Blended learning in TVET courses

Promising Practice

Implemented by: Samuel Jackman Prescod Institute of Technology (SJPI)

Where: Barbados

Status: Launched in January 2016

Summary: The initiative focused on the introduction of Moodle as a learning management system to deliver TVET courses in a blended learning approach.

Overview

Established in 1969, the Samuel Jackman Prescod Institute of Technology (SJPI) is the major provider of Technical and Vocational Education and Training (TVET) in Barbados. The institute offers over sixty programmes in different specializations including: Agriculture, Building, Business Studies, Electrical Engineering, Mechanical Engineering, Printing, Human Ecology, as well as Automotive and Welding. The Distance and Continuing Education Open and Flexible Learning Centre (DCE/OFLC) plans and manages the delivery of part-time, short courses and programmes and is the flagship division in eLearning. Equipped with a staff compliment of over eight employees, including two Instructional Designers, the department offers support and training for the institution's instructional staff in all aspects of eLearning including blended learning (BL).

Description

Keeping pace with societal changes

TVET institutions need to keep pace with the changing needs of society to remain relevant and valuable to people, the economy and society. Adopting blended learning into the teaching and learning process is one way of keeping pace with these needs. In 2016, the management of the SJPI began experimenting with the integration of BL into its curriculum, using Moodle as a Learner Management System (LMS).

Developing a knowledge-based community through TVET

The objectives for the integration of BL at the institution were aligned with the Barbados Human Development Growth Strategy for 2013-2020. This strategy had as its main pillar the development of a knowledge-based community through TVET.

Example of an online learning module

Additionally, management at the institution perceived that the use of blended learning would enhance the teaching and learning process by providing equitable access to course content for all students as well as ensure uniformity and transparency in the teaching and learning process.

Preparing instructors and facilities for blended learning

Initially, it was envisioned that BL would take two years to be fully adopted at the institution. Sensitization and training for instructors along with the provision of technological hardware and software resources helped to reach the institute's objectives. Computer labs were upgraded with funds acquired from the International Development Bank and classrooms were assigned laptops donated by the Government of the People's Republic of China.

Objectives

The objectives of the initiative, which targeted students and staff at the institute, were to:

- Offer equitable access to information, where online activities and assessments can be completed from anywhere and at any time of day, by accessing the internet;

- Enhance students' learning, success and engagement to positively impact their experience in TVET; and

- Improve uniformity and transparency in the teaching and learning process.

Shifting TVET from face-to-face to blended learning

The implementation of blended learning at the institution addresses inadequate preparation of TVET students to enter an emerging global knowledge-based workplace, inadequate access to learning resources, as well as outdated methods of teaching and learning. The implementation represents a shift in the teaching and learning process for TVET institutions in Barbados. Previously, face-to-face instruction and demonstration were the main teaching strategies. Blended learning allows instructors to utilize technology to provide course content which is appropriate for students with varying learning styles. On the other hand, students can utilize technology to access course content, making learning more personalized and flexible.

Outcomes and impact

The implementation of BL resulted in 95% of courses at the institution being available on the Moodle platform, with students having 24-hour access to course content. A recent survey conducted by the DCE/OFLC revealed that students utilized their mobile devices to access courses and strongly agreed that this accessibility was critical in improving their content retention.

Additionally, Instructional Designers supported and guided instructors in the development of course content and training sessions were available on demand to provide further assistance to these instructors. This has resulted in an improvement in the quality of course content developed.

Some instructors are utilizing the option of online examinations for assessment and are taking advantage of the technology for activities such as quizzes, videos, games and discussions, which has led to increased student engagement.

Challenges

Providing support to instructors

Initially, low use and varied practices of blended learning were observed across the departments, with around 20% of the instructional staff resisting change. To address this challenge, instructors who were early adopters of blended learning were assigned as mentors and coaches within different departments to encourage and assist colleagues with the new technology. Additional training sessions were also implemented for those who needed further support in using the technology.

Seeking funds to improve technology

Another challenge was related to the unavailability of internet connectivity in some departments and lack of, or unreliable hardware and software resources. This was addressed by seeking funding to improve the internet bandwidth throughout the institution and to provide full-time instructors with a laptop.

Supporting students to make use of blended learning

A final challenge was the students' inability to effectively access and use Moodle. A help desk was established by the IT Department so that student challenges could be addressed within 24 hours.

Insights

Generally, while instructors support the use of a blended learning methodology, practices in TVET courses can vary in design and execution. To ensure quality instruction, student-centred course content and online interactions, materials uploaded on the portal should be monitored and reviewed by qualified instructional designers.

Next steps

During the COVID-19 pandemic, the institution was able to effectively utilize blended learning to ensure that students had access to course content and could interact with instructors. The institution continues to use the blended learning approach and training is provided for new instructors in the use of blended learning. Additionally, support is provided for all instructors to effectively create online content for their respective courses.

In December 2022, the team of the SJPI developed a strategic plan for its Distance and Continuing Education / Open and Flexible Learning Centre. This plan was endorsed during a workshop sponsored by the Commonwealth of Learning (COL) entitled 'Leadership for Open and Distance Learning (ODL) in TVET'. As a result, the COL is committed to providing funding and consultancy services to the institution to improve and provide competency-based training programmes for staff in the use of new assistive and instructional technologies and simulation software for their courses.