A Case Study Investigation of the Learning Needs of the
Niagara Grape and Wine Community

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Abstract

The Niagara Grape and Wine Community (NGWC) is an industry that has undergone rapid change and expansion as a result of changes in governmental regulations and consumer preferences. As a result of these changes, the demands of the wine industry workforce have changed to reflect the need to implement new strategies and practices to remain viable and competitive. The influx of people into the community with little or no prior practical experience in grape growing (viticulture) or winemaking (oenology) has created a need for additional training and learning opportunities to meet workforce needs.

This case study investigated the learning needs of the members of this community and how these needs are currently being met. The barriers to, and the opportunities for, members acquiring new knowledge and developing skills were also explored. Participants were those involved in all levels of the industry and sectors (viticulture, processing, and retail), and their views on needs and suggestions for programs of study were collected. Through cross analyses of sectors, areas of common and unique interest were identified as well as formats for delivery. A common fundamental component was identified by all sectors – any program must have a significant applied component or demonstration of proficiency and should utilize members as peer instructors, mentors, and collaborators to generate a larger shared collective of knowledge.

Through the review of learning organizations, learning communities, communities of practices, and learning networks, the principles for the development of a Grape and Wine Learning Network to meet the learning needs of the NGWC outside of formal institutional or academic programs were developed. The roles and actions of members to make such a network successful are suggested.
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CHAPTER ONE: INTRODUCTION

This is a study of the Niagara Grape and Wine Community (NGWC) that focuses on the learning needs of the members in various sectors of the community. The NGWC is part of the larger Canadian industry. The overall Canadian grape and wine community is a geographically diverse community with a common bond of producing and marketing domestically produced grapes and wine in a local, national, and global economy. With its agricultural roots, the NGWC has relied upon traditional methods of information development and transfer for member education – mentoring, on the job training, and historical agricultural extension practices (Blackburn & Vist, 1984; Mitchell & Corby, 1984). The rapidly developing premium wine grape growing industry in Ontario and across Canada is relatively young (less than 25 years of commercial production) with knowledge based on local experiences when compared with its old world production areas (Europe) or its new world companions (New Zealand, Australia, South Africa, and the United States) which have more than 100 years of local experience to draw upon. For the purpose of this study, the NGWC will be investigated, with findings anticipated to be applicable to the larger Canadian industry.

The NGWC may be considered a microcosm of a New World wine industry. It has many similar issues to those of other regions. The agricultural workforce is aging with the highest median age of all occupations in the country (Statistics Canada, 2006) and more than 40% of this workforce being older than 55 years of age. Within the wine industry, many individuals are entering as a second career choice or changing from growing other agricultural commodities.
One of the dilemmas facing the wine industry with an aging workforce is a need for more skilled and knowledgeable labour. In 1993, shortages of both qualified individuals with the skills and experience that the industry needs and employers (wineries, vineyards, and related industries) that have the resources to train new employees or existing employees were identified (Luczkiw, Rutherford, Salvantis, & Varner, 2000). In the United States with an industry far larger than Canada, concerns exist about a skilled labour shortage in all aspects of the industry, and there is ongoing need for supplementation of training capacity as there are few university degree programs in viticulture and oenology (MKF Research, 2007).

Acquiring knowledge and skills in this industry can occur formally via institutional learning programs (university or college) or informally through direct employment and “learning on the job.” In terms of formal academic programs, Brock University has the only oenology (wine science) and viticulture (production of grapes) degree-granting program in Canada, and many of its graduates are finding employment internationally rather than domestically. This program has only been in existence since 1997 and has an annual enrolment of 12 to 15 students. There are a few Canadian colleges offering applied diploma programs in oenology and viticulture with the additional connection to tourism and culinary studies. Enrolment in those programs is limited, and the programs are not designed for those members who are already part of the general workforce as full time enrolment in the program is required. This limits access for those with full time employment, and these institutional programs are geared more to research or managerial positions rather than workforce development. The shortage of skilled and knowledgeable labour has been identified as a limiting factor for continued
expansion of the industry and efforts to improve grape and wine quality, especially in emerging regions (MKF Research, 2007).

Statement of the Problem

The problem is to assist members of the community to articulate and identify learning needs and skills in a way that would benefit and integrate the actions of the community as a whole. Many of the members of the emerging grape and wine industry in Canada and the NGWC as well as the newer production regions of the United States (MKF Research, 2007) have limited or no prior direct experience in production, processing, or retail of grapes and wine at the commercial level. Outside of formal institutional or academic programs of studies, there is a lack of a coordinated and responsive program of learning opportunities that is geared to the general NGWC workforce and reflective of the personal needs of the NGWC members at all levels. Understanding of the foundational principles of such a coordinated program or system of organized learning opportunities is required. It will need to address the barriers members face to gaining additional knowledge and reflect the interconnected nature of each sector within this industry as it grows and expands and competes in the local, national, and international economy. From this study, the foundations for a program are proposed that may be devised, tested, and implemented to meet the needs of the wine industry.

The approach of this study considers the members as actively engaged/employed in the industry. It also identifies a mechanism to provide educational opportunities outside of traditional full time academic enrolment at the community college or university program level. Success of a program of this nature would not only assist the
NGWC but could serve as a template for national and possibly cooperative international programs, especially in the United States.

This study attends to the diversity of the members and their interrelationships with other members of the community, one that is constantly evolving. With ever changing roles and responsibilities, it is essential to be aware of members’ learning needs and life dynamics in order to develop meaningful and sustainable, accessible, and relevant adult learning programs.

**Background of the Problem and Role of the Researcher**

Having personally been involved with this industry and community for more than 30 years as a science-based researcher, teacher, and consultant, I approached this study as an applied process. I sought to understand the learning needs of members who occupy the different sub groups with a desire to see if a non-institutional program of study could be established. There is need for a program that would meet the needs of a community/industry that is rapidly growing, yet predominantly is comprised of individuals that had no direct prior industry specific training or experience.

I am not an outsider but rather an insider with extensive exposure to the activities of the community being studied. During my tenure with the government as a specialist and actively as a consultant, I come into contact with individuals looking to become part of this community, yet they have limited or no direct experience in the grape and wine industry. A common query posed by these people was the search for courses or seminars to help them become more knowledgeable, yet the course and information would have to be available when they had time (often due to personal, employment, or other constraints). At the same time, I am being asked questions by those currently in the
NGWC about opportunities for additional training or learning situations that would help
them improve or enhance their current positions or make them eligible for employment or
advancement within the industry.

Personal and professional experience have led me to identify a gap in knowledge
development and transfer to members with grape and wine communities locally,
nationally, and internationally. This personal observation of such a gap has been
reinforced over time through discussions with colleagues of university and government
extension services across Canada, the United States, and overseas. Common questions
arose from colleagues regardless of geographic location – How can we reach more
people? How can we transfer information with limited budget and resources (professional
personnel)? How can we coordinate and collaborate to develop non-institutional
programs or courses that may be delivered by others? Is there a way of creating a
common basic program that could be modified for local issues? How can we ensure
integrity (both academic and professional) if programs/courses are delivered by non-
institutional professionals?

All of these questions have been posed and restated to me by colleagues since my
entry to the world of grapes and wine in the late 1970s and continue to recur today. By
having this experience and professional connection, I bring a lens of familiarity with
some of the conflicts and issues facing the community, but I also admit at the initiation of
the study to a lack of full understanding of the personal barriers and motivators to
member engagement in active education about their industry.
Purpose of the Study

The purpose of this study is to understand what parameters are necessary or exist to create a viable and effective learning continuum for the NGWC. Through an analysis and appreciation of the diversity of members’ activities and needs, the study looks at the possible creation of an organized learning network based upon sustainable communities of learning and local knowledge clusters (Poell, Chivers, Van der Krogt, & Wildemeersch, 2000; Van der Krogt, 1998; Wenger, 1998). This learning network would stimulate personal and professional development and enhance the attributes unique to the grape and wine community, and recognize the importance of social interaction and collaboration in reaching these goals.

This study utilized the participation of members of the industry to determine and direct the creation of any ongoing professional or personal development program. Such a program must be based upon direct industry input and consultation, taking into account the learning, mentoring, collaboration, and support that takes place between adult members, community colleges, universities, research institutes, and organizations. A variety of opportunities were reviewed with identified formats of information development and delivery and knowledge development processes suggested by members of the community. From this, expansion upon communities of practice (Wenger, 1998) and learning network theory (Van der Krogt, 1998) was identified for the development of a commodity-focused learning network that goes beyond the traditional method used in classrooms in colleges, universities, or formal academic environments.
The fundamental goal of the research is to investigate the learning needs of the members of each of the sectors that are combined in an interdependent industry. To address the goal of the research, a series of questions must be addressed:

1. What are the key knowledge and skills possessed by those active in the community or necessary for those seeking to enter the community?
2. What are the learning needs within each sector, and are there common needs across sectors?
3. What are the factors that enhance or limit learning opportunities?
4. What topics should be addressed to enhance the learning required for successful participation in the community?
5. What key features for a learning program design are critical to enhance learning opportunities and accessibility within and across sectors?

Background of the NGWC and Sectors

The NGWC is a diverse group of individuals in an interconnected industry involving three sectors (see Figure 1). Viticulture is considered the commercial cultivation of grapes known as primary production. Processing includes the making of wine from the crushing of grapes through the fermentation process to the packaging of wine for sale. Retail involves the sale of wine directly by the processor or via alternative routes such as government agencies or third party retailers (e.g., restaurants, wine bars, or consignment agents).

Within each sector there can be a further breakdown of member roles and activities based on job requirements, needs within individual businesses or organizations that are part of the larger community, and the skill sets possessed by members to perform
Figure 1. Sectors that comprise the Niagara Grape and Wine Community.
different activities. An explanation of member roles and activities will be discussed in Chapter 3.

**Theoretical Framework**

Agriculture has a long and storied history and association with informal education. Historically, on-site farm demonstrations were the primary mode of transfer of information and development of knowledge as few of the early farm groups were literate as they searched for new knowledge and skills (Blackburn & Vist, 1984). When looking at the agricultural community, many of the key features identified with adult education were practiced, such as utilizing personal experiences as a resource (Knowles, 1980, 1985), searching for practical understanding of the world in which we live (Lindeman, 1926), self-directed learning (Tough, 1979), and taking personal control of learning and the capacity to think critically (Brookfield, 1986, 1987).

Each of the above learning features, though not unique to agriculture, builds upon the constructivist approach to knowledge and skill development whereby individuals and groups build upon lived experiences of their own and their peers (Doolittle & Hicks, 2003). Agriculture in all parts of the world has developed, expanded, and improved by building not only upon new research and technology but also upon the experiences and knowledge of its predecessors locally and globally. With expansion of the trade routes over time, people moved and established grape and wine production in new areas and regions of the world. They brought with them prior experiences but needed to refine techniques and strategies to adapt to the new environments under which the grapes were to be grown and processed. The world wide grape and wine industry has a long history of collective knowledge generation interspersed with individual discoveries and transfer of
information, often through the movement of wine and other commodities as part of economic trade expeditions and exploration (Unwin, 1991).

**Defining the Concept of Community**

Community can be defined as a body of persons of common professional interests scattered throughout a larger society as well as a body of persons having common social, economic, and/or political interests (Kilpatrick, Barret, & Jones, 2003; Wenger, 1998).

The grape and wine industry in Niagara fits the concept of a community as the areas of production share common concerns economically and socially, and it is made of collections of individuals with common bonds of activity and intent. This community is primarily made up of adults for whom this is their profession and livelihood. The NGWC can be viewed as a microcosm of the national industry as the areas of production are scattered among the many municipalities that make up the Niagara region with the members linked by common bonds. A grape and wine community is comprised of many different sectors that are intimately interconnected as the success of each sector is reliant upon members of the community in the other sectors (see Figure 2).

This relationship is very fundamental where each sector is dependent upon the actions of the other sectors. For example, grapes must be economically produced under local climatic conditions. In turn, these grapes must be processed to create wine that is acceptable and desirable in the marketplace for retail to consumers. This marketing of wine must recognize that the wine produced reflects local capacity. Certain types of wine, although desired by retail and marketing, may not be locally produced as those grapes may not be successfully grown due to environmental conditions. This interconnection for success has led to the establishment of an informal network of linkages within and across
Figure 2. Inter-relationships of sectors’ needs.
organizations and members performing similar tasks or having common needs.

The development of casual or informal linkages or networks has enabled some members to develop mechanisms of support to help them solve problems or deal with unfamiliar situations. Members of a community or learning network of practice have extensive shared experience leading to extensive shared “know-how” which can allow for extensive circulation of knowledge. This suggests that multiple networks of practice can cut horizontally across vertically integrated organizations and extend knowledge beyond the confines of smaller communities to embrace the issues of a larger community with common bonds (Brown & Duguid, 1994; Lave & Wenger, 1991; Wenger, 1998). Despite the potential for members of the NGWC to be viewed as competitors, the opportunity to develop learning networks to enhance and broaden interaction among those within the community (across competitive organizations or businesses) may allow for greater collaborative activity and the development of collective solutions to common problems (Poell et al., 2000; Van der Krogt, 1998).

The grape and wine industry may also be viewed as a learning community versus a learning organization if one follows the concepts of Mitchell and Sackney (2001). In a learning organization, the desired outcomes of importance are the growth of the organization, productivity, efficiency, and effectiveness, whereas a learning community has a greater focus on the growth and development of the people (Castro Lazlo 2001; Kilpatrick et al., 2003; Mitchell & Sackney, 2001). The NGWC is not a singular organization but a collection of organizations and individuals with a common bond of producing grapes and wine in Niagara. Within the NGWC, learning often takes place in a social context whereby individuals and organizations share and develop knowledge
through collaboration and collective experiences. The members interact at group meetings or in casual environments (coffee shops, supply stores, restaurants, or promotional events) and use personal experience and peer communication to discuss, debate, and develop solutions to common problems. It is through these informal meetings and contacts that solutions to problems or situations evolve after using the application of prior knowledge gained through experience and reflection on prior actions and outcomes (Schön, 1987). The specific needs of the individuals and organizations will vary but this community has a common goal or bond – producing wine for sale.

**NGWC Workforce**

The total workforce employed in the grape and wine industry in Niagara (and in Canada) is not easily defined (Statistics Canada, 2003). Its members are people involved in viticulture, primary and secondary activities for processing (including product development), and primary and secondary activities in the retail sector via the sale of wine directly by wineries and licensed wine retail outlets operated by private or provincial entities.

The Niagara area produces approximately 90% of the grapes in Ontario used for making wine (Grape Growers of Ontario, 2009). Within Ontario, there are over 6,900 people employed in wine related jobs (processing through to retail) (KPMG, 2008). The Grape Growers of Ontario (2009) report over 3,900 jobs generated by the grape production sector. The industry in British Columbia is now producing comparable volumes of premium wine relative to Ontario (KPMG, 2008) but no specific figures of employment are published although it is expected to be similar to Ontario. Figures for British Columbia are estimated at 5,000 jobs for vineyard production through processing
and retail based on winery numbers and vineyard production area (British Columbia Wine Institute, 2008). Much smaller employment numbers are suggested for other production/processing/retail parts of Canada (Quebec, Nova Scotia, and New Brunswick), but these areas will add many more people to the potential outreach of this research initiative. It can be estimated that more than 15,000 people are directly involved with the grape and wine community across Canada. The majority of these people have not entered the industry with specific formal academic training in viticulture and oenology (the science of wine making) but from other disciplines and professions that may or may not have had directly transferable skills. Examples of these may be people coming from backgrounds in food processing; farmers who have changed production from another crop to grapes; or those involved in non related disciplines, such as banking, construction, education, or commerce.

Only as recently as 1997, has the industry had a post secondary program available (Brock University, Department of Biological Sciences) in Canada that would provide specific training in viticulture and oenology. Since that time, Niagara College in Ontario and Okanagan College in British Columbia have added post secondary diploma programs in oenology and viticulture. These programs are designed to provide an overview of the industry with exposure to general interest or specific applied skill programs. However, courses are presented as part of academic programs and may not fully reflect the additional situations or practices that may occur in a real life setting. The numbers of graduates are also limited due to program capacities of the respective institutions. Graduates of these programs are destined for managerial level or advanced research positions. As a result, most members working actively in the industry have learned "on
the job” and have gained knowledge through observations of employers, neighbours, or those who have been involved directly with the grape and wine business.

Following collaborative and adult learning principles and using the concepts of learning networks and communities of common practice, the experiences and resources of the existing community can be thought of as a non-institutional learning resource.

**Rationale**

This research will investigate learning needs and issues as identified by members of the NGWC. It will study the factors that impact upon the learning needs and identify current opportunities and barriers to learning opportunities. Through data collected from focus groups and interviews, the mechanisms to overcome these obstacles for personal and professional development will be identified. By providing unhindered access to an organized program of applied training and information, learning opportunities should become available for greater personal development and professional success. Enhancing access to courses or opportunities that are applied and highly practical versus theoretical or providing new programs or forums for peer interaction and sharing of knowledge should assist in the reduction of problems of local knowledge development because of limited access and resources.

In order to do this, it is critical to understand the needs of the members of each sector and the dynamics under which they choose or do not choose to pursue learning opportunities. Personal needs are rooted in culture, societal values, and expected norms of behaviour. People look to their peers and peer groups (community) for guidance and understanding (Lave & Wenger, 1991; Wenger, 1998). At the same time, individuals look within themselves to determine wants and needs to make their lives more meaningful.
McClelland (1995) points out that in organizations many types of intervention or training programs are implemented without undertaking a comprehensive review and result in the misdirection of activity and consumption of precious funds and resources without producing any tangible results. The identification of the learning needs of the NGWC can be viewed as an opportunity for personal and collective development.

Although formal academic programs related to the grape and wine industry are available at university and college levels in Canada, they are not easily accessed by current full time workers in the NGWC or those people wishing to become part of the NGWC but are employed elsewhere or have other personal or employment commitments that would restrict them from attending full time academic programs. Also, personal discussions with grape and wine industry university extension personnel across the United States from those areas where the grape and wine industry is relatively young (less than 30 years of premium wine production) indicate that there is support for the need for organized training for members outside of formal academic programs. Training and learning opportunities are needed for people newly entering or pondering entry into the industry along with providing access to updates or advanced training for those with prior experience and studies.

A familiar lament relayed to me by agricultural extension personnel/colleagues is the frequently low member attendance at specific events that are developed and delivered to their local community with the goal of enhancing member knowledge and skills. Along with this issue of low member participation, there is the issue of limited numbers of personnel (often a function of limited financial resources or university/government
commitment) at universities and government agencies with a responsibility to help educate or perform technical information transfer activities. The majority of resources of government and academic institutions are allocated to direct basic research for production, processing, and marketing while few economic resources are devoted to the education of the general community.

Extension programs for the grape and wine industry are being reduced (fewer professional staff employed and existing vacancies not re-filled) in the United States. Current educational programs for the NGWC and other communities are designed as university degree or college diploma programs. These programs are not designed to provide comprehensive courses or organized learning opportunities for those not wishing to enter academically focused programs. Most degree or diploma programs are science-based programs where the students graduating are well versed and trained in research and scientific theory and eligible for ongoing academic studies.

These academic programs are not designed for lifelong or ongoing adult education or updating of those currently employed in the industry, nor do they offer the opportunity for access by those who cannot undertake full time enrolment in such programs. The format and delivery of these academic programs do not meet the needs of those looking for training or educational opportunities without having to meet the rigours of an academic-based course of study. There is a void of learning options for those wishing to enter and learn more about the community, which would enable them to access employment in the NGWC without entering full time academic studies. As in all communities, there is a need for access to information for both the continuous upgrading of skills and the ongoing discourse for personal development. Additionally, there is need
for opportunity for those wishing to pursue information for personal or general interest in
topic areas related to the NGWC. This could be accomplished by establishing an
alternative to formal academic programs by having an easily accessible, self directed,
flexible, and consistent program of adult studies using common information sources and
viable mechanisms of delivery.

The development of a responsible and relevant program which is based on
industry needs, matching personal levels of language, and members’ prior knowledge of
subject matter should allow for the development of a sustainable community-based
learning network within a community of practice based on a commodity. A program
designed in this fashion would need to match the personal levels of language skills and
prior knowledge of subject matter and be delivered in various formats to allow full
participation of those with different learning styles and desires. Through understanding
how to integrate peer collaboration into a learning network of knowledge exchange and
interaction across competitive organizations, insight should be gained into the learning
needs and mechanisms to address the needs of a community connected by a common
commodity.

Along with direct benefit to the members of the community, consumers of wine
and related products will benefit as the quality of product should improve and the
capacity for members of the NGWC to inform and educate the consumer about the
various roles and activities of the entire industry will increase, and thus, enhance the
general public’s knowledge about this industry and its position domestically and globally.
Importance of the Study

Although aspects for improvement of any educational efforts in a community can be regarded as positive, the NGWC, over its short history, does not have the infrastructure or history of collaborative work relationships that would have fostered and promoted organized non-institutional programs of study or learning networks. The real importance of this study is that it leads to a framework for creation of a sustainable learning network. The need for industry relevant and related education for members will be documented through discussion and consultation with members of the NGWC. Data will be analyzed to understand the foundations upon which a learning network in a commodity-based community may be established. As a foundational pillar, there is need that all members fully participate and encourage linkage among formal and informal programs that exist or may be developed. It is important to recognize the learning potential of all members (owners, managers, and workers) and acknowledge the importance of informal learning and skills acquisition.

This research project may potentially have major long term outcomes for the NGWC in Niagara and possibly other grape and wine producing regions. It could bring together key players in the wine industry from all three sectors (production, processing, and retail) to assist in the development of foundational principles upon which on-the-job training and skills enhancement of community members may be achieved. This collaborative learning approach with multiple organizations and members will form the foundation of a relevant plan of study for community members and others wishing to learn more about the NGWC.
This research is intended to result in the creation of foundational principles for a program or network that may encourage adults to pursue more learning opportunities in the grape and wine industry. It will be of value to those currently employed in the industry and those wishing to gain entry into the industry. It will identify the value of a learning culture as a factor for strengthening the individual skill levels of each member and enhancing the competitive advantage of the NGWC collectively. Through documentation of member knowledge, skills, and attitudes, there will be opportunity to illustrate the potential benefits for adults to gain training that is applicable and relevant to industry trends that include increased use of technology; increased regulations and standards to comply with; and increased industry competition locally, nationally, and internationally.

By demonstrating overall benefits to the community and individuals, this learning network or structure can provide a framework to assist members in identifying the positive personal gains from enhanced skill development. It will benefit member organizations and companies by having staff acquire enhanced skills and flexibility rather than employ more people for particular or short term specific situations. Providing training opportunities for new members entering the industry can assist in the development of consistent standards of practice and demonstration of skills to allow members of the NGWC to work throughout the country in the industry with a recognized level of competency and proficiency. By crossing organizational boundaries, there will be opportunity to extend knowledge beyond the confines of smaller communities or organizations to embrace the issues of a larger community of common bond or commodity.
Scope and Limitations

This study investigated the learning needs of members of the NGWC. The perspective of each sector (viticulture production, processing, and retail/marketing) was examined in order to assess if there are common needs and issues surrounding the acquisition of skills and training opportunities. This study specifically focused on those individuals who are not members of large (greater than 50 employees) organizations as these individuals are less likely to have access to training and educational opportunities than those within large companies (McClelland, 1995). Prior studies of the NGWC (Luczkiw et al., 2000) relied upon the opinions and perspectives of winery owners or senior managers with respect to the needs of the industry and focused on managerial needs more than those of applied workers or middle managers in all sectors. This study relied upon the views and perspectives of people actively engaged in multiple levels of activity, not exclusively senior positions, in each sector and may be considered as representing a large component of the NGWC member population.

My intention was to identify members’ common areas of interest, skill sets possessed and needed for success, and motivators and obstacles facing the acquisition of additional knowledge and the creation of new skill sets. I relied upon the personal statements of members’ perceptions and accounts and the use of prior sector focus group studies to assess if the themes and concerns were consistent.

The participants were volunteers with varying degrees of experience and knowledge within each sector. A few had experiences that cross sectoral lines, while others had no prior experience or training before entering the industry. For this study, three separate sector focus groups (seven volunteers per sector) were used to determine
general lines of inquiry. From the comments and suggestions of the focus groups, a common set of questions was developed and used in semi structured personal interviews with four volunteer members of each of the three sectors. The individuals for the personal (semi structured) interviews were not participants in any prior groups or studies with respect to this investigation.

As noted earlier, the NGWC is a relatively young group when compared to other parts of the world involved in grape and wine production. For this reason, only a small minority of the community has had prior grape and wine specific training, and members are in a constant state of learning as they go to determine what will or will not be successful strategies for their jobs and industry. As such, by focussing on these individuals who have not had prior career specific academic training, I am aware of the potential bias in perspective as those with more formal studies may not have the same needs or issues.

Outline of Chapters

In this chapter, I have described the problem and the purpose and rationale for the study. Included is a background on the NGWC, its sectors and workforce along with a definition of community and its context for this research. The importance of this study and its scope and limitations have been discussed to provide the reader with the applicability of the study to other settings.

In Chapter 2, there is a background of the literature relevant to this study. This encompasses information on the changes to the NGWC industry over time and the current status of available learning programs. This literature explores adult learning processes in an agricultural context and how these apply to the NGWC.
In Chapter 3, I have summarized the research design and methodology and the application of case study as the investigative framework. Included is the mechanism for instrument development and the purposive sampling criteria used for selection of participants. I have outlined the data collection, recording, and analyses procedures, and I highlighted the limitations of the work and its credibility. Ethical considerations and study limitations are stated.

In Chapter 4, the use of sectoral focus groups for informing the researcher is documented and summarized. The findings of the personal interviews are presented for each question with cross sectoral and industry wide analyses provided. This analysis includes participants’ perspectives and accounts of the need for learning opportunities and their suggestions for enhancing these opportunities. Using the participants’ ideas, I have illustrated common issues across sectors and ideas for further personal and community development.

In Chapter 5, I provide a summary of the results and discussion of the work as it applies to commonalities and needs for program development. A learning network framework is proposed which includes actions and member responsibilities. Implications on learning network theory and practice are discussed. Future research work is explored, and researcher final thoughts on the study are presented.
CHAPTER TWO: REVIEW OF LITERATURE

Humans, in all facets and stages of life, interact, discuss, debate, share information, and learn from each other on a daily and lifelong basis. The continued existence of many societies has been based on the successful sharing of survival skills and teaching of subsequent generations of members of how to live, function, and interact with the environment and each other. This philosophy of learning in a community and the importance of the social nature of human beings and learning situations have been identified and explored by Dewey (1916), Lindeman (1926), and others (Kilpatrick, 2000; Kilpatrick et al., 2003). The growth of societies and communities has been achieved most often by the actions of members that assume the roles of “risk takers” and explorers that have dared to challenge “conventional” or current wisdom by being willing to be different and think or act “outside the box” (Moore & Brooks, 2000). Societal growth and long term success can be attributed to community members perceived as innovators or risk takers who were able to share and pass along their knowledge and experiences to others who wished to learn more or go further. An example of this locally could be the commercial planting and expansion of the premium wine grape industry in the Niagara region. The first commercial vinifera grape plantings did not occur until the 1950s. Prior to this time, growing of these winter sensitive grapes was not considered viable or economically feasible. It was not until the 1980s that additional planting of these grapes occurred in the region, with the greatest expansion of premium wine grape vineyard planting and the entrance of new members into the NGWC occurring in the late 1990s into the 21st century.
Learning, individually and collectively, takes place every day whether working, interacting at leisure, or just observing or personally reflecting upon one’s thoughts or experiences (Bandura, 1977; Brown, Collins, & Duguid, 1989; Jarvis, 2004; MacKeracher, 2004; Tough, 1979). Individuals and communities are finding themselves and their organizations operating in a global environment and not only the local markets of the past (Kanter, 1995). The concept of communities of learning may have been thought of as following geographical boundaries as used to define political communities (Faris & Wheeler, 2006); however, the advent of new methods for widespread communication and interaction that are not bound by geographic limitations can expand the location in which members may be residing or working (Palloff & Pratt, 1999).

The term community has been used widely in literature with definitions varying with the context in which it is being used. According to Sinikka Dixon (1999), community has become a catch-all term with multiple meanings and a difficult theoretical concept to address scientifically. Within the field of sociology, the three elements found most consistently as important features are (a) community is generally seen as geographically bounded, (b) the members of a community are considered bound together by a number of common characteristics or attributes, and (c) the members of a community are engaged in sustained social interaction (Sinnika Dixon, 1999). Community can be further defined as a body of persons of common and especially professional interests scattered throughout a larger society as well as a body of persons having common social, economic, and/or political interests (Barber, 2004). The grape and wine industry in Canada can be considered as a community which is primarily made up
of individuals with common bonds of activity and intent where this is their profession and
livelihood.

The literature has described many different types of communities. From
organizational learning or management literature come communities of learning, learning
organizations (Brown & Duguid, 2001; Senge 1990), or learning networks (Van der
Krogt, 1998). From the social learning context comes communities of practice (Lave &
Wenger, 1991; Wenger, 1998) or communities of common purpose (Kilpatrick et al.,
2003). In educational settings, communities are described as learning communities
(Gabelnick et al., 1990; Mitchell & Sackney, 2001; Zhu & Balylen, 2005). Literature
provides many similarly named groups that possess a common thread of sharing
knowledge and the potential to create knowledge that can benefit individual members or
the community or organization collectively.

There is a need to differentiate between a learning organization, learning
community, community of practice, and learning network and how these relate to the
NGWC. Due to widespread use of the terms above and their usage in multiple contexts,
models, learning environments, and research approaches, the following definitions have
been used in this study.

A learning organization has been described as an organization that embraces and
facilitates learning by all of its members and facilitates the transformation of the
organization, its members, and where people are learning together (Argyris, 1999;
Argyris & Schön, 1978; Pedler, Burgoyne, & Boydell, 1997; Senge, 1990). Mitchell and
Sackney (2001) further refine the definition suggesting a learning organization has its
importance as “growth, productivity, efficiency and effectiveness” of the organization (p. 1).

Senge (1990) has characterized a learning organization as having five main characteristics: personal mastery, systems thinking, mental models, a shared vision, and team learning. The idea of a shared vision is important as the common topic is success against a competitor (Brown & Duguid, 1994; O’Keefe, 2002; Senge, 1990). The requirements of systems thinking and shared vision have been criticized in learning organization function as learning is solely for work purposes and corporate benefit with disregard for the employees as contributing to the development of their own learning process (Poell et al., 2000). Although the organization is a corporate structure that is competitive in a business environment, it may be simplistically described as a single entity (the organization) with multiple parts (members or employees) that must work in a symbiotic relationship to sustain and allow the growth of the whole organization as a singular unit or system within a competitive business environment. Here learning objectives are in response to the need to remain competitive, to be responsive to customers’ or clients’ needs, to improve quality of outputs, and to be prepared to respond to external pressures while maintaining levels of innovation (Argyris, 1999; Senge, 1990; Wang & Ahmed, 2003). Examples of learning organizations are large corporate entities such as Motorola Corporation and Saturn Corporation (Stamps, 1998).

A learning community is described in many contextual variations within the literature. The term, learning community has been used to cover learning activities in a range of situations from academic learning communities to electronic or virtual learning communities to communities of practice and learning towns or cities (Faris & Wheeler,
2006; Palloff & Pratt, 1999). It has been considered as the uniting of groups or institutions to promote societal change and is geographically bound with partnerships to increase community capacity to shape and manage its own future (Kilpatrick et al., 2003).

The fundamental concept is that the learning community is a group of people actively engaged in learning together and from each other. These people work collaboratively in environments in which competition is deemphasized (Zhu & Balylen, 2005). The concept of a school as a community has been used in educational literature (Eaker, DuFour, & Burnette, 2002; Gablenick, MacGregor, Matthews, & Smith, 1990; Hord, 1997; Larrivee, 2000; Mitchell & Sackney 2001). Mitchell and Sackney (2001) further contrast the concept of a learning community from a learning organization by suggesting that for a learning community “the ends of importance are the growth and development of the people” (p. 1). The objectives of personal improvement and self fulfillment are considered as cornerstones of the action of a learning community and the desired outcome (Castro Laszlo, 2001; Davis & Sumara, 2001; Kilpatrick et al., 2003; Larrivee, 2000; Zhu & Baylen, 2005).

A community of practice is a group of people that learn through social interaction and participation in an activity with common goals or interests. It is not necessarily bound by a small geographic or physical locale but may have a larger environmental sphere, yet it is still comprised of members having similar backgrounds, goals, interests, and commitment. The domain of knowledge and expertise is gained over time through the shared practice of regular interaction to develop insights, solutions to problems, and the building of a common knowledge (Wenger, 1998). The domain is a shared competence by its members and involves the engagement in joint activities that help each
other and enable them to learn from one another. The practice is a shared repertoire of resources, experiences, stories, tools, or methods of dealing with issues or problems that occurs over time and requires sustained interaction. The community are members for whom regular interaction informs them and expands their knowledge which they utilize with others or alone (Lave & Wenger, 1991).

Communities of practice (Lave & Wenger, 1991; Wenger, 1998) provide a level of analysis for looking at work, learning, knowledge, and community identity formation. Groups of interdependent members such as the grape and wine industry provide the context within which members construct shared identities and a social context that helps those identities be shared. Members of such groups can develop an outlook on their work and the world collectively, but views will most intensely reflect the local community (Brown & Duguid, 2001). Practice will be dynamic as the community evolves, and the knowledge of the community will be cumulative over time as it develops a history of locally relevant practice as well as larger community collective practice.

Communities are also repositories for the development, maintenance, assessment, and reproduction of knowledge. It is important to recognize that the community’s knowledge is not held equally by all members but shared across the community as a whole and made available to all. The access to the information may follow the idea of legitimate peripheral participation as described by Lave and Wenger (1991). Community knowledge is more than the sum of its parts as members provide access to information developed by one another and may scaffold knowledge in creation of practices (Cook & Brown, 1999). The ability to respond to change and ongoing adaptation is often determined by communities of practice. Members of a local geographic community are
often simultaneously members of a similar but larger community utilizing the same practices and procedures. This provides a context of locally produced knowledge that can be part of a linkage of vital information generated collectively by a larger common community of practice (local, provincial, national, and international) (Palloff & Pratt, 1999). Communities or networks of practice can mediate between individuals and large formal and informal structures and between similar organizations and their environment where much of the work involved in knowledge creation, knowledge transfer, and collective learning occurs (Brown & Duguid, 2001; Poell et al., 2000).

A learning network as proposed by Van der Krogt (1998) consists of various activities organized by members of an organization and represents how the learning is organized. The three main components are (a) learning actors or those engaged in organizing the learning and are termed actors as they act deliberately on their interests for work-related learning. These people follow theories of action (Argyris & Schön, 1978), whereby their actions are guided by personal norms and rules they have developed over time; (b) learning process where the actors organize activities to develop learning policies, learning programmes, and the execution of learning programmes; and (c) learning structures which arise from interaction over a long period of time whereby certain content structure, organizational structure, and learning climate are identifiable and replicable.

Learning networks are formed through the interaction between actors who are acting based on their positions and opinions or theories. The structures for learning developed by the actors will influence how members will learn and result in processes and actions that are dynamic and diverse, reflecting learning that is taking place among
the group rather than within an individual (Poell et al., 2000; Poell & Van der Krogt, 2006, 2007). However, individuals will learn as a result of their participation in the processes or activities of the learning network along with the collective learning of the group. From this perspective, the network may also be considered as an organizing principle and not a specific entity (Bottrup, 2005; Poell et al., 2000; Van der Krogt 1998).

The active participation of members in the creation of learning opportunities and mechanisms for learning is a significant feature that differentiates the learning network from that of a learning organization (Poell et al., 2000; Van der Krogt, 1998).

**Industry Changes over Time**

The Niagara region produces over 90% of the volume of grapes sold in Ontario (Grape Growers of Ontario, 2009). Wine making has taken place in Canada for more than two centuries but today’s modern day success in producing premium wines has occurred only in the past three decades (Bramble, Cullen, Kushner, & Pickering, 2007).

The greatest transition was spurred by the signing of the Canada-US Free Trade Agreement (FTA) and the General Agreement on Tariffs and Trades. Canada had to relinquish prior protection of the wine industry, primarily in tariffs and retail price protection and move to an equalized tax structure for domestic and imported wine. This equalization had to occur through a systematic reduction in the tariffs to 0% within 10 years of signing the agreements in 1988 (Wine Council of Ontario, 2002). Along with the FTA, the establishment of the Vintners Quality Alliance Act in 1999 and standards for wine quality and cultivars grown, the industry made a significant shift from producing native-based grapes (*Vitis labrusca*) and some French hybrid cultivars to wine grapes of the *Vitis vinifera* species which are used to make premium and ultra premium wines. To
assist with this transition, the Canadian federal government financed a major vine pull-out and replacement program to help growers convert vineyards from cultivars that were no longer in demand to premium cultivars to become more competitive in the wine marketplace (Hope-Ross, 2006).

Within Ontario from 1997 to 2007, there has been a significant change in the economic impact of the wine industry and the number of people employed in the industry. The economic impact has increased from 202 to 427 million dollars (using 1997 nominal values) and employment has increased by 45% from 4,777 in 1997 to 6,934 in 2007 (KPMG, 2008). The Wine Council of Ontario (2002) has projected that the Ontario wine industry will be a $1.5 billion industry by 2020 with more than 13,500 people employed. This is a projection of more than doubling the number of people involved with the grape and wine industry in just over 10 years from 2007 levels. Luczkiw et al. (2000) noted that in 1993 the industry identified that it alone did not have the resources to train new or existing employees and there would be need for more trained and experienced members of the workforce. This is supported by observations made for the much larger industry in the United States which also identified future labour shortages (MKF Research, 2007).

**Learning Programs for the Grape and Wine Industry**

The grape and wine industry globally has a long history, with many other regions having formal schools or programs of study for viticulture and oenology that have existed for many years – University of California at Davis (UC Davis); Roseworthy College; University of Adelaide in Australia, Geisenheim Research Institute, Germany; Stellenbosch University, South Africa; Universite de Bourgogne, France; University of
Udine, Italy; and many others. These are degree granting programs with long histories of providing formal education to their respective grape and wine industries as well as having international students in undergraduate and graduate programs of study. In addition, many grape and wine producing regions have extension or distance education programs where students can gain academic credit (e.g., Washington State University (WSU), UC Davis). These programs are academically-based certificate programs that must meet academic requirements of the institution and each course or unit of study takes the same time to complete or longer than a single normal academic semester (13 weeks). Both WSU and UC Davis have large waiting lists for entry, with WSU launching a non credit version of some of its oenology courses to enable people to access some of the information without waiting for formal entry (Firstenfeld, 2009). A newly developed program is available in the United States known as VESTA – Viticulture and Enology Science and Technology Alliance. This organization is a partnership of Missouri State University and colleges in Iowa, Arkansas, Illinois, Oklahoma, Michigan, and Kansas. Its objective is to provide learning opportunities for people located in the mid-America region; however, it has attachments to college credit programs and has some limitations. It is being delivered online (which requires computer and internet access) and does not have specific hands-on laboratory components as it relies upon partnerships with wineries and vineyards where the student is located to gain access to facilities and resources. Furthermore, it does not have direct instructor-participant contact to ensure that the instructor can assess and evaluate that proper procedures and techniques are being used (Goldberg, 2009).
In a summary report by the Wine Council of Ontario (2002), one of the cornerstones for this predicted expansion in Ontario and Niagara is the need for all stakeholders to pursue a shared strategy for premium grape and wine production and to share experiences to achieve this goal. The report identified that there was a need for joint planning, information sharing, communication, and cooperation of all stakeholders (viticulture, processing, and retail) to create value chain partnership that would be successful and sustainable. It further recognized the interconnected nature of the industry where all partners may operate independently and competitively but must act collectively for sustainability as no single sector can survive without the support and inputs of the other sectors. Long term survival and growth is dependent upon a knowledgeable workforce and the sharing of expertise and resources (Wine Council of Ontario, 2002). Simply put, good grapes are needed to make good wine, quality wine must be produced for sale to consumers and premium wine must be sold to create demand for quality grapes. Each sector must produce quality materials or results (retail sales) for the other sectors to utilize and enable them to prosper.

In a recent study into the examination of barriers to growth in the Ontario wine industry, access to qualified labour was highlighted as the fourth most important perceived barrier (out of 20 identified barriers) to growth (Story, Riding, Madill, & Orser, 2005). Communication and understanding across sectors within the grape and wine community have also been identified as barriers to growth and development of the industry (Bramble et al., 2007; Mytelka & Goertzen, 2004). There are few centres devoted specifically to research and information dissemination with respect to the grape and wine industry in Canada. Brock University (St. Catharines, Ontario – Niagara
Peninsula) is the home of the Cool Climate Oenology and Viticulture Institute and offers the only undergraduate degree granting program in oenology and viticulture in Canada. This program produces approximately 10 graduates per year, and a certificate program offered to post degree graduates has up to 10 students per year complete the certificate requirements. Both programs require full time academic enrolment to enable program completion. Niagara College offers a technician diploma program in viticulture and oenology (full time enrolment) that lasts for three years with students gaining a diploma. Graduates of this program number 25 to 30 each year. Most of these students are targeting managerial and higher level positions within the industry and some do not remain in Niagara but secure positions throughout the province, nationally, and internationally. Based on the Wine Council of Ontario (2002) projections, the number of graduates from these two academic programs (approximately 40 to 50 per year) will be insufficient to meet the industry workforce needs in the next decade.

As mentioned above, most of these graduates aspire to or will be in supervisory or managerial roles while the industry has a large proportion of its members involved in the day-to-day tasks of viticultural production, processing, and retail. These members may be field workers in the vineyards, cellar workers in the wine cellars or processing facilities, or sales personnel in direct retail at stores without having any special training or prior direct experience. Currently, a large segment of the workforce in the viticulture sector is from the local Asian community or from the federally supported Commonwealth Caribbean and Mexican Seasonal Agricultural Workers Program (Service Canada, 2007). For many of these seasonal workers, English is not their primary language of communication, and they do not have strong literacy and numeracy skills. Recognition of
reliance upon seasonal workers for grape and wine production is not a singular situation to Canada. Other areas of the world have identified the need to have seasonal workers and the need for improved access for these workers to opportunities to improve their literacy and numeracy skills (Van Kempen, 2009).

Criteria for successful collaborative partnerships include building rapport, establishing compatible goals, negotiating roles and tasks, and sustaining a sense of commitment and satisfaction (Brown, 2002; Brown & Duguid, 2001; Stamps, 1998). Success is achieved through sharing relevant experiences, explicit and ongoing dialogues, and cultivating interpersonal connections. This need for the Ontario wine industry to establish collaborative partnerships for overall wine industry success has been identified as a fundamental requirement of all sectors (Wine Council of Ontario, 2002).

In 2003, a study of winegrape growers in the Riverland district of South Australia, Australia revealed that direct information (e.g., seminars) was a preferred mechanism for acquiring new information that led to changes in practices (Dignam, 2003). Input suppliers that participated in the same study “also encouraged more outreach work from the associations and networking among growers to learn from each other” (Dignam, 2003, p. 4). What was also revealed was that the Australian grape and wine industry received a lot of information from many sources, but the information was not being effectively used as it overwhelmed the target audience by sheer volume and was viewed as too complex and seen as contradictory by the recipients of the information. A key item in this report highlighted the need for more detailed, hands-on information and the enhancement of learning opportunities (conferences, seminars, and workshops) and other mechanisms to encourage networking and learning from each other.
A 1999 study of 17 wineries (owner, president, general manager, vice president, and/or winemaker) in Ontario concluded that the industry needed to develop education programs for employees and leaders (Luczkiw et al., 2000). It further suggested additional programs for those new to the industry, development programs for existing employees, and ongoing training for issues related to human resources. It is important to note these educational program suggestions were from upper management winery personnel and did not include comments with respect to the attitudes, perceptions, needs, or wants of members of other segments of the processing sector nor those of the production or retail sector. They did not indicate mechanisms for development, delivery, or design but suggested perceived needs versus documented needs.

The creation of a relevant program of applied study for any commodity must allow for local community members to properly undertake site specific research, interact freely and openly, and be involved in knowledge development and sharing for the benefit of all. Through recognition of the diversity of roles of members within the community, there exists opportunity for members to gain a better understanding of each other’s roles, responsibilities, and attitudes within the community. Useful knowledge is often not best developed by specialists detached from a problem but by those who directly benefit from a solution who are likely to be the members of a community of practice in which the problem to be solved arises (von Hippel, 1998). Local solutions to local issues, yet within the context of access to the larger community or network of practice and common bond, must be a cornerstone of any sustainable program (Brown 2002; Kilpatrick et al., 2003; Poell et al., 2000; Wenger 1998).
Adult Learning in an Agricultural Context

As noted earlier, traditional methods of transferring ideas and technology in the agricultural sector has been based in the domain of social interaction. These took the forms of demonstrations and research at experimental farms, short courses at agricultural schools, discussions among agricultural societies, and the farm-to-farm travels of people employed by universities or government agencies to perform extension or outreach services (Birkenholz & Maricle, 1991; Blackburn & Vist, 1984; Frick, Birkenholz, & Machtmes, 1995). These same practices continue today with the inclusion of new technologies such as internet messages, electronic postings, webinars, simulcasting of presentations, and other forms of technology transfer.

Because of its importance to the Canadian economy, agricultural development and the encouragement of improved agricultural practices began as local governments developed resources and processes to provide extension services. The historical operating principles upon which agricultural extension education was and continues to be practiced were summarized by Boyle (1977): the masses have intelligence and when given the opportunity will release this knowledge, and they can do better through further education; since people on farms cannot go to school, school must come to them; education must involve the basic institutions – family, community, school, and church; one learns best by doing; and it must be a system which allows people to learn firsthand and gain experience by applying new methods in farming, homemaking, and community activities.

These operating principles are highly social in nature and are fundamental constituents of the ideas promoted by Dewey (1916) and Lindeman (1926) with respect to education, learning, and community development. The social interaction and nature of
Adult learning can be considered using social learning theories including engagement in social behaviour (Vygotsky, 1986) and social cognitive theory where people learn by observing others considering the influence of environment, behaviour, and cognition with these factors acting in a reciprocal fashion and are not static or independent (Bandura, 1977, 2002).

Agriculturally based industries employ the experiential learning aspects of Kolb’s (1984) learning cycle. Using the grape and wine industry as an example, the stages of the cycle may be observed as active experimentation (using new ideas or techniques for growing the crop or making the wine) to concrete experience (noting the outcomes of the efforts in volume of crop harvested or wine made) to reflective observation (seeing whether the outcomes of efforts met desired standards of production or quality of products) to abstract thinking (revising or devising new approaches or techniques to enhance or sustain productivity). The advancement to new ideas or processes also reflects the cognitive actions where learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge and then go beyond through reflection and organization of thoughts and ideas (Bruner, 1966; Schön, 1987). From an applied perspective, the stages of Kolb’s learning cycle mirror the practices and program designs that have been and continue to be used by extension and agricultural technology transfer agents (Birkenholz & Maricle 1991; Blackburn & Vist 1984; Nieuwenhuis, 2002).

Adult education is viewed as a continuous growth of the mind and illumination of life, whereas the concept of school-based education is the development of instruments that allow us to absorb, interpret, and utilize our experience and understanding (Dewey,
1916; Kidd, 1973; Lindeman, 1926). The encouragement of practical, pragmatic, and functional curriculum and programs that recognize the quality and value of experiences of the participants as rich resources of learning and knowledge somewhat differentiates adult education from traditional institutional environments (Knowles, 1980, 1985; Tough, 1979). The recognition of the needs, interests, experiences, and desires of the learner moves the shift from a discipline-based program to one that builds upon the energies and personal interests of learners for instruction and learning. For people to undertake specific learning programs, the meaning of such efforts will come from the things that people strive to accomplish; the personal goals they set; and the satisfaction of meeting their needs, wants, desires, and wishes (Lindeman, 1926). To reach these objectives, adult education respects the idea that we are teaching people not subjects (Dewey, 1929).

The development of learning opportunities must be accomplished without creating climates of uncertainty or manipulation. Owenby (2002) has highlighted some of the unseen or potential negative factors of learning networks or organizations that must be addressed in consideration of program design. Top-down direction of programs or learning opportunities can negatively impact upon participation especially if the participants feel that the events or sessions do not reflect their personal or professional needs (Brown, 2002; Brown & Duguid, 2001; Wenger, 1998). Often these corporately controlled or mandated learning events create climates where participation and enthusiasm of those attending is low as there is undue influence by organizational structures, relationships, and culture where the interests of the organizations and profitability supersede the interests and needs of the members (Ogbor, 2001; O’Keefe, 2002; Owenby, 2002). A similar situation can exist within institutional programs where
the members (students) have little participation in deciding which items should constitute
the continuous learning curricula, and the members may actively choose to limit
participation and reduce the projected gains by the program designers. By utilizing inter-
organizational learning networks, single organizational or institutional dominance of
planning, developing, and delivering learning opportunities can be averted and produce
activities that reflect the needs and wants of members yet can positively contribute to the
benefit of the community as a whole.

In designing or facilitating learning opportunities for adults, the core principles of
adult learning involve significant social interaction of members (Brown 2002; Lave &
Wenger, 1991), processes that are flexible and reflective of different learning styles
(Kolb, 1984), consideration of the prior experience and knowledge of the participants
(MacKeracher, 2004), use of the experience resources of peers and mentors (Cranton,
2000), and an environment that reflects the real world (Brown et al., 1989; Wenger,
1998). The consideration that adults have significant personal experiences to contribute
as part of the learning process and motivations to undertake learning opportunities must
be factored into the facilitation of program development (MacKeracher, 2004).

Summary

In this chapter, I have reviewed the social nature of learning within societies and
the growth and development of communities based of successful sharing of knowledge
and experiences. The NGWC has been defined using sociological parameters (Barber,
2004; Sinnika Dixon, 1999), and different types of learning structures or communities
have been discussed and contrasted. This includes the differentiation of a learning
organization where the primary objective is corporate benefit (Argyris & Schon, 1978;
Brown & Duguid, 1994; Senge, 1990) from a learning community where the growth and development of the people is most important (Faris & Wheeler, 2006; Mitchell & Sackney, 2001) and from a community of practice where the concept of peripheral participation and social interaction is part of the development of shared identities and community practices (Lave & Wenger, 1991; Wenger, 1998). Learning networks were further differentiated by the discussion where individuals learn as a result of participation and creation of learning opportunities along with the collective learning of the group (Bottrup, 2005; Poell et al., 2000; Poell & Van der Krogt, 2006; Van der Krogt, 1998).

The rapid change of the grape and wine industry within Niagara and across Canada over the past few decades was highlighted identifying the need for more trained and experienced members of the workforce to grow and sustain this industry. Current learning opportunities for the grape and wine industry were summarized with limitations of current offerings and the current status of locally (Niagara) available academic programs. Limitations of the programs were noted as these institutions are unlikely to provide sufficient numbers of trained individuals to meet the projected industry needs for the workforce. The principles of adult learning in an agricultural context were summarized and suggested as being complementary to social and experiential learning theories. The need to enable the members to take an active role in their own educational opportunities as learners and instructors was identified as critical for success.
CHAPTER THREE: METHODOLOGY

This case study investigated, across industry sectors, the attitudes and practices of members with respect to learning needs and issues and provided data and guidance to create foundational principles for programs, course design, delivery, and community planning based on individual and community needs. The following processes were followed to provide the data.

Research Design

A case study approach was undertaken based upon the researcher’s personal experiences and interaction with the community. From these experiences, the researcher became aware of the unique needs of this community and sought to gain greater understanding of this particular group and the role education and training played in member success and growth. A case study provided parameters in which the NGWC could be investigated.

Case study research is separated from other qualitative approaches by its establishment of a boundary or defined delimitations of the group being studied (Merriam, 2004b; Stake, 1995; Yin, 2003). Bounded means the research case is separated by time, place, or physical boundaries such as a specified geographical location (Creswell, 2002). Also, effective case study research pursues the intention to develop an in depth understanding of a situation and meaning for those involved where context rather than a specific variable is the point of interest (Creswell, 1998, 2002; Merriam, 1985; Yin, 2003). For purposes of this study, the NGWC is a community that belongs within a defined or bounded geographic area (the Niagara Peninsula) and is highly integrated where there is the intimate interconnection of the community’s three sub
groups (Viticulture, Processing, and Retail); furthermore, the success of each group is essential for the success of the community as a whole. The experiences and ideas of the members of the NGWC contextualize the learning needs as they exist and may be addressed. For the NGWC, the needs of members will vary as each sub group has specific tasks to complete, roles to play, and responsibilities to meet that are unique to its group. Yet at the same time, for the community as a whole to be successful, it is likely that members across sectors will have some common learning needs or issues that are interrelated and occur as part of the community context. To generate understanding of the learning needs, the views and opinions of the community members have been acquired through the use of focus groups and semi structured personal interviews (Devers & Frankel, 2000; Fink, 2003; Fontana & Frey, 1998; Fowler, 1995; Frankel & Devers, 2000). Specific documents with respect to employment needs on this particular community are limited and confined to the opinions of executives and CEOs of wineries (Luczkiw et al., 2000) and not of the people directly employed and active in the day-to-day operations of primary production, processing, and retail. This lack of data on the personal experiences and perspectives of the community members and the opportunity to provide context further reinforced the choice of case study methodology for this project.

Stake (1995) indicates that case study research is useful as it relates to personal experience in a vivid, sensory manner. Using the experience of the member, as it is rooted in context, makes case study methodology distinguishable from the abstract or conceptual knowledge that is part of other research methodologies (Creswell, 1998; 2002, Gay & Airasian, 2003; Guba & Lincoln, 1994). Finally, the identification of the boundaries of the case will allow the reader to generalize and participate in how the
information applies to the population described. Descriptive case studies are useful in presenting information about areas of education where little specific research has been conducted and can be used as a data base for future comparison and theory building (Merriam, 2004a).

The research design is that of a case study with subdivisions (or multiple case units) based on sector identifiers to allow for comparative analyses and conclusions for the community as a whole and factors unique to each sector. Earlier work undertaken by the researcher – informal group discussions where members of all sectors were present – revealed that members of each sector appeared to have some unique issues and needs with respect to gaining additional training and knowledge. From this previous work, in order to further investigate the learning needs of the NGWC, sector specific focus groups would likely provide more ideas of the needs that would be specific to a sector. By using focus groups and personal interviews, I explored the members’ perceptions of their experience and roles, their current and desired skill sets, issues around the acquisition of new knowledge, and barriers to/motivators for knowledge acquisition (Merriam, 1998; Yin, 2003).

Focus groups and personal interviews were used to enable community members to voice their opinions and ideas about their own learning needs and those of members within and across sectors. It provided the opportunity for members to suggest items to be considered in the formulation of new learning programs to meet their needs. Yin (2003) considers multiple and single case designs to be variants within the same methodological framework and for this reason, the approach was taken to acquire data from separate
sectors (segments of the single community) and utilize these data for examination of the entire community that is the overall case boundary.

To manage time constraints, specific sector focus groups were identified. Each sector focus group was comprised of seven to eight volunteer participants (see section on Selection of Participants). This group size is considered typical for single session focus groups and approaches the maximum size for any single group to encourage all participants to provide input (Berg, 2004; Fowler, 2002; Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2004; Rubin, 1995). Focus groups have proven useful in research as they encourage group dynamics to allow participants to collectively brainstorm or draw from one another to generate ideas, topics, and issues (Berg, 2004; Fowler, 2002; Groves et al., 2004; Merriam 1998). This type of interaction was anticipated as the volunteers came from diverse backgrounds and personal experiences although they were involved primarily in the same sector of the larger NGWC. These focus groups provided information to assist the researcher in the development of specific questions to use in personal interviews.

The focus groups were not considered as providing specific data for this research study but to inform the researcher. Focus groups are not generally used to provide substantial data for analyses but rather are used to test question applicability to help refine questions that will be part of a larger investigation of respondents (Alreck & Settle, 1995; Fowler, 1995, 2002; Weisberg & Bowen, 1977 ). Focus groups are best used for exploring how different people respond to complex topics for which you do not yet have enough specific information and then developing a questionnaire for a more structured interview (Nardi, 2003).
Interviews or surveys have been described as the social interaction of two or more individuals combined with the collection of data and information to enhance the understanding of concepts, attitudes, knowledge, events, or actions by individuals or groups (Fowler, 2002; Katz, 1993; Rubin, 1995; Sudman, Bradburn, & Schwarz, 1996). It is extremely important to have properly worded and easily understood questions to ensure the data collected are reliable and valid. A reliable question is one that would generate the same response from the same person in subsequent interviews (Alreck & Settle, 1995; Fowler, 1995; Gillham, 2000; Payne, 1951; Weisberg & Bowen, 1977).

Personal interviews differed from the focus groups as the interviews allowed for more candour, personal opinion, and openness of the volunteer than might have occurred in a group setting as data were collected privately and confidentiality assured. Four volunteer participants within each sector were interviewed to create data for a single sector, and the three sectors combined to create the data for analyses of the bounded community. Reviewing the data sets individually and then collectively allowed for the observation of similarities and contrasts within and across sectors. From this type of review, conclusions were generated for the community as a whole while allowing for the reporting of attributes and differences between sectors. Using multi-perspective analyses helped identify the learning needs and interactions between the sectors and how programs may be developed that consider inter and intra group needs. This is both an exploratory (Yin, 2003) and intrinsic (Stake, 1995) case study as it investigates the learning needs of the NGWC and involves a researcher with a specific interest in the case. The research was undertaken in two phases to allow for data collected from sector focus group sessions to be reviewed and to be used to inform the researcher. The proposal for this study was
submitted to the university Research Ethics Board and received clearance prior to contacting any participants (see Appendix A).

**Instrument Development**

The Phase One focus group sessions were conducted by the researcher with volunteer participants from each sector (seven to eight participants per focus group). The focus group questions (see Appendix B) served as the instrument to elicit members to comment and provide data upon which specific questions were created for use in the personal interviews. Each focus group participant was contacted by phone by the researcher to ensure they understood the intent of the project, and email addresses were obtained by the researcher so that the general questions used to frame the focus group discussion were sent in advance of the sessions. By enabling the participants to know the focus group questions in advance, there was opportunity for the participant to read and reflect and develop prior thoughts before attending which potentially could allow for greater depth of discussion and suggestions for ideas for further investigation during the personal interviews (Fowler, 2002; Kvale, 1996; Stake, 1995; Yin, 2003).

The focus group questions had been developed by the researcher based on general discussions with colleagues involved with the NGWC but not as participants of this research project. These questions were developed after reviewing prior grape industry research in Australia by Dignam (2003) and Ontario by Bramble et al. (2007). Each session began with a general overview of the research project, its intent, and the value of each member’s participation. Focus group questions were posed in order and each participant was encouraged to make comment before the next question was undertaken.
Sector focus group sessions were held in places of common agreement for the participants of each session and the focus group facilitator (researcher) made written field notes during the discussions. Field note summaries prepared by the researcher were made available to participants of the specific session for review, comment, and feedback. All participants were asked to forward any additional thoughts or comments to the researcher. Consent forms were used to ensure confidentiality to the degree possible, and each participant was requested to maintain confidentiality.

In Phase Two, personal interviews were conducted with a total of 12 participants (four people from each of the three sectors). These participants were volunteers solicited using the same procedure as for the focus group component; however, these individuals were different from those who participated in the focus groups. The researcher contacted each of the personal interview participants and provided him/her with the interview questions in order to review and reflect upon them prior to the actual interview. Specific questions were posed (see Appendix C), and when necessary, additional comments were made to provide clarification if the participant was unsure or asked for additional information.

The objective of the interview questions was to collect members’ self perceptions of the skill sets they possessed and required to perform tasks in their sector and the factors they perceive as limiting or enhancing access to additional learning opportunities. Through the interviews, the different types of learning needs and formats to enhance personal access to potential learning opportunities were recorded. The data were summarized to develop sectoral perceptions of learning needs and how each sector was perceived in relationship to the entire industry.
Researcher Role and Position

Yin (2003) has indicated that for a case study researcher to be successful he or she must possess the following attributes:

- have the ability to ask good questions and interpret the responses;
- be a good listener;
- be adaptive and flexible to react to different situations;
- be fully aware of the issue(s) being studied; and
- be open to all opinions, ideas, and comments and remain unbiased.

My position for this research is that there is a need to document and identify the learning needs of industry members as they perceive their needs. By documenting and extending the perception of these real needs, a solid and transferable program of study may be established upon foundational principles that would be accessible and reflective of those actively working within or wishing to enter this industry. These learning opportunities need to be developed without being constrained by the rules and regulations necessary to meet the academic course requirements of a degree or diploma granting institution or program. The underlying question remains – What are the learning needs of this community? Its companion question asks, how can these needs best be met by an integrated non-institutional program or system for learning?

Selection of Participants

Purposeful sampling (Creswell, 2002) also described as purposive sampling (Berg, 2004; Gay & Airasian, 2003) or judgemental sampling (Berg, 2004) was used to ensure that voluntary participants were representative of the sectors previously described. The researcher had a specific target population and knowledge of the population to be
used and from which the research was to be completed. The purposeful sampling was undertaken to ensure that all sectors were equally represented and to provide comparative amounts of data for cross sector analyses. This allowed the number of participants to be the same for each sector, kept numbers to a suitable level for focus group work as previously described, and enabled the researcher to complete the personal interview component within the allocated time frame (Fowler, 1995; Kvale, 1996; Merriam, 1998; Yin, 2003).

In collaboration with the Grape Growers of Ontario, the Wine Council of Ontario, and the Liquor Control Board of Ontario (LCBO) solicitation of participants for the focus groups and for personal interviews was done through organizational mailings and electronic mailings to members. These three organizations represented substantial membership for each of the defined sectors (Grape Growers of Ontario – Viticulture, Wine Council of Ontario – Processing and Retail, LCBO – Retail). The members of these organizations include individuals, incorporated businesses (wineries and vineyard enterprises), and joint and sole proprietorships, and the volunteers for each sector came from these members. For each focus group, the first seven respondents in that sector were utilized, and for the personal interviews, the first four respondents in that sector were accepted. Unlike the Luczkiw et al. (2000) study which focused on CEOs and winery owners, the participants for this study were from direct involvement jobs (vineyard workers, vineyard managers, equipment operators, cellar hands, winery technicians, junior winemakers, retail sales representatives, marketing managers, direct sales supervisors, etc.) that were not senior management level positions. These mid and lower level positions comprise the majority of people working in the NGWC and are often
filled by people who have not taken any specific post secondary education directly related to the grape and wine industry. The sectors and participants are described as follows.

**Viticulture Sector**

This sector is involved in the growing and production of grapes for use in processing into wine and ultimately sold by retail to the final consumers. These members are commonly referred to as “growers” within the community but actually are comprised of many individuals, some with unique roles or responsibilities along with those who have broad responsibilities and obligations as illustrated in Figure 3. Owners may be “active” in all aspects of production or may be land owners that hire managers/workers to oversee all aspects of production from initial planting and vineyard operation through to crop harvest and delivery of grapes to processor. Managers may also be owners. As the name suggests, managers oversee the entire production process. They can have multiple roles and responsibilities which may include planning, scheduling, labour management, budgets, finances, health and safety, and winery/processor relations, along with any other tasks necessary to ensure a viable crop is produced, harvested, and delivered to the processor.

Workers are members that perform the day-to-day operations necessary for production. These may involve manual activities such as pruning, tying, weed control, crop load management, canopy management, harvesting, and delivery. Additional roles include equipment operation (tractors, sprayers, cultivation, hedgers, harvesters, truck driving) and other duties as assigned that workers were deemed sufficiently knowledgeable and competent to complete. It is from the viticulture or grower pools
Figure 3. Viticulture sector members and their different roles.
that members of this sector specific focus group and participants for personal interviews were selected. The participants for the focus group were not the same individuals as those participating in the personal interviews.

**Processing Sector**

This sector is involved with receiving the grapes from the growers and processing the grapes into wine. Within the industry, the members of this sector are often referred to as “winery” personnel. All aspects of the processing component are undertaken – crushing, fermentation, cellar aging, bottling, and labelling and packaging for sale to consumer or other purchasers. As with viticultural production, there are many tasks and unique responsibilities and job titles such as Cellar Master/Supervisor, Cellar Worker (General Labourer), Winemaker, Assistant Winemaker, Laboratory Technician, and others (see Figure 4).

Depending on the size of the processor, individuals may have highly defined responsibilities as job titles partially describe, or they may have work responsibilities that encompass all aspects of processing from the crush through to final bottling and packing for sale. Tasks for members may involve the use, repair, and maintenance of equipment (tow motors, bottling lines, crush units, tank cleaning and preparation, laboratory equipment); supervision of the fermentation process; and assessment of wine quality at different stages of fermentation and bottling. From this processing or “winery” pool of individuals, volunteer participants were selected to provide comment and opinion that would come from the processing perspective. As with the viticulture sector participants, the focus group participants and semi structured personal interview participants were not the same individuals.
Figure 4. Processing sector members and their different roles.
Retail Sector

The retail sector is involved with the sale of the finished product to the subsequent retailers or directly as vendors of wine to the final consumer. These individuals may be involved in the sale of wine to the general public or in marketing or promotion of the product to consumers on behalf of the winery or retail sales outlet. Within this sector are individuals who may be general store sales staff and/or supervisory personnel within winery owned stores, the LCBO outlets, winery representatives that sell directly to licensees (restaurants, bars, and special events locations), marketing specialists, or event planners (see Figure 5). Tasks may include winery store retail set up, in store advertising and promotion, inventory maintenance, customer sales and tastings, special event planning and facilitation, group marketing program development, and liaison with government bodies and regulatory agencies. The participants for the focus group were not the same individuals as those participating in the semi structured personal interviews.

Data Collection

Focus group sessions and the analysis of collected field notes provided insight on the activities and needs of different members of each sector and the collective thoughts of the group on perceived needs and issues of the sectors. The written field notes taken by the researcher included members’ perceptions about the basic and potential future learning needs of the members and highlighted potential barriers and issues that may restrict potential for future learning. After reviewing the field notes of the focus groups, summary notes were returned to members for review and comment. After receipt of field note reviews made by members, any additions or clarifications were noted by the researcher. From the revised notes from all focus groups, the researcher then developed
Figure 5. Retail sector members and their different roles.
potential personal interview guide questions. These potential questions were provided to the participants of each focus group to gain their comment on the clarity, intent, and usefulness of the questions for use in Phase Two personal interviews. At the same time, these potential questions were provided to other similar sector group members of the industry who were not part of the focus or personal interview group volunteers to determine if the questions developed were clear, concise, and understandable (Fowler, 1995; Payne, 1951). Following the focus group phase of the study, the personal interview questions generated (see Appendix C) were submitted to the university Research Ethics Board for review and clearance. Personal interviews were approximately 60 to 90 minutes and audio taped. The tapes were transcribed and transcripts provided to the participants to ensure accuracy and allow for clarification of content. In order to allow the participants to feel comfortable during the interviews, they were given the freedom to make any comment as long as they wanted. In most cases, responses to one question often led to comments that were applicable to other questions that had yet to be posed or referenced back to answers made earlier in the interview.

These interviews were undertaken with each participant under conditions that ensured comfort, safety, respect, and confidentiality for the participant. The participants in this phase have been given pseudonyms with all data coded and marked to ensure confidentiality during the analyses and reporting phase. Consent forms were used to identify all of the components and allowances for participant actions, withdrawal options, data destruction, and personal identity protection. As outlined in the submission for ethics review and noted on the participants’ consent forms, only the returned transcripts, which had been reviewed and clarified by the participants, were used for this study.
Phase One – Focus Group Sessions

The first phase was comprised of three separate focus group sessions. Each sector was identified and separated into a focus group—Viticulture, Processing, and Retail. The participants in this first phase were independent of those participants in the second phase of the study. Questions about perceived needs of the other sectors were raised in the focus groups to provide guidance in the formulation of general questions that would be inclusive of all sectors for Phase Two interviews.

Each of the focus group sessions occurred one week apart. This allowed the researcher time to collate and transcribe the field notes, summarize, and provide circulation to participants within seven days of their particular session. By doing so, this process encouraged the participants to provide comment and elaboration while the session was still fresh in their mind and to provide some additional measure of the accuracy of the information collected (Creswell, 1998; Maxwell, 1996; Stake, 1995; Yin, 2003). There were only two respondents to the focus group sessions that supplied additional comments and none of the focus group participants requested any deletions from the field notes they were asked to review. Focus group participants were given two weeks after completion of the group session to provide these comments and an additional two weeks to provide response to the potential personal interview questions developed by the researcher.

Phase Two – Personal Interviews

The second phase involved personal interviews with individual participants who had not been involved with this study earlier. Within each sector, four volunteer participants were interviewed to provide information on their background, experience,
and insight into the learning needs and skills which are important for their sector. This information was then analyzed in conjunction with data collected from interviews with members from the other sectors to comprise a total of 12 interviews for analyses for the NGWC which established the boundaries for the case study.

Due to the diversity of member roles and responsibilities within each sector, the use of four participants in each sector (total of 12 interviews) allowed for a more robust gathering of data that could be completed within the time frames available and assist in improving internal validity of the research (Stake, 1995; Yin, 2003). These interviews were held at locations and times agreeable to participants to ensure safety, security, and confidentiality. Each interview lasted approximately 60 to 90 minutes and was audio taped. The tapes were transcribed in their entirety and these transcripts were provided to each participant for review to check for accuracy and clarity. Any modifications to the transcript by the participant were accepted by the researcher and only these modified transcripts were used for analyses.

Data Analysis

Focus group field notes were reviewed, searching for common themes within and across groups. The written field notes were summarized and subjected to researcher review. After categorizing and coding the field notes, comparisons of the information collected across the three sectors provided insight for the formulation of questions used for the personal interview phase.

Phase two semi structured personal interviews were audio taped and transcribed. The researcher reviewed the transcripts in their entirety and compared them to the audio tapes after transcription to ensure they were accurate. The individual transcript of each
interview participant was supplied to him/her for review and the opportunity to adjust, modify, or delete as desired. Once returned to the researcher, any modifications were accepted and only these modified phase two transcripts were used for analyses to ensure that participant approval and review were followed as per the study guidelines (Miles & Huberman, 1994).

These electronic semi structured interview transcriptions were subjected to analysis by Atlas ti 6.012© software (Muhr, 2005) which selected for common word or phrase use, associated codes and labels with sections of text, and constructed classifications of codes selected by the researcher. The researcher undertook formal review of transcripts to check coding for themes and perceptions to generate a picture (matrix organization) of the learning needs for each sector and to look for underlying areas of common bond across the sectors. The findings were analysed and compared individually and collectively to ensure that the participants’ perspectives along with those of the researcher/interpreter were accurate.

The data for each question were placed into categories and subcategories using the following the guidelines: similar word responses by those interviewed, terms and ideas with common themes and those thoughts or opinions having common meanings and content (Guba & Lincoln, 1994; Merriam, 1998; Stake, 1995; Yin, 2003). Categories and subcategories were created and reviewed by a critical friend (Costa & Kallick, 1993; McNiff, Lomax, & Whitehead, 1996) for verification and confirmation of accuracy and content.
Ethical Considerations

This study was conducted following the ethical standards outlined by the Brock University Ethics Review Board. The board reviewed and gave clearance to ethics documents pertaining to this study (see Appendix A). Considering my position as an insider to the community, I followed all components of being a respectful and considerate researcher. For focus groups, anonymity was not possible as those present would be able to identify one another; however, the participants were asked to maintain confidentiality; and there were no source identifiers recorded with the written field notes taken by the researcher at the time of the focus group sessions. For the personal interviews, pseudonyms were used in preparation of the transcripts and all potential identifiers removed prior to and after participant review of transcripts. For both focus groups and personal interviews, participants were advised of their opportunity to withdraw at any time and have all of their contributed information deleted from the study. Consent forms were used to provide the participants with written confirmation of the obligations of the researcher and utilization of the data and to reaffirm the verbal notification or nondisclosure and the participants’ ability to withdraw from the study. The participants’ rights and concerns were of paramount importance; therefore, all focus groups and personal interviews were scheduled to meet the participants’ convenience and conducted to ensure personal comfort and security with respect to the use of the data and manner of collection.

Methodological Assumptions

Specific assumptions were made at the outset of this study. The participants in the focus group sessions needed to be representative of the defined sectors and have the
capacity to accurately and thoroughly explain the issues and learning needs with respect to their sector and possibly in relation to the NGWC as a whole. The language and wording used for the development of the interview questions had to be clear for the majority of the NGWC, while understanding that English may not have been the primary language of some of the members and/or participants (Fontana & Frey, 1998; Fowler, 1995; Nardi, 2003; O’Rourke, 2001; O’Rourke & O’Rourke, 2002; Payne 1951). All efforts were made to ensure understanding and clarity of the process in order to provide opportunity for direct input and critique of the research during the data collection and data review phases.

**Limitations**

This study is limited in scope based on geography (confined to the winegrape growing region known as Niagara) and the availability of participants during the prescribed time frame of the study. For each focus group, there were no more than eight participants, and those volunteering may not have been fully representative of the cultural aspects of the sector or the roles they hold within the sector. There is potential for great diversity in professional and personal experiences of participants from the NGWC. The interview participants (a total of 12 participant interviews, four per sector) for each sector were able to provide their personal perspectives. These perspectives may not be fully representative of the diverse roles and responsibilities along with cultural, linguistic, and social aspects of their sector. All role categories (jobs and responsibilities) within each sector may not be present in this study, so those individuals participating may only have provided comment in general terms for those areas of which they do not have direct experience but possess personal knowledge.
CHAPTER FOUR: FINDINGS AND ANALYSIS

The intention of this study was to understand the community construct or organizational design of the NGWC in order to describe the concerns and topics of common interest as well as the unique needs for the different sectors. By taking the perspective of non-institutional forms of learning or courses of study, this research sought to understand the following:

1. What are the key knowledge and skills possessed by those active in the community or necessary for those seeking to enter the community?

2. What are the learning needs within each sector, and are there common needs across sectors?

3. What are the factors that enhance or limit learning opportunities?

4. What topics should be addressed to enhance the learning required for successful participation in the community?

5. What key foundational principles for a learning program design are critical to enhance learning opportunities and accessibility within and across sectors?

Informing the Researcher

Focus groups were used to reveal general concepts and ideas to formulate questions to be utilized during the personal interviews. To offer some insight into the participants' backgrounds and experiences, Appendices D, E, and F provide an overview of the focus group participants' backgrounds.

At the focus group level, the general discussions by the participants revealed two general categories or recurring themes – Needs and Issues. Needs were general comments and/or topics that were identified as areas for further personal training not only for the
participant but suggested as possible training for others in that sector. Issues were items that need to be considered in the creation of further training opportunities. These included comments about potential life/personal conflicts that may arise; desires for specific types of interactions; and course content relevance, degree of difficulty, and applicability to their personal needs, job needs, and employer needs. From the groups’ suggestions, specific questions were developed by the researcher where personal interview questions 2 and 4 were used to inquire about needs and questions 3, 5, and 6 were developed to inquire about issues (see Appendix C).

Responses to Personal Interview Questions

The personal interview questions were used to reveal the perceptions of members for each sector and identify common threads that occur within each sector, across sectors, and throughout the entire community. Within each of the identified sectors four participants actively engaged within the sector were interviewed by the researcher using the questions from Chapter 3. For each sector, the participants’ responses were combined for analysis and identification of key codes or common themes within the sector. Question 1 was intended to describe the participants’ background, experience, and prior knowledge in order to develop the context for the case study. For questions 2 through 6, identification of sectoral selection of a topic or subcategory in tables and appendices was based upon at least two of the four participants from that sector mentioning the item during the interview.

Question One: Participants’ Prior Knowledge Levels

Question 1 was asked to develop an understanding of the participants’ prior training and experiences and how this information may have helped or hindered their
development and success within the industry. This question revealed the formal and informal educational experiences that the participants possessed (see Appendices G, H, and I). In-depth discussion took place around formal and informal education (post secondary) relative to the grape and wine industry in an effort to determine if there was much prior training or training relative to their entry into the grape and wine industry. Education was described as academic where they had undertaken formal training in a discipline at an institution beyond secondary school that was directly related to their current position in the industry. Industry refers to non-institutional training and experience obtained through industry-sponsored short courses, seminars, attendance at conferences, or other organized learning programs but not for formal academic credit at any level.

For the viticulture sector, participants’ ages ranged from 25 to 50 plus, and experience in the industry ranged from just fewer than 5 years to more than 25 years of direct involvement. Three participants attended post secondary institutions with two obtaining degrees in agriculture (non grape industry related). One participant entered the industry directly after completing secondary school. Most of the industry-related education came through practical experience doing vineyard production, attendance at seminars and conferences, and through regular networking (industry contacts among peers in similar positions and/or attending weekly industry group meetings during the growing season).

Processing personal interview participants’ ranged from 25 to 50 years of age, and experience ranged from fewer than 5 years (two of the participants) to greater than 10 years and covered all levels of responsibility from cellar labour through to winemaker.
All participants had post secondary education but only one had agricultural-related training and specific post graduate training in processing practices. “On the job” training was a key source of learning noted by each participant, and three of the four participants in this sector had prior vineyard work experience before becoming involved predominantly with processing. One person started out in retail and then moved into processing as their employer needed assistance in the processing component of the business. This occurred due to the size of the employer, where the employer felt it was more cost effective to train an existing employee rather than hire new personnel. Networking among the processing sector and attending seminars and conferences when possible were identified as predominant sources of ongoing training and acquisition of knowledge by all participants.

Retail personal interview participants’ ages ranged from 35 to 50 plus years and experience ranged from fewer than 5 years (two of the participants) to greater than 15 years and covered all levels of responsibility from basic store sales through to retail manager/ marketing director. Three participants had post secondary education (none directly associated with agriculture) while two had specific training in business and/or marketing (private courses or seminars). These sector participants had most of their prior professional and academic experience in marketing and sales in industries unrelated to the grape and wine industry. “On the job” training was noted by each participant with most of their knowledge gained from selling wine directly to consumers as entry level retail personnel. One person had managerial and supervisory experience and entered the industry via a retraining program as part of an exit strategy from other employment. Networking among the retail sector and visitation to other retail stores of other wineries
locally and abroad in addition to attending seminars and conferences were identified as predominant sources of ongoing training and acquisition of knowledge.

Data Analyses by Interactions

For the purpose of analyses of data collected, if at least two participants from a sector identified an item of interest that fit a category, subcategory, factor, or topic within a particular question, this was considered as a sector selection for comparative purposes in the tables used for questions 2 through 6.

Question Two: Perceived Learning Needs

Question 2 involved having the participants identify and articulate specific needs and skills that would be useful to possess or acquire to be successful in the industry. For this question, participants provided answers applicable to not only their own needs but those of others in their sector. By reviewing the data, two areas of learning needs were identified – Knowledge (Fundamentals) and Skills (Application of Knowledge). The following are the operational definitions used by the researcher for this study.

Knowledge is the condition of knowing something with familiarity gained through experience or association. It includes the understanding of a science, art, or technique and the condition of establishing truth or fact through reasoning or of being learned. In this context, knowledge is considered as familiarity, awareness, or understanding gained through experience or study. It is the accumulation of information that has been perceived, learned, or discovered as part of one’s life experiences to date.

Skills may be considered as the demonstration of the use of one's knowledge effectively and readily in execution or performance. It is the proficiency, facility, or dexterity that is acquired or developed through training or experience. It may be
perceived as an art, trade, or technique to perform a particular task done as part of one’s duties or a function to be performed (an objective). In this context, knowledge is considered as personal internal understanding while skills are task performance related.

**Knowledge.** Within the learning need labelled as Knowledge, the following categories were identified from the participants’ comments:

1. **Overall Business Economics** includes the awareness of the costs of production and the supply/demand relationship that impact on profitability. Subcategories included concepts such as cash flow, operating lines of credit and credit needs, financial planning, inventory, and capitalization.

2. **Labour Management** addresses the acquisition and supervision of labour, specific rules and regulations as legislated by government agencies, methods for managing a workforce, and responsibilities associated with safety and other applicable legislation.

3. **Planning and Scheduling** focuses on the awareness of the cyclic nature of activities within and across industry sectors and implications on effectively completing tasks or objectives as need to be viable. This included personal awareness of activities within one’s sector and across sectors, the allocation or accumulation of necessary resources (labour, supplies, capital, and finances), and the critical timelines for completion of required tasks or duties.

4. **Sales Process** is the understanding of the dynamics of selling products within one’s sector or as a whole for the industry. This includes knowledge of market demands for the finished product (wine) and how it affects or influences both the production of wine and the growing of grapes to meet wine sales demands.
Also noted within this category was the need to be familiar with government rules and regulations for sales of wine and wine products and the interaction with regulatory agencies that are responsible for the control and distribution of wine products.

Table 1 summarizes the categories and subcategories of the required knowledge as selected by sector. Under the category Overall Business Economics there was no single sub category common to all sectors, yet viticulture and processing had numerous common items. Participants in the he viticulture and processing sectors are very aware of the need to know about economic factors as the members are involved in businesses that must be profitable to exist and continue to operate each year. As commercial businesses, they need to ensure they have sufficient operating funds (cash flow, lines of credit) and capital for large equipment or long term purchases such as land or buildings (capitalization). As well, they must be aware of financial interest rates for short and long term loans (financial planning) and the need for supplies to be purchased to produce the crop (viticulture) or purchase the crop (processing). Retail participants may not have perceived economics to be as important as the other sectors as the price of the product they are provided to sell is predetermined by others based on input costs from viticulture and processing, and they do not have similar measurable inputs to complete production (e.g., fertilizer, pesticides, bottles, cartons, labels, tanks, etc.) as the other two sectors.

Processing and retail members had a common interest in inventory, and this is likely due to the intimate relationship of supply and demand for wine sales. The retail sector possesses the information to identify which items are selling well and what market demands will be for particular items (type of wine style or particular wine) in the short
Table 1

*Categories and Subcategories of Required Knowledge as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories of Knowledge (subcategories)</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td><strong>Overall business economics</strong></td>
<td></td>
</tr>
<tr>
<td>Cash flow</td>
<td>•</td>
</tr>
<tr>
<td>Lines of credit</td>
<td>•</td>
</tr>
<tr>
<td>Financial planning</td>
<td>•</td>
</tr>
<tr>
<td>Inventory</td>
<td>• •</td>
</tr>
<tr>
<td>Capitalization</td>
<td>• • •</td>
</tr>
<tr>
<td><strong>Sales process</strong></td>
<td></td>
</tr>
<tr>
<td>Product demand</td>
<td>•</td>
</tr>
<tr>
<td>Rules and regulations</td>
<td></td>
</tr>
<tr>
<td>Agencies</td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td></td>
</tr>
<tr>
<td><strong>Labour management</strong></td>
<td></td>
</tr>
<tr>
<td>Hiring/ Finding labour</td>
<td>•</td>
</tr>
<tr>
<td>Training</td>
<td>•</td>
</tr>
<tr>
<td>Supervision</td>
<td>•</td>
</tr>
<tr>
<td>Government legislation</td>
<td></td>
</tr>
<tr>
<td>Regulations</td>
<td></td>
</tr>
<tr>
<td><strong>Planning/scheduling</strong></td>
<td></td>
</tr>
<tr>
<td>Production/sales cycle</td>
<td>•</td>
</tr>
<tr>
<td>Within sector activity pattern</td>
<td>•</td>
</tr>
<tr>
<td>Resource needs</td>
<td>•</td>
</tr>
<tr>
<td>Timelines for other sectors</td>
<td>•</td>
</tr>
</tbody>
</table>

*Note.* The symbol • indicates factor selected by that sector. Underlined factors are those subcategories selected by all three sectors.
and long term. Processors are concerned with being able to meet these product demands while also having to consider what products they have in stock, current store inventories, and the capacity to process and store specific products for sales by the retail sector.

Participants in all sectors noted the need for knowledge of Sales Process and product demand. This related to each sector having interest in this area as it would influence planning and decision making at the beginning of the overall production with the growing of the preferred grapes to make desired wine and the effectiveness of selling this wine to keep the entire system operative. From the vineyard perspective, knowledge of product demand would impact which cultivars to plant, vineyards to remove (high or low sales projections), or vineyards that would need to increase or decrease production. From the processing perspective, there is a need to know which grape cultivars to purchase and what volumes for processing so that the volume of wine produced would match the needs of retail for sale and not result in excess inventory to be stored. Awareness of market trends, consumer preferences, costs of production, and capacity to produce cultivars in demand were components of this category mentioned as knowledge sought by participants.

Awareness and understanding of distribution channels were mentioned by processing and retail participants as these involved how products may be sold or distributed locally, provincially, nationally, and internationally. Specific items included the operation of the Liquor Control Board of Ontario and its sales outlets as Ontario legislation mandates the LCBO as the primary licensing authority along with sales to restaurants, hotels, and others that constitute licensee sales. Retail members further identified the need for knowledge about the operation of specific agencies involved in
wine sales and service that would influence their ability to sell wine. With the LCBO being a significant component of wine retail, knowledge of regulations attached to this agency were identified as valuable. The retail sector participants identified knowledge of government regulations and sales regulations as learning needs as they are required to work in a highly regulated sector and are involved in the sale of alcohol directly to consumers or via licensees to consumers.

Labour management was a particular category highlighted by participants in all sectors and not surprisingly due to the high numbers of people working in the industry. Many tasks that cannot be automated or mechanized require personnel to perform the specific tasks. Supervision of employees and understanding the obligations (as co-worker, supervisor, or employer) and techniques of good supervision were considered important. Viticulture and processing participants identified hiring/finding suitable labour, training labour, and regulations regarding employment of labour as important knowledge requirements. Regulations included knowledge of local regulations with respect to items such as employee housing (viticulture), health and safety procedures, and federal seasonal worker programs. Participants in the processing and retail sectors highlighted government labour legislation as important as some members have unionized work forces. Other needs included knowing and enacting health and safety procedures in processing, knowing regulations surrounding the serving and/or retail sale of alcohol, and any issues that might arise from doing winery tours.

Members of each sector identified familiarity and awareness of the planning and scheduling aspects of their sectors as critical knowledge. Knowing what tasks must be completed, in what time frame, and how to ensure that there are sufficient resources to
complete the tasks were considered as essential to enable their sector to operate effectively. Being aware of peak periods of intense activity was also mentioned by participants in all three sectors. For example, in viticulture, this included tasks such as pruning, tying, and grape harvest. For processing, the timing of harvest, crush at the winery, fermentation, and bottling must be well planned. For retail, knowing about sales promotion periods, festivals, industry events such as the Niagara Wine Festival each September or Cuvee (Ontario Wine Awards) were mentioned because these activities would influence the availability of members with respect to attending learning events or opportunities. Participants in each sector indicated that basic knowledge of the working cycles of the other sectors would be valuable by enabling them to understand when conflicts arise or bottlenecks or delays occur which may affect their sector indirectly.

The viticulture and processing sector participants identified knowledge of resource requirements and other sector timelines as valuable. This makes sense as growers must coordinate with processors on the timing of harvest and delivery of grapes for processing to meet fundamental quality standards necessary to produce quality wines. For processors, being aware of viticultural timelines in the current growing season allows them to adapt and modify delivery dates of harvested grapes depending on the location of vineyard, type of season (early or late due to weather patterns), and adjustment of the processing cycle to meet these potential issues. Similarly, vineyard practices may be modified to alter the potential harvest dates to adapt to processing issues such as volumes of grapes to process within a certain period of time or processing limitations. For example, the harvest of red grapes for red wine production may have to occur over a longer period of time due to a slower fermentation on the skin for colour extraction and
less available tank space. Awareness of the need to have complementary scheduling was considered essential for smooth operation of both sectors.

Table 2 summarizes the knowledge categories and subcategories as chosen by sector. Within these knowledge categories, a total of 18 subcategories were identified with processing participants selecting 17 subcategories, viticulture 13 subcategories, and retail 9 subcategories. Participants in all sectors selected at least one identifiable knowledge subcategory per main category with processing members having selected the greatest number of needs for fundamental knowledge matching all main categories and 17 of the 18 subcategories.

Skills. Within the Skills area, participants in each of the sectors identified items and ideas that were assigned to categories and subcategories to allow for identification of areas of interest that were common across all sectors, between sectors, and those unique to a particular sector. For Skills, the following categories were derived:

1. Equipment Operation/Maintenance/Repair covers the ability to operate and maintain machinery necessary to complete required tasks. Depending on the sector, this included such items as tractors, specialized vineyard equipment, tow motors, crusher/destemmers, fermenters, bottling lines, pumps, tanks, cash registers, computers use and software.

2. Labour/Interpersonal Skills addresses the act of communication, cooperation, and interaction with other members of the workforce, management, customers, regulatory officials, suppliers, buyers, and others that directly and indirectly affect the operation of the business. Included are leadership attributes – the ability to lead and show progressive
Table 2

*Required Knowledge Categories and Subcategories as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories of knowledge</th>
<th>Number of subcategories</th>
<th>Number of subcategories chosen by sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td>Overall business economics</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Sales process</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Labour management</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Planning/scheduling</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total number of subcategories</strong></td>
<td><strong>18</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

acceptance of responsibility.

3. Adaptability/Problem Solving refers to the capacity to react to environmental or management issues that require the modification or adaptation of task plans and the ability to implement, personally and collectively, such changes in order to be successful.

Table 3 summarizes the categories and subcategories of required skills as selected by participants in the three sectors. Within this Skills section, members of all sectors identified specific subcategories. Common areas for all sectors included the operation of sector specific equipment or machinery and the general use of computers. This reflected the need to be adept and proficient at the use of highly specialized equipment in a safe and responsible manner. Repair and maintenance of equipment was identified by viticulture and processing participants as important skills, as well as the ability to fix things in-house and not have to send equipment out for repair. This was suggested as an essential skill to possess to remain economically viable and to maintain productivity in tight timelines. Processing and retail members indicated that proficiency with software programs was useful due to the advent of new software for business use. Members of both sectors identified inventory management, internet sales, and the advent of new computer assisted processing equipment (computer controlled presses, bottling lines, labelling machines) that were becoming more prevalent as required skills for operation and maintenance.

Labour and interpersonal skills were noted by participants in all sectors due to the high degree of interaction of members required not only within a sector but across
Table 3

*Categories and Subcategories of Required Skills as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories of Skills (subcategories)</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td><strong>Equipment operation/maintenance/repair</strong></td>
<td></td>
</tr>
<tr>
<td>Operate specific machinery</td>
<td>●</td>
</tr>
<tr>
<td>Repair/maintenance of equipment</td>
<td>●</td>
</tr>
<tr>
<td>Computer use - general information access</td>
<td>●</td>
</tr>
<tr>
<td>Computer software</td>
<td>●</td>
</tr>
<tr>
<td><strong>Labour/interpersonal skills</strong></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>●</td>
</tr>
<tr>
<td>Interaction within sector</td>
<td>●</td>
</tr>
<tr>
<td>Leadership attributes/supervision</td>
<td>●</td>
</tr>
<tr>
<td>Customer relations</td>
<td>●</td>
</tr>
<tr>
<td><strong>Adaptability/problem solving</strong></td>
<td></td>
</tr>
<tr>
<td>Adapt to environmental conditions</td>
<td>●</td>
</tr>
<tr>
<td>Task modifications</td>
<td>●</td>
</tr>
<tr>
<td>Selling</td>
<td>●</td>
</tr>
</tbody>
</table>

*Note.* The symbol ● indicates factor selected by that sector. Underlined factors are those subcategories selected by all three sectors.
sectors. The ability to communicate with one another was considered an essential skill. In the viticulture sector this meant familiarity with terminology and language skills as there is a great range of literacy levels of people working in this sector. This included many sector members whose primary language is not English although they are working in a predominantly English language environment. The viticulture sector has a significant segment of the workforce who comes from other countries (Caribbean, South American, and Central America) and resides on site during the production season. Another segment of this sector are people from the Asian or European communities whose first language is not English, yet they reside locally and are employed to perform vineyard production tasks. Verbal communication with co workers, managers, and supervisors was considered essential especially when it involved documents relevant to equipment, products, or programs that have instructions written in English but are being operated by workers whose primary language of communication is not English.

Supervisory and leadership skills were considered valuable with the concept of team work and the need for people to lead, organize, give direction, and help others. This was identified as important not only in the vineyard but also in the winery for processing, in the management and operation of retail stores, and with sales staff dealing with external clients (restaurants, bars, organizations, special events). The retail sector participants indicated the importance of having good customer relations skills and the ability to assist people in all types of situations that would enhance the sale of products.

Viticulture and processing members noted adaptability and problem solving as key skills for success. Dealing with biological (grape production) entities in an uncontrollable environment and mechanical (processing) factors meant that the ability to
deal with adverse or unusual weather conditions or mechanical failures and the ability to adapt, modify, and prioritize tasks or develop new solutions quickly and efficiently were required skill sets. Retail members indicated the ability to deal with large inventories or product shortfalls, consumer preference changes, or regulatory changes that were outside of their primary control as necessary skills to remain functional and competitive.

Table 4 summarizes the skills categories and subcategories as chosen by sector. Participants in all sectors chose skills within each of the three categories. Within the three categories, there were 11 subcategories identified with processing participants selecting 9 of the 11, and viticulture and retail participants each selecting 7 of the 11. Processing (4 of 4) and viticulture (3 of 4) members deemed that equipment operation and repair skills were important with retail members having it of some importance (2 of 4). Retail participants deemed labour and interpersonal skills important (4 of 4) with processing choosing 3 of 4 and viticulture 2 of 4. Problem solving was of importance to both viticulture (2 of 3) and processing (2 of 3) members and of lesser importance to retail (1 of 3) members.

**Question Three: Factors that Enhance or Limit Learning Opportunities**

Question 3 was posed to assess what factors were noted by participants as enabling or restricting learning opportunities and to elicit suggestions to use in developing learning programs that would reflect the life situations and employment situations of members of the industry.

Participants identified a number of factors that had direct and indirect impact on their acquiring new knowledge and skills (see Tables 5 and 6). The following categories are used to summarize these factors. Three broad categories for both enhancing and
Table 4

*Required Skills Categories and Subcategories as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories of skills</th>
<th>Number of subcategories</th>
<th>Number of subcategories chosen by Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td>Equipment operation/maintenance/repair</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Labour and interpersonal</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Adaptability and problem solving</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total number of subcategories</td>
<td>11</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 5

*Factors that would Enhance Undertaking Learning Opportunities as Identified by Sector*

<table>
<thead>
<tr>
<th>Enhancing factors</th>
<th>Viticulture</th>
<th>Processing</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct application</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focused/specific</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Practical/applied</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
<tr>
<td>Applicable</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
</tr>
<tr>
<td><strong>Learning environment/Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Interactive / hands-on / real setting</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
<tr>
<td>Print /electronic resources</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
<tr>
<td><strong>Support systems</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer support</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Time - Flexible time of offering</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
</tr>
<tr>
<td>Mentors/share knowledge</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
</tr>
<tr>
<td>Use of collective knowledge</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The symbol ⬤ indicates factor selected by that sector. Underlined factors are those subcategories selected by all three sectors.
Table 6

*Factors that would Limit Undertaking Learning Opportunities as Identified by Sector*

<table>
<thead>
<tr>
<th>Limiting factors</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td><strong>Direct application</strong></td>
<td></td>
</tr>
<tr>
<td>Lack of focus/ too broad</td>
<td>•</td>
</tr>
<tr>
<td>Not applicable locally</td>
<td>•</td>
</tr>
<tr>
<td>Theoretical</td>
<td>•</td>
</tr>
<tr>
<td><strong>Learning environment/Resources</strong></td>
<td></td>
</tr>
<tr>
<td>Poor delivery format</td>
<td>•</td>
</tr>
<tr>
<td>Lack of print/electronic resources</td>
<td>•</td>
</tr>
<tr>
<td>Location – access and relevance for topic</td>
<td>•</td>
</tr>
<tr>
<td>Appropriate level of difficulty</td>
<td>•</td>
</tr>
<tr>
<td><strong>Support systems</strong></td>
<td></td>
</tr>
<tr>
<td>Time commitment</td>
<td>•</td>
</tr>
<tr>
<td>Time offered</td>
<td>•</td>
</tr>
<tr>
<td>Lack of employer support</td>
<td>•</td>
</tr>
</tbody>
</table>

*Note.* The symbol • indicates factor selected by that sector. Underlined factors are those subcategories selected by all three sectors.
limiting personal growth and development are (a) Direct Application, (b) Learning Environment/Resources, and (c) Support Systems.

*Direct Application* should be considered in the context of having significant and demonstrable bearing on the matter at hand. This requires a logical and significant connection to the task or item being investigated. Participants commented on relevance in a variety of ways by suggesting that any programs or courses must be focused, specific, applied, practical, and locally applicable. This follows the experiential learning concept of Rogers (1969) where learning must meet the needs and wants of the learner and result in lasting and pervasive change.

The *Learning Environment/Resources* category encompassed the importance of having an easily accessible and representative location for learning. The environment in which learning and observing takes place needs to allow for interaction and hands-on opportunities to try out some of the practices or techniques that are being taught or explained. There was desire for hands-on activities to fulfil the person’s needs for the acquisition of knowledge and performance tools in a specific domain activity. This can be considered as fulfilling the idea of cognitive apprenticeship as described by Brown et al. (1989).

*Support Systems* refer to those items that encouraged or supported learning by individuals and groups. Employer support to undertake learning opportunities was identified as highly desirable. For example, it was suggested that the employer contributions could be monetary support of registration costs, time off to attend learning sessions, or suggestions for learning opportunities made to employees that may assist them with personal development or advancement up the career ladder.
Under *Direct Application*, items that would prompt members to undertake learning opportunities were identified as programs, courses, or opportunities that were focused, practical, applied (direct use), specific, and applicable to the learner's environment or domain. This indicated a high desire for options and experiences that would provide immediate feedback and easily utilized skills or knowledge. All sectors identified that focused and specific programs or events that would optimize the use of time and resources as valuable. This indicated that specific objectives and outcomes need to be delineated in any advertising or discussion prior to holding the event so that members could adequately assess whether or not they would participate. Events that were considered practical or applied were preferred by participants in the viticulture and processing sectors. These sectors have high labour needs and rely upon manual implementation of practices in the vineyard or processing facility where utilization of new knowledge is easily observed and assessed (new growing techniques, alterations in processing or handling, etc.). Applicability of a technique or strategy was identified by members of the processing and retail sectors as they wanted to ensure that the ideas or information were easily used under local conditions, resources, and constraints.

The *Learning Environment/Resources* category was important to the viticulture and processing sector members as a number of the subcategories emerged. Members of all sectors reported that the language of any learning opportunity or event was important. There was a need to ensure that language levels matched their personal comfort level and understanding so that concepts, ideas, and opinions could be freely exchanged and discussed. Discussions or dialogue from peer-to-peer, instructor-to-student, mentor-to-apprentice, or speaker-to-audience needed to be clear and concise and match the
understanding of all participants. Participants in the viticulture sector commented that appropriate level of difficulty was another factor as they would attend programs or events that would allow them to gain new knowledge or skills and respect their current level of knowledge. Members of the viticulture and processing sectors further identified that interactive or “hands-on” programs and access to print or electronic resources would assist them and be helpful. Location and accessibility of learning opportunities, specifically if they could be held on a real operating site (e.g., a vineyard or processing facility) were important to those in the viticulture and processing sectors.

Under **Support Systems**, employer support was noted by participants in all sectors as important for further personal and professional growth and development. This ranged from financial support and providing access or use of employers’ facilities for course work (computers, video equipment, and print resources) to personal encouragement or identification of potential learning opportunities and the encouragement to attend. By having employer support, members indicated that they would feel more inclined to participate in opportunities that would provide them advancement up the career ladder where they were currently employed or with potential future employers.

Participants in the viticulture and retail sectors noted that flexibility in access to opportunities, specifically, the time (date, duration, etc.) when opportunities were offered, was important. They commented on how their employment times and key periods of activity might not match with scheduled events, and if there was a way to allow for alternate times to attend or access material, it would make it easier and more likely for learning opportunities to be utilized for personal and professional growth. The importance of time in a person’s life, both professionally and personally, was mentioned
by participants in all sectors as having an influence on learning. As noted by Lundberg (2003), the ability to learn is highly influenced by the availability of time.

It was interesting to note that members of the viticulture and processing sectors commented on the value of using collective industry knowledge for mutual benefit to their sectors. This may be due to the close interaction of the two sectors and to the steep learning curve of activities and actions that are influenced significantly by local conditions (environmental as well as mechanical resources). This use of collective knowledge was noted by viticulture and processing participants as important due to the relatively young age of the industry (25 years relative to hundreds of years in other parts to the world) and the current high risk and costs attached to developing vineyards and wineries locally. Collective knowledge, they indicated, could assist in helping members avoid errors or mistakes, and peer interaction would assist them in solving short term issues and lead to long term knowledge gain.

Processing and retail participants identified that the use of mentors and sharing of knowledge through a mentor-mentee relationship could be useful as those members with greater knowledge could assist those members starting out in the industry by helping to identify pitfalls and opportunities where little formal information or written documentation exists.

In discussing items that would inhibit or detract from learning, participants used similar terms to those listed as enhancing but in a negative context. For example, using the same broad categories for enhancing learning opportunities in Direct Application, the participants often used the negative descriptor of these terms to indicate what would prevent or deter them from learning. Lack of focus and topic areas too broad for events or
programs were identified by members of all sectors. Comments relative to this category were time related whereby participants did not want to waste personal or professional time which they value. Participants indicated that topics without defined and measurable objectives and outcomes did not warrant the use of what they felt as valuable time where they could be doing other things (work or leisure). Events or programs that were not perceived as locally applicable were identified as deterrents for members of all sectors as strategies and the inability to implement ideas or procedures would deter participation.

Viticulture participants identified a lack of data to support economic viability as being a deterrent to attendance or participation. Any session that did not provide measured cost benefit analyses of a procedure, technique, or equipment to show tangible financial results would deter them from participation or utilization. The viticulture and processing sector members noted that programs of a highly theoretical nature were undesirable. This may be due to a preference for items or events that they deemed of high practicality and quick implementation rather than programs requiring deep thought and reflection. Events or programs that were focused on theoretical principles alone were considered as a deterrent if the premise of the learning opportunity was based upon high levels of speculation without knowledge of actual outcomes and if there had not been any investigation of the economics of implementing some of the practices or ideas being discussed. Local application arose from comments on the usefulness of some events (seminars, courses, or presentations) members had previously attended with personal expectation of being able to apply the concepts or ideas immediately. Participants mentioned prior attendance at events that failed to meet expected outcomes of reduced expenses, increased time efficiency, or increased income made them wary of attending
events that were more of an academic exercise in potential rather than practical application.

Under *Learning Environment/Resources*, participants in all sectors identified courses or programs with a poor or inappropriate delivery format to match the topic (too much lecture, too technical, no interaction, etc.) as a negative influence on their willingness to attend. Members in all sectors identified the lack of electronic and print resources relevant to the local industry and on topics of interest to the local industry as restrictive. The delivery of courses, programs, or events without hard copy resources or summaries was considered unsatisfactory as participants indicated the desire to be able to take reference materials after attending and to be able to review the ideas and materials at their own pace and on their own schedule.

Location where events would be held was considered a limiting factor for viticulture and processing participants. Specifically, members in these two sectors commented that holding courses or events where application or practical implementation is not possible or feasible restricted their desire to participate. This may be partially explained by the desire of viticulture and processing participants to have onsite programs and demonstrations of equipment or procedures under real world conditions. Offering programs which would allow for practical demonstration often meant these courses or sessions conflicted with employment demand on time for each sector (during the growing season for viticulture or crush and fermentation for processing). If there was to be any opportunity for members to partake in these events, it required that the events be within close distance for travel so time utilized to attend is optimized. The topic being discussed needed to match the location where it was offered as members indicated that academic
surroundings (classrooms) were insufficient for topics of practical implementation (e.g., viticultural practices such as pruning, canopy management, and fruit quality practices or processing techniques such as bottling, pumping, and mechanical maintenance and repair).

Within the **Support Systems** category, participants identified limiting factors that were similar in nature to those listed as enhancement factors. Time commitment (duration) along with specific time of the event (dates, time of day, duration) were identified by participants in all sectors as limiting factors. This included length of learning programs offered (too many evenings or dates to commit to in order to complete) and conflict with work or personal life commitments (family, personal responsibilities). Due to the cyclic nature of the activities of members of the entire industry, the timing of offerings of programs or events was identified as limiting. There are periods of high activity for each sector, and program offerings that conflicted with these periods would restrict access and participation by members. An example is the harvest period for grapes where both viticulture and processing members are working extremely long hours to bring in the crop and process it, and thus, would be unavailable to attend learning opportunities. Similarly, retail members indicated that their hours of work often did not correspond to the traditional 9 a.m. to 5 p.m., Monday to Friday work week, so offerings in the evenings or weekends actually conflicted with their working periods.

In addition, participants in the viticulture and processing sectors considered lack of employer support or encouragement as a negative factor. For some, choosing to take courses or enhance work specific skills without the encouragement of an employer left them trying to justify or rationalize to themselves why they should bother actively
engaging in programs that use personal time and/or resources (financial or otherwise) if there were no perceived employment benefits.

**Question Four: Seminars and Information Packages**

Question 4 looked into the specific topics from a perspective of types of knowledge and skill acquisition useful for member development and success in employment. This question was not intended to develop a syllabus for program development. It was a query to see what areas of training or specific topics might be developed that are not part of traditional academic course of study yet could be considered as being important for success from the members’ perspectives.

Similar topic areas or themes were found in participant responses to Question 4 as for Question 2. In broad terms, the topic areas suggested by participants were categorized as *General* (Knowledge oriented) or *Applied* (Skills proficiency). Although, they had similar themes, there were numerous topics which were very specific to each sector. The large number of topics reflected the specific concerns and areas of interest of each sector that could be developed into learning opportunities and are summarized in Appendix J: Topics of General Interest and Appendix K: Applied Topics of Interest.

The General category is considered in the following context. *General* means the acquisition of new information or understandings to enable comprehension of industry-related situations or an overview of subject areas within and across sectors. This level of understanding would allow the person to be able to solve unusual and common workplace problems or tasks and to have the ability to comment on significant aspects of a procedure, task, or subject area but not at the level of mastery or expert status.
Within the General designation, separate categories were identified based on the specific topics suggested by participants. The four categories were

1. **Economics** refers to an awareness and understanding of factors related to the business design and implementation of programs targeted to the financial activities of the industry which affect the production, distribution, and consumption of goods and services.

2. **Practices** is an awareness and familiarity with the overview of actions or programs that are undertaken within or across sectors of the industry in order to complete tasks or work plans.

3. **Legislation** includes a familiarity with government regulations, laws, or agencies that must be interacted with to operate legally and the restrictions that must be considered.

4. **Human resources** deals with issues or situations where personal interaction or interpersonal skills are important to facilitate work plans and tasks or to meet government regulations and requirements. A more traditional usage within the industry refers to hiring, firing, training, and other personnel issues.

Within the **Economics** category, members of all sectors identified marketing as a topic of interest. Participants noted the need for knowledge of marketing within their own sector, the different marketing processes and principles of operation of other sectors, and an awareness of marketing of the industry as a whole. Awareness of marketing issues was commonly described as knowing the factors that are part of the supply/demand process and market trends (e.g., Retail – What wines are in demand? Processing – Can we make these wines to meet quality demands of the marketplace? Viticulture – Can we grow these
varieties of grapes successfully and economically in our area?). Each sector had a number of different needs as it pertained to the category of economics. Viticulture participants looked for topics on business plans, budgeting, an overview of the retail process, contracts (with processor buyers), insurance, and the fundamentals of government taxation payrolls. Processing participants identified internet marketing as a general topic, and retail participants wanted information on industry trends and an overview of the sales process.

Under *Practices*, the vineyard growing cycle was identified by members in all sectors as a topic of general interest. For participants in viticulture, it was awareness of the whole process that was of value to members with limited current or prior experience. For those in processing, it was about awareness of vineyard practices and timings that impact on the processing cycle, and for retail, participants were concerned with knowledge of the viticulture cycle to create a story to be used as part of the selling process to customers and clients. Both processing and retail participants were interested in how the vineyard cycle impacts on the quality of the final product being sold. Participants in the viticulture and retail sectors were interested in Integrated Pest Management (for viticulture application of specific practices to optimize pest control and pesticide use, whereas for retail, it was in the context of implications for food safety and adding to the sales “story”). Specific topics for viticulture included winter protection practices and strategies, premium grape production systems, organic production, and the use of internet (for finding out new information and ideas from other locations around the world). Topics desired by processing participants included winery design, best cellar practices, quality control, food safety issues, emergency planning, an overview of the
entire wine processing cycle, and publicity/public relations. Retail members sought sessions on the wine processing cycle and how it impacts wine quality, media relations, and new computer and online programs to enhance sales.

The category of Legislation was of interest to all sector participants though no single topic stood out. Viticulture and processing members had common interest with respect to labour laws, health and safety programs, and legislation along with municipal building and planning rules and regulations. This latter point was of interest due to the provincial Greenbelt legislation in Ontario, its impact on the Niagara region, and the restrictions concerning on farm activities and construction of new facilities. The participants in the processing sector also sought information on Hazard Awareness and Critical Control Points (HACCP) requirements as legislation required them to create policies and manuals for each location where they operated. LCBO regulations and food safety were noted because the processing sector is considered food handling facilities and has to meet standards to operate and maintain their licences to manufacture and sell alcohol. The retail sector participants inquired about government licences including the LCBO as this was a rather large and complicated topic that members suggested needed a course or program to make this marketing system more understandable and accessible.

For Human resources, few topics were suggested, but commonalities existed in pairs of sectors. For viticulture and retail, it involved communication methods, and for retail and processing, it included hiring/firing policies and the training of personnel. Viticulture members identified employee supervision as a desirable topic.

Table 7 outlines the General topics of interest. There were four categories of general topics identified. All sectors had at least one common topic in Economics and Practices.
Table 7

*Categories of General Topics of Interest and Topics as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories</th>
<th>Viticulture</th>
<th>Processing</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>6</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Practices</td>
<td>6</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Legislation</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Human resources</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total number of topics</td>
<td>16</td>
<td>17</td>
<td>13</td>
</tr>
</tbody>
</table>
There were no common topics to all sectors in Legislation or Human Resources. Processing participants identified 17 topics, viticulture 16 topics, and retail 13 topics. Viticulture members were most interested in economics (6) and practices (6) with fewer specific topics noted for legislation (2) and human resources (2). Members of the processing sector were most interested in practices (9), followed by legislation (4), economics (2), and human resources (2). Retail participants had the fewest topics with the greatest interest in practices (6) followed by economics (3), human resources (3), and lastly, legislation (1).

Under the *Applied* topics category, in the Economics category, participants in each sector looked for additional learning opportunities that dealt specifically with costs of production or selling within their own sector. This reflected the concerns voiced about the increasing costs associated with grape growing, making wine, and selling wine to the consumer. Participants indicated the need for real life examples or case studies so that they develop skills and have tangible mechanisms of assessing their own business performance. This area was identified as important as participants indicated that many members from all sectors were operating businesses without any formal instruction or training in business principles or financial activities. Along with this, viticulture and processing participants identified budget development as a common topic while retail and processing participants had instruction in record keeping a suggested common need. Sector specific topics under economics included spreadsheet use/accounting, financial statement preparation, inventory control, store operating cost assessment, and merchandising/sales strategy. A session of *marketing for non-marketing personnel* was suggested by retail members to help others regardless of sector to understand what is
really involved in selling wine. This comment came from participants who felt that others within their own organizations (e.g., a vertically integrated winery with vineyards through to retail) were not fully aware of the intricacies of marketing wine.

For Practices, the use of computers and software applications was recognized by participants in all sectors as important due to the rapid escalation of the use of electronics and devices in all aspects of the grape and wine industry and in their personal lives. Specific topics suggested by members of the viticulture sector included irrigation management, pruning, vine canopy management, rootstock selection, and organic production. For processing, topics included winery design and layout along with specifics on the development of emergency situation plans. Retail participants commented on additional topics such as web design and maintenance, wine evaluation, and food and wine pairing.

Under Equipment operation, computer use was mentioned by members of all sectors with respect to potential use for current and new software and equipment applications or purposes. Processing and viticulture participants specifically identified tow motor/fork lift operation instruction as a key topic as certification is required by provincial legislation to allow for use of such equipment in commercial settings. Instruction on the proper and safe use of sector specific equipment was suggested by members of both viticulture and processing sectors. For viticulture, these topics included welding, the use of pesticide application equipment, and vineyard management equipment. For processing, topics covering electrical systems design and operation, sterilization and winery sanitation equipment, and wine transfer/pump operation were suggested by the participants. Retail participants indicated that information sessions on
new transaction equipment (debit machines, pin cards, debit cards) would help them as
technology kept changing, and the mechanisms of dealing with a “cashless” society have
become more and more entrenched.

The Interpersonal category did not reveal any common topics across all sectors
although they appeared to be somewhat related. Participants from retail suggested topics
focusing on the consumer and media as important, whereas viticulture and processing
participants were interested in labour relations and employee supervision. Viticulture
members identified foreign language basics as a valuable item to be addressed (to enable
better communication with workers who did not have English as their primary language
of speech or understanding).

Table 8 outlines Applied topics of interest. All sectors had one common topic in
each category of Economics, Practices, and Equipment Operation, but there were no
topics common to all sectors for the Interpersonal category. Viticulture participants
identified the greatest number of applied topics with 16 followed by retail with 14, and
processing at 13. The category Economics had 13 topics with the retail sector having the
highest number (6) followed by processing (4) and viticulture (3). Practices had 13 topics
suggested with viticulture participants suggesting 6, retail 4, and processing 3. Equipment
operation had 12 topics: the viticulture sector with 5, processing with 5, and retail 2.
Interpersonal topics were the lowest identified by all sectors with viticulture at 2, retail at
2, and processing at 1.

Questions Five and Six: Program Design and Format

Questions 5 and 6 were somewhat similar and delved into asking about formats in
Table 8

*Categories of Applied Topics of Interest and Topics as Selected by Sector*

<table>
<thead>
<tr>
<th>Categories</th>
<th>Viticulture</th>
<th>Processing</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Practices</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Equipment operation</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Total number of topics 16 13 14
which course, programs, seminars, or learning opportunities could be delivered. During the interviews, there was significant overlap of ideas, opinions, and suggestions by participants such that Question 6 became an extension of the Question 5 concepts being investigated. The questions looked for suggestions about program features as participants were asked to highlight key features to be used in overall program design. Here the objective was to get participants to identify critical features that should be pillars of any program design. This design would have to be reflective of their needs and considerate of the members’ levels of knowledge and skills and the characteristics of adults as learners, especially in a community of common interest (Cross, 1991; Lave & Wenger, 1991; Wenger, 1998).

Based on participant responses, the concepts of formats and delivery mechanisms were not viewed as discrete or significantly different from key features for design of a non-institutional program. Many of the participants reinforced or repeated comments made in earlier questions with respect to factors that would enhance their learning opportunities. The participants indicated that the same core items that would enhance learning opportunities should be part of the foundational principles for any program designed to assist the community.

During the interviews, the conversations of members in all three sectors led to the following three categories or principles of program design:

1. Features for delivery or design of courses/seminars/programs/meetings
2. Source of the program (delivery agent) or information
3. Factors to consider when designing course/seminars/programs/meetings
Features were those components that were suggested to incorporate or include in any learning situation to enhance the learning opportunity and likelihood of personal development and community advancement. Participants from all sectors noted that any program must contain a chance to have hands-on demonstrations/interactions and utilize real life examples as a method of ensuring applicability and relevance. Sources were categorized as those institutions, peers, experts, or others with relevant knowledge, information, and experience that would support features to enhance learning and the utilization of collective knowledge and collaborative learning principles. Sources included the interpersonal experiences that could be obtained from collective discussions and interactions at forums or seminars. Factors were the items that would assist members in meeting personal and professional needs, obligations, and interests. These included course or program summaries, multiple levels of instruction to match learner needs and knowledge levels, and the recognition that learning opportunities must match time constraints (personal or professional) of those choosing to attend (see Table 9).

A key item mentioned by participants in all sectors was the utilization of peer experience. This was to be combined with local, professional, academic, and personal knowledge in the development and delivery of learning opportunities, and all courses or sessions must include practical hands-on or real life examples. These suggestions for application or demonstration learning opportunities reflected the NGWC environment that has long term agrarian links where demonstration sites, projects, and agricultural extension practices have been ongoing for many decades.

Summary

In this chapter, I have outlined the participants’ backgrounds, their personal levels
Table 9

*Program Design Components as Recommended by Sector*

<table>
<thead>
<tr>
<th>Categories of program design</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Viticulture</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>Hands-on</td>
</tr>
<tr>
<td></td>
<td>Hands-on with sessions “on farm”</td>
</tr>
<tr>
<td><strong>Sources</strong></td>
<td>Peer interaction</td>
</tr>
<tr>
<td></td>
<td>Forums/Seminars</td>
</tr>
<tr>
<td></td>
<td>Collective discussions</td>
</tr>
<tr>
<td><strong>Factors</strong></td>
<td>Provide summaries at end for review</td>
</tr>
<tr>
<td></td>
<td>Awareness of time constraints – when offered and length</td>
</tr>
</tbody>
</table>
of knowledge, and the skills possessed. Included are the categories and subcategories of knowledge and skills suggested by participants as necessary to be successful in this community. I have provided a list of factors that participants noted as enhancing or limiting their opportunities to undertake further courses or programs that would enhance their skill and knowledge development. Included is a summary of the topic areas and suggestions of specific topics that participants described as being of value to them and others and could be developed into meaningful learning opportunities. Key program design components were identified that would enhance learning opportunities. The following chapter will summarize the results, implications for potential program design, and future research.
CHAPTER FIVE: DISCUSSION

In this chapter, I will summarize the results outlining areas of common and unique learning needs within and among the sectors of the NGWC. I will highlight these needs with collaborative learning principles and links to the theories and concepts of learning organizations, learning communities, communities of practice, and learning networks. Building upon themes identified from each of these concepts, discussion is provided on how learning may be facilitated in a competitive environment. I will explore how learning can be achieved in a commodity-focused learning network (using components of each of the four previously mentioned concepts) across organizational, educational, and community boundaries. The application of this learning network approach will be described as it applies to the Niagara Grape and Wine Community and the creation of a Grape and Wine Learning Network (GWLN).

Suggestions will be made with respect to the foundational principles for design of a collaborative program to meet the learning needs of this group. Comments will address how a collective effort of industry, post secondary and secondary academic institutions along with peer members of the community can facilitate development of additional individual and collective knowledge, skills, and cooperation.

Summary of Results and Discussion

The three sectors, Viticulture, Processing, and Retail, operate together in order for the NGWC to survive and grow, yet each sector has its own knowledge and skill requirements, factors that enhance or limit learning, specific areas of interest, and unique topics to be investigated and discussed. Upon review of participants’ background, it is apparent that relative to the population involved directly with this community, only a
small proportion of the community members have formal academic training in the area of grape and wine production or sales of wine related products. Most members have joined this community through career change or changes in choice of commodity to produce (from another crop to grapes) or strictly through personal interest in wine that led them to seek this industry for a new career or vocation. The largest segment of the member population had entered this industry after being employed in other industries or vocations and chose to become part of this community.

The skills that participants of this study possessed upon entering the NGWC were not obtained with direct involvement or education related to the industry but were foundational knowledge elements acquired elsewhere. These skill sets were gained under different roles and forums and are now being utilized and built upon for application to the unique issues and function of the NGWC. Participants in this study identified the need for additional topic specific training and the difficulty in accessing information or learning opportunities that would help them personally and collectively. The identification of the lack of relevant locally produced courses and print materials required them to learn via the “school of hard knocks” and “on the job.” Trying an idea or observing others from afar and developing a succession of “personal experiences through trial and error” was a common way to gain experience and knowledge. Interaction with peers and others with more experience (mentors or trusted colleagues) was the most common source of information, and attendance at conferences and seminars when offered and if available was the next major line of accessing new information and training. All participants commented on the need for further training in advanced practices relative to their sector and basic training on activities in other sectors.
For general knowledge, members in all three sectors indicated possession of some fundamental or basic knowledge acquired through personal and professional experience and a desire to know more about product demand, supervision, the production/sales cycles and activity patterns within their own sector. The request for more training on these topics likely reflects the awareness that the NGWC is a business community where profitability of all sectors is important for the survival and growth of the whole community. Viticulture and processing participants had many common areas of interest – cash flow, lines of credit, financial planning, capitalization, hiring labour, training, regulations, resource needs, and timelines of other sectors. This follows the close interrelationship of processing with viticultural production as they are time sensitive and biologically driven systems. The grape crop has to be grown under seasonal conditions and harvested when mature and the grapes processed freshly after harvest to start the processing cycle. Each sector must operate under financial constraints and objectives with grape prices paid by the processor to the grape grower (viticulture) sufficient to meet operating costs for viticultural production yet also at a price that can economically produce a product (wine) that is of acceptable quality and price in a globally competitive marketplace. The only unique knowledge area identified was by members of the retail sector who indicated knowledge of the specific operation of government agencies and regulatory bodies is important as it directly impacts how they can operate locally, provincially, nationally, and globally.

When considering Skills/Applied Knowledge, there were fewer numbers of items mentioned by participants. Members in all three sectors indicated that skill with operating machinery, computer use, communication or language of communication, and
leadership/supervision were desired skill sets to operate effectively within sectors. Viticulture and processing participants had common areas of interest with equipment repair and maintenance, adaptability to environmental conditions, and task modification suggested as key skill sets to possess. This is not surprising as both sectors are highly mechanized along with high labour requirements. Both sectors must adapt quickly to any environmental changes as the growing season and harvest progresses because any changes due to adverse weather conditions or other unforeseen circumstances (equipment breakdown) can impact the final processing of grapes. Processing and retail members identified labour interaction and use of computer software as necessary skills as the industry moves to electronic management of inventories, marketplace product tracking, and the use of automated production processes. The art of selling products and customer relations was identified as important to the retail sector and reflects the need to establish good selling skills to move product through the marketplace.

Members of the NGWC noted factors that would enhance and limit learning opportunities or their decision to pursue learning opportunities. Identified as enhancing learning choices were focused and specific programs, using language that is easily understood and at an appropriate level, and having the support of the employer to pursue these opportunities. Employer support included financial support, time off work to attend, assistance with travel if needed, and making members they employ aware of learning opportunities that might enhance potential to climb the career ladder. Following the prior comments on general knowledge and skills, the viticulture and processing sector participants identified positively with programs or opportunities that were practical and applied, accessible, and located nearby the workplace. Programs or courses that provided
print or electronic resources and used interactive approaches and collective knowledge as part of the learning process were considered as factors that would enhance participation. Processing and retail participants noted the utilization of knowledge of peers and mentors as important, while participants in the viticulture and processing sectors indicated that flexible time offering and direct applicability of the information developed were considered desirable.

Factors that would inhibit or deter members from pursuing a learning opportunity closely mirrored those factors previously mentioned that would enhance participation. Programs or opportunities that lacked focus or were too broad, had no application locally, lacked support resources, conflicted with work commitments, were too long a time commitment, had a poor or inappropriate delivery format, or lacked support of employers were considered as negative influences. Viticulture and processing participants also noted that sessions of highly theoretical discussion or ones delivered at unsuitable locations that resulted in conflict with personal obligations would inhibit participation. Viticulture members noted that lack of economic discussion and viability of suggested practices along with inappropriate level of instruction/difficulty were considered limiting factors.

Suggested topics for learning opportunities were most often specific to the sector whether general or applied. However, a few common categories did arise among the three sectors. These topics included marketing, vineyard growing cycle, costs of production/selling, and use of computers. Common topics to viticulture and processing included labour laws, health and safety legislation and practices, municipal planning and building regulations, budget development, and specific equipment operations (e.g., tow motor operation). Processing and retail members identified the wine processing cycle,
hiring/firing employees, record keeping, and computer software applications as items of common interest. Common topics to viticulture and retail included Integrated Pest Management, communication/language, and accounting/financial statements.

Not surprisingly, participants from each sector identified multiple general interest and applied topics that would be considered as unique to a particular sector included business plans, organic production, food safety, winery sanitation, and publicity and media relations. Each of these general interest and applied topics was identified by participants and they suggested were of sufficient interest to warrant creation of a session or learning opportunity to advance knowledge or skill development. Although these topics were not common across all sectors, the level of interest within sectors for specific learning opportunities highlights the need to further investigate and address these areas in more detail.

From the above findings, there exists a large number of topics that could be investigated and developed into courses or programs that would be of interest to the NGWC members. How this may be accomplished will be discussed as follows.

Participants in all three sectors recommended that to enhance learning opportunities, the key components of any learning opportunity program had to be based on some very basic fundamentals. The program had to be designed with practicality and the learner interaction as part of the design, development, and delivery. Due to the need for local information and knowledge, the utilization of experienced peers in design, development, and delivery was important along with a “hands-on” interactive approach to be included wherever possible. Viticulture members reinforced the need for print and electronic summaries for participants of any session and that collective discussions and
forums or seminars where ideas could be freely exchanged would be the best method for developing community member interaction. Finally, there is need for recognition that any learning event or opportunity program must be offered in a manner that is respectful of the level of knowledge of participants and must be concise, focused, and mindful of personal and professional time constraints so that it could be accessed by community members.

The NGWC is a compilation of multiple organizations working individually and collectively in a commodity-based competitive environment without a single hierarchal management structure or reporting system. They operate using social learning theories and concepts with components of learning communities, communities of practice, and learning networks with participation of members seeking to actively engage in sharing information and using collaborative learning principles (Senge, 1990; Van der Krogt, 1998; Wenger, 1998). Examples of how different members and organizations within the larger NGWC operate as learning communities, learning organizations, communities of practice, and learning networks are illustrated in Figure 6. This illustrates that multiple structures for learning are being utilized; however, there does not appear to be a single categorization that would fit the NGWC as a whole.

The unique feature of the NGWC is that it differs from the learning structures and concepts listed above as members within sectors (wineries, viticultural production, and retail sales) are actively engaged in “competition” with other members for the same or similar clients, buyers, or customers in local, national, and international marketplaces. This competitive aspect is important in the learning processes as there is still a necessity for not sharing some information as it reflects proprietary knowledge as a mechanism of
Figure 6. Different learning concepts in practice using NGWC members as examples.
having an edge or advantage over another member competitor. In the NGWC, there exists each of these learning entities, yet there are still unfulfilled members’ needs that indicate potential exists for an expanded or altered approach to creating new or enhanced learning opportunity development. If one moves away from a vertical organizational design of learning concepts to a more horizontal approach, incorporating components of each theory and crossing organizational boundaries, a new synergistic learning opportunity or theory modification can take place to benefit this community.

Through the recognition of the importance of the members’ needs, interests, experiences, and desires regardless of corporate affiliation or position, the modified learning network approach would reflect the intentions of adult education and principles as suggested by Lindeman (1926) and Dewey (1929). Those intentions are predicated upon the development of the individual and the group in a cooperative and collaborative manner. Removing the control from a single organization or business entity will deter the potential for dominance of the learning agenda by any single group. This modified approach will challenge the network or series of networks to develop and explore greater interpersonal and social interaction to create learning opportunities, make collective decisions, and contribute to the creation of common knowledge and success.

**Recommendations for Proposed Learning Network**

The grape and wine community is comprised of many different sectors and despite the potential to be viewed as competitors, members of this network of practice have extensive shared experience leading to extensive shared know-how which can allow for extensive circulation of knowledge (Poell et al., 2000; Van de Krogt, 1998; Wenger, 1998). This suggests that multiple networks of practice may be developed that would cut
horizontally across vertically integrated organizations, create inter-organizational connections, and extend knowledge beyond the confines of smaller communities to embrace the issues of a larger community of common bond or interests.

The grape and wine industry is not a singular organization but a collection of individuals with a common bond of producing grapes and wine in Niagara. The needs of the individuals will vary but the community has a common goal of producing wine for sale. One of the needs of the industry is to better understand the need for collective and collaborative action (Wine Council of Ontario, 2002) and at the same time utilize the collective knowledge of the members of the industry to further evolve, develop, and sustain it.

Based on comments made by participants, any learning program would need to follow the fundamental principles of adult education and andragogy (Brookfield, 1984; Cranton, 2000; Cross, 1991; Kidd, 1973; Knowles, 1980, 1985; Lindeman, 1926; MacKeracher, 2004). The program design components suggested by participants closely align with the following assumptions about adult learners noted by Lindeman (1926) and as summarised by Knowles (1980):

- Experience is an important resource used in adults’ learning.
- Adults are motivated to learn as they experience needs and interests that learning will satisfy.
- Adults’ orientation to learning is life centered.
- Adults have a deep need to be self-directing.
- Individual differences among people increase with age.
The recognition of personal experience, the experience of others, and the desire to learn from peers was identified by participants in this study as a highly important feature for any program. This emphasis on experience – personal, others, and collective experience as a valuable resource for future learning was a common theme in comments made by those in this study. As Cranton (2000) has noted, prior experience must be considered and accepted as part of any new learning experiences. Accessing and using the experience and wisdom of other community members will be important in fostering new learning opportunities and supporting the continuance of learning networks over time. This feature is supported by literature where facilitation of new learning opportunities that build upon participants’ past experiences can lead to the acquisition of new skills or knowledge through transformation or modification of prior knowledge (Cranton, 2000; Knowles, 1980; Lindeman, 1926; MacKeracher, 2004; Mezirow, 1991; Sloane-Seale, 2001).

A key component of a program requires not only the utilization of members of the NGWC in an advisory and developmental role but also members playing a key role in the delivery and dissemination of information. There needs to be a mechanism to ensure that information being presented or transferred is credible and truthful. Also, programs must create an environment supportive of sustained learning; directed by the community; and assisted by institutions, agencies, researchers, and the larger global membership involved in grape and wine production and sales. An environment that puts the learners at ease physically and socially and in surroundings where they can apply or test new concepts or practices in real world settings must be ensured to gain and sustain member participation (Caffarella & Merriam, 2000; Lave & Wenger 1991; McKeracher, 2004; Sloane-Seale,
2001; Zemke & Zemke, 1995). By creating a collaborative learning network that crosses multiple boundaries and organizational lines, there may be opportunity to address and reduce the potential impact of power interests, corporate control, or curricula/topic control where learners' interests are not considered or members are placed in a position with little or no influence over the learning agenda (MacKeracher, 2004; Owenby, 2002).

This concept of multiple learning networks must be supported and fostered through the development of a Grape and Wine Learning Network (GWLN) that must be founded upon core principles and actions that include; Consultation, Facilitation, and Communication (see Figure 7).

**Consultation**

Consultation encompasses the undertaking of research and surveys to ensure that individual member, sector, and industry interests and needs are met in a fair and equitable manner. There cannot be domination of a single sector or group to the detriment of others in time, resources, or finances used to assist the learning opportunities.

By providing fair and equal opportunity to all members, this Grape and Wine Learning Network (GWLN) should provide an environment where members will seek to participate both in development and delivery and sustaining the process and networks over time. The consultation process is also necessary to ensure there is a match between the learning opportunities developed with the requirements of the industry and members. This needs to be articulated and documented to provide assurances of meeting the needs of the industry and to provide a level of assurance that the quality of all learning opportunities and their completion result in adequate knowledge and demonstration of proficiency by those participating (Strachan, 2005). The development of learning
Figure 7. The members and activities pattern for development of a Grape and Wine Learning Network (GWLN).
opportunities must meet members’ needs and skill requirements, be accessible and responsive to changing industry needs and provide a pathway for members to climb the career ladder or be introduced to academic programs should they choose to pursue advanced qualifications.

The GWLN must ensure it is accepted by industry and community members as representing the views of the members of the grape and wine industry. It needs to be legitimized, that is, comprised of members of all levels of each sector, and they may come from current members of representative organizations or from volunteer members at large from the community. The GWLN must be capable of acting independent of any single organization or sector and interact with all bodies involved in academic programs (private and public institutions at secondary, college, and university levels), private and public professional development programs, vocational or educational training organizations, along with governmental agencies that may assist with funding and resource acquisitions. To provide a broad base of knowledge from which to secure facilitators, mentors, or instructors, the sphere of learning opportunities would include areas of viticultural production, processing, and retail as well as areas of consumer education, hospitality, tourism, management, marketing, and other business skills necessary to be successful and sustainable.

By creating this single structural body, it would provide a mechanism to prevent potential issues of singular corporate influence from any one organization to dominate the agenda. It would operate to ensure that the curricula is member focused and driven rather than academically based while providing the means for all members to participate to
ensure that their personal needs and issues are addressed (McKeracher, 2004; Owenby, 2002; Wenger, 1998).

Secondly, this GWLN can assist in the formation of multiple smaller learning networks with the same members as the overall network where these additional learning networks may not be strictly sector or organization based but possibly organized by member roles within sectors or by member needs. An example would be a network of members involved in equipment operation or repair that may form to share expertise and discussion with respect to specific problems or issues they face with particular equipment or practices involved in the use of specialized equipment. These members may be from organizations that exist within a single sector or across sectors and may be at different levels of responsibility as well. This example is a learning network based on member needs to do their job better, or for some, it may be a means to acquire new skills and knowledge that would enable them to move up the career ladder or just for personal use.

**Facilitation**

The GWLN can assume the role of *enabler* by facilitating the collaboration and coordination of efforts of members as participants, instructors, and mentors and the encouragement of peer interaction (Velde, Cooper, & Gerber, 1994). The role of the GWLN would be to serve as the focal point of reference to summarize and catalogue current and potential future learning opportunities or needs for the grape and wine community. It would act as facilitator for members to establish priorities for education and training needs. It would serve as a mechanism of connecting collaborators and members with common areas of interest or learning needs with those members possessing specific skill sets and resources to develop programs via previously identified
organizations, institutions, and members. From consultations with the industry, members with particular knowledge or skill sets can be linked or directed so that learning opportunities are well defined and focused and provide feedback, reinforcement, support, and encouragement to members (Cranton, 2000; Cross, 1991; Knowles, 1985; MacKeracher, 2004; Sloane-Seale, 2001). Institutions with resources and members (faculty, staff, and others) familiar with adult education principles would be enlisted to aid industry members in understanding some of the strategies and issues of adult education and provide support in the development of learning opportunities for those members wishing to serve as mentors or instructors or interested in creating peer-to-peer learning situations. The GWLN could act on behalf of members as an advocate and voice to governments and others about industry and education needs for the entire industry, not just a single sector or group.

By coordinating learning opportunities and facilitating collaborative networks, the GWLN would help reduce the potential for unnecessary duplication of programs of similar content and projected outcomes. This would ensure the focussing of critical and limited resources (human and financial capital) into areas identified as the greatest need by members. By encouraging a collaborative approach from the development and delivery perspective, it would enable the development of competency standards based on community input and legislation, if applicable, and utilize the strengths of each participant organization, agency, institution, or member. Doing so would ensure that all members are aware of what is available and receive the best information and instruction and optimizing resources to achieve this goal. Industry members or organizations would also benefit, especially those covering larger geographic areas, as a single defined
program with articulated outcomes and process would reduce variability in learning outcomes and provide assurance that members participating in a specific focused learning opportunity, regardless of physical location, would receive similar experience and skill development that would be comparable and transferable (Strachan, 2005; Tennant, Boonkrong, & Roberts, 2002). This would also provide the opportunity to demonstrate proficiencies in real life situations as done in other work-based learning programs and mentoring systems (Jarvis, 2004).

Integration is important as multiple institutions and agencies have areas of specialization, resources, and attributes that are identifiable and tangible and could be utilized for design, development, and delivery of learning opportunities. By using these human and physical resources collectively (e.g., commercial vineyards or processing facilities) and having access to specialized equipment for instruction or a convenient location for ease of access by members and peers, the potential exists for developing a comprehensive network of learning opportunities that has integrity and is accountable to all members of its network.

**Communication**

The actions of the GWLN would be promotion and interaction with all members and support agencies, governments, or institutions by making all aware of the learning opportunities that exist or require development. One of the participants interviewed noted that there did not seem to be an easy way to find out what learning opportunities were being offered, by whom, and whether they might be personally applicable. Having a central group responsible for consultation and facilitation (not instruction) would allow for a way to centralize a repository of learning opportunities, programs, contacts, and
previously developed and catalogued sources of information that have been or will be used and could be easily accessed or communicated to those seeking more information.

Each member group has vital roles to play if the GWLN is to be successful and sustainable. Institutions can provide instruction (location and personnel), physical locations for practical demonstrations and demonstrations of proficiency, and supportive research to provide data as stimulus for technology transfer and member interaction. As well, they can assist with teaching and assisting members that may take leadership roles as mentors, instructors, or supporters in pedagogical practices and methods of evaluation that respect the adult population with which they would be working.

Sector groups can provide valuable contribution to the overall network by making suggestions for learning topics, formats of delivery and potential delivery locations to allow for hands-on or real world experiences during learning opportunities and by encouraging employer support for members wishing to undertake learning initiatives. They may also be a source of instructors, mentors, peers, and members that make up the learning networks that develop based on member interest and industry needs.

Organizations’ role must be as advocates of the GWLN to funding agencies and governments to demonstrate the usefulness and need for such a venture to ensure the collective industry develops and grows for mutual benefit. They may be looked to provide some financial support as well but must not be viewed as the sole source of financial support as this may leave the GWLN in a precarious position if the industry financial position becomes squeezed and resources lessened. This particular situation of financial duress occurred in Australia in 2004 and resulted in the shift of programs from an independent learning structure to one embedded within a single sector organization.
with reduced numbers of learning opportunities and a shift in focus to within sector rather than across sector training opportunities (Commonwealth Research Center for Viticulture, 2005). Regardless of sector or organization, members of the GWLN will be looked to for advice and comment about specific issues of larger context that may affect the industry. This advice may not be viewed as member driven but affects members directly or indirectly. Such issues upon which advice is sought may be government legislation, trade issues locally and internationally, and other policies that may impact on the industry as a whole.

Government bodies and agencies will play a role by having member participation at all levels (instructor, mentor, peer); providing researchers, specialists, and instructors for various topics; and facilitating demonstrations and sessions of interest to members or in response to sudden or dramatic occurrences that become topical and in demand by members of the industry (e.g., winter injury to grapevines after a devastating winter, wine taint due to unforeseen insect activity, changes in legislation for wine sales or export, or new regulations with respect to environmental issues such as water management, waste management, or recycling).

Implications for Theory and Practice

The learning needs and aspirations of the Niagara Grape and Wine Community do not neatly or completely fit the classifications of a learning organization, learning community, community of practice, or learning network. The activity and operation of the NGWC utilizes a modified or commodity learning network theory. It is most closely associated with learning network theory that of being in the context of a single work-
based organization which is knowledge based (Poell et al., 2000; Skerlavaj, Dimovski, Mrvar, & Pahor, 2008; Van der Krogt, 1998).

This structural use of components of multiple theories suggests that learning network theory, which has some capacity for inter-organizational activity, can be modified or expanded from that of a knowledge-based single organization concept to a larger one that encompasses multiple organizations that are acting collectively and competitively at the same time and that is experience based. While doing so, the commodity learning network will recognize the importance of learning and embrace collaborative efforts for the benefit of the common commodity, in this case, grape and wine production. This model of learning should be applicable regardless of commodity where the community size or needs dictate that learning opportunities for members, organizational members, and the community as a whole are best achieved when pooling and sharing knowledge, resources, and skills. The relatively young age of the NGWC, when compared with other global grape and wine producing regions, necessitates the need to gain knowledge and skill at the local and national level and must be accomplished quickly to be globally competitive and without the benefit of hundreds of years of prior experience to guide them.

The fostering of the learning network will help alleviate some of the dependence upon external agencies (government) and institutions to be responsible for the education and training for all members of the industry. The scope and mechanisms of learning network development and delivery of topics should enable academic institutions to continue to provide tertiary level educational opportunities (credit level programs of study) while the learning network can attend to those items of interest and need which do
not fit into academic programs of study either by topic, content, duration, or mechanism of delivery. The learning network programs will create greater access and interaction to those members where cost, duration, or applicability of subject matter has limited their desire or opportunity to attend.

**Future Work**

To be functional, the GWLN will require the establishment of a coordination committee to facilitate and promote the learning network concept across organizational lines and to acquire the cooperation and collaboration of institutions, organizations, and members to provide expertise, experience, and resources and to encourage all members to participate. The activity of members in all phases of development and delivery will be necessary to ensure it matches member needs individually and the collective needs of the industry.

There will be a need to survey the members to create an inventory or data base of potential peer instructors based on topic needs and interest. To encourage members to act as peer instructors, support of organizations and institutions will be essential to foster a climate for peer instructors or mentors to undertake leadership roles and the delivery of learning opportunities using sound educational principles and practices appropriate for adult learning.

Pilot testing of single topics for delivery may be used to begin the process of overall program development. By going through the development and delivery process with members for content, applicability, and proficiency standards to be met, the ideas of a learning network whereby members take control of the process can be evaluated from an inter-organizational implementation compared with knowledge-based single
organization learning networks (Poell & Van der Krogt, 2006). The functionality and operational premises of the GWLN should be evaluated from the perspective of a commodity-based community rather than knowledge-based structure.

By evaluating the effectiveness through member participation, participant feedback and acceptance by the community that the program meets needs and achieves established proficiency standards programs and learning opportunities must be undertaken. As these learning opportunities are based upon the use of member or community instructors or peers as leaders, it is critical that those peers involved in these programs receive guidance and assistance in pedagogical practices appropriate for adult studies and assessment. This type of support can come from institutions and others familiar with adult educational principles and with vocational or skills-based programs of instruction. Success will depend on the mechanisms and processes to promote and establish credible peer leaders for instruction or mentorship so that information and practices being promoted or discussed by these peer leaders are based upon sound principles, research, and application under local conditions.

Through further study and investigation of the dynamics of the NGWC, it may be possible to further test concepts and ideas in other frameworks where organizations or groups act collectively and competitively at the same time but are bonded by a common commodity.

**Final Critical Thoughts**

This study was about personal and community development where it had not previously been considered and not specifically the empowerment of the people within the NGWC. From this work, programs or opportunities might be developed where
individuals may gain increased control of their personal destiny but as it occurs within a context of a community of common bond or commodity. Having spent many years involved with the NGWC as a member in multiple roles, it has been interesting to see the evolution of educational opportunities from basic agricultural extension principles to the development of advanced tertiary programs of education. The challenge for this researcher was to bring a different perspective to the education and practices that have been used in the past to advance the community without the baggage, bureaucracy, or limitations of government regulations or academic sovereignty.

Academic programs focus on meeting the objectives and standards of the institution which dictates the curricula (the items of importance based on the ideals and criteria establish by the institution) and meeting the standards to acquire a degree, diploma, or certificate as prescribed by these institutions. Governments focus on mass information development and instruction to meet regulations or generalizations rather than attending to the specific needs of individuals or small groups. Organizations have agendas or mission statements whereby the organizational needs supersede those needs of the individual member for the purpose of growth and profitability or sustainability.

This quest has been powered by the wonder of how to get all of these diverse groups with roles, responsibilities, and resources to create an effective environment of collaboration for collective community benefit in a competitive environment. It reminds me of the casual comment that refers to children in conflict and used whenever groups appear to have conflicts yet need to work together. How do we get them to play nicely and together in the same sandbox? How do we get institutions that are competing for the same students or members of the community to develop an outreach program where they
all can contribute and coexist when financial and physical resources are being stretched to their limits? How do we foster and promote a collaborative approach with members taking the lead in helping one another through discourse and practice using their attributes and knowledge? How do we ensure that the information or practices being discussed are fundamentally sound and proven and not merely an opinion or idea of a single person or organization without real foundation or supportive documentation?

The concept of a community comprised of members having independence in thought and activities along with the recognition that they must embrace and rely upon one another for survival and growth seems very basic. A learning network for the NGWC must be like a biological system whereby each organism is part of the interconnected cycle of life. This may seem like an oversimplification of the situation, but I feel learning networks can be developed. It is just going to take the efforts of all members to take off the blinders of a narrow perspective of their role and needs and to step back and look from other perspectives. The current economic climate is very difficult for the grape and wine industry and collective and collaborative efforts seem to be even more important now. By learning more about one another we cannot help but gain a greater sense of understanding of others and ourselves, and utilize the potential synergy of collective thought and action to succeed and grow – as an industry, as a community, and as people.
References


Appendix A

Ethics Clearance

The Brock University Research Ethics Board has reviewed the above research proposal.

DECISION: Accepted as clarified.

This project has received ethics clearance for the period of January 16, 2007 to December 31, 2007 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance period may be extended upon request. The study may now proceed.

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to http://www.brocku.ca/researchservices/forms to complete the appropriate form Revision or Modification to an Ongoing Application.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form Continuing Review/Final Report is required.

Please quote your REB file number on all future correspondence.

LRK/ob
Appendix B

Focus Group Questions

1. What particular skill sets do you possess or would a person in your position likely possess to be successful?

2. To acquire these skill sets, what type of training did you undertake?

3. How do you keep current with information relevant to your position?

4. Would it be helpful to have access to information about the industry outside of your particular sector? Would you attend or undertake training in areas outside of your immediate sector?

5. What would be the most accessible format(s) for professional development and continuing education programs for your position? What are the potential factors that might limit or enhance your access?

6. Would the industry benefit by having continuing education opportunities available to all sectors of the industry? If so, in what ways?

7. What questions need to be asked of industry members with respect to training and access to training within the industry?
Appendix C

Personal Semi Structured Interview Questions

1. What type of formal or informal training did you have prior to reaching your current position in the industry? Please explain for each position you have held to date.

2. From your perspective, what are the learning needs for individuals in this industry considering those
   i. Currently active in the industry
   ii. Seeking to become part of this industry

3. Factors that enhance or limit learning
   i. What are some of the factors that you would consider limiting or delaying your expansion of new knowledge and ability?
   ii. What factors would enhance your acquisition of new knowledge and skills?

4. What topics/courses/seminars or information packages would be of help for
   i. You in your current or future positions
   ii. Your colleagues in current or future positions

5. What format or delivery mechanism should or could be used to make learning easier or more readily accessible to
   i. Yourself
   ii. Members of your sector
   iii. Industry members as a whole

6. If you were to design a non academic program (not a university or college degree or diploma) to meet the learning needs of the industry what would be the key features of such a program? Why are they important?
# Appendix D

## Focus Group Viticulture

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position (yrs in current position)</th>
<th>Experience - Direct</th>
<th>Experience- Indirect</th>
<th>Needs</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Vineyard farm family (&lt;=10 yrs)</td>
<td>farm family learn observing other family members</td>
<td>NA Direct into business from secondary school</td>
<td>Overall economics of operation Cash flow Business planning Scheduling Labour mgmt and relations Information manuals</td>
<td>Level of instruction Time constraints – work and personal balance Theory with practical When opportunities to learn are available (awareness)</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Vineyard farm family &gt;20 years</td>
<td>Relatives' fam Correspondence courses (univ. diploma level) Some college courses Working in multiple roles for small winery</td>
<td>NA Direct entry from secondary school</td>
<td>Business planning Labour mgmt and relations Economics Budget preparation Record keeping Regulations knowledge</td>
<td>Conflict with job time Having to do multiple jobs and roles Want hands-on practical instruction Learn from others experience</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Vineyard farm family (&lt;=10 yrs)</td>
<td>Career change Started as general labour Assumed responsibility over time Able to grow with employer</td>
<td>Post secondary degree (not agric related) Supervisory role in prior job Some administrative responsibilities in prior job</td>
<td>Labour relations Budget/ business economics Planning and scheduling Desire more peer interaction Would like to have &quot;mentors&quot;</td>
<td>Accessibility – short format “steal” work time to attend Information must be sound and credible Availability when not so busy</td>
</tr>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Vineyard farm family (&lt;=10 yrs)</td>
<td>Farm family Learn from family members Small farm (20 acres) - not primary source of income</td>
<td>Post secondary degree (not agric related) Family farm had mixed production with only small grape acreage</td>
<td>Production practices Business courses – all aspects of business – planning, budgets, Course to be short and focused</td>
<td>Hard to find relevant courses to local conditions Current academic programs weighted to processing not vineyard</td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Vineyard farm family (&gt;20 yrs)</td>
<td>Post secondary degree in agriculture Travel and exchange internationally From family farm Now partner in farm operation</td>
<td>Family farm diverse multi crop operation Have taught some correspondence courses for university</td>
<td>Advanced production practices Would like access to more print materials Flexible delivery of courses to be accessible (multiple formats?)</td>
<td>Course relevance Processor conflict in suggested practices Economic soundness of practices suggested</td>
</tr>
<tr>
<td>Male</td>
<td>&lt;25</td>
<td>Vineyard farm family</td>
<td>Farm family Under direct supervision of owner/manager</td>
<td>Direct entry after secondary school</td>
<td>Labour relations Planning and scheduling Economics and budget planning Peer access interaction Mentor outside current employer</td>
<td>Courses relevant to local conditions Finding, training, and keeping local labour</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Vineyard farm family (&lt;=5 years)</td>
<td>Started as general labour in winery Asked to vineyard and involved in all practices of production guided by owner Helped in preparation of budgets</td>
<td>No post secondary education Family in farm business Worked 10 years on non viticulture agricultural operation Exposed to sales of products through family business</td>
<td>Advanced production practices Alternative pest control strategies Farm safety Short focused courses Desire peer interaction</td>
<td>Time available to attend – avoid busy season Would like multiple formats – written, oral, and hands-on components Computer access of materials – written and video</td>
</tr>
</tbody>
</table>
## Appendix E

### Focus Group Processing

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position</th>
<th>Experience</th>
<th>Direct</th>
<th>Indirect</th>
<th>Needs</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Assistant winemaker (&lt;10 years)</td>
<td>Started as general labour in winery, Familiar with laboratory practices, Career change took Brock continuing education courses</td>
<td>Post secondary degree – science non related</td>
<td>Wine quality assessment, Safety, Labour, and supervisory Regulations</td>
<td>Time conflict with job responsibilities, Levels of instruction, Hands-on 'demonstration needed</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Consultant to multiple wineries (&gt;20 years)</td>
<td>Brock Certificate program, Worked as cellar hand international, Mentored in different practices in different regions, Part time wine sales as student</td>
<td>Farm family, Post secondary degree (social science)</td>
<td>Business financing, Cost/benefit analyses of equipment, Planning and labour relations</td>
<td>Practicality of courses offered, Real life examples or cases to study, Content must be locally applicable, Real versus theory – academic versus applied</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Cellar Supervisor (&gt;5 years)</td>
<td>Started as laboratory assistant, To keep employed wound up helping in the cellar with processing</td>
<td>Post secondary degree in biological sciences, Local employment on farms as student</td>
<td>Business planning, Purchasing, Advanced equipment operation</td>
<td>Relevant course on mechanics/repair not available</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Winemaker (&gt;10 years)</td>
<td>Formal degree in related science, Post graduate education, In 20 yrs has done all aspects of processing from general labour to wine making</td>
<td>World travel to other wine regions</td>
<td>New equipment and technology, Regulations (government), Understanding retail issues</td>
<td>Time constraints – high time demand by job at key periods of year</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Assistant winemaker (&lt;10 years)</td>
<td>Started with employer via Co-op placement, Fulltime once graduated, Laboratory responsibilities and testing of wine</td>
<td>Post secondary degree in chemistry (started mature student)</td>
<td>Labour management, Regulations (government), Occupational Health and Safety, Reliance on winemaker as mentor</td>
<td>Company expanding and need to learn about more parts of business operations, Time constraints, Would like more peer interaction</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Cellar worker (&lt;10 years)</td>
<td>Assisting cellar master last few yrs, Learning &quot;on the job&quot;, Responsible to fix and maintain equipment (press, bottling line, pumps)</td>
<td>Moved from vineyard to winery as needed by employer, Has mechanical aptitude and skills Good at &quot;fixing&quot; equipment, motors etc (hobby)</td>
<td>Budgeting and costing process, Computer skill upgrades, Advance repair courses</td>
<td>Level of instruction, Relevance of topic, When offered and conflict with family and job time</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Cellar worker/assistant winemaker (&lt;5 years)</td>
<td>Entry position doing any and all jobs, Under direct supervision of owner and contract winemaker, Graduate of college technician (not vit) program</td>
<td>From small family farm - not primary source of income</td>
<td>Labour relations, Budgeting, Marketing, Health and safety regulations</td>
<td>Long hours so when courses are available is difficult, Asked to wear many hats and do many different jobs with little or no experience, Would like more peer contact</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix F

#### Focus Group Retail

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position (yrs in current position)</th>
<th>Experience – Direct</th>
<th>Experience- Indirect</th>
<th>Needs</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Winery store sales (&lt;5 years)</td>
<td>Taking Brock/NC continuing education courses Wine Sales and Service course Learning from other employees and supervisor</td>
<td>Started as general labour in winery Moved to retail to keep job</td>
<td>Retail sales strategies Fundamentals of management of retail store Labour supervision Regulations</td>
<td>Access to relevant courses Needs training to climb ladder ‘Available courses must not conflict with job schedule</td>
</tr>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Winery store sales (&gt;20 years)</td>
<td>Family business related to winery/retail and processing sectors</td>
<td>Post secondary diploma in business Prior employment in hospitality sector</td>
<td>More knowledge of wine Labour and supervisory courses Regulations</td>
<td>Must be accessible at reasonable cost Available without conflict with work Relevant to sales in Ontario environment</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Winery Store sales with some supervisory roles (&gt;10 years)</td>
<td>Started as student part time in winery store First employment small winery (&lt;5,000 cases) now with larger winery &gt;15,000 cases Some Brock/NC continuing education courses</td>
<td>Post secondary diploma in hospitality</td>
<td>Budget preparations Labour relations Planning Marketing programs</td>
<td>Courses directly related to Ontario industry Format of offering – multiple mechanisms of access, computer, CD in-class, and hands-on</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Winery store sales (&lt;5 years)</td>
<td>Started part time doing anything to get “foot in the door”</td>
<td>Personal interest in wine Visits other stores on personal time to observe</td>
<td>Retail practices Sales strategies Marketing ideas Supervisory courses</td>
<td>Accessibility Level offered to meet needs of newcomers</td>
</tr>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Direct sales to Licensees (restaurants, clubs, organizations, special events)</td>
<td>Started in entry level store sales Learn about wine business by observation Worked alongside other employee to “learn the ropes”</td>
<td>Retail sales of products in non wine related industry</td>
<td>Management practices Scheduling/planning “Making cold call” practices Event hosting Wine knowledge</td>
<td>Current training geared to transient workers (students) not fulltime personnel Need short focused course but must have depth</td>
</tr>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Wine store manager (&gt;10 years)</td>
<td>Started in basic store sales Has worked for 23 different wineries in sales</td>
<td>Post secondary degree in hospitality Spent time working abroad in wine related sales as student Enrolled in Sommelier certification program</td>
<td>Advanced wine knowledge Promotions More peer interaction Retail design and marketing</td>
<td>Desire peer instruction Real life courses and short/focused Must be offered when sales people have time</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Wine Store Manager (&gt;10 years)</td>
<td>Worked for two wineries Current employer more than 10 years</td>
<td>Post secondary courses in hospitality and tourism Local and national experience Hospitality with previous employer</td>
<td>World and local wine knowledge Know more about uniqueness of local industry</td>
<td>Balance of family time with work and education Wages are minimal for time spent</td>
</tr>
</tbody>
</table>
## Appendix G

### Personal Interviews Viticulture

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position (yrs in current position)</th>
<th>Education – Academic</th>
<th>Education – Industry</th>
<th>Experience – Direct</th>
<th>Experience – Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Owner/Vineyard Manager &lt;10 yrs</td>
<td>1 semester university – Arts Apprentice (mechanic) Secondary school graduate</td>
<td>Pesticide course certificate Seminars “School of hard knocks” Conferences Networking</td>
<td>Farm family equipment Mentored in business (prior business owner)</td>
<td>Mechanic Learn by doing</td>
</tr>
<tr>
<td>Male</td>
<td>50+</td>
<td>Owner/Vineyard Manager</td>
<td>Post secondary degree – Agriculture</td>
<td>Seminars Conferences Pesticide course certificate Networking</td>
<td>Family farm (mixed crops) Equipment operation All related tasks</td>
<td>Sales – agricultural inputs</td>
</tr>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Vineyard supervisor &lt;5yrs</td>
<td>Post secondary degree - Agriculture</td>
<td>Pesticide course certificate Seminars Conferences Network Part of weekly group meetings</td>
<td>Start as labour &amp; promoted to more responsibility by owners (mentors)</td>
<td>Work on farm (not viticulture related)</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Owner/Vineyard manager &gt;15yrs</td>
<td>Secondary school only</td>
<td>Seminars Conferences Family Network Pesticide course certificate</td>
<td>Start as labour Purchase from family Operates equipment All related tasks</td>
<td>none</td>
</tr>
</tbody>
</table>
### Appendix H

**Personal Interviews Processing**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position ( yrs in current position)</th>
<th>Education – Academic</th>
<th>Experience – Industry</th>
<th>Experience – Direct</th>
<th>Experience – Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25-35</td>
<td>Cellar labour &lt;5yrs</td>
<td>Post secondary degree – Business</td>
<td>Continuing Ed (college &amp; university)</td>
<td>On the job “doing”</td>
<td>Family farm Equipment operation on family farm Some part time retail work in winery Computer tech (financial industry) Learn by doing</td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Assistant winemaker &lt;5yrs</td>
<td>Post secondary degree – Arts Post secondary degree – Education</td>
<td>Continuing Ed (university)</td>
<td>Started in lab/basic analysis On the job Writing manuals for job Research with winemaker Networking with other wineries Equipment purchase</td>
<td>Part time retail</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Cellar supervisor/facility &lt;10yrs</td>
<td>Post secondary - Biology Courses in biology, virology, zoology, microbiology</td>
<td>Seminars Conferences</td>
<td>Laboratory work Networking other wineries Develop computer record system Equipment operation – basic mechanics Budget &amp; scheduling Learn by doing</td>
<td>Vineyard work Equipment operations &amp; maintenance</td>
</tr>
<tr>
<td>Female</td>
<td>25-35</td>
<td>Winemaker &gt;10yrs</td>
<td>Post secondary degree – Agriculture Post grad diploma Undergrad research</td>
<td>Local &amp; international seminars, conferences, forums Network</td>
<td>Local &amp; international winery work All aspects of process Supervision Schedule, budget, labour relations</td>
<td>Vineyard work family</td>
</tr>
</tbody>
</table>
## Appendix I

### Personal Interviews Retail

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Position ( yrs in current position)</th>
<th>Education – Academic</th>
<th>Education – Industry</th>
<th>Experience – Direct</th>
<th>Experience-Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Retail manager/ marketing &lt;5yrs</td>
<td>Post secondary - Marketing Continuing Ed (college/university) for credit</td>
<td>Job retrain program 2 other vineyard marketing positions Seminars Conferences Network</td>
<td>2 winery marketing/ promotion contracts</td>
<td>Prior position &gt;10yrs sales &amp; marketing, hospitality Courses business process Writing/communication roles Customer service</td>
</tr>
<tr>
<td>Female</td>
<td>35-50</td>
<td>Retail manager &gt;15yrs</td>
<td>None</td>
<td>Seminars Network other wineries Employer sponsored travel</td>
<td>Started in basic retail Assumed additional roles as business expanded Employer sponsored travel</td>
<td>None prior</td>
</tr>
<tr>
<td>Female</td>
<td>50+</td>
<td>Store sales &lt;2yrs</td>
<td>Post secondary degree - Arts Education degree</td>
<td>Employer trained Continuing Ed course – non credit Seminars</td>
<td>New in sales</td>
<td>Second career (post retirement) Family member now part of industry</td>
</tr>
<tr>
<td>Male</td>
<td>35-50</td>
<td>Store sales &lt;5yrs</td>
<td>Post secondary degree – Business</td>
<td>Employer trained</td>
<td>“On the job” Career change</td>
<td>Tech specialist commerce Family, part time vineyard Work in processing as needed</td>
</tr>
</tbody>
</table>
### Appendix J

**Topics of General Interest as Identified by Sector**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Specific topics by sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viticulture</td>
<td>Processing</td>
</tr>
<tr>
<td><strong>Economics</strong></td>
<td></td>
</tr>
<tr>
<td><em>Marketing</em></td>
<td><em>Marketing</em></td>
</tr>
<tr>
<td>Business Plans</td>
<td>Internet Marketing</td>
</tr>
<tr>
<td>Budgeting</td>
<td></td>
</tr>
<tr>
<td>Retail Overview</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
</tr>
<tr>
<td>GST/Payroll/Taxes</td>
<td></td>
</tr>
<tr>
<td><strong>Practices</strong></td>
<td></td>
</tr>
<tr>
<td><em>Vineyard Growing cycle</em></td>
<td><em>Vineyard Growing cycle</em></td>
</tr>
<tr>
<td>Winter Protection</td>
<td>Best Cellar Practices</td>
</tr>
<tr>
<td>Integrated Pest Management</td>
<td>Food Safety</td>
</tr>
<tr>
<td>Premium Grape production</td>
<td>Wine Processing cycle</td>
</tr>
<tr>
<td>Organic Production</td>
<td>Quality Control</td>
</tr>
<tr>
<td>Internet Use</td>
<td>Internet Marketing</td>
</tr>
<tr>
<td></td>
<td>Emergency Planning</td>
</tr>
<tr>
<td></td>
<td>Publicity</td>
</tr>
<tr>
<td></td>
<td>Winery Design</td>
</tr>
<tr>
<td><strong>Legislation</strong></td>
<td></td>
</tr>
<tr>
<td>Labour Laws</td>
<td>Labour Laws</td>
</tr>
<tr>
<td>Health and Safety</td>
<td>Health and Safety</td>
</tr>
<tr>
<td>LCBO Regulations</td>
<td></td>
</tr>
<tr>
<td>Food Safety</td>
<td></td>
</tr>
<tr>
<td><strong>Human Resources</strong></td>
<td></td>
</tr>
<tr>
<td>Employee Supervision</td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td>Hiring/Firing/Policies</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Items of common interest across all sectors are shown in **boldfaced italics.** GST = Goods and Services Tax; LCBO = Liquor Control Board of Ontario.
### Appendix K

**Applied Topics of Interest as Identified by Sector**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Specific topics by sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Viticulture</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Processing</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Retail</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Economics**

- Costs of Production
- Budget Development
- Record Keeping
- Spreadsheet Use/Accounting
- Costs of “Selling”
- Record Keeping
- Merchandising/Sales Strategies
- Financial Statement Preparation
- Marketing for non-marketing personnel
- Store Costs

**Practices**

- Computer software applications
  - Vine Canopy Management
  - Pruning
  - Irrigation
  - Rootstock Selection
  - Organic production

- Computer software applications
  - Winery Design and layout
  - Emergency Planning
  - Web Design
  - Wine evaluation

**Equipment Operation**

- Computer Use
  - Tractors Tow motor/Fork Lift operation
  - Pesticide Application
  - Welding
  - Vineyard Management Equipment
  - Sterilization/Sanitation
  - Operate Sales equipment (tills, debit card, scanners)
  - Electrical Systems
  - Consumer Sales Etiquette

**Interpersonal**

- Labour Relations
- Media Relations
- Consumer Sales Etiquette
- Foreign Language Basics

*Note.* Items of common interest across all sectors are shown in *boldfaced italics.*