks each question carries, max time etc. and portal prepares all the activities needed. The new user becomes administrator for the test he/she just designed and selects the details examinee needs to enter for appearing exam. After that, portal again designs the registration form for examinee. Then until some date examinee can register himself/herself. Exam is conducted on certain decided date and results are declared, again on date specified by admin. Hence allows the portal to use as they want i.e. working dynamically according to user needs. Another one module can be added for the analysis of the test results. Systems role ends after user submits the online test. Hence administrator never knows about hardness in the test, some topics may be there that are never part of our certification. In such a case result analysis can play crucial role in error correction. For example group of questions is observed which were never correctly answered and hence correction needed where those questions are really needed to be a part of exam.

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REFERENCES

1. Fagbola Temitayo M., Adigun Adebisi A., Oke Alice O., "Computer Based Test System(CBT) for University Acadmic Enterprise Examination" International Journal of Scientific and Technology Research, volume2, 8 August 2013.
2. Thakare Meenal M; Kurll BM; Doibale MK, Goel Naveen K, "Knowledge of Anganwadi Workers and Their Problems In an Urban ICDS Block" Deptt.of Community Medicine, Government Medical College & Hospital, Chandigarh and Government Medical College & Hospital, Aurangabad.