ABSTRACT
                Two Australian agencies planned, developed, piloted, and
evaluated an online resource for teaching independent living skills to adult
students with a mild intellectual disability using technology and the
Internet. The resource, called Life Online, is a package of support resource
materials tested in regional classrooms in Victoria, Australia. Educators
working with the target population were surveyed; feedback was gathered
regarding course provision, student learning styles, teaching strategies,
resources used in the classroom, and student interests, motivation,
expectations, and attitudes. Life Online resources were designed in a simple
format that included graphic presentations to visually stimulate learners and
featured simple graphically presented case studies, followed by multiple
choice exercises. Units focused on nutrition, menu planning, shopping,
budgeting, travel, money skills, electronic banking, and community access.
The program was designed to appeal to adults aged 18-25 and to encourage them
to adopt a healthy and positive approach to life. Since students related best
to real-life situations, the program was very people-focused. "Characters"
provided photographic modeling and narration. Feedback from teachers at pilot
sites was generally very positive: the program provided age-appropriate
materials; instructional procedures were adequate; and students related to
the characters. All students enjoyed using the program and noted that their

computer skills and confidence grew. The most liked aspects were the pictures, activities, and characters. (YLB)

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Life Online–Resources for Students with an Intellectual Disability

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Life Online –
Resources for students with an intellectual disability

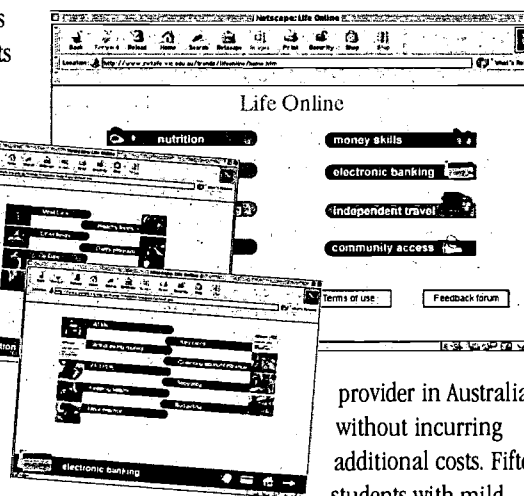By **Kerri Weeks**, Project Manager, Access Training and Employment Centre.

Life Online is a package of support resource materials for teaching independent living skills to adult students with a mild intellectual disability, with the underpinning themes of using the Internet and technology. Access Training and Employment Centre (ATEC) and South West Institute of TAFE (SWIT) have spent the past year planning, developing, piloting and evaluating the program in a number of classrooms in regional Victoria. The project was funded by the Australian National Training Authority (ANTA) through the Office of Post Compulsory Education, Training and Employment (PETE) in Victoria, with the aim of encouraging innovative and workable initiatives to meet equity priorities. The online program and supporting Teacher's Guide is available free of charge at the following worldwide web address:
http://www.swtafe.vic.edu.au/trends/lifeonline

Life Online

provider in Australia without incurring additional costs. Fifteen students with mild intellectual disabilities were to participate in the initial trial of the program. A teacher's resource document outlining strategies for using the resource was also part of the project, in addition to a final report including an outline of existing resources, an analysis of the research and product development methodology, and results from evaluation research undertaken with participating teachers and students. The project was undertaken over a nine month period in 2000, and involved collaboration between a regional TAFE institute and two regional Adult Community Education (ACE) providers. The product developers were located at SWIT in Warrnambool, and the project manager at ATEC in Melbourne. The students involved in developing and trialing the materials were from Warrnambool, Hamilton and Portland in south-west Victoria.

With positive growth and enthusiasm for practitioner-based research, and as many of us seek a share of the funding dollar, I thought that it might be of interest to provide a description and analysis of the project methodology, and the issues dealt with during the

BACKGROUND

Adult students with a mild intellectual disability have previously not been a focus group for educational software developers. As a result there were very few appropriate electronic resources available for use by educators working with these students. With this in mind, and informed by the objectives of national and State strategies for increasing opportunities in vocational education and training for people with a disability, the project aims were to develop an online resource to improve access and outcomes for students with a mild intellectual disability and in particular those who live in regional locations.

The final project brief was therefore to develop a resource for online delivery in three regional locations in Victoria, but which could be delivered by any other

FEATURE

dynamic period of product development, trial and evaluation by all of the parties in the project.

PROJECT METHODOLOGY

A reference group with diverse experience in adult and community education in Victoria was convened during the first month of the project. The group provided advice regarding the definition of the initial project brief, content of the resource, information technology and access issues, promotion strategies and relevant client group issues. The group also endorsed the final product, Teacher's Guide, and the report at project completion.

In the first three months of the project, research was undertaken to identify existing on-line training resources suitable to support delivery of literacy and numeracy training to adult students with a mild intellectual disability. This process included extensive searching of internet resources, and discussions with practitioners and researchers in Victoria experienced in the delivery of literacy and numeracy programs to this client group.

It rapidly became obvious that the majority of existing online literacy and numeracy packages targetted children in primary or secondary schools. The focus of these instructional materials were not considered age and content appropriate for adult students with an intellectual disability undertaking study for the Level 1 Certificate in General Education Adult (CGEA) in Victoria, or equivalent courses in other States. While there were some resources available for adult students from Non English Speaking Backgrounds, it was decided that the classroom support needs and independent living skills of this group varied significantly from those of the mildly intellectually disabled literacy student. Some CD-rom resources had the potential for adaptation, but the high cost associated with copyright fees, made this option unrealistic. The project team therefore concluded that the best approach would be to develop new resources from scratch.

The SWIT project development team then consulted practitioners in the region to make sure that any resources developed were informed by current practice and were appropriate to the needs of the students and their teachers. They did this through conducting a survey of teachers and training providers who were experienced literacy and numeracy educators currently working with mildly intellectually disabled adults. Feedback was gathered regarding current course provision, student learning styles and teaching strategies, resources currently used in the classroom, and student interests, motivation, expectations and attitudes.

LIFE ONLINE

The Life online resources were the result of this process. Drawing on current educational practice in working with mildly intellectually disabled students and the survey responses, the resources were designed in a simple format which included graphic presentations to visually stimulate learners. The program also featured simple graphically presented case studies, followed by multiple choice exercises which check for understanding, reinforce the acquired

information, and provide feedback to students upon completion.

The project team decided that the content of the online resource should be life skills the students needed to develop to be as independent as possible. These skills needed to be transferable to real life situations outside the classroom and relevant to the students' everyday lives. The topics chosen were:

- Nutrition
- Shopping
- Menu Planning
- Budgeting

During the development of these units further funding was secured which allowed the development of additional units on the following topics:

- Money Skills
- Electronic Banking
- Travel
- Community Access

The combination of topics chosen for Life Online allows teachers to reinforce the important concept of skills transfer between tasks. For example, the skills acquired in the nutrition topic can be transferred and applied to the menu planning, and shopping topics, and so on. As reinforcement and repetition are critical strategies for teaching adult students with a mild intellectual disability, the information covered in the various Life Online topics is recycled through a number of interactive activities including maths, decision-making, information gathering and literacy exercises.

The resources were also designed to cover a number of level 1 learning outcomes from the Certificate(s) of General Education for Adults. The table shows which outcomes the materials target in each of the four streams of the Certificate.

PROGRAM DESIGN DETAILS

The program was designed to provide students with information which would encourage them to adopt a healthy and positive approach to life. It was also designed to appeal to younger adults in the 18-25 age group.

The opening page includes rotating graphics backed up by a burst of rock guitar music, designed to grab students' attention. The layout encourages the user to focus on the content, and minimises the risk of the student being distracted by unnecessary items. The materials combine text, graphics, images, video and narration to convey instructional information. The navigation is intuitive, with both audio and text messages supporting navigation tools.

USING CHARACTERS TO COMMUNICATE INFORMATION

It was found that the students related best to real-life situations, so it was decided to make the program very people focussed. For example, the nutrition topic introduces a character called Dale who decides to change his unhealthy ways. Dale visits a nutritionist, starts eating healthy foods, starts a regular exercise program, and so on. The section has a variety of "Dale in action" shots. Dale also features in a number of the other topics which follow as he prepares a menu and meal for his family in the Menu Planning unit. Other characters feature in the information sections of each unit.

The various people employed as the 'characters' were adults with a

CERTIFICATE I IN GENERAL EDUCATION FOR ADULTS: LEARNING OUTCOMES

READING & WRITING I	Nutrition	Budgeting	Menu Planning	Shopping
1.1 Writing for self expression				
1.2 Writing for practical purposes				
1.3 Writing for knowledge			✔	
1.4 Writing for public debate				
1.5 Writing for self expression				
1.6 Reading for practical purposes	✔		✔	
1.7 Reading for knowledge	✔			
1.8 Reading for public debate				

ORAL COMMUNICATION I				
1.1 Active listening	✔	✔		✔
1.2 Oracy for practical purposes				
1.3 Oracy for exploring issues and problem solving				

NUMERACY & MATHEMATICS				
1.1 Numeracy for practical purposes – Design				
1.2 Numeracy for practical purposes – Measuring				
1.3 Numeracy for personal organisation	✔	✔		✔
1.4 Numberacy for personal organisation – Location				
1.5 Numeracy for interpreting society – Data		✔		
1.6 Numeracy for interpreting society – Numerical information				

GENERAL CURRICULUM OPTIONS 1				
1.1 Can collect, analyse and organise information	✔	✔	✔	✔
1.2 Can plan and organise activities				
1.3 Can communicate ideas and information	✔			
1.4 Can work with others and in teams				
1.5 Can use mathematical ideas and techniques		✔		✔
1.6 Can solve problems	✔	✔	✔	✔
1.7 Can use technology	✔	✔	✔	✔

mild intellectual disability who lived in the Warrnambool community. It was believed that students would react positively to people they could relate to as role models, using the skills they would be attempting to learn. The photographing and recording of these sequences initially presented some problems however, as the actors were not experienced photographic models, and did not feel particularly at ease in front of the camera. They had very little employment experience, and were initially extremely nervous. The SWIT project team solved this issue by providing a 'coach', who not only directed the models, but also ensured they were relaxed throughout the photographic process. As you will see from the results, the actors went from strength to strength with the assistance of their coach and are the charismatic 'stars' of the final product.

In addition to photographic modelling, each 'character' provided narration for the program. Initially the character's narration was kept to a minimum due to the time consuming, and thus expensive nature of the process. However, feedback from the initial delivery of the nutrition topic revealed such a positive student response to the 'characters' it was decided to develop scripts that included more direct narration. The actors had a 'coach', and each script was

adapted until the narrator was comfortable with it, but to make sure none of the character's qualities were lost through the scripting process, the actors' speech and intonation were not edited or adjusted in any way. The inclusion of additional character narration added considerably to the budget, but was considered a worthwhile investment due to the overwhelming positive student response to this aspect of the program.

PILOT DELIVERY OF LIFE ONLINE

The online resource was piloted in three sites in the south-west region of Victoria:

- South West Institute of TAFE, Warrnambool;
- Southern Grampians Neighbourhood House, Hamilton;
- Portland Neighbourhood House, Portland.

The courses studied by the students at theses locations were:

- Warrnambool: Class A- Certificate in Initial Adult Literacy and Numeracy (CIALN)
- Warrnambool: Class B- Certificate in Work Education (CWE)

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⊞ Hamilton: Certificate in General Education for Adults
                (CGEA)
☐ Portland: Certificate in General Education for Adults
                (CGEA)

EVALUATION OF LIFE ONLINE

Teachers and students at each of the sites were asked to evaluate the program following its introduction and again half-way through the term. Teachers also completed a further email evaluation at the end of the term.

Information was sought from instructors on:

☐ their experience with teaching students with mild intellectual disability
⊞ their experience of using technology in the classroom
☐ content and delivery of Life Online
⊡ availability of technical support and tutors in the classroom
☐ skills level and additional special needs of students
⊡ suggestions for improvement, and
⊡ difficulties encountered in the classroom.

Students were asked to indicate:

⊞ their prior experience and existing skills in using computers
⊡ their attitude towards using technology
⊡ their expectations of the Life Online program, and
⊡ opinion of the Life Online resources

Feedback from teachers was generally very positive. They agreed that the program provided age appropriate materials for adult learners and with regard to ease of use for learners, was adequately targeted at Level 1 CGEA and CWE courses. The demands on learners regarding computer use, academic knowledge, speed, accuracy and physical skills were appropriate. The instructional procedures of the program were considered adequate, and the motivational value of the program was rated as adequate to excellent, with special note made that the characters worked very well in motivating students. Instructors agreed that the real life independence and financial management skills developed in the budgeting unit were very useful and relevant to the student group. The teachers agreed that the graphics and sound were effective, and that students related very well to the video and voiceover of the student characters, who were known personally to a number of the class participants at the Warrnambool site. The fact that the characters had a similar background to the students meant they related to the situations depicted, and became enthusiastically engaged in the related problem-solving activities. The piloted units of nutrition and budgeting were useful resources in teaching literacy, numeracy, problem-solving and information technology skills for students with a mild intellectual disability. They also all highly recommended the Teacher's Guide as a valuable resource for assisting in the delivery of the program.

All of the students enjoyed using the program, and noted that their computer skills and confidence grew throughout the term. The majority of students could read the writing and pictures, with four students unable to read the writing, but able to read the pictures. All students could hear the sounds clearly and understand the instructions in the program. The most liked aspects of the product were equally the pictures, activities and the characters. All students found the voiceovers and videos of the characters helpful in understanding the information in the budgeting and nutrition units. Anecdotal evidence from instructors and tutors indicated that the students had very positive reactions when Dale was on the screen, and enthusiasm and communication levels rose accordingly. Students stated that they really liked seeing a friend presenting the budgeting problems on the screen, and that the program content and activities were fun, very informative and relevant to their lives. It should be noted that the nature of the materials presented in the budgeting and subsequent units was more readily suited to the development of a wider variety and number of activities, in comparison to the more basic and foundation information presented in the initial nutrition unit. The most overwhelming aspect of the feedback was the students' strong positive response to, and identification with, the peer group actors in the program.

FUTURE INDICATIONS

The pilot delivery of Life Online has shown that there is tremendous potential for using online resources with mildly intellectually disabled students, to enhance existing programs and to provide accessible stimulating learning activities. The positive response to the characters would appear to indicate that one of the keys to the development of such resources is to ensure that students can relate to the materials on a personal level. In addition the audio and video features of the program indicate the potential for the creation of resources for other clients with specific needs, such as students who do not use verbal communication. However, whilst very positive feedback was received regarding the Life Online resources, their use and value is as support materials and they are not designed to replace face to face classroom interaction, but rather to support it. Teachers who would like to use Life Online in their classroom are advised to first consult the Teacher's Guide available at the program website regarding technology requirements, suggested preparation strategies and classroom approaches and activities.

Further information on the Life Online project and resources can be obtained by contacting:
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Kerri Weeks is currently working as a Project Manager with the Access Training and Employment Centre. She has experience in social, legal and policy research, and vocational education and training and social policy analysis. Kerri has undertaken a number of research and analysis projects relating to equity group participation in vocational education and training, the implementation of economic reform at the state and local government level, NESB women's experiences of the temporary immigration process, and cross cultural research methodologies.

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