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Contact

*Donna M. Palmer
National Project
Manager-AWAL
Centre for Curriculum,
Transfer & Technology
Suite 602, 510 West
Hastings Street
Vancouver, BC
V6B 1L8
Tel: (604) 681-4590
Fax: (604) 681-4502
e-mail:
dpalmer@c2t2.ca*

Name of Program

*Applications of
Working and
Learning (AWAL)*

Skills Developed

*Fundamental
Personal Management
Teamwork*

Effective practices in developing and supporting educators'
knowledge and skills

APPLICATIONS OF WORKING AND LEARNING

*Making education more relevant by
supporting educators*

*Showing educators how the skills they teach are
used in the workplace*

BY KURTIS KITAGAWA

November 2000

The Applications of Working and Learning (AWAL) Project helps middle and secondary school educators and pre-service (student) educators connect the curriculum they teach in the classroom with how that theory and content are applied in the world of work.

Overview

A decade ago, education and business inhabited their own separate worlds. Ten years of business-education partnerships have done much to bridge the two solitudes. These partnerships, which have given rise to hundreds of innovative activities and expand to include more partners every year, have been recognized by The Conference Board of Canada through its national and international awards programs. Their activities are shared in the Conference Board's *IdeaBooks*.

Today, business and education are much more inclined to appreciate the value they provide for each other, to recognize each other's challenges and to

learn from each other. It is not uncommon nowadays to find educators thinking about the challenges of emergent jobs and being competitive in the global economy. Nor is it unusual to find employers who believe that the management of human resources must involve an awareness of the developmental needs of potential and existing employees, which they seek to address in their recruitment, retention and recognition policies and practices. In other words, while educators are not expected to train students for specific jobs in the workforce, they do help students in various ways to make successful transitions. And employers, for their part, are increasingly recognizing that the kinds of training that they offer, and how and to whom they deliver it, require them to treat their employees as learners who are capable of understanding not only what they need to do but why they are doing it.

There is now widespread acceptance among educators of the importance of working with the whole person—someone who needs to build a career and earn

National Business and Education Centre (NBEC)

Director: MaryAnn McLaughlin

Principal Research Associate:
Michael Bloom

Research Associates:
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a living—while supporting student achievement of learning outcomes in the publicly funded education system. There is also, notably, a growing awareness among employers of the importance of developing their employees' knowledge and skills to ensure they are effective critical thinkers and problem solvers, not mere paper shufflers or button pushers. Common to educators and employers is a focus on empowering individuals to become more active learners who are better able to:

- ✓ Recognize and build on their successes and address their challenges
- ✓ See the application of their skills and knowledge to everyday and new situations
- ✓ Actively transfer and apply their skills and knowledge as a matter of course
- ✓ Fuel their own growth as they contribute to innovation in their learning and working lives

The Applications of Working and Learning (AWAL) Project is an exemplary vehicle of educator and student empowerment. Broadly speaking, AWAL helps instructors of academic subjects (e.g., math, English, social studies) raise their awareness and understanding of the importance of developing students' employability skills through, and as part of, their education. AWAL also engages educators in developing, on the basis of their enhanced understanding of how what they teach is used in the world of work, innovative ways to modify or fine-tune what they are already doing to incorporate skills development more effectively in their classrooms.

AWAL receives financial support from the B.C. Ministry of Education and Human Resources Development Canada. Other partnerships open doors and provide linkages. For example, the Business Council of British Columbia has been instrumental in encouraging its members to open their doors to educators. Over 100 employers from businesses of varying sizes throughout British Columbia have welcomed in-

structors into their workplaces. As well, school districts, representing all parts of the province, have facilitated the participation of their middle and secondary school teachers in the AWAL project. Several of these school districts are participating in the project for the second or third time. The Math Science Technology Education Program of the University of British Columbia's Faculty of Education has involved pre-service teachers in AWAL activity on two occasions in each term, as part of their course work. Finally, the Applied Science Technologists and Technicians of British Columbia, an organization that certifies technologists and technicians to practise in industry, helps educators gain access to many of the newer high-tech companies and provides mentoring assistance to instructors participating in the project.

Groups Served

- ✓ Instructors of academic subjects: social studies, mathematics, English
- ✓ Students

Objectives

- ✓ Enable educators—and, through them, students—to learn how knowledge and skills acquired in school are used in the workplace
- ✓ Enhance educators' awareness of today's world of work in a non-threatening, non-invasive manner
- ✓ Develop and make accessible to others classroom learning activities based on participating educators' experience
- ✓ Build a Web-accessible, searchable database of "seed ideas"
- ✓ Foster dialogue between academic and vocational instructors and between educators and employers

Activities

The Applications of Working and Learning Project provides opportunities for middle and secondary school educators and pre-service (student) teachers to take part in one-day professional development activities intended to 1) raise their

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awareness of the importance of employability skills in today's world of work, 2) plant the seeds for generating a body of effective teaching and learning practices around developing students' skills and 3) encourage and support peer-to-peer learning and conversation between academic and vocational instructors and between educators and employers.

Educator Placement

AWAL places educators, in pairs, in a variety of business and industry workplaces in order to gain insight into the work life of people in various settings and occupations.

First Interview

Once on-site, the educator teams conduct a structured interview with a representative from human resources or management using a prepared list of questions. Through their inquiries, the educators learn more about their host company's products and services, employment practices and opportunities and future skill requirements. They then record their observations.

Work Site Tour

Next, depending on the work site, the educator teams participate in a workplace tour.

Second Interview

The educator teams then conduct a second interview, this time with a front-line employee to gather information about their use of math and computers and thinking, teamwork and communications skills. Educators learn first hand about the knowledge and skills today's workers really need to do their jobs effectively. In addition, educator teams ask employees to reflect on how high school helps prepare students for future employment. Once again, the educators record their observations.

Reflection

In the final part of their AWAL activity, the educator teams complete a

reflection session to help them connect their experience of the world of work with the curriculum they teach. In particular, instructor teams explore the relevance and relationship of the work experiences they have probed to what they teach on a day-to-day basis. Their objective is to create two classroom "seed ideas." These seed ideas are entered in a searchable database that can be accessed through www.awal.ctt.bc.ca. The database is searchable by subject area (e.g., English, math, science, social studies, technology/computers, arts education), specific essential or employability skill, National Occupational Classification, company and collector. It can be used by anyone wanting to know more about the applications of working to learning.

Immediately following each session, AWAL personnel debrief educators on the events of the day; they analyse and categorize educators' comments and insights from their professional development activity according to the Conference Board's *Employability Skills Profile* (1992) and report back to participants.

Benefits for Educators

- Can use what they see and hear in the workplace as seed ideas to expand or explain concepts they are teaching
- Return to their classrooms energized, with new insights and a more positive attitude toward business
- Are motivated to get involved with technology—seed ideas are not available in print, so teachers have to use technology to get to them
- Broaden their knowledge horizons and think beyond their subject discipline—when geography and math teachers paired up on their AWAL placement, they saw the interdependency of their subjects in the business application of making digital maps for automobiles; similarly, math teachers were excited to see all the math involved in boat building when they did their placement with the boat builders at Port Alberni

▶ *Educators are able to link classroom theory with workplace practice and to make their teaching more explicitly relevant—to answer the perennial student questions: When will I ever use this?, Why do I need to learn this?, Why should I take this course?*

▶ *Educators appreciate the importance of encouraging students in middle and secondary school to exercise freedom within parameters, which builds habits of creative, innovative learning, responsibility and a capacity for being independent within a given structure.*

- Gain experience of practical or current applications of theories they understand and teach
- Co-operate with other teachers across disciplinary lines to connect their courses and enrich student learning
- Can better equip students to make successful transitions to the world of work
- Can develop their own classroom activities, which support their curriculum objectives
- Are able to help students see how what they are learning in school actually gets used in the workplace—before, the connection between school and work was not always clear: work was seen by students and teachers alike as something people did after they finished school, not a place where what is taught and learned in school gets used
- Are able to link classroom theory with workplace practice and to make their teaching more explicitly relevant—to answer the perennial student questions: When will I ever use this?, Why do I need to learn this?, Why should I take this course?
- Can see how workplace examples and applications enhance their teaching of curriculum content
- Can stimulate student interest in careers and choices that were previously unknown to them
- Can add pictures and practicality to chalk and talk
- Increase their awareness of the interdependence of schools and workplaces and of the role business can play in education—business and education need each other
- Identify resources available in their local communities
- Interact with professionals in different career areas
- Develop a greater understanding of business—see that performance evaluation in the workplace tends to focus more on team achievement, whereas school assessments largely concentrate on individual achievement
- Make useful contacts to assist in lesson development
- Can share anecdotes from high-tech workers, for example, with their students
- Learn the value administrators and employees put on the “soft” skills of being responsible and accountable (e.g., being punctual, showing up for work, doing one’s part on a team, being organized)—educators tend to tolerate deficiencies in these areas for a variety of reasons
- Appreciate the value employers attach to demonstrating positive attitudes and behaviours (e.g., having a personal vision, showing initiative, taking pride in one’s work)—participating teachers did not expect to see employers place a high value on teamwork, communications skills or positive attitudes
- See that, in the world of work, it is expected that people will actively demonstrate the habits of a lifelong learner and that it is a mark against them if they do not ask questions when they do not know something—in school, one can often get by, even do well, without asking questions, and allowances are made for shyness, lack of confidence, underdeveloped communications skills and inability to take calculated risks—these are all liabilities in the world of work
- Appreciate the importance of encouraging students in middle and secondary school to exercise freedom within parameters, which builds habits of creative, innovative learning, responsibility and a capacity for being independent within a given structure—these are survival skills in the workplace and cannot be accomplished by an education model that spoon-feeds students for examinations; the culture of education tends to require students to be present in a certain place at a certain time to apply themselves to learning specific content
- See how important it is in the world of work to be accurate on the first

Students learn how to get ahead through teamwork—by supporting the best efforts of the group—as well as by focusing on their best efforts individually. ►

Students can avoid a “rude awakening” when they get out into the real world—learn to keep an eye on how they can apply and use the knowledge and skills they are acquiring in school while they are still in school. ►

attempt and to understand the consequences of not getting something right—appreciate the need for critical thinking and problem-solving skills

Benefits for Students

- See the connection between school and work
- Understand what they are doing, and why they are doing it, while they are in school
- Get a leg up in the job market and gain the skills they will need to succeed in further education or in their daily lives
- Can reflect on using their skills and deliberately hone them while they are still in school
- Learn the importance of multi-tasking—of keeping several balls in the air at the same time—of not skipping French homework, for example, when there is a football game
- Learn how to get ahead through teamwork—by supporting the best efforts of the group—as well as by focusing on their best efforts individually
- Learn the importance of respect and courtesy as distinct from command and control, which can be a feature of classroom learning
- Can avoid a “rude awakening” when they get out into the real world—learn to keep an eye on how they can apply and use the knowledge and skills they are acquiring in school while they are still in school
- Move beyond being grade-oriented (only applying themselves when marks are at stake) to looking for applications of, and actively applying, skills and knowledge, regardless of whether they need these skills or knowledge to pass a test

Benefits for Business

- Learns more about the content of education and the practices of instructors
- Can highlight the complexity of today’s workplace without being perceived as invading the classroom

- Gains access to academic educators; in the past, contacts were limited to career education instructors
- Through stories and examples that instructors bring back to the classroom, can communicate with 200 or more students for every visit by a pair of educators
- Expands dialogue and builds long-term relationships with education
- Employees are encouraged to consciously think about and articulate the skills they use in a typical day, which enhances their effectiveness and their ability to apply their skills
- Can enhance the quality of learning in classrooms—educators talk with employees and return to the classroom to share experiences

Keys to Success for Educators

- Seeing how employers evaluate employee skills, then using these observations to enhance their own teaching and assessment practices with regard to skills
- Holding students accountable for their learning of skills across the institution to enhance student outcomes in all subjects—effective communication and clear thinking skills learned and applied in all subjects, not just in an English composition or political science course, are more likely to prepare students to be critical thinkers and problem solvers in all that they do

Keys to Success for the AWAL Team

- Allowing the program to grow organically and letting educators build ownership of the program through making participation voluntary—the program is perceived as non-invasive and non-threatening (see Box on page 6).
- Working both sides of the street—getting business to see that educators are interested in helping prepare students for success in life (including the workplace), getting educators to see that what they teach has a use and gets used, and then getting both

► *Educators need to feel comfortable going into the modern workplace to see for themselves the mix of information/communications technology and soft skills required even for entry-level work.*

► *Students need to become active participants in their own learning and skills development—to see themselves as responsible for mastering the content instructors provide.*

parties to see that they should be talking with each other

- Tracking the numbers of host companies, employees interviewed, teacher participants, seed ideas generated and hits on the AWAL site to generate momentum
- Including reflection as part of the workplace visit, making it more than just a field trip
- Not requiring teachers to do any preparation beforehand or any follow-up afterwards—the fact that AWAL is a self-contained professional development activity helps to sell the program

Challenges for Educators

- Learning to interact with business on a deeper level—feeling comfortable going into the modern workplace to see for themselves the mix of information/communications technology and soft skills required even for entry-level work
- Seeing the assessment of students' skills as an exploration of instructional and learning challenges that need to be addressed, not as a comment on the ability of instructors—overcoming fears that if students are not demonstrably progressing in their skills development it will be perceived as the fault of their instructors
- Seeing the value of integrating, teaching to and assessing for learning outcomes—understanding that supporting student achievement of

learning outcomes is inherent in the logic of what education is about

- Gaining awareness of how to build teams and how teams work to deliberately help students acquire skills in their courses
- Racing against time to get students ready for provincial examinations

Challenges for Students

- Being active participants in their own learning and skills development—seeing themselves as responsible for mastering the content instructors provide
- Making the connection for themselves between the courses they are taking and the skills they are developing
- Actively transferring their skills in new home, school, work or community contexts

Challenges for the AWAL Team

- Co-ordinating interviews between education and business participants
- Finding times when educators are able and willing to leave their classrooms for a day or more—in practice, this means using allotted professional development days
- Persuading academic educators to re-evaluate applied education as an appropriate path for senior secondary students who are not going directly to post-secondary education and to invest time in exploring the applications of working to learning

How AWAL Grew in Two School Districts

One AWAL pilot started by inviting 10 to 14 career and personal planning teachers from a West Vancouver school (who were known to be innovative and willing to try AWAL) to participate. These teachers then promoted the program to other teachers. Building on the success of the initial pilot, West Vancouver School District invited 20 teachers from across the district, representing a variety of disciplines, to participate in a second AWAL session. West Vancouver Senior Secondary School then offered AWAL to all staff on a scheduled professional development (PD) day. AWAL took the same approach with a select group of 10 English, math and geography teachers at Windermere Secondary School in Vancouver. These teachers then spoke to their colleagues and this led to a request for an AWAL PD activity for science teachers in the Vancouver School District. As a result of the science teachers' participation, AWAL hosted a PD day activity for teachers of all subjects, drawn from across the Vancouver School District.

AWAL takes educators behind the scenes of modern workplaces and engages them in a show-me approach to learning, which is often very different from the chalk-and-talk model to which they are accustomed.

AWAL requires educators to reflect on their experiences in the workplace and create a tangible product that they and other instructors can actually use in the classroom.

- Encouraging academic educators to move out into workplaces as part of their ongoing professional development activities—this has been the traditional preserve of career education specialists
- Getting business used to having educators interview managers and workers in workplaces
- Ensuring that there is a skilled project director who understands and respects the culture of education and the culture of business and who has (or can gain) the respect of educators and employers and build bridges between the two worlds
- Not being able to see what happens in the classroom—this is still a very private and personal business

Innovation

AWAL takes educators behind the scenes of modern workplaces and engages them in a show-me approach to learning, which is often very different from the chalk-and-talk model to which they are accustomed. AWAL requires educators to reflect on their experiences in the workplace and create a tangible product that they and other instructors can actually use in the classroom. This avoids a “dog and pony show” experience, whereby educators might be inclined to think: “That’s nice, but how does it connect to my classroom?” AWAL pairs educators from two subject areas (e.g., geography and technology) for their interviews with employees from the different companies that play host for a day. This not only fosters cross-disciplinary communication, but also ensures that there are two different lenses on each employee interview and workplace visit. The AWAL professional development activity may be adapted to meet the requirements and objectives of an instructional day, a professional day, a summer placement or pre-service for student teachers.

Achievements

- Going national, New Brunswick

started an AWAL pilot in October 2000, and other provinces—Prince Edward Island, Ontario and Saskatchewan—are expressing interest in initiating an AWAL project

- Educators who have participated in the AWAL program want to do so again to improve the quality of their seed activities—one educator has participated three times
- Raising awareness among academic instructors of the importance of the Conference Board’s employability skills and Human Resources Development Canada’s essential skills in the world of work
- Heightening the emphasis educators place on helping students consciously acquire these skills
- Raising visibility within the business community of opportunities to host educators for a day—employers and organizations are coming forward to get involved in their own initiatives
- Providing professional development days in the workplace for 185 teachers from 26 of 59 B.C. school districts
- Exposing 60 student teachers from the University of British Columbia (UBC) to ways to integrate classroom content with workplace applications
- Engaging in a dialogue with other faculties of education in British Columbia about involving their student teachers in AWAL
- Incorporating employability skills in UBC’s business education teacher development program
- Expanding access to high-tech businesses
- Promoting literacy in science, technology and mathematics
- Generating more than 400 seed ideas (stored in a Web-searchable database) that demonstrate the relevance of education–workplace links
- Getting 1,000 hits per month from around the world on the seed ideas Web site: www.awal.ctt.bc.ca

The Conference Board of Canada

255 Smyth Road
Ottawa, Ontario K1H 8M7
Canada
Tel: (613) 526-3280
Fax: (613) 526-4857
Internet:
<http://www.conferenceboard.ca>

The Conference Board, Inc.

845 Third Avenue
New York, N.Y. 10022 U.S.A.
Tel: (212) 759-0900
Fax: (212) 980-7014
Internet:
<http://www.conference-board.org>

The Conference Board Europe

Chaussée de La Hulpe 130, bte 11
B-1000 Brussels, Belgium
Tel: (32) 2.675 54 05
Fax: (32) 2.675 03 95

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Donna M. Palmer
Lucy Westaway*

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