



The Computerworld Honors Program

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Final Copy of Case Study

Year:

2013

Status:

Laureate

Organization Name:

Schools of Isolated and Distance Education Western Australia

Organization URL:

<http://www.side.wa.edu.au/index.php>

Project Name:

E Learning and Virtual Classroom Across Australia's Largest State

Please select the category in which you are submitting your entry.

Collaboration

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less)

The Department of Education's School of Isolated and Distance Education (SIDE) in Western Australia has developed an advanced e-learning program that uses Saba Classroom, a real-time virtual learning environment, to enable the children of one of the world's least densely populated regions to take interactive lessons and complete their education remotely. SIDE works with a very diverse range of students including: Students living in the regional and remote areas where travel time prevents attendance at a face-to-face school. Elite sportspeople and artists whose training prevents attendance at regular schools. Students with medical problems. School-aged young parents. Students who are travelling around Australia or overseas. Young offender students in detention. Prior to the

introduction of digital learning, students at SIDE learned via correspondence. The curriculum was delivered in printed lesson books with an occasional telephone call. Students could often wait a month after submitting their work to receive any feedback. Today, SIDE has enabled its students to access dynamic and interactive learning spaces. SIDE uses Saba Classroom as a key learning delivery tool in its blended learning approach combined with Learning Management System (LMS) based courses, print materials and face-to-face teaching. Students and teachers use Saba Classroom to share high-quality audio and video, whiteboards, virtual breakout rooms, recordings, interactive examinations and other functionality to enable individualized learning. Today SIDE employs more than 120 K-12 teachers in Western Australia and enables learning for more than 3,000 students, delivering more than 100 lessons a day. Since the introduction of digital learning, SIDE students consistently perform at or above state averages. Each public school in Western Australia publishes its dux or highest performing academic student. Of these, 20% had students studying at least one subject through SIDE in 2011.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

SIDE and its predecessors have continually pushed the use technology to support student learning. Correspondence learning itself was an innovation in 1918, supplemented by lessons via HF radio from the 1950s. SIDE recognized early the power of the Internet in the 1990s. In 2004, the Department of Education's School of Isolated and Distance Education (SIDE) implemented the Saba Classroom video collaboration platform. SIDE's use of Saba Classroom (virtual classroom capabilities) as part of Saba Real-time Collaboration suite quickly became a model for web conferencing as an engaging mainstream teaching medium, enabling ultimately more than 3,000 students to take lessons regardless of their geographical location. The Department of Education committed to using Saba Classroom in December 2010 as a core delivery platform, thus setting the stage for all Western Australia teachers and students to follow the path pioneered by SIDE. In September 2012, SIDE announced the planned delivery of 12 online courses to comply with the newly created Australian Curriculum. Education Ministers from all States and Territories have signed off on the development of a national curriculum and Phase 1 will include English, Mathematics, Sciences and History. It is expected implementation of Phase 1 will be complete in Western Australia by July 2015.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

The SIDE E Learning Program is always expanding and exploring new student needs, topics, and activities that can be enabled via their innovative distance learning. The program is currently in the process of going mobile, as administrators at SIDE are looking at Saba Classroom's ability to deliver e-learning to iPhone and iPad equipped students. More recently, Saba Classroom launched an Authors Online program as part of a shared initiative between the Resource Centre and the English Learning Area. The program offers a series of seminars for students to meet and interact with noted professors, authors, and other luminaries using Saba Classroom. Authors Online is an innovative program that teaches valuable reading, writing, and comprehension skills while at the same time promoting tolerance and access to widely different life experiences that these students would not be exposed to otherwise. Students in Year 11 History met Hetty Verolme, author of *The Children's House of Belsen*, who described her experiences in surviving the Nazi persecution of the Jews in the Netherlands during World War II. They connected with Hetty via Saba Classroom to support their examination of that conflict. SIDE has also developed administrative systems to minimize the delay for student to become connected to their teacher and peers. Schools can now enroll students via an online portal that automatically generates Saba Classroom IDs and access to email, as well as calendars and any LMS-based course. Within 24 hours of enrollment, every student has full access to all their learning tools.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

Wan-Yi Sweeting was SIDE's Academic Dux for 2012. The quotes below narrate her experience with the program. "I am really honoured [sic] to have been selected as the winner of the 2012 Dux award. I couldn't have managed without the wonderful support of my teachers and supervisors. After 2 years, I was selected on a full-time basis at the WA Tennis Academy. At this stage, I joined SIDE so that I could fit my academic studies around my demanding tennis schedule. I have been playing tennis tournaments around the world, including Hong Kong, Singapore, India, Croatia, California, Paris, Canada, South America. It's been non-stop! Throughout my tennis journey, SIDE has been there with me. In many ways, they acted as a life-saver, especially when I felt lonely and homesick. Most of the time, I was able to keep regular contact with my teachers through the SIDE online classes. I have learnt [sic] a lot from distance learning, especially self-discipline, organisation [sic] skills, time management and

perseverance. I now know that if I set my mind on something and keep working towards that goal, I can achieve it. I am pleased to tell you, for example, that I have been awarded a tennis scholarship at Boston College, one of the top academic universities in the USA, with a division I tennis team." Other SIDE students include secondary school students pursuing advanced subjects, students overseas, those with special needs, and children isolated in remote indigenous settlements and mining communities. Saba Classroom is also being used to deliver interactive oral examinations to more than one thousand English-as-a-Foreign-Language university-bound students in China, Singapore, Malaysia and Vietnam, without the examiners ever leaving Australia.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

This project is a notable advancement in the way education is consumed. In addition to functionality that supports rich interactivity across a huge geography with limited bandwidth, SIDE has gone further to enrich the learning experience of these remote students. SIDE has had a vision to become a model of best practice in the area of K12 e-learning. This has been achieved through a clear understanding of the diverse learning needs of its students, the development of a robust system for curriculum design, and the development of the expected capabilities of an effective online teacher, backed up by performance management targets and a comprehensive professional learning program. SIDE actively shares its expertise with other organizations that are making the move to online learning. This may take the form of presentations to interested parties, individual consultations or the sharing of the hundreds of online courses. The Authors Online program continues to evolve to include new topics and guest lecturers. Guest lecturers included the 2010 Young Australian of the Year Jessica Watson, and 2005 Australian of the Year Professor Fiona Wood. Ms. Watson, the youngest person to single-handedly sail non-stop around the world, participated in an international Saba Classroom event with students joining from Western Australia, India and South Korea. Primary and secondary students participated in interactive webcasts with Professor Fiona Wood, who invented spray-on skin for burn victims. In 2012, students met with Cheryl Kickett-Taylor Cheryl, who discussed her book Barlay!, a part of the Waarda indigenous children's series. This series is designed to support the literacy needs of indigenous children in primary school, by making available to them stories written by indigenous authors. At the same time, it will introduce non-indigenous children to the richness and depth of the Noongar language and indigenous storytelling.



If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

Encompassing 2.6 million square kilometers, Western Australia is Australia's largest state. It is also one of the world's least densely populated regions, with 85 percent of its 2.3 million residents clustered along the coast and the rest scattered across a vast outback. Limited bandwidth has always been an important consideration, affecting a large percentage of SIDE's learners. SIDE has worked hard to offer extensive e-learning functionality, despite these issues around available bandwidth. Connectivity to very remote students is accomplished largely via a satellite network put in place by the Dept. of Education in 2004. Prior to the rollout of the satellite network, SIDE and Schools of the Air shared the HF radio network with the Royal Flying Doctor Service. When the RFDS discontinued the service, the Department was required to find an alternative and designed the network now in place. There are unique challenges to deploying satellite infrastructure to such a large area, not least the extreme remoteness of the site (one site had to have the dishes dropped in by helicopter). Saba Classroom has consistently worked well over that limited-bandwidth infrastructure, enabling these extremely remote students to learn with downloadable, high-quality content. Students connect through any form of internet, from dial-up modem, the Department WAN, to the satellite network, to private ADSL or 3G modem. Initially the use of voice and whiteboard were the core tools used, but teachers and students soon pushed the use of the other tools. Saba Classroom, with its efficient use of bandwidth, enabled students to take advantage of the more bandwidth intensive tools. Please see Appendix 1, 2, and 3 for some visuals on the program.