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# **ITAL Introduction to Multimedia Workshop Evaluation**

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Submitted to ACCMC Headquarters Jamaica

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**Abstract**

The Interactive Teaching and Learning (ITAL) Introduction to Multimedia Workshop is conducted as a distance education class. Participants meet weekly with two instructors. The program commencing in June of 2010 as an adult academic intervention strategy to increase the proficiency of multimedia peer tutors. The program is comprised of a cohort of four students and lasts two months.

The ITAL program uses online instructional resources to train peer tutors. These peer tutors currently assist a primary instructor who conducts face-to-face training sessions using various multimedia technologies. One of the goals of the Association of Caribbean Community Multimedia Center (ACCMC) is to expand the number of multimedia training centers regionally. Subsequently the need arose to increase the number of trainers. There strategy was to seek to increase the number of qualified trainers using online training. Additionally, the organization plans to use online training as a primary mode of instruction throughout all its facilities regionally.

Prior to embracing online multimedia instruction as a feasible strategy for the organization however, an evaluation of the effectiveness of online training using the ITAL platform and instructional design was required. This evaluation focuses on the performance of the peer tutor learners in using online instruction to improve their presentation skills and their knowledge of multimedia presentation.

Program objective were determined and a strategy for evaluating the effectiveness of the online training was devised. Data collection methods, procedures, and sources were determined. A questionnaire, pretests, posttests, and interviews were done and data was collected and analyzed.

The findings both quantitative and qualitative support the effectiveness of the training in improving the confidence and performance of the learners in multimedia instruction presentation skills.

**Introduction**

The Association of Caribbean Community Multimedia Center (ACCMC) proposed headquarters is a training facility located in Jamaica which has trained over 3000 students since its inception in 2002. The training strategy used by the center has been

short lectures by a primary instructor followed by peer tutoring in weeklong workshops. Peer tutoring is provided by instructor assistants who are proficient in using one or more tools like Adobe Photoshop or in one or more concentrations like web development. The strategy has been successful in meeting the organization's client demands. However, with the anticipated increases in training requirements based on the regional expansion of the ACCMC, the center is exploring different training options and strategies. Currently the center is studying the feasibility of using online training and face-to-face strategies as an effective approach to meeting both primary and supplemental training for other multimedia centers in the Caribbean.

One of the organizations main mandates will be to train instructors from around the region in multimedia instruction. Part of this training will include face to face training at the facility in Jamaica and online training using the ITAL proprietary Learning Management System (LMS). The primary goal of the program is to increase the number of qualified primary instructors for face-to-face training while simultaneously training these instructors on online multimedia instruction via the Internet. The current peer tutors in Jamaica therefore are to become the first competent instructors qualified to conduct face-to-face and online training using the proprietary LMS to facilitate the ACCMC expansion throughout the region.

This report examines the use of online teaching in improving the skills of peer tutors. The evaluation was conducted to determine if formal online instruction improves the knowledge and multimedia instructional strategies of ACCMC peer tutors in Jamaica. Stakeholders including the management of the ACCMC center in Jamaica, the tutors, and former students from the center were interviewed and surveyed. Clear objectives were defined from the onset and a strategy for the evaluation devised. Interview questions were developed and a questionnaire was given to participants. Video observations were also conducted via the Internet during the training. Data from pretests and posttests, conducted after the completion of each online training module were reviewed. Assessment results from previous peer tutor training were also reviewed. Communication with stakeholders was continuous and substantive.

## Program Description

The Introduction to Multimedia Workshop program conducts online training for current ACCMC peer tutors in eight week cycles. It is conducted on Saturday mornings through the Internet with one instructor in the United States and another in the classroom with the students in Jamaica. The syllabus, course design, and instructional materials were developed by ITAL. The class is also being taught via the ITAL LMS and by an ITAL instructor. The course is being evaluated to determine the feasibility of the online training program in meeting the regional expansion aims of the ACCMC organization.

Classes are held in the ACCMC building in Jamaica. The building is equipped with modern communications including broadband connection, a computer training lab with 16 desktop terminals and 5 laptops. The class is made up of 4 peer tutors who possess intermediate to expert levels of expertise in various multimedia areas. They are able to use the available software programs, computer hardware, peripherals, and other types of technology available in the room during class settings. The students who range from college attendees to high school graduates use and maintain Apple phones, tablets, Mac books, video cameras, still cameras, overhead projectors, and Smartboards often used to create digital stories. Equipment including printers, audio recording software and hardware are available in the classroom and also routinely used by the students during training.

The ITAL program provides the theoretical and practical foundations of multimedia learning. The program explores how online teaching techniques can be effectively applied. Online course design, modes of information delivery and principles of multimedia design are covered in the class. Also covered in the class are basic presentation skills including how to develop and provide information using presentation software like Microsoft Power Point and Google Docs.

The evaluation of the online training program will determine its effectiveness in training the ACCMC peer tutors to serve as primary instructors and conduct training

online. Objectives were identified from the program descriptions and conversations with stakeholders.

- Demonstrate multimedia learning principles through online teaching using the ITAL LMS
- Provide sufficient information on multimedia learning principles to provide the opportunity for increase knowledge in the subject
- Teach and exhibit face-to-face and online presentation skills using the LMS

These objectives were originated in part from the concerns as stated by the ACCMC, the memorandum of agreement between ACCMC and ITAL and the subsequent rationale for ITAL deploying the program to meet those concerns. The objectives are consistent with the requirement to develop trainers in online multimedia and face-to-face delivery techniques. They are also aligned with the AAMC organization's need for using online delivery to further its expansion aims.

### **Evaluation Method**

- Participations in the program included 4 students, two instructors, an educational technologist serving as A Subject Matter Expert (SME) and the evaluator.
- Procedures: Data was collected during the normal course of the training. A quantitative study of assessments was done to determine the effectiveness of teaching strategy and mode of delivery. Formative assessments were conducted and comparisons made to pretests. Quantitative measures were also used to determine student and instructor attitudes towards online education. Qualitative studies included observations and Interviews to help in the data analysis.
- Data source: A questionnaire examining student and instructor attitudes towards the LMS was created using Google Docs and participants were asked to complete it. The questionnaire also included questions on multimedia knowledge and presentation skills. Assessment pretest and posttest records were reviewed. An educational technologist was asked to provide expert opinions on the effectiveness of the LMS and multimedia instruction. Additionally, observations

were made on 4 occasions during the training. Interviews were also conducted with the participants.

## Results

All the participants scored higher on post test than on pretest after each module. The learners mean scores on these assessments were at or above the 80 percentile level. The SME rated the LMS, content and instruction between 3.5 and 4.3 on a 0-5 scale. Additional Quantitative findings indicate that learners recorded high scores for using the LMS, for their knowledge of multimedia instruction, and for their presentation skills.

The qualitative portion the evaluation produced affirmation of the quantitative results in learner attitudes towards their training environment. Instructors ranked more positive than learners on the question of the effectiveness of the LMS.

**Table 1.0**

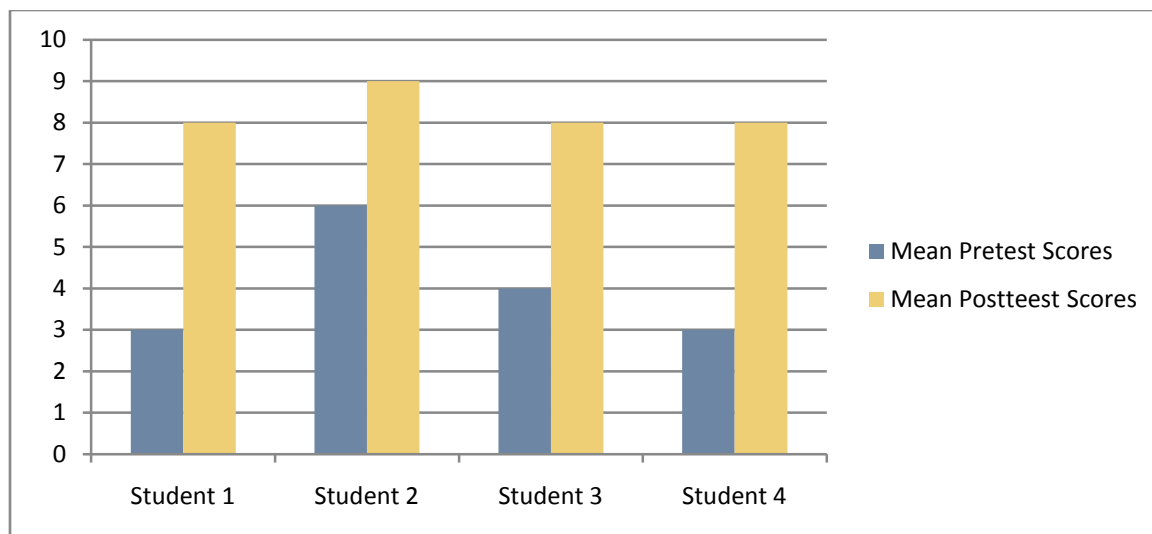


Table 1.0 Above are the mean pre-assessment and assessment scores for the 4 learners.

**Table 1.1**

Educational Technologist Review	LMS	Content	Instruction
Approve/Disapprove	<b>Approve</b>	<b>Approve</b>	<b>Approve with recommendation for blended model initially.</b>
Rating (scale 1 – 5)	<b>4.3</b>	<b>4.1</b>	<b>3.5</b>

Table 1.1 shows the educational technologist's finding and recommendations.

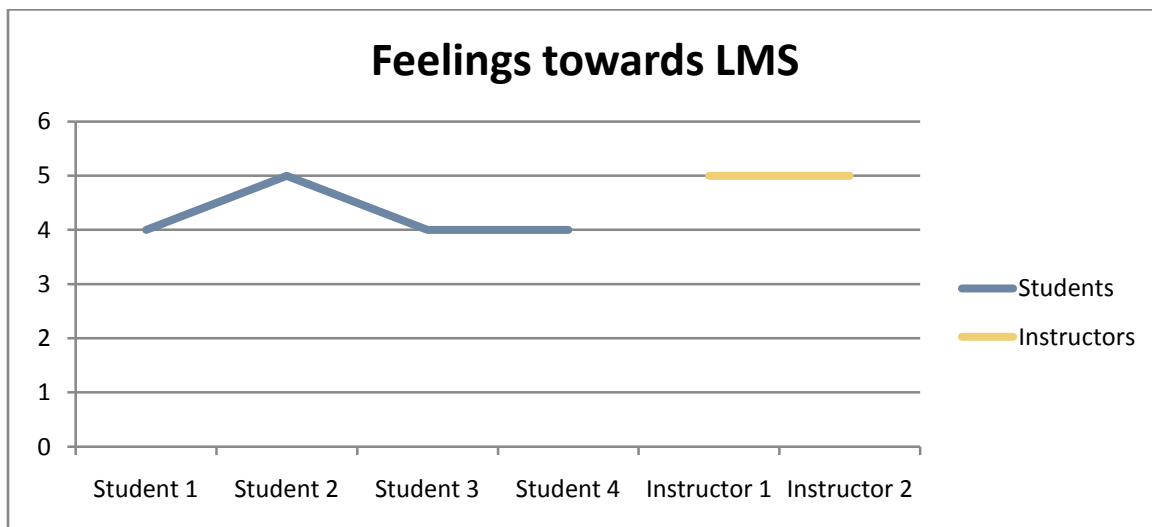
**Table 1.2**

Table 1.2 shows student and instructor feelings about the LMS on a scale of 0 to 5 with 0 being the lowest.

Participants	Question 1 How effective is the training with the LMS?	Question 2 Has your knowledge about multimedia instruction changed?	Question 3 Is your ability to give multimedia presentations any different?
Student 1	4	4	4
Student 2	5	5	4
Student 3	4	4	4
Student 4	4	4	4
Instructor 1	5	0	0
Instructor 2	5	1	0

Table 1.3

A questionnaire was provided to participant and the results tabled above. Participants were asked to provide responses to questions about how they felt about the using the LMS and their feelings about their knowledge of multimedia and presentation skills. A Likert Psychometric scale. A scale from 0 to 5 was used with 0 being the worst and 5 being the best.

### Discussion

The findings of the evaluation support the effectiveness of the LMS in aptly providing multimedia training consistent with improving the knowledge and presentation skills of the learners. The general optimistic views of the learners and instructors are consistent with improved performances as noted from comparisons pretest and posttest formative assessments.

A recommendation to incorporate a blended face-to-face and online training program prior to full online learning should be considered. This positioned is supported by the survey and learner performance. This type of integration could improve both assessment results and learner confidence. Based on the analysis of the data, the recommendation of the SME, observations of the training, and review of the LMS the finding is the program does meet the stated objectives of determining the effectiveness of online training, increasing learner knowledge of online multimedia instruction, and improving learner presentation skills of the learner. For subsequent rotations of the program the recommendation is to incorporate a blended program using face-to-face and online instruction. The SME also concur with the findings of this report.

### Project Cost

ITEM	RATE/COST	TOTAL
Salaries: Evaluator	10 days at \$275/day	\$2750
SME	3 days at \$275/day	\$825
Supplies	\$24.88	\$24.88
Communications	\$30	\$30
	<b>TOTAL:</b>	<b>\$3629.88</b>

Table 1.5