### **FRESH PERSPECTIVES:**

Innovation & Impacts of Applied Research









# **INNOVATION:**

A new way of doing something, it may refer to incremental, radical, and revolutionary changes in thinking, products, processes, or organizations.

Applied Research produces practical results with application to real world situations. At Bow Valley College, faculty and staff engage in Applied Research to improve learning and teaching in adult education in the classroom, workplace, and the community.





### **Foreword**

Innovative applied research reinvigorates teaching, builds capacity, enriches the learning experience, and strengthens communities and lead to the commercialization of innovative products and processes that strengthen our economy. From cornerstone applied research projects like TOWES, to ground-breaking research on sustainability within the business programs. Bow Valley College's Office of Applied Research & Innovation and its many partners throughout each department of the College, along with other post-secondaries and communities, are bringing fresh winds of change through academic rigour. Diverse research projects large and small are changing the landscape of education, weaving reflection and engagement into everything we do. Through the work done in classrooms, work and clinical placements, learners are being transformed. The impact of innovative applied research is far reaching and life changing. Join us. Be part of the discovery and the transformation.

Sharon Carry
PRESIDENT & CEO

I am excited and so very pleased to see in this booklet an impressive expression of over five years of dreaming, thinking, and planning about applied research at Bow Valley College. This is also an opportunity to thank many of the individuals who helped us reach our goal of making applied research a vital part of Bow Valley College. Applied research informs our practice, develops and pilots innovation in teaching, learning, curriculum development, and College processes and products that keep our learners at the centre of everything we do. The researchers profiled in this booklet represent almost every department at BVC, partnerships with other post-secondary institutions, communities, and government. Congratulations!

Anna Kae Todd VICE-PRESIDENT, LEARNING

Applied research has the power to change ... the way we do things, the way we look at our world, and how we determine next steps. Thanks to the good work of our small team at the Office of Applied Research and Innovation (OARI), as well as the support and collaboration of all levels of staff within the College community, research at BVC is experiencing an exciting period of exploration, planning, and growth. Building on the excellent foundation created by the Vice-President Learning, CLEAR (Committee for Leadership and Excellence in Applied Research), and OARI staff, we have been able to provide both leadership and support to innovation—assisting BVC in achieving its goals as a learning college and as Calgary and region's Comprehensive Community College. We invite all members of the College community to drop in, share ideas, and see how we can assist you to transform an idea into an applied research project.

Dr. Rena Shimoni
DEAN, APPLIED RESEARCH
& INNOVATION



Learners have so many competing demands for their time; we need to find innovative ways in which to make all types of learning available, while continuing to make the student feel truly supported throughout their academic career.

- Russ Wilde



# Going the Distance, Learning from Afar

The days of moving away to attend college are swiftly becoming a thing of the past. More and more, through a blend of online course offerings, workshops, and traditional classroom learning, learners are able to plan their coursework around their schedule, where they live, work, and play.

Russ Wilde, the Director of the LRS at Bow Valley College, became interested in distance education and applied research while completing his Masters of Distance Education and working as a research assistant. As he began his professional career, Wilde continued to see the challenges encountered by distance learners. Often, organizational structures and systems were not flexible enough to accommodate the needs of distance learners and he could see them begin to feel separate from the larger College community. And so with the assistance of the Dean of Applied Research and Innovation, Wilde was able to move from the idea to the proposal phase.

Collaboration is key to effectively reaching out to this diverse set of learners. Under the auspices of the provincial government, eCampusAlberta was created many years ago to bring together many of the online offerings of colleges throughout Alberta and increase efficiencies across the system. Since his arrival five years ago, Wilde has been at the forefront of the online movement for the College.

Seeing a need, Wilde collaborated with the Office of Applied Research and Innovation and BVC's Enrolment and Learner Services to successfully develop two applied research proposals that will result in improved access and support for diverse learners. The first, funded by the eCampusAlberta Learner Support Services Fund, focuses on supporting diverse learners within the in e-learning environment. The second, funded by the Advanced Education and Technology Innovation Fund, focuses on best practices in alternative delivery.

Knowing there is no quick fix on the immediate horizon, Wilde remains steadfastly committed to creating flexible systems for alternative learning and removing barriers for learners. His goal is to see these two research projects generate change, not only within Bow Valley College, but also in the province--making a difference to how distance education is delivered and supported.

#### RESEARCHER:

Russ Wilde, Director of Learning Resource Services

#### **DEPARTMENT:**

Learning Resource Services (LRS)

#### PROJECT:

Meeting the Needs of Diverse Students Engaging in e-Learning and Best Practices in Supporting Alternative Learners



### The Right Medicine

Practical nursing is changing in Alberta--growing and adapting to the needs of an often stressed healthcare system. The dire shortage of nurses and a lack of opportunities for the required clinical education, led to the need to be innovative in the way BVC practical nurse students are prepared for their clinical experience.

Under the direction of the Dean of Health & Community Care, Pam Lammiman worked with consultants and other provincial colleges to consider how best to address this situation. The research project goal was to find better ways, through simulated experiences, to prepare learners for medication administration. Out of the research, it was hoped an innovative strategy in the teaching and learning of clinical skills would evolve. The project laid the foundation for the development of a blended learning approach to the practical nursing program to reach practical nurse learners in rural and remote communities.

Lammiman, new to the role of researcher, believed in the power of research to challenge long-held assumptions, to bring about fresh perspectives and change. Engaging in this research project, she became the learner and undertook the development of her research skills, coming away with an increased appreciation of the value of applied research to her work as curriculum lead within her department.

While change often takes time, Lammiman now knows beyond the shadow of a doubt that evidence-based practices and the strategies developed to implement them, can challenge long-entrenched assumptions within the intra-disciplinary team of nurses and be a change-agent in the field of healthcare

#### RESEARCHER:

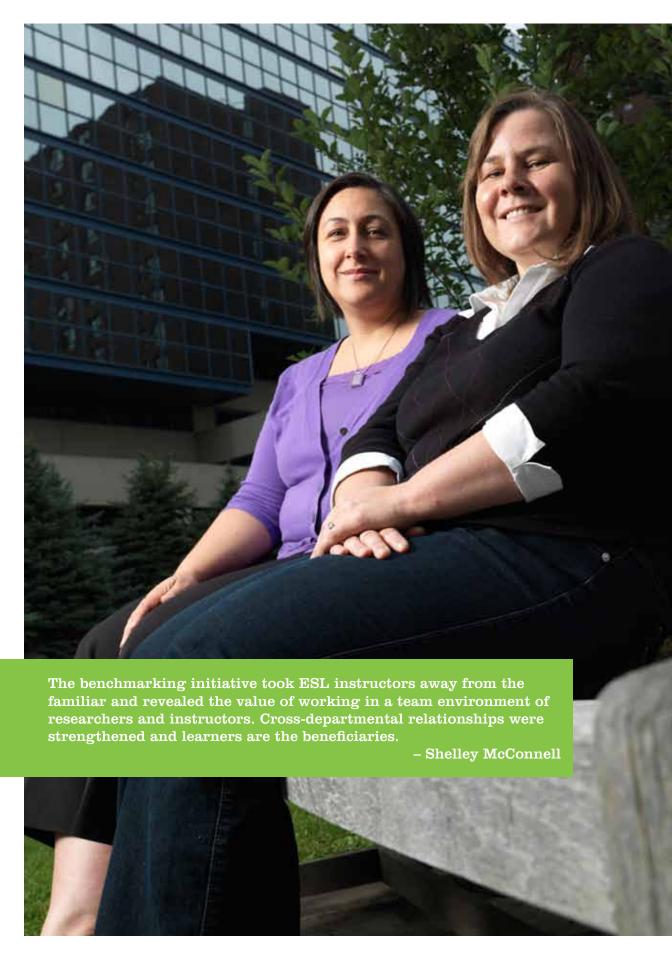
Pam Lammiman, Curriculum Leader Health Programs

#### **DEPARTMENT:**

Health and Community Care

#### PROJECT:

Medication Administration Project (MAP) for Practical Nursing Students



# Setting Benchmarks for Learner Success

It is no secret that Immigrants run into language barriers. For some reason, though, Bow Valley College ESL students were doing well in class but struggling in their workplace, practicum or clinical experiences. Researchers Shelley O'Connell and Hana Imai wanted to find out why.

To discover why students were not succeeding outside the classroom, the two researchers took a look at the language being used in assignments, classroom presentations, homework, textbooks, and practicum. Over a twelve-week period, they observed representative classes, skills labs, and, where possible, learner work placements. After recording their observations, they referred to the benchmark descriptors and matched them to tasks observed.

In-depth interviews with program instructors, coordinators, and deans, as well as student focus groups were carried out. These consultations provided insight into the gifts second language students can bring to career programs, the challenges they may be experiencing, and the supports currently being offered to these students in those programs.

In the meantime, the benchmarking initiative research has spawned a series of workshops aimed at assisting College career program instructors to address the communication needs of their non-native speaking learners. For example, the International Education department developed a curriculum for their English for Academic Purposes program. Most recently, learning materials for ESL learners with interrupted educational backgrounds in their countries of origin and teacher training resources for educators working with this demographic have been developed.

Both McConnell and Imai feel that they have only scratched the surface and that further research will build on the foundation set by the benchmarking initiative—providing fresh perspectives on learning, teaching, and living.

#### RESEARCHERS:

Shelley McConnell, ESL Instructor

Hana Imai, Program Coordinator

#### **DEPARTMENT:**

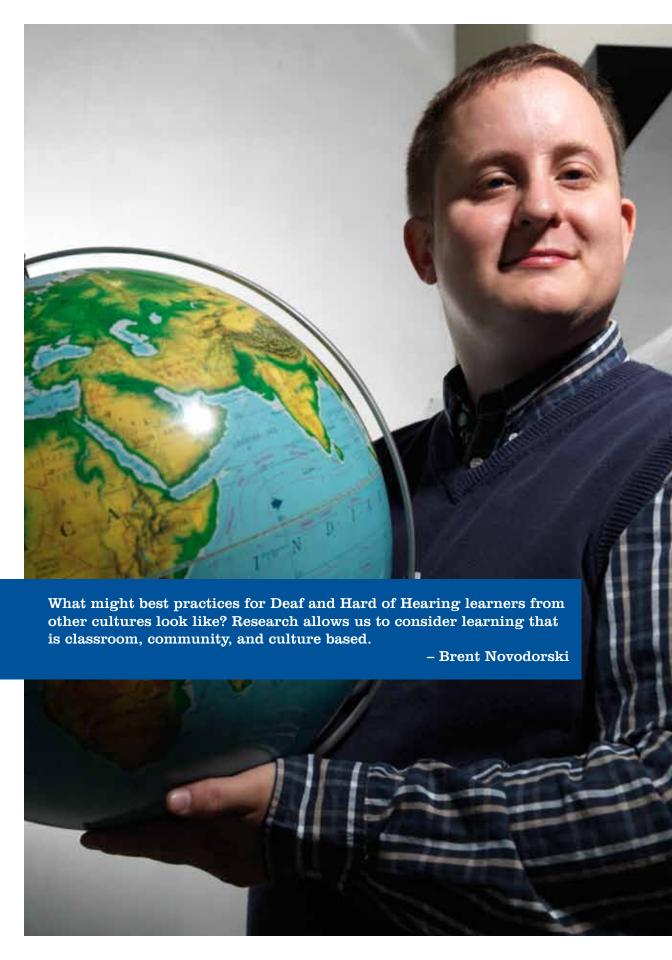
ESL & Languages Department

#### PROJECT:

Benchmarking Initiative

Research is a huge part of change. It makes you think more critically about the 'whys and hows' of what we do. This project provides evidence that proves the need for change.

- Hana Imai



### Not Just Ordinary Hand Tools

Deaf and Hard of Hearing (DHH) learners from different parts of the world bring a unique and challenging complexity to teaching strategies and the selection of appropriate teaching materials. These learners have diverse literacy backgrounds ranging from little language acquisition of sign language or print language to multilingual learners.

As an educator and a member of the Deaf community, Novodvorski, wanted to better understand how these particular learners experienced the classroom. Conducted in two phases, the research project was begun by first collecting effective teaching approaches and tools from literacy practitioners and researchers in Deaf education across the country. Learners-led pilot sessions tested teaching approaches and tools and provided valuable feedback. Research was funded by BVC, Trico Homes, and Calgary Learns.

Through his research, Novodvorski learned learning American Sign Language (ASL) and English equate to knowing more two languages: it includes learning about the values of Deaf and non-Deaf culture. Learners participating in the research project reported that they found it a very rewarding and enriching experience, helping them to appreciate themselves as part of a language community, not as people somehow separate from the larger world.

As for the researcher, Novodvorski has found that this research project has impacted his ability to evaluate and understand the purposes behind teaching approaches and tools. He, along with other colleagues, is now able to build on the knowledge gleaned to explore and expand teaching methods, strategies, and selection of tools.

#### RESEARCHER:

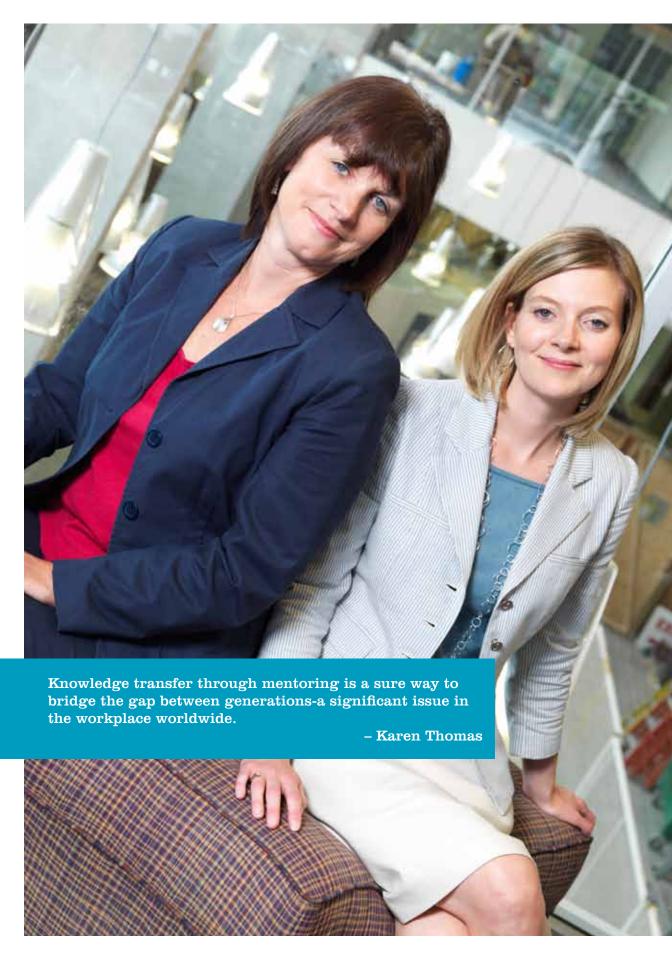
Brent Novodvorski, Instructor

#### **DEPARTMENT:**

Academic Foundations

#### PROJECT:

Effective Teaching Approaches and Tools for Immigrant Deaf and Hard of Hearing Adults in ASL-English Bilingual and Bicultural Literacy Programs: A practitioner research project for practical results



### **Bridging the Gap**

Today's workplace is filled with tech-savvy Millennials/Gen Ys (born between 1980 and the mid 90s) working alongside Baby Boomers (born between 1946 and 1964). To put it mildly, their work styles differ significantly.

It has long been understood that generational perspectives influence values, but the impact of those varying perspectives and ensuing stereotypes in the workplace is a fairly new area of research.

As a result of personal experience and professional interest, Charissa Braun and Karen Thomas—Human Resource professionals at the College—are pursuing a Reverse Mentoring Applied Research project to further assess the interactions between these two specific groups. Rather than the traditional model of the older employee mentoring the younger, Braun and Thomas switched things up. The hypothesis and anticipated outcome are that through this research, the Boomer generation will receive hands-on training in new technologies, while the Millennials will develop mentoring skills early on in their careers rather than later, as is the norm currently. Another key expected benefit from the research is an increased level of commitment to the organization, resulting in increased staff retention.

Braun and Thomas believe that the ensuing research outcomes will have the potential to provide a foundation for future mentoring programs and that this research endeavour will demonstrate the commitment of every department to building applied research at Bow Valley College.

#### **RESEARCHERS:**

Charissa Braun, HR Consultant Karen Thomas, HR Consultant

#### DEPARTMENT:

**Human Resources** 

#### PROJECT:

Bridging the Technology Gap: A Cross-Generational Mentoring Project

Research is no longer a theoretical, text-based concept to me. This project brought research to life --with everyday applications applied directly to our work in the human resource field.

- Charissa Braun



The research will allow me the opportunity to explore how students from diverse cultural backgrounds interpret and experience mind-body awareness. These insights will inform my future work with students who struggle in their learning due to past trauma.

– Susannah Horgan

# Living and Learning, Beyond Trauma

The experience of trauma can significantly exacerbate the stresses and strains of daily life. For some Bow Valley College students, past trauma affects their experiences as learners.

Susannah Horgan will inquire into the learner experience with an eye to effectuating some positive change. By gathering stories and personal reflections as data she hopes to capture the complexities and nuances of student experiences.

With a research project design that allows for participant input and learning throughout, Horgan hopes learners will become more aware of their experience and the ways in which they can improve it through simple practices of daily awareness and self-care. Ultimately, the research findings may be translated into a format or program, such as ongoing workshops, that could benefit a larger number of Bow Valley College learners over time.

Horgan envisions the process as enriching her daily work and practice probably in ways that she is not yet aware. Her past experience of conducting research has taught her that the outcomes can surprise us. Therefore, it is important to approach the entire exercise as a learning process in itself, rather than to focus on expected outcomes. In the spirit of mindfulness, she will defer future research plans and focus on being present to the project and participants she is working with now.

#### RESEARCHER:

Susannah Horgan, Education Counsellor

#### DEPARTMENT:

Client Services - Counselling

#### PROJECT:

Teaching Mindfulness to Survivors of Violence: A Strategy for Student Health and Success



### Full-Circle Learning

Tradition, culture, community. Educational programs and curriculum for Aboriginal learners must incorporate a full-circle approach that embraces the spirit of the Aboriginal way in order for Aboriginal learners to thrive. Both have been in short supply.

Becky Kelley has been a passionate leader provincially and federally in the ongoing quest to bring social justice to issues relating to children, families, communities, policy, and advocacy. As a program coordinator with a focus on early learning and child care, Kelley has led in the development of highly successful programs for Aboriginal students. To ensure that one success could transfer to future programs, she looked to research.

Using a conceptual framework developed by Dr. Colleen Kawalilak, Dr. Rena Shimoni, and Gail Thauberger, Kelley's research project pilots and evaluates a new program based on the concept of the "co-creation of curriculum." This project will document the processes of engaging students and communities in the "co-creation" and result in a guidebook for future programs.

Key to Kelley's project is formalizing the voice of learners and their communities and making sure that their beliefs, cultures, and ways of doing and knowing, are embedded in the curriculum. Kelley's commitment to giving voice to others is a gift passed on by her mother, one of the first women professors of Archaeology. Her mother taught her many things – but listening – truly listening, and giving true voice to what she hears, was the most important lesson.

Bow Valley College Aboriginal learners making use of this co-created curriculum will not only meet the requirements of the occupation, but also have a unique knowledge of early learning relevant to their culture.

#### **RESEARCHERS:**

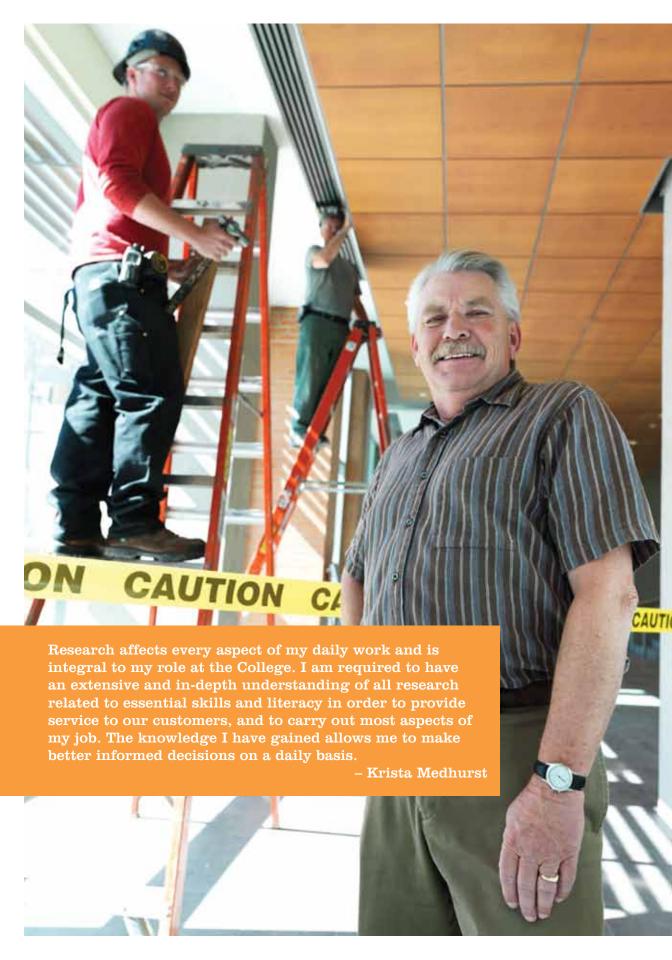
Becky Kelley, Program Coordinator

#### DEPARTMENT:

Health & Community Care

#### PROJECT:

Co-creating Culturally Meaningful Early Learning and Child Care Curriculum



## Pioneering in Applied Research

Krista Medhurst finds TOWES research related to literacy very interesting because literacy permeates every aspect of daily life and improving literacy can lead to substantial social and economic growth. She believes the products and services we develop as a result of our research have had a positive impact on people.

Medhust has been involved in a number of research projects over the past several years - all related to adult literacy and essential skills. Much of TOWES work with corporate clients involves workforce analysis, such as examining the relationships between literacy and safety, and productivity. In addition, the department has also completed a substantial amount of research in product development and commercialization activities. This research tends to focus on testing the effectiveness of different innovative approaches/models for improving literacy.

The researchers who were involved with the International Adult Literacy Survey have influenced Medhurst's research. What she finds most interesting about this work is that her group has been able to translate large-scale international findings on literacy into meaningful and applicable information that has informed practice and policy. The TOEWS team always endeavours to embed their research with questions that will result in meaningful findings used to inform practice.

The TOWES products and services that have been developed as a result of applied research impact students and learners in a number of ways. The tools and resources help learners improve their likelihood of success. The learners are from a across broad spectrum such as immigrants, First Nations', mature workers, and those with limited formal education. TOWES helps improve their labour market and learning outcomes by improving their essential skills. As well, TOWES assists rural, remote, and northern communities. The research has led to the development of several online, distance delivery models, as well as region-appropriate learning materials and assessments for improving essential skills.

No wonder TOWES is one of BVC's major success stories and an example of how applied research can be commercialized for national and internal use.

#### RESEARCHER:

Krista Medhurst, Project Coordinator

Conrad Murphy, Business Leader, Business Development, Workplace Learning Services

#### **DEPARTMENT:**

Workplace Learning Services

#### PROJECT:

Test of Workplace Essential Skills (TOWES)



Participating in applied research at Bow Valley College has taught me the value of engaging others. Colleagues, business, government, organizations, and communities throughout the province, as well as other post-secondary institutions, have added a wealth of knowledge and given tremendous support.

- Dr. Doug Scotney

### Golden Years of Work

Mature workers are a growing force to be reckoned with in today's workforce. Dr. Doug Scotney, a mature worker himself, decided to find out just what this group might need from their employers in order to make a successful transition into a new multigenerational world of work.

Scotney, influenced by the work of Malcolm Knowles and his principles of adult learning, has relied on research findings to guide decisions in post-secondary education. In his current applied research study related to mature workers, Scotney feels strongly that the entire College community benefits from such projects. Funded by Alberta Employment and Immigration, the study will provide relevant information to consider for implementation, or adaptation of programs, to make them accessible to diverse populations, including mature workers.

By becoming more knowledgeable about the needs of older workers and the dynamics of a multigenerational workforce, Scotney has seen his own practice change. He believes that this research will result in new or adapted programs and support services related to this population. The recommendations may also lead to policy changes in organizations.

And it doesn't end there. Looking to address a need raised in the initial applied research project, Scotney and the Office of Applied Research and Innovation are already looking into funding opportunities to conduct a subsequent stage of this research. This next phase may be a pilot project, in partnership with a major employer, to design and implement training specifically for mature workers related to transitions within their careers.

Additional research projects which Scotney coordinates include the two projects related to alternative learning, in collaboration with the Learning Resource Services, Enrolment and Learner Services, and a number of other colleges throughout Alberta. These studies are funded through grants obtained by the Office of Applied Research and Innovation last year.

#### RESEARCHER:

Dr. Doug Scotney, Project Development Consultant

#### DEPARTMENT:

Office of Applied Research and Innovation

#### PROJECT:

Facilitating the Retention and/or Re-entry of Mature Workers in the Workplace: An exploratory study to understand the training and support needs of employers and workers

### **On-going Research**

For some Bow Valley College staff members, research is a part of their daily work. Its impact is far reaching and feeds into the decision-making process and development of key College publications and documents such as the Business Plan.

#### Sousan Rollans

COORDINATOR OF INSTITUTIONAL ANALYSIS Sousan Rollans is BVC's Coordinator of Institutional Analysis. Her research focuses on post-secondary education and encourages the use of data in decision making within the College. Her research includes systematic collection of information across the College including applicants, learners, graduates, courses, grades, programs, staff, space, and finance. A project like the "Learner Profile" is designed to meet the strategic goals of College stakeholders by measuring Access, Quality and Affordability and describing trends of activities across programs through a set of reliable key performance measures.

#### Rob Black TITLE?

Rob Black is one of Bow Valley College's veteran researchers. With a background in psychology with a focus on measurement and evaluation, Black has sought to understand the factors that affect student performance. By systematically gathering and analyzing data that describes students, Rob has helped BVC make decisions about strategies for remediation, entrance requirements, and other key performance issues. Rob's research this year is a retrospective of the past five years of applicants. Results of the study will inform decisions relating to recruitment, retention, and student satisfaction.

### Aggie Legaspi EVALUATION FACILITATOR,

LEARNING RESOURCE SERVICES

As the Evaluation Facilitator in The Evaluation Services of the LRS, Legaspi usually looks into: assessments of courses and program purpose, content, and delivery; resources; instruction; preparedness for the workforce; and, actual job performance from the perspective of current learners, graduates, facilitators, staff, and employers. Discussions with department representatives help determine the information that departments need to make informed decisions. Evaluation Services then works with departments to plan the steps involved in evaluation. Evaluation Services is able to contribute to a culture of evidence in BVC through collaborative planning and execution of all the work with the departments. Legaspi's methods of working with departments provide much humour and allow departments to look program evaluation through fresh eyes. He says his approach combines the skills of everyone from Captain Janeway to Dr. Seuss, and from Dagny Taggart to Calvin and Hobbes.

### Grant Recipients 2008-2010

RESEARCHER	PROJECT TITLE	DEPARTMENT
Arif Ansari	Essential skills and testing of workplace and essential skills for enabling student transitions	TOWES
Charissa Braun & Karen Thomas	Bridging the technology gap: A cross-generational mentoring study	HR
Susannah Horgan	Teaching mindfulness to survivors of violence: A strategy for student health and success	CSS
Karen Feige	Best practices in the delivery of innovative services to alternative delivery learners	LRS
Becky Kelley	Co-creating culturally meaningful early learning and child care curriculum	HCC
Glenda Kittler	Effective strategies for vocabulary development for adult basic education learners	AF
Kakoli Mitra	Trends in employment of educated foreign qualified immigrant woman	HR
Val Millar	The benefit of a reading circle on ESL Literacy instructors	ESL
Brent Novodvorski	Effective teaching approaches and tools for Immigrant Deaf and Hard of Hearing Adults in ASL-English Bilingual and Bicultural Literacy programs: Phase II	AF
Linda O'Donoghue	An investigation of college practices regarding the Reggio Emilia philosophy	HCC
Murray Ronaghan Meeting student needs: Student success in the online environment		AF

### Grants Received by OARI in 2009 (Proposals Granted)

SUBMITTED BY	PROJECT NAME	FUNDING SOURCE	AMOUNT
BVC (BIT) Marriott Hotel Bethany care Society	Facilitating The Retention And/or Re-Entry Of Mature Workers In The Workplace: An Exploratory Study To Understand	Alberta Employment, Immigration & Industry	\$78,400
BVC (Con Ed)	The Role Of Continuing Education In Supporting Mature Workers In The Workforce	CAUCE	\$3,500
BVC (AcFound)	An Annotated Bibliography on Best Practices for Late Entry Learners	Knowledge Exchange	\$5,000
BVC (LRS), Chinook Consortium, eCampusAlberta, NorQuest, NAIT	Best Practices in Supporting Alternative Learners	Innovation Fund	\$353,500
BVC(OARI); BVC (BIT)	Sustainability	Innovation Fund	\$80,000
BVC (AcFound) Leaders in FL	Becoming an authentic centre of excellence for foundational learning	AACTI	\$15,000
BVC(LRS); NorQuest, Red Deer College; Mount Royal College; MRC;Northern Lakes; Olds College; Portage	Meeting the needs of diverse students engaging in E-learning	eCampus Alberta	\$288,650

