



A case study:

Customized Multimedia Courseware Development

For Telekom Smart School, Malaysia



About Us

We adopt the best practices, processes and methodologies for developing e-Learning solutions to cater the needs of varied targeted clientele. Our solutions include right from the development of the training CBT's, e-Learning management systems, e-Learning content for online delivery/broadcast and support. With vast experience in customized course content development, we developed Web and CD Rom based courses for Curriculum Development Centre and Ministry of Education, along with our partner Telekom Smart School, Malaysia.

Aim for developing Customized coursewares:

Education in Malaysia is an on-going effort towards developing the potential of individuals in a holistic and integrated manner. The aim of customized e-learning courseware development is to provide opportunities for Malaysian students to acquire science knowledge and skills, develop thinking skills and thinking strategies, and to apply this knowledge and skills in everyday life.

Malaysia's vision of achieving full developed nation status by 2020 and of becoming a competitive player in the global economy has made ICT an imperative in transitioning the country from a production to a knowledge based economy. The government recognizes e-Learning as a wondrous tool in improving education and ensuring our students' competitiveness in the era of globalization.

Details of the project:

We developed 200 lessons each on various subjects such as

- Form4 biology
- Form4Science
- Form4Physics
- Form5biology
- BTP form4physics &
- BTP EEE.

The development of the curriculum and the preparation of the correspond Curriculum specifications have been provided by the Curriculum Development Centre and Bahagian Teknologi Pendidikan. The focus on developing the courseware is for both teaching and learning.

Customization:

As customization plays a significant role in developing courseware; characters, background scenarios and language usage was localized to the Malaysian ethnic. English language used in this science courseware was simple and easy so that it enables the students to understand the science facts easily. The science facts and ecological values are explained within the context of Malaysia.

Scope of work and Onsite resources:

Our scope of work in the client place was to provide subject matter expertise on three subjects such as biology, chemistry and physics. The storyboards were developed based upon the content spilt up provided in the tender specifications and with the help of local reference materials procured by us. The storyboards were written both in onsite and offshore and sent for approval within the stipulated timeline to Curriculum Department desk officers.

Based upon the storyboard approvals a ten-member onsite team for Multimedia development was stationed at the client place and within the span of 24 months phase by phase release was done. Over a period of two months extension specifically for enhancing few coursewares by adding the real time video lecture in few topics was made. The final sign off were made based upon the content and multimedia approval after four to five round of observation reports given by the desk officers and Head Department of Science. The TSS project management and WHBS production team made a successful sign-off with the Ministry of Education.

Reason for success:

1. The pedagogy based approach in the storyboard; perfect visualization of rich 2d and 3d animations, which were developed for the various science concepts, gave a new dimension to the facts.
2. Real life based scenario's in the lessons achieved the exact objective of the customized courseware and fulfilled the inquiry approach, incorporating thinking skills, thinking strategies and thoughtful learning.
3. The laboratory experiments were demonstrated through activity based learning to engage the students in scientific investigations and to achieve the interoperability and reusability. This was also having significance in making the students to replay and relearn those investigations with their own pace.
4. The original photographs of animals, plants; laboratory equipments, industrial process and ecological hazards which were showcased in the lessons gave a real satisfaction to Desk officers and Head –in-charge during the course of review.

Challenges faced:

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Form4physics :

Lesson 49 Applications of Specific Heat Capacity Content

Reactor pressure vessel

Reactor core

283°C, 7 MPa steam

Generator

Turbine

35°C

25°C

Pump

Condenser

Cooling water

A boiling water reactor is a light water reactor design used in some nuclear power stations. In a boiling water reactor the steam going to the turbine is produced in the reactor core rather than in a steam generator or heat exchanger.

Form4biology :

Transport Systems: Heart Beat Concept

Sinoatrial node (Pacemaker)

Right atrium

Left atrium

Atrioventricular

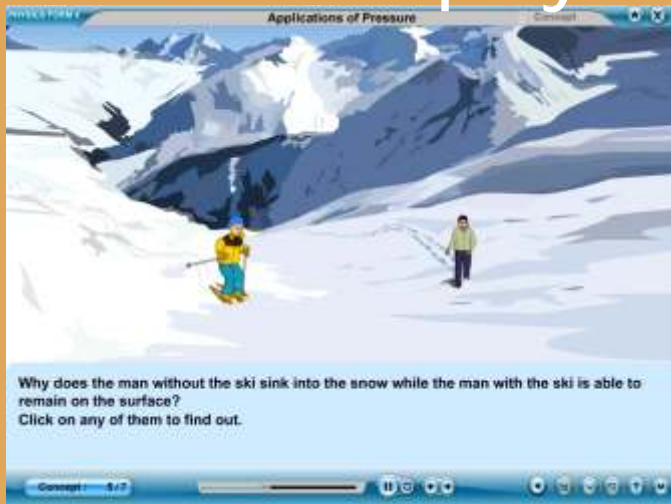
Right ventricle

Left ventricle

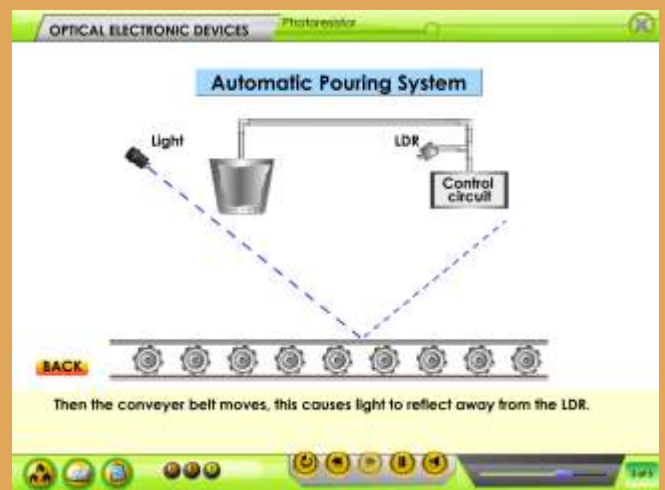
Human Heart

The heart beat begins when the sinoatrial node as the pacemaker generates nerve impulses to stimulate contraction.

BTPForm4physics :



BTPEEE :



Form4science :

