Swift and revolutionary advances in information technology have changed the way individuals everywhere access resources. Ideas, goods and services are now exchanged instantaneously with the help of the internet from one person to another. These intersections are what we think of as markets. Markets are no longer a place, or time limited by political boundaries, language, or stable custom. Together these changes have lead to what are now referred to as globalization, the global market and the new economy.

Opportunities to learn about globalization, the global market and the new economy are important for us all, especially for young people. Work-integrated learning can provide an invaluable vehicle for this learning by providing students with an opportunity to both examine and experience the global context first hand.

New Generations of Global Entrepreneurs was conceived by Dr. Christopher Pratt and Jimmie Cochran Pratt, MPA in 2000. On February 12-13, 2004 Dr. Pratt, a globalscot (https://www.globalscot.com/public/index.aspx), and then Dean of Career Education at Columbia University introduced the program to the Employability Partnership including Scottish Enterprise Dunbartonshire who were on a learning journey to New York City. During those meetings Dr. Pratt and Charles Spinosa of Vision Consulting proposed the program model which was subsequently implemented successfully from June 19 – August 12, 2005 in Dunbartonshire and Glasgow, Scotland.

Globalization and Global Citizenship

At the heart of the discussion about globalization is the notion of movement beyond international relations as a result of the increasing integration of economic and social systems across borders, largely through technology, to create a single interdependent organic world or global system (Albrow, 1997; Freidman 1999; Giddens, 1990; The World Bank, 2005).

In the new single interdependent organic world or global system states are not only more interdependent, but also increasingly dependent on the global society. Citizenship which has been a function of states is now transformed. Rather than being participants or holding rights, individuals now create their global citizenship by daily actions taking responsibility locally for the global society believing their life’s work can make a difference (Albrow, 1997; Andrzejewski & Alessio, 1998-1999; Mostyn, 2005; Oxfam, 2005; Pratt, 2005).

The University of British Columbia (UBC), Global Citizenship Project, (Lyakhovetska, 2004, p. 13-14, 34) states, global citizens are “lifelong learners who see global citizenship not as a goal but as a process, a journey of enlightenment, improvement and discovery leading to the betterment of individuals, communities, nations and the world.” The UBC project found that “global citizenship also involved realizing that you have something to give; sharing resources, knowledge and information; taking ownership of problems; building relation-
ships based on trust and respect; applying your education to something useful in the world; recognizing the differences that exist and finding similarities; having skills to be successful in life and work; and bringing the world together.” UBC participants suggested that,

Global citizenship should include action-oriented, interdisciplinary courses and programs that are relevant to real life and personal experiences. They saw the need to have courses in every faculty that expand students’ knowledge about the world and promote international understanding. Such courses would develop understanding of local issues in the global context; develop understanding of issues in historical and societal contexts; develop analytical skills, critical thinking skills and intercultural communication skills; involve community service components and research components; and employ participatory and experiential models of learning; combine formal and informal learning.

Work-integrated learning is known to offer a variety of important outcomes for students, employers, higher education and society. Common among the benefits to all constituents is that work-integrated learning helps develop mature, productive young people with a greater sense of clarity about themselves and their role in their community and in society. Outcomes of cooperative education were identified by Wilson and Lyons in Work-Study College Programs: Appraisal and Report of the Study of Cooperative Education (Wilson & Lyons, 1961), the first national study in the field. Their research examined major aspects of cooperative education and compared co-op students and graduates with non-co-op students and graduates. The study included over 7,000 students at 32 institutions. Wilson and Lyons found outcomes for students in cooperative education to include that students had increased sensitivity to community needs. Numerous studies (Brightman, 1973; Brown, 1976; Cohen, 1978; Cornelius, 1978; Keith, 1974; Mosbacker, 1957, Mueller, 1992, Peart, 1974; Pratt, 1993; Smith, 1944; Wilson & Lyons, 1961; Wilson, 1974) have shown that cooperative education contributed to students' personal growth and development of social skills; increased understanding of interpersonal relationships in a work environment; positive attitudes toward education; and important gains in career awareness and self-confidence. According to the National Commission for Cooperative Education (2005), work-integrated learning programs are designed to develop productive and responsible citizenship skills.

**Economic Development in the Global Market**

In the global market, as much as before, an important key to a nation’s health is economic development, increasing productivity resulting in growth of Gross National Product (GNP). Productivity can increase as a result of new technology and better educated people working more efficiently and effectively. However, in the global market economic development cannot be achieved in isolation. A nation’s development is globally intertwined with that of all nations.

New technology is available, even ubiquitous in many parts of the world, but an educated workforce may be limited by preparation and certainly by number. Population growth and immigration of talented, educable and productive workers can be hit or miss. Sustainable gains in GNP increasingly require workers in all walks of life to be entrepreneurial reflecting an intense sense of personal investment in a vibrant, educated and engaged workforce.

New perspectives on entrepreneurship, enterprise leadership, and global citizenship are also important competencies which each of us needs to demonstrate in the global market. It has been said that, “At the heart of any economic theory that sees entrepreneurship as central to the creation and growth of new ventures there is an assumption that individuals are prepared and motivated to start new firms” (Casson, 1982; Kirzner, 1973; Knight, 1921; Schumpeter, 1934, cited by Lucas & Cooper, 2005). However, being entrepreneurial, that is viewing the world in such a way as to observe anomalies and see them as opportunities to contribute to the communities in which we live - the ability to see problems, ask the right questions, find the best answers, and make offers to help solve them - will be highly valued in creating and growing new ventures and within existing ventures in any career (Broyd, 2003; Flores & Gray, 2000; Pratt, 2005; Spinosa, Flores & Dreyfus, 1997). Young people in every walk of life need to learn to scan the global environment regularly, and reflect carefully on what they see regardless of their work and in any kind of organization. They need to develop and explore entrepreneurial sides of their character whether they go into the arts, science, commerce, government, social service, or education. They must learn to think beyond the immediate horizons (Flores & Gray, 2000; Pratt, 2005).

For some nations sustainable growth is complicated by having high graduation rates, but not enough economic development to keep those graduates productively employed. In some cases there may be an excellent research base, but too often the commercial development of that research takes place elsewhere in
the world. Especially in a global market, the momentum of human capital rests with each nation and community, individually and collectively. A vibrant, engaged and educated workforce must come first from among a nation’s own population. But in a global society there must also be room for people from outside a country to contribute and succeed in a new country or any country where they seek to study, work and live. A true strength in the global market and the new economy will be the ability to make room for new people including returning diasporas, and those with something to offer and willing to relocate to a new place for new opportunities.

In some countries there may be a predominant expectation that government will provide for all one needs, while in other nations people may choose more often to invest personally in their future. Outstanding education can attract new workers and provide a vehicle to success in every field. Preparation for and access to the best education in the world needs to be a mantra for all. To avoid a culture of entitlement or dependency, opportunities have to come predominantly from private sector investment, not solely from the public sector. Educational planning, policy and funding should be coordinated with economic development. Education should engage students, teachers, families, employers, government, and even churches together entrepreneurially.

New Generations of Global Entrepreneurs

The connection between citizenship, education and work must be clear to all parties. Work-integrated learning can provide this understanding. Outcomes of work-integrated learning for participating students include a meaningful perspective on their lives gained from the experience. These experiences shed light on how they fit into the world and the behaviors needed to succeed in that world (Pratt, 1993). Early engagement by students in work-integrated learning along with courses in economics, philosophy, and history, can lead students to an understanding of what they can do for themselves, for their community, and foster their independent desire to do it. Students need to see that opportunities exist for them to contribute and that life-long learning, a key to being productive, is a personal investment in their future. In designing work-integrated learning programs we have the opportunity to help craft the future. By providing opportunities that inform, that stimulate the values of global citizenship, we can help students form their perceptions of what both they and their future can be.

In Scotland, the devolved government and the newest parliament in one of the oldest democracies, have strategically developed numerous plans and programs including Smart Successful Scotland, Determined to Succeed, Tomorrow’s Leaders and Fresh Talent designed to help the domestic workforce become more productive and to attract productive people to live and work in Scotland. Work-integrated learning through international internships in economic and human resource development has been shown to be significantly contribute to developing both the domestic workforce and attracting those coming to join them to make a difference as global citizens.

New Generations of Global Entrepreneurs is a unique sustainable international economic development and internship program focused on emerging and challenged economic locations. Working with economic development agencies the program engages international and local university students and local high school pupils in consulting teams for owners of local small and medium enterprises to:

- build global entrepreneurial, enterprise leadership, and citizenship knowledge, skills and capacity,
- and facilitate short- and long-term community and economic development through working together on solving real-world business problems, stimulating new entrepreneurial activity and initiatives, and creating a more entrepreneurial and economically vibrant culture in both the for-profit and not-for-profit sectors.

The west of Scotland was chosen as the location to begin the program essentially for two reasons. As Scottish Americans the authors’ families came from the area and their frequent visits to the region allowed them familiarity, knowledge, insights and a sense of responsibility. Dunbartonshire has been economically depressed since World War II when 400 years of the world’s most productive ship building was destroyed by enemy bombing in the Battle for Britain. Subsequently, high unemployment and public dependency have led to generations of “workless” and fragmented families. The anomaly of such formerly productive people living in welfare presented a clear opportunity to contribute to these communities.

In the summer of 2005, the program brought together 48 young people, 16 third-year students each from Columbia University, the University of Glasgow, and 16 third-year pupils, from high schools in Dunbartonshire for an eight-week work-integrated learning experience. The young people were diverse, both in backgrounds including the US, Scotland, China, Russia, Philippines, Canada, England, and Ireland, and in fields of study ranging from engineering, science, humanities, business, social sciences and the arts.

The experience included:

1. An innovative, intensive and interactive two-week instructional component designed and delivered at the University of Glasgow. This instruction helped students learn fundamental
2. A six-week work engagement where students organized in cross-cultural teams of six served as consultants to 16 owners of small to medium sized enterprises (SMEs) helping the SME identify and capitalize on strategic opportunities for entrepreneurial growth. Each team was responsible for two of 16 SME projects – see http://www.scottish-enterprise.com/sedotcom_home/about_se/local_enterprise_companies/dunbartonshire/edge/edge-immersion-programme.htm

3. Each team also developed an enterprise plan for a new independent start-up venture

4. An exciting cultural program especially designed to help the young people discover both historic and contemporary Scotland was offered to participants throughout the eight-week program. Events included a guided tour by a Minister of the Scottish Parliament of the new Scottish Parliament, a reception with the Lord Provost in the City Chambers of Glasgow, the Balloch Highland Games, Edinburgh and Urquhart Castle, Loch Lomond and Loch Ness, outdoor team building, company visits, learning reviews, an Awards Dinner and Ceilidh – see http://www.scottish-enterprise.com/sedotcom_home/edge-holding/edge/edge-2005/edge-programme-photo-gallery.htm#18-june

5. Participants were provided a learning stipend, university housing, a mobile phone, bus pass, breakfast and lunch during the two-week instructional period, and, for international university students, assistance with round-trip transportation to Scotland

The Work-integrated Learning Projects

The students were placed in eight teams of six – with two students each from Columbia, Glasgow, and Dunbartonshire on each team – and following important team-building activities each team was matched with two Dunbartonshire SMEs that were pre-screened and approved by Scottish Enterprise Dunbartonshire’s Business Gateway Center as having documented strategic opportunities for entrepreneurial growth. Each team was paired with two SMEs for six weeks. Each SME presented their student team with a project brief. The students analyzed and researched the projects, prepared extensive written reports and made presentations of recommendations both in the Dunbartonshire community and back at their home institutions about their findings, accomplishments, and learning. In many cases the recommendations were implemented by the SMEs and have resulted in significant growth.

SMEs included manufacturing, information and communication technology, mobile phone recycling, environmental reclamation services, women’s fashions, marinas, a funeral service and training. SME projects included:

- Research the US chain driven motorcycle sector for an oiling device manufacture;
- Market research for introducing a new product in the food packaging industry;
- Feasibility of hotel expansion;
- Market research in China for a local ship consultancy firm;
- Identification of potential acquisitions in European markets;
- Feasibility for creation of subsidiary to deliver training packages;
- Market research on the customer’s perception of the existing brand to inform marketing strategy;
- Strategy for generating additional business for two restaurants within a well-known local hotel;
- Market research for call centre facilities to deliver disaster recovery plans; and
- Productivity improvements through new technology for manufacturing company.

Outcomes for Students

Two independent program assessments were contracted to evaluate the program. The first, The Impact of the Encouraging Dynamic Global Entrepreneurs (EDGE) Programme on Participants (2005) by Sarah Cooper of the Hunter Centre for Entrepreneurship at the University of Strathclyde, Glasgow, Scotland assessed outcomes for students, while the second, the Review of the Encouraging Dynamic Global Entrepreneurs Programme (2005) by GEN Consulting and O’Herlihy and Co. assessed outcomes for the SMEs. Assessments include longitudinal components.

Participating students and pupils reported realizing they have something to give as a result of sharing knowledge and resources, taking responsibility for problems, building relationships with respect and trust, applying their education to work useful to the world, recognizing similarities and differences of their diversity to achieve shared goals, developing new skills, and going forward with a new personal and
global network of friends and colleagues with whom they can continue to work.

Cooper reported outcomes for participating young people included increased knowledge in key elements of entrepreneurship and enterprise leadership including sense of capability, desire and confidence for entrepreneurship and innovative behavior. Pre-tests and post-tests, both initial and six month follow-up, comparisons included positive shifts in areas associated with skills and abilities important to entrepreneurship: negotiating successfully with others not sharing your view; leading a group with members who disagree; and motivating others to work together all increased, as did improvising a speech on the spur of the moment; clearly describe a problem in writing and networking with new people to find help and advice.

Students and pupils were also stimulated to look more positively towards business start-up and work within small ventures as potential career paths and brought forward slightly the time that they foresee themselves taking up employment in such enterprises. Participants reported increased ability to recognize a good opportunity when seeing it; understand what it takes to start a business; ability to start a business if desired; join a start-up company in the next few years, given the opportunity; and that the idea of high risk/high pay-off ventures is appealing.

**Outcomes for SMEs**

According to GEN Consulting and O’Herlihy and Co. participating SME owners reported the program to be a productive business development experience with positive outcomes including becoming more entrepreneurial and increasing sales, savings, profit, and employment.

Outcomes assessments for SMEs were conducted initially at the end of the program, six month later, and two year projections. Initial assessment found that five SME owners estimated the potential impact on sales and among these enterprises there was an expectation that an additional £700,000 of gross sales might be realized over the next two years; one SME estimated gross costs savings (over and above the perceived cost of the research) in the region of £400,000 over two years; and the six SMEs who were able to estimate the potential impact on employment suggested that around 60 new jobs might be created over the next two years.

Six month follow-up and projected outcomes for SMEs over two years found gross value added of more than £500,000 to more than £1.4 million and more than £18 produced for each £1 spent on the program. SMEs experienced increased capacity to address business opportunities, fresh independent perspective on business (particularly from young people), access to contacts and specific skills sets not currently available in-house, detailed reports reflecting specific recommendations for action, increased knowledge of market opportunities, increased knowledge of competition, enhanced image, and diversification of customer base.

**Implications**

Not surprisingly many of these outcomes for both students and enterprises are akin to those found in the best work-integrated learning programs. Work-integrated learning is known to offer a variety of important outcomes for students, employers, higher education and society. Common among the benefits to all constituents is that work-integrated learning helps develop mature, productive young people with a greater sense of clarity about themselves and their role in society. In the rapidly changing globalized world in which young people today will live and work, these are invaluable traits. Creative, entrepreneurial approaches to international work-integrated learning are one of the few ways to ensure global citizenship.

For years universities and colleges have worked to bring international students to their campuses for a variety of reasons; however these opportunities are increasingly difficult. Study abroad programs exist on most campuses and serve many students, but they provide only single dimensional experiences. Work-integrated learning can provide a rich multidimensional immersion in the global culture. It can also provide high school pupils, university students and enterprise owners with an invaluable intergenerational learning experience that can be life changing. The diversity of the participants in unfamiliar settings goes far to provide hands on learning solving real world problems with people who are genuinely different from one another at tasks that are new to them and in a global context they may not otherwise know.

Sustainable innovation and economic development may only be possible if driven by leaders who are aware of the complexities, sensitivities, opportunities and responsibilities presented by the increasingly global society. To develop such future leaders who will drive positive societal change, university and high school students internationally should have the opportunity to learn about and to develop skills in entrepreneurship, enterprise, and leadership in a global context. These skills are best learned and developed through work-integrated learning, a mix of theory and practice that can produce positive transformative learning in the student as well as tangible positive outcomes for the enterprise through the application and practice learned.

In Scotland this project aimed to promote and develop an enterprise culture among young people by exposing them to local entrepreneurs and immersing
them in the work of local enterprises. The program demonstrated the viability of bringing together international university students, local high school students for an innovative education in entrepreneurship, enterprise leadership and global citizenship with the chance to apply what they learn by working closely with local SMEs to improve an economically challenged community and an understanding of how to carry out effective entrepreneurial initiatives in an international cross-cultural context.

In 2006 and 2007 the program was expanded with two iterations in Scotland at Dunbartonshire with the University of Glasgow, and in the City of Glasgow with Glasgow Caledonian University involving 32 local enterprise owners, 32 local high school pupils and 64 international university students from Simon Fraser University, British Columbia, and the University of Waterloo, Ontario, Canada; Columbia University, New York; and the University of Warsaw, Poland. Scottish institutions are also considering strategies to increase the size and scope of the program in multiple locations across the country.

New Generations of Global Entrepreneurs continues seeking partnerships for program iterations in the other parts of the world. The goal is to develop further host sites in countries on each continent where again students will come from a variety of international institutions. In each country where programs like this might be implemented it will be important to focus on the national needs of the host country. The primary focus in Scotland was financial growth and development among small to medium sized enterprises. In contrast, for Eastern Europe the problem is the annual loss of educated young people moving to Western Europe. The primary focus in Poland will be on creating opportunities to keep the local workforce home and working at growing the local economy.

The program is also an example of the contributions diaspora can make, such as globalscots in Scotland, and the potential for similar contributions in other nations.

Conclusion
This type of learning does not simply happen. It has to be purposely designed, delivered, assessed, financed, encouraged and promoted. Educators, corporations, governments, foundations and enterprise owners should form public-private partnerships to stimulate and encourage consideration of ways to become more global and entrepreneurial in work-integrated learning.

Programs like this present significant opportunities for public-private partnerships in both economic and human development to make a global impact on stimulating entrepreneurship, business education, leadership and enterprise development. The program model not only addresses a nation’s priorities such as enterprise in Scotland, but also the program provides a model to address priorities in a variety of fields including the life sciences, technology, education, social services, and the arts. In this way the program is flexible and adaptable to address national, international and global priorities through the developing multinational constellation.

These programs demonstrate that international collaboration can help new generations of students, enterprise owners, and community leaders learn to think and act more entrepreneurially. When carried out under a global lens on local issues, this collaboration can result in both increased economic growth and employment.

A shared goal might be to help new generations learn to live, study, and work collaboratively in intergenerational settings; to understand the forces at play in the global market and the new economy and their effect on the workplace, the workforce, and individual lives and careers, to become global citizens; to be entrepreneurial in both new and existing ventures; to work productively and contribute to nation building in a global context; and through their life’s work to make a difference in the world.

References


