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VITA

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# ATTITUDES OF TWO NORTHWEST OHIO UAW LOCALS REGARDING LIFELONG LEARNING, USE OF ONLINE STRATEGIES, AND UNION-LED LEARNING

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A dissertation

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College of Technology

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by

David P. Heiser

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## ABSTRACT

United States workers are facing a workplace in which globalization, outsourcing, accelerating technology innovation, and changing demographics demands changes in the way they keep their job skills current. As a primary representative of workers' interests in the workplace, unions want their members to acquire and improve the skills, knowledge, and qualifications that enhance their employability and increase autonomy and self esteem. The problem was to identify the attitudes of two Northwest Ohio UAW locals regarding participation in lifelong learning, and utilization of online learning strategies within a union environment.

The study was a quantitative descriptive study that utilized cross sectional survey research design. The data collection instrument for this study consisted of a 24-item survey that was posted online as a web survey and also distributed in hard copy format to two UAW locals in Ohio. The population included a wide range of workers who were diverse in terms of race, gender, levels of education and skills. A sample of n = 74 responded to questions designed to investigate attitudes of union members towards lifelong learning, union-led learning, and online learning.

Independent variables were age and education level, and dependent variables consisted of responses to survey questions. A chi-square statistical test was performed to determine if there were any associations between responses and the independent variables. No statistical significance was found, but there was a positive response over the range of ages and education level demonstrating support for lifelong learning, union-led learning and online learning.

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CHAPTER 1

# Introduction

## Context of the Problem

United States workers are facing a changing workplace that demands changes in the way in which they approach their prospects of continued employment. According to a US Bureau of Labor statistics study, "workers typically hold about 10 jobs during the first 20 years of their working lives. Technology and other structural changes are accelerating turnover, and therefore the pace at which workers' skills lose value or become obsolete" (NCEE, 2007, p. 141). The pace of change often means that workers who are unemployed for a time or even those who take a break in their employment for some reason may need retraining before coming back into the workforce (Payne, 2001).

This dynamic in itself is cause for workers to be concerned, but the combination of increased, accelerating technology innovation resulting in loss of certain types of jobs; the effects of globalization with its resulting surge in outsourcing; and the changing demographics of the workforce all adds up to a potential displacement of many skilled, experienced workers in the next decade. This has resulted in a bewildering and disruptive employment situation for many US workers (Gordon, 2005, Hira & Hira, 2005, ILO, 2007, The Albert Shanker Institute, 2004, Nesbitt, 2002, Osterman, Kochan, Locke, & Piore, 2001). As a primary representative of workers' interests in the workplace, "Unions everywhere want their members to acquire and

improve the skills, knowledge, and qualifications that enhance their employability and increase earnings, autonomy, and self-esteem" (Nesbitt, 2002, p. 57).

In addition, there is a danger that the US economy could adjust to a lack of skilled workers by reducing the number of skilled jobs available. Studies document skill needs in the US, where 36 percent of applicants taking entry tests are found to be deficient in basic reading and math, and even in management positions, weaknesses in conceptual skills, communication, and problem solving are common. If this becomes a trend, it is likely that US businesses will look elsewhere for members of its workforce (The Albert Shanker Institute, 2004).

According to Gordon (2005), many experts across the United States and abroad have identified strong reading skills, including the ability to understand text in newspapers, books, and maps; along with skills in mathematical computation and good oral and written communication skills as key to career success in advanced industrial nations. These are the "knowledge technologists" that can use technology, solve problems, and if need be, coordinate projects. Workers possessing these skills will be in demand in the coming decades (Gordon), and their educational background or development needs will consist of a good general education background, specialized career education, and continuous education throughout their working lives. He predicts that American companies in the short term will continue to outsource, try to retain older workers a few additional years, and use technology to cut labor costs. However, the only long term solution is to increase investments in training the workforce in areas that are outside the traditional norm for worker education (Gordon).

These conclusions are reflected in Payne's (2001) assertions that speak to the need for analytical and knowledge-based skills that are transportable, and the Plant and Turner (2005)

statements regarding the need for lifelong learning to be considered an essential tool for developing knowledge-based societies that are globally competitive.

Woolfson, (2008) also states that European Union (EU) policy makers regard vocational education and training (VET) as a key part of lifelong learning initiatives that will provide an essential component to keeping Europe competitive in a global economy.

Taking a slightly different approach, Warhurst (2008) states that trade unions are a viable alternative to universities in providing workers' lifelong learning opportunities. He goes on to state:

> It might be that universities produce workers with "thinking skills" (though the quality of the output of mass education is yet to undergo systematic and rigorous analysis, certainly in the UK) but in order to affect a more comprehensive leverage or workplace knowledge the development and deployment of thinking skills needs to be extended to all workers, not just management, professionals, and technicians. This more inclusive approach to the knowledge economy would draw in those workers currently ignored, particularly those in "working class" jobs. Given these workers' previous experience of workplace change, it is likely that trade unions will need to be involved in any knowledge management to provide both insurance and encouragement for these workers if their thinking skills are to be developed and deployed. (p. 83).

In addition, interpersonal or "soft skills" may be just as important for some workers to learn as the "thinking skills" emphasized in higher education (Warhurst, 2008).

In general, the less educated experience unemployment more often, as lower skilled jobs are in greater danger of being eliminated or replaced by technology of some sort. Not only do they have a higher chance of losing their jobs, but workers with fewer skills experience longer

unemployment spells and are more likely to be fired in a slump. However, all things being equal, Saint-Paul (1996) maintains that firms would prefer to hire skilled workers because skilled workers tend to be more efficient and flexible, while at the same time, searching for and recruiting good workers, whether skilled or unskilled, is costly. In a dynamic labor market, where skills and education make a difference in workers' employability, a pathway where workers can better manage their careers by upgrading their skills when and where they choose becomes increasingly important and a necessary component of lifelong learning (NCEE, 2007, ILO, 2007, Park & Wentling, 2007).

Lifelong learning is not a new concept in its most obvious interpretation as it embraces the idea that learning is something that occurs throughout the lifespan; a notion that can be traced back to writings of Plato (ETUI-REHS, 2008). The term itself was used as early as 1976, when US adult educator Roger Hiemstra published a book entitled *Lifelong Learning*, and in the United States, national lifelong learning legislation was passed in the late 70s; though lack of sufficient federal funding led to its eventual demise (Hiemstra, 2002). However, the term has emerged recently to encompass "…school, vocational training, university, and adult education as components of a comprehensive system that are of equal value" (ETUI-REHS, 2008, p. 7).

Emphasis in reference to the term lifelong learning is also a subject for discussion, because by current understanding, lifelong learning encompasses both vocational and non-vocational types of education. This has contributed somewhat to the ambiguity of the term as was pointed out in the ETUI-REHS (2008) report.

> It is certainly the case that one of the strongest motors behind the adoption of the 'lifelong learning' banner has been the awareness of increasingly rapid technological change and the need to constantly update vocational skills.

> Similar tensions can be seen between the different emphases applied to the second part of the term, which in some contexts is seen as representing a move away from the structured, directed, content-led implications of 'education' towards a more actively engaged process of 'learning' (p.8).

One question for workers to resolve once they decide to upgrade their skills is who may they turn to for the most relevant, trusted, and accessible source of education to upgrade their skills? This is a particularly important point, as one of the failings of current workforce development efforts in the US is the disappointing worker response and rate of participation in lifelong learning opportunities. High costs, lack of time and uncertainty about eventual payoff enter into the equation, along with lack of funding support from the government for those who are not poor or facing major obstacles trying to enter the labor market (The Albert Shanker Institute, 2004). In a study done on the participation of workers in the UK on vocational education and training, "findings indicate that older workers are much less likely to participate in employer provided training than younger workers" (Taylor and Urwin, 2001, p.777). This study found that workers aged 40-49 and 50-59 may have had less participation, but the main cause was due to employers offering them fewer opportunities to participate rather than their choice not to participate (Taylor and Urwin). However, there is evidence that age and educational level does affect the level of voluntary participation in lifelong learning initiatives (Payne, 2001, Plant and Turner, 2005).

Then there are those workers who as John Monk, general secretary of the Trade Union Congress (TUC) observed in a 2003 National Press Club discussion, are not at all excited when confronting the necessity of furthering their education. He said, "Think of yourself as a kid who did not do too well at school, and who was very relieved to escape into the world of work. Then

somebody comes along and says 'Have I got a great idea for you: lifelong learning'" (Monk, 2003, p. 2). He went on to cite an opinion poll commissioned by the TUC to see what workers felt were most important to them in a union and from work. The top four responses were in order, job security, esteem, pay, and skills and training. TUC officials were surprised that both skills and training were among the top four positions (Monk).

Several organizations have traditionally played a role in providing this type of adult education: education institutions, employers, government, and labor/trade unions. Each of these organizations have their own strong points as far as being able to provide these services, but this study will focus on the role of unions in facilitating the lifelong learning needs of workers. The 2004 report entitled *Learning Partnerships: Strengthening American Jobs in the Global Economy* put out by the Albert Shanker Institute and The New Economy Information Service, recognized the validity of more than one option to provide lifelong learning education, and indeed encouraged joint partnerships of labor unions, employers, and government in providing lifelong learning opportunities to workers. The report also discussed how business and government involvement has fallen short, sometimes for lack of funding, and sometimes in the case of businesses, the lack of immediate or discernible return on investment. However, the report did point out that one institution whose role in workforce development is often underestimated is the American labor movement. "From its beginnings, American labor has contributed in important ways to improving the skills of workers and the quality of what they produce" (The Albert Shanker Institute 2004, p. 28). This observation is supported by the following quote from Holland and Castleton (2002) about the Trade Union Congress in the UK:

> The TUC argues that the unique position of confidence and trust that the union and its representatives have in the workplace means that they have the powerful potential to

> reach learners with basic skills needs who do not open up to employers or others (such as providers). The TUC works with employer associations, associated trade unions and local colleges to develop suitable basic skills programs. The TUC sees this work as giving workers a voice… (p. 94).

Union education efforts have in the past played a unique role in the effort to provide education to its members. Its efforts were not simply to provide education, but learning in context; in keeping with adult learning principles. Even though there were some distracting debates as to the particular method used, they were "…beneficial in reminding labour educators of the importance of democratic participation in the classroom and in the union and the links between the two…" (Spencer, 2002, p. 20). This provides an approach more suited to a union perspective as opposed to education provided by employers that is geared solely to optimize their participation and productivity in the workplace. It also focuses more on the workers' needs rather than the needs of their jobs (Forrester, 2001, Payne 2001, Sawchuck 2001). Payne, (2001) adds that "…trade union involvement in lifelong learning must be premised on the best interests of their members, and that while these interests may overlap with those of individual enterprises and nation-states, they are not identical" (p. 386).

In Europe, an active solicitation was made from the European Trade Union Institute Research for Education Health & Safety (ETUI-REHS) in its publication *The EU Lifelong Learning Programme: a handbook for trade unions*, which encourages trade unions to participate in and propose lifelong learning initiatives that would provide valuable, relevant education to their members (ETUI-REHS, 2008). In the literature, the European Union and more specifically, the United Kingdom appears to be on the leading edge of the lifelong learning movement. One of the areas in which the UK has advanced the lifelong learning initiative is in

establishing union learning representatives (ULRs). ULRs are workers who go through training and in effect serve as learning counselors to fellow employees, receiving time off for the analysis of employee learning needs and consulting employers about learning matters affecting their members (Cassell & Lee, 20007). Although ULRs were first authorized in 1998, as of 2006, there were more than 14,000 ULRs trained, with a goal of a network of 22,000 by 2010 (Cassel & Lee, 2007, DEP News, 2006).

There is evidence in the literature that globally, union density is on a decline, and this is born out in the US, as a Bureau of Labor Statistics report showed the number of workers belonging to a union in 2007 accounted for 12.1 percent of employed wage and salary workers, as opposed to 1983, when similar union data was first gathered, and the union membership rate was 20.1 percent (Bureau of Labor, 2008).

During a time of declining union membership, unions in the US also need to reexamine their role (Freeman, 2004, Payne, 2001, Scully-Russ, 2006,) and decide how to best serve their members in an ever changing environment of globalization and work reorganization due to technological innovation and the shifting demographics of the modern workforce. Payne (2001) states, "For trade unions, it is a matter of calling on traditional loyalties (including those generated and sustained precisely in the failures of the 1980s) in order to best represent their members' interests in radically altered contexts" (p. 380). Scully-Russ (2006) suggests what might be considered a more fundamental question when she asks what union power really is. She contends it isn't necessarily reflected by union density numbers, but more the advancement of a collective learning in society as a whole.

Freeman (2004) takes the speculation of what roles unions may serve in the future a step further and proposes a more concrete concept. This new role would include unions taking

advantage of information technology to provide services and benefits not only to their members, but also to workers who aren't currently members of a union who are sympathetic to the concept. The advantage to being a union member would be that all services would be free in the traditional membership, but for those who wished to join for the services offered, there would be a fee charged; possibly on the basis of what services prospective members desired. This concept, called Open Source Unionism (OSU) would be a radical departure from the traditional union framework, and would not include collective bargaining power, but could benefit members by broadening the sphere of union influence and fulfilling needs that are important to workers who may move in and out of union membership throughout their careers (Freeman).

As unions are already utilizing the internet, Freeman's view of OSU is feasible. There are numerous examples of local and national unions with their own websites, and unions are increasingly becoming involved in spreading their message in terms of servicing members, improving education, and enriching communications, and augmenting power utilizing online technology (Shostak, 2005). For example, the US labor movement's first online, on-demand interactive steward training course was launched in 2004, and in 2003, the world's largest federal employee union launched the first blog ever offered by a labor union (Shostak). All the elements are in place for US unions to offer lifelong learning to its members utilizing online education, and if feasible, to broaden its services to workers who are not union members. The question is whether union officials and union members are receptive to this concept.

**Statement of the Problem**

The problem of the study was to identify the attitudes of two Northwest Ohio UAW locals regarding participation in lifelong learning, utilization of online learning strategies and learning within a union environment.

**Significance of the Study**

Workers facing upheavals in the labor market need to have opportunities to raise their employability level in order to continue to live productive, fulfilling lives. Even with the decline of union density over the past twenty years, unions remain one of the most popular forms of worker organization in most liberal democracies of the world. Labor education is an important form of adult education available to working people and often ignored when there are discussions about adult learning (Spencer, 2002). Unions have a unique role in leading lifelong learning initiatives among workers, as their primary mission is to represent the workers' best interests. Unions also have more respect for the informal, collective nature of the knowledge that workers already possess and exhibit daily in their jobs (Fenwick, 2006). In addition, there is support for the idea that workers will likely be more loyal to an organization that provides them with educational opportunities that increase their level of employability (Scully-Russ, 2006).

Therefore, unions have an opportunity to gain support among their membership by helping workers overcome some of the barriers they encounter when taking charge of their own lifelong learning process. This learning agenda should not be limited solely to raise their employability level, but to enhance their ability to fully participate in a democratic society and live a more meaningful life. This study will add to the discussion by surveying union members in US unions to determine their attitudes towards participating in lifelong learning opportunities.

Review of the literature regarding studies of recent union-led education is more prevalent in Canada and the European Union than it is in the US, and in particular in the UK. Studies and commentary have discussed the "modernization" of the British trade unions, the implementation of ULRs, and the support of government in soliciting trade union involvement in a widespread lifelong learning initiative (Cassell & Lee, 2007; ETUI-REHHS, 2008; Holland & Castleton,

2002; Payne, 2001; Plant & Turner, 2005; Forrester, 2001; Stroud & Fairbrother, 2008; Wallis, Stuart, & Greenwood, 2005: Lee & Cassel, 2004).

This study investigated attitudes of union members in United States United Auto Workers locals to determine their attitudes regarding lifelong learning, union-led education, and online education.

Within the current, available literature, there have been questions raised about the future role of unions in society, and in particular the current US labor environment. There have also been discussions of the changing roles or directions US unions may take to increase density and perhaps more importantly, increase relevancy to a wider audience of US workers (Wunnava, 2004; Scully-Russ, 2006, Freeman, 2004). One concept proposed, that of "open source unionism" (OSU), focuses on offering online services to union members and non-members alike, with a separate fee charged to those who are not current members (Freeman, 2004, NBER, 2008). Unions do have a history of utilizing online technologies for purposes of education and communication (Shostak, 2005, Nack and Tarlan 2005; Sawchuck, Zenon, and Taylor, 2002) which would enable them to offer online education opportunities related to lifelong learning objectives within an OSU framework. This study will advance the discussion on these topics by surveying union members as to their attitudes towards lifelong learning, union led lifelong learning, and online education. In order to make informed recommendations as what type of educational issues might be involved and targeted, a statistical analysis of the effect age and education level has on these attitudes was carried out in the data analysis.

**Research questions**

There are several advantages to including hypotheses along with the central research questions in a study. First of all, a deeper thought process may result as the focus given to the

hypothesis can lead to more sophisticated understanding what the questions imply. Also, restating questions as hypotheses enables predictions to be made based on prior research, and helps to focus on the question as a relationship (Fraenkel and Wallen, 2000). Central to the theme of this study were the following research questions and related hypotheses:

1. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities?

**Hypothesis 1:**

$H_o$ : Age has no effect on union workers' attitudes about participating in lifelong learning opportunities.

$H_{1\ (rq1)}$ : Age does have a negative effect on union workers' attitudes about participating in lifelong learning opportunities.

**Hypothesis 2:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in lifelong learning opportunities.

$H_{2\ (rq1)}$ : Educational level does have a positive effect on union workers' attitudes about participating in lifelong learning opportunities.

2. Does age and education level affect attitudes of union workers about participating in union-led lifelong learning opportunities?

**Hypothesis 3:**

$H_o$ : Age has no effect on union workers' attitudes about participating in union-led lifelong opportunities.

$H_{3\ (rq2)}$ : Age does have a negative effect on union workers' attitudes about participating in union-led lifelong learning opportunities.

**Hypothesis 4:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in union-led lifelong opportunities.

$H_{4\ (rq2)}$ : Educational level does have a positive effect on union workers' attitudes about participating in union-led lifelong learning opportunities.

3. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities delivered online?

**Hypothesis 5:**

$H_o$ : Age has no effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

$H_{5\ (rq3)}$ : Age does have a negative effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

**Hypothesis 6:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

$H_{6\ (rq3)}$ : Educational level does have a positive effect on union workers' attitudes about participating in lifelong learning opportunities delivered online

**Assumptions/Limitations**

"An assumption is anything that is taken for granted rather than tested or checked…it is not limited to values, but applies to both general and specific assumptions that researchers make with regard to a particular study" (Fraenkel and Wallen, 2000, p. 18). In this study, assumptions include:

1. Participants responded to questions about adult education with their own preconceived notion of what that entails based upon their own personal experience.

2. Participants were motivated to respond in a truthful manner, and not to submit false responses for the purpose of skewing the results.

3. Participants were able to understand and follow the directions on the survey correctly, and that the technology did not prove to be a barrier to accomplishing this goal.

4. Participants only responded once to the online survey.

5. Participants were limited to those in two UAW locals.

6. Responses were limited due to inaccessibility to members' email addresses.

There are some limitations inherent in all survey research, particularly in regard to potential coverage, sample, non-response, and measurement error. One limitation using an online survey concerns introducing coverage error, which occurs when some members of the population have a zero probability of being selected in the survey sample (de Leeuw, Hox, & Dillman, 2008). In this study a limitation was that union members who do not have email addresses or computer access may have been excluded from the online version of the survey.

**Definition of Terms**

The following terms were used within this study, and the acronyms without citations were explained in the body of the study but are repeated here for more convenient reference.

Adult education - The relationship between an adult student and an educational specialist trained to work with adult learners in which the specialist provides the student with specialized information, learning experiences, or reference to resource materials. Frequently, such activities take place in the evening hours but on-line opportunities are on the increase (Hiemstra, 2002, Chapter 1, Para. 40).

AFL – American Federation of Labor (Taylor, 2001).

AFL-CIO – American Federation of Labor-Congress of Industrial Organizations (Taylor, 2001).

CAW - Canadian Auto Worker's Union (Taylor, 2001).

CIO – Committee for Industrial Organization (1935-1938); Congress of Industrial Organizations (1938-1955) (Taylor, 2001).

CWA – Communications Workers of America (Taylor, 2001).

DfEE – Department of Education and Employment in the UK.

ETUI-REHS – European Trade Union Institute for Research, Education and Health & Safety.

GMB- General, Municipal and Boilermakers' Union (United Kingdom) (ILO, 2007).

GURN – Global Union Research Network (ILO, 2007).

ICFTU – International Confederation of Free Trade Unions (ILO, 2007).

ICT - Information and Communication Technologies

ILO – International Labour Office/Organization (ILO, 2007).

ITUC – International Trade Union Confederation (ILO, 2007).

Labour education – term is often used to refer to union education and to labour studies when practiced by union or university-based educators on the behalf of unions. Labour education is a branch of adult education and could benefit from innovations in the field or union education and labour studies (ILO, 2007, p.1).

Labour studies – post-secondary courses and programmes that focus on labour and the working class and includes subjects such as labour history, labour law and the sociology of work (Taylor, 2001, p. 3).

Learning society - The provision of purposeful learning opportunities both within and outside of the traditional educational institutions. In such a setting, formal education could be obtained throughout one's life. (Hiemstra, 2002, Chapter 1, Para. 45).

Lifelong learning - A process of learning that continues throughout one's lifetime, depending on individual needs, interests, and learning skills. (Hiemstra, 2002, Chapter 1, Para. 46).

NLC – National Labor College (United States) (ILO, 2007).

OECD – Organization for Economic Cooperation and Development, made up of 30 member countries committed to democracy and the market economy, who publishes and shares information globally dealing with sustainable economic growth, financial stability, world trade, and living standards (OECD, n.d.).

Open source unionism (OSU) – a proposed new form of unions that makes extensive use of information communication technologies, particularly the Internet, to deliver services to members and surmount employer opposition (Freeman, 2004, p.5).

PEL – Paid educational leave

SMEs – small and medium-sized enterprises

SoliNet – Solidarity Network

TUAC – Trade Union Advisory Committee to the OECD

TUC – Trade Union Congress; a body that represents British unions in lobbying the government in behalf of workers, represents British unions internationally, and does research to determine its members needs (http://www.tuc.org.uk/the_tuc/about_role.cfm).

TUTA – Trade Union Training Authority (Australia) (ILO, 2007).

UALE – United Association for Labor Education (United States) (ILO, 2007).

UAW – Internation Union United Automobile, Aerospace and Agricultural Implement Workers of America (ILO, 2007).

Union education – educational activity conducted by unions for their purposes. It covers functional education (which refers to training members in the operations of their unions) and subject education (which takes general subjects such as economics and applies them to union issues such as fair globalization or enterprise analysis) (ILO, 2007, p. 1)

ULR – Union learning representative

VET – Vocational Education and Training

WEA – Worker's Educational Association

Workers' education – programmes aimed at the educational attainment of working people. It involves programmes related to literacy, numeracy, learning a second language and other general education activities (ILO, 2007, p.1).

Workplace learning – a term that is used to refer to what was formerly known as vocational education and training. (Forrester 2001).

CHAPTER 2

# Review of the Literature

## Historical Context

### Labor education globally

Labor education participation is estimated between 3% to 5% in Canada, Britain, Australia, New Zealand, and the USA. This seemingly low level of participation may suggest that labor education is not a topic worthy of much discussion, but "…it is probably the most significant provision of non-vocational non-formal adult education for working people in any of the five countries" (Spencer, 1996, p. 2).

Over the years, there are several terms that have been attributed to the formal, informal, or non-formal types of educational activities unions provide to their members. Although there are a variety of terms that can be confused, according to Taylor, (2001) "Union education refers to educational programmes conducted by labour organizations (unions, federations, labour councils, congresses) for their members" (p.3). This is essentially the same definition Spencer (2002) uses when substituting the term "labor" for "union", but then also includes worker education under its umbrella. Therefore, labor education will be the focus of this section of the literature review, as it is the broadest category and encompasses all the different forms of education promoted by labor in its early history.

The majority of labor courses can be examined in three basic categories; tools courses, issues courses, and labor studies. Tools courses prepare members for certain roles within the union, e.g., shop stewards. Issues courses are designed to raise awareness and action around certain issues, like racism, sexual harassment, etc. Labor studies courses are normally post secondary courses provided by educational institutions and seek to examine union context, for example, labor history, etc. (Spencer 2002). Unions have tried to exert more control over some of these labor studies programs, and have utilized Paid Educational Leave (PEL) like that offered by Canadian Auto Workers (CAW) and distance education like that offered by the UK Transport and General Worker's Union (TGWU) and Unison, the largest union in the UK to make it easier for workers to have access to these courses (Spencer, 1994).

Canadian labor education began in the 1920s with university level classes offered in the evenings by a small group of university-based educators and trade union leaders. The expanding labor movement in the ensuing years, particularly during World War II, provided the impetus for expansion of those evening classes to a wide range of educational activities offered by the Worker's Educational Association (WEA) (Taylor, 2001).

Labor education programs have shifted to help the labor movement survive and have a long history in the UK. "In the UK in the 1830s, the Owenites and Chartists were concerned with radical education of the working-class towards social reform and political action, but by the 1840s Chartism had been defeated" (Holland and Castleton, 2002, p. 93). Trade union legislation in the UK and France between 1867 and 1906 also had some implications for the unions' involvement in worker training. The availability of skilled and semiskilled workers in the UK led employers to allow trade unions some responsibility for training workers, while the scarcity of both types of worker in France led employers to keep that responsibility under their

administration. This in turn led to wide scale acceptance of unions in the UK, while employers in France remained hostile (Hanagan, 1997). One of the results of this difference was that trade unions had more leverage in the UK, as they controlled the training of semiskilled workers and the apprenticeship systems of the skilled workers, while in France; employers had control of the training and supplemented any shortages of labor from the skilled and semiskilled ranks in the UK. Historically, this has been significant, because in this comparison, distinct political power relationships are associated with the entity controlling the training (Hanagan).

Trade union education is linked to general changes in union activity which in turn is influenced by trends in industrial relations. These can be identified in three general periods of post World II. These include the years from 1945 to the mid-1970s, the mid 1970s to the mid 1980s, and the mid 1980s until the present (Stirling 2002).

After World War II, the Trade Union Congress (TUC) in the UK viewed training as a ways to weed out radical elements and enable representatives' abilities to negotiate with management and government (Holland and Castleton, 2002). Also in the UK, trade union education after World War II was redefined as training shop stewards in workplace industrial relations (Mc Ilroy, 1999, as cited in Stirling, 2002, p. 28).

In north and western Europe, discussions of policy in the 1980s led to the establishment of the Community Charter of the Fundamental Social Rights of Workers that stated that all workers must have access to vocational training throughout their working lives, a view that differed from North America and Australia where it was accepted that employers and the state were responsible (Bratton, Helms-Mills, Pyrch, & Sawchuk, 2003).

By the end of the 1990s, declining membership, reduced subscription income and forced cuts in training budgets presented severe challenges to the proliferation of trade union education

throughout Europe. Funding problems, especially in Northern Europe, were worsened by state funding that was challenged, narrowed in focus, or withdrawn. To further complicate matters, there was increasing employer hostility towards supporting trade union education (Stirling, 2002).

**Union education in the United States**

In the United States, worker education led the way to a movement the labor cause eventually picked up on and supported for its members. "The worker's education movement in the United States dates from the Socialist Party's 1906 formation of the Rand School for Social Science in New York. The school was designed to provide workers with a critical liberal education that would equip them with the skills to build a new socialist society" (Taylor, 2001, p. 4). In 1919, under the sponsorship of the Boston Central Labor Union, the Boston Trade Union College was founded.

By the 1920s, a network of independent labor colleges operated across the country and the Worker's Education Bureau of America (WEB) was formed in 1921 by a group of labor intellectuals and educators; of which historian Charles Beard and his wife Mary, (Brooks, 1971) along with noted educator Horace Kallen were numbered. This organization's purpose was to collect information about any type of organized labor education activities and to spread the information with the goal of stimulating additional education efforts (Taylor, 1998). One of their strategies was to coordinate union-based educational activities, and as a result, some universities added worker's education to their extension service offerings (Taylor, 2001).

The American Federation of Labor (AFL) first welcomed the formation of the WEB, and in 1923, an agreement was worked out so that the AFL had control of the executive committee. "An intensive program of teaching and publishing was launched. Universities, among them the

University of California, were encouraged to give special classes for trade unionists. Economics, history, parliamentary procedure and other subjects were tailored to fit the needs of workingmen" (Brooks, 1971, p. 153). However, disagreements between the AFL and educators became an increasingly problematic issue, and finally, WEB was adopted as another department of the AFL and faded into the background (Brooks). Horace Kallen was one of the original organizers of the WEB, and argued that all the worker education initiatives of the1920s neglected to educate workers about understanding industry and extending democracy to the workplace. He was one of the first voices supporting increased worker education as a means to becoming a full-fledged partner with management; thereby forming a more productive, democratic workplace (Taylor, 1998).

US labor education efforts have a long tradition of recognizing the need to provide formal training for union officials, and in the 1920s and 30s provided training for union activists at the Brookwood Labor College in New York, the Highlander Folk School in Tennessee, and Bryn Mawr College in Pennsylvania. Brookwood College was labor's only venture in full time education and was founded in 1921 by A. J. Muste, an ex-Dutch reform minister. The two year college trained an impressive number of future leaders of the labor movement, but due to lack of funds, was eventually forced to close in 1937 (Brooks, 1971). The Bryn Mawr Summer School for working women was established to help women spread their influence in the industrial world and increase fulfillment and happiness in their personal lives (Taylor, 1998).

The Highlanders utilized an activist and agitational approach to labor education in response to anti-union and racial politics of the southern US (Spencer, 1996), utilizing transformative educational concepts a full 30 years before Freire (1970) and 60 years before Meizrow (2000) published their educational theories (Ebert, Buford, & Brian, 2003). This was

the result of recognition by the labor movement of that time of the necessity for formal education for its officials; which often included communication and management skills (Nesbitt, 2002).

Also in the 1920s and 1930s, the International Ladies Garment Workers' Union (ILGWU) became the most prominent of the unions developing their own internal educational capacity. It established an international education department in 1917, and developed an impressive educational program in the United States. This program stressed "language instruction, and recreational activities as well as tools training and worker-centred liberal education" (Taylor, 2001, p. 29). Workers' education reached its peak in 1926, when there was an enrollment of 40, 000 worker-students in thirty states throughout the US (Taylor, 1998).

In addition, the 1930s were the time when the American Federation of Labor (AFL), through WEB, began to emphasize collective bargaining rather than moving society in a new direction, thus the term "labor education" began to replace "worker's education" in the United States. And in the 1930s and 1940s the need to get unions up and running resulted in an emphasis of union-centered labor education rather than the general worker's education that was prevalent in earlier education efforts. This also was the period of time of one of the most energetic and progressive periods of union activity in North America (Bratton, Helms-Mills, Pyrch, and Sawchuk, 2003).

## Relevant Theory

### Adult learning approaches in union education

Trade unions discovered that their education efforts were more effective when taking into consideration workers' experiences and respecting their need to "learn by doing". This approach was best reflected in the tradition of the Highlander Folk School, founded by Myles Horton and colleagues in 1932 to provide grassroots education to effect social change. This organization was

utilized by unions in the 1930s to provide education for union leaders and still exists in Tennessee. Their focus has always been on participatory education and their mission to "foster transformative education by assisting others in their struggles to overcome obstacles, through beliefs in the value of self-empowerment, the ability to change through education and learning, and a faith in the strengths of people and communities themselves" (Ebert, Burford, and Brian, 2003, p. 323).

Trade union education has been inextricably entwined with the principles of adult learning, but is also a little studied activity. This has resulted in a situation in which literature that does exist on trade unions does not often mention larger issues of adult learning. And conversely, the literature on adult learning is largely silent about the activities of trade union education (Ball, 2003). "Consequently, there is a growing literature with a focus on adult learning that fails to embrace the experience of trade union learners. On the other hand, there is a body of literature with a trade union focus that fails to consider the practice and perspectives of adult learners" (p. 297). As a result, researchers of trade union learning must decide whether to conduct research within the framework of trade union activity or adult learning (Ball).

However, there is an acknowledged conflict between union-provided education and management-driven learning (Scully-Russ, 2006, Sawchuck, 2001) which does point out an adult learning perspective. Whereas management-driven learning is based more on performance objectives and focused on specific job skills, union education has traditionally been more learner-centered and focused on the overall betterment of the worker, both collectively and individually. This approach is compatible with prevailing adult learning theories that places some emphasis on self-directed learning and taking into account the learner's context or situation both in the workplace and in community and family life.

In addition, trade union education has been closely related to adult education in the Nordic countries because of the national attitude towards adult education and its relatively inexpensive and easily obtained nature. The learning strategies used in the Nordic countries utilize self-directed, participatory, and democratic principles (Stirling, 2002) which lead to collective learning and support andragogical and other theories of adult learning.

Like any other education or training generated for adult learners, there are more than one method, technique, or approach to presenting the content. Three methods that are utilized in varying degrees are didactic, Socratic, and facilitative (Newman, 2007). The didactic method is more of the traditional variety used in formal education in which the trainer, who is the acknowledged subject expert, stands in front of the audience of learners and instructs or tells the learners what knowledge they should know. The Socratic mode of teaching involves posing a problem and questioning learners throughout the process about solutions, and the facilitative mode of teaching involves the trainer setting up a situation or context in which the learners go through the process of achieving the learning themselves with minimal guidance from the trainer. A mix of all three teaching modes can be successfully utilized in union training, according to Newman (2007, p. 23), as union members are accustomed to listening, discussing, and acting out their learning experiences. In fact, the thing that makes union training different than adult education or management training is not the mode of teaching nor even the content of the curriculum, but the contracts entered between the trainers/educators, the organizations that employ them, and the participants in the course or training intervention. In this context, "contract" refers to more than just formal, legally binding contracts, but also includes formal and informal obligations and responsibilities that exist between all parties involved (Newman, 2007). For example, a trainer employed by management is obligated to help participants develop skills

and knowledge deemed necessary by the organizational decision makers. The hierarchical order is one way; from the organization to the trainer to the employees. On the other hand, adult education in its purest form views the educator and the learner as equals; with a two way contract between them to develop the curriculum; each having equal control over the learning experience. This is the basis of Paulo Freire's dialogue principle of adult learning. According to Vella (2002)

> As Paulo Freire put it in conversation with us one evening: "Only the student can name the moment of the death of the professor." That is, a teacher can be intent upon a dialogue with an adult learner, but if the learner sees the teacher as "the professor" with whom there is no possibility of disagreement, no questioning, no challenge, the dialogue is dead in the water. Adult students need reinforcement of the human equity between teacher and student and among students. It takes time for adults to see themselves and the teacher in a new role (p.20).

This dialogue principle was utilized in the early days of the Workers' Educational Association when teachers would negotiate with students on the curriculum of each course. In the "pure" adult education situation, the identification of need becomes the most important consideration and according to Knowles (1980, p. 82), one of the highest level skills for adult educators is to first reach learners through what they feel their needs are, then help them to discover and meet their real learning needs. Knowles, one of the early proponents of the concept of andragogy, defined it is the art and science of helping adults learn. Later in his career, he amended his thinking on this, due to the fact that primary and secondary teachers reported applying concepts of andragogy to students and finding it produced superior learning. He then began to consider andragogy and pedagogy as two ends of a spectrum to be used in a more situational context, according to individual learning needs. Knowles' view of andragogy was

premised on four assumptions about learners that differ somewhat from traditional pedagogical concepts:

> These assumptions are that as individuals mature: 1) their self-concept moves from one of being a dependent personality toward being a self-directed human being; 2) they accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning; 3) their readiness to learn becomes oriented increasingly to the developmental tasks of their social roles; and 4) their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness (p. 45).

However, the contracts involved in union training are somewhat different from that in the purest form of adult education and adult learning. There are three two-way contracts involved; one between the trainer and the union, one between the trainer and the participants, and one between the participants and the union. But as a result of everyone involved belonging to the union, the ownership of the training reflects a true democratic learning experience (Newman, 2007).

Additionally, the consensus within Canada's union movement regarding training led by unions was very compatible with adult learning principles. As reported by Taylor, (2001):

> There was general agreement inside the union on a number of principles underlying its approach to training. Members should enroll voluntarily, the learning should be portable and contribute to an individual's general development and the programmes should promote critical thinking and avoid propaganda. In addition, programmes should endeavor to promote awareness of labour principles. Furthermore, workers should teach

> workers, with professionals providing a coaching role, and the training style should encourage collective interaction. Finally, every member should have access to training and education, regardless of previous schooling, age, culture, race, gender of geographic location (p.220).

Another link to adult learning that is inherent in union education is that workers bring to the learning intervention an understanding of issues affecting them that they have learned through experience rather than the banking theory of learning spoken of by Freire (Sawchuck, Garon, & Taylor, 2002). Freire refers to traditional education as "banking education" because of the process, as he sees it, of depositing knowledge into students by the teachers, thereby objectifying them and their role in the process as receptacles to be filled, and robbing them of their creative powers (Freire, 1970). "Freire's analysis of banking education as destructive of human freedom is close to being the classic criticism of all didactic and teacher-centered forms of education. There is a great deal of truth in many of the criticisms he has made" (Elias, 1994, p. 114).

The central concept of Freire's educational theory is that of conscientization, which developed over his career to evolve into a fuller form. According to Elias (1994):

> Perhaps the best definition of what Freire means by conscientization is contained in an editor's footnote in *Cultural Action for Freedom*. Conscientization there is defined as "the process in which men, not as recipients, but as knowing subjects achieve a deepening awareness both of the sociocultural reality which shapes their lives, and of their capacity to transform that reality through action upon it." Conscientization thus includes two moments: an awareness of the social and cultural situation in which one lives and an awareness of one's ability to change situations through actions (p. 123).

Freire's approach to education of adult learners places emphasis on taking into account learners' awareness of their life situation and the importance of dialogue in the learning process. This makes it very applicable to theories of education espoused by union educators which embrace collaborative learning and the facilitating or coaching role taken on by leaders of the learning activity. One more theory of adult learning that relates well to the literature of union education is Meizrow's theory of perspective transformation. He defines it in his 1991 book *Transformative Dimensions of Adult Learning*.

> Perspective transformation is the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and finally, making choices of otherwise acting upon these new understandings (p. 167).

Meizrow (1991) maintains that any major challenge to an established perspective, be it from a personal upheaval in life circumstances, such as loss of job, or a death in the family, or a learning experience that contradicts long held assumptions, can result in a perspective transformation. These challenges can often be painful and uproot one's very sense of self, especially when it involves values and views on life itself. As a result of his national study of women returning to college, Meizrow (1991) came to the following conclusion.

> The phases of perspective transformation appeared to be as follows: 1) a disorienting dilemma, 2) self-examination with feelings of guilt or shame, 3) a critical assessment of epistemic, sociocultural, or psychic assumptions, 4) recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change, 5) Exploration of options for new roles, relationships, and actions, 6) planning of a course

> of action, 7) Acquisition of knowledge and skills for implementing one's plans, 8) provisional trying of new roles, 9) building of competence and self-confidence in new roles and relationships; and 10) a reintegration into one's life on the basis of conditions dictated by one's new perspective (p. 168).

Meizrow's theory of perspective transformation and Freire's theory of conscientization have elements in common; for example, the importance of reflection. Meizrow emphasizes the importance of reflection in analyzing one's cultural environment and how it affects one's perspective on actions, feelings, and thoughts. Freire also emphasizes the importance of reflection, but whereas Meizrow suggests that learners will eventually reintegrate in a new role, implying a more mainstream result, Freire's interpretation of conscientization relies on praxis – reflection with action – to effect social change (Newman, 1994). Though both theories begin with change in the learners themselves, Freire's expectations are that social or even revolutionary change will result from true conscientization, while Meizrow's expectations are that the results of perspective transformation will "…get the learner to the starting line, but that we will have to rely on a kind of faith that some larger change will come about after that" Newman, 1994, p. 240). This appeal to social action may be why Freire is mentioned more often in the literature of union education in relation to adult learning.

Jane Vella is an adult educator who practices dialogue education and honors the traditions of both Freire and Meizrow; but among her twelve principles of adult learning she teaches and practices, there is an emphasis on the principle of safety for adult learners (Vella, 2002). Her view of safety in a learning environment is not an approach that is bereft of challenges. On the contrary, she explains "The principle opens the way for learners to meet any challenge, and it wisely cleanses the environment of the destructive element of fear. Challenge is

not fear. Fear stops learning, freezes creativity and spontaneity, shuts down laughter, and destroys community" (Vella, 2008, p. 86). This principle of adult learning is very much apparent in the Steelworker's Institute of Career Development's (ICD) approach to lifelong learning classes for adult learners. One of the keys to high participation rates in its classes is ICD's philosophy about what it takes to help adult learners conquer a fear of classrooms and learning after having been away from school for many years. ICD offers "Bridge Classes," which are designed around employee requests for training in everything from landscaping to music lessons. "To prepare trainees for more technical subject matter, however, every course includes at least four of the basic learning elements mandated by the ICD: writing, learning to learn, reading, computation, oral communication, listening, problem solving, creative thinking, motivation, interpersonal skills, negotiating skills, teamwork, leadership and information technologies. (United Steelworkers/U.S. Steel-Fairfield Works Electro-Mechanical Maintenance Career Development Program, n.d., para 21)

Another element of adult learning and trade union education that is discussed in the literature is the notion of collective interaction or social learning. This is closely related to what is known in adult learning literature as a community of practice (CoP) in which individuals come together to share expertise, learn, and practice (Merriam, Courtenay, and Baumgartner, 2003). Although described as informal groups, Ball (2003) has studied its application in a group of union members taking trade union education courses, and O'donnel & Tobbel (2007) have studied its effect on a group of adults entering higher education. These were both formal education situations but the concept of legitimate peripheral participation (LPP), which is central to CoP, was found to be a valid framework from which to understand the learning that took place. As Merriam, et al. elaborates,

> the concept of legitimate peripheral participation (LPP) explains how novices become full community members. In expanding the concept of apprenticeship from the individual master-novice dyad, LPP is the process by which newcomers become full members of a community of practice. LPP is a process of changing participation and changing identity. By legitimately being included in the group even though it is at first on the periphery, through participation, learners move toward the center; however, there is no literal core or center as the group is fluid and ever changing. Thus, this movement from the periphery to the center means becoming progressively more engaged and active in the practice of the community (p. 172).

Ball (2003) points out that LPP and the resulting engagement that takes place in trade union education are key elements of the behavior and transformation of perspectives that can take place along with the recognition that "contemporary non-participants (in courses) who resist or avoid the embrace of the adult educator can still become participants with appropriate attention to their primary activities" (p. 309).

Through this study of trade union education, Ball (2003) concluded that even though union education may not be included in the adult learning literature, it is a form of adult education that can be interpreted within the framework of adult learning literature "both because that literature is helpful to the understanding of the trade union practice and because this practice may be useful in understanding the problems that mediate non-participants and their access to lifelong learning" (p. 308).

## Current Literature

### Union education transnationally

Traditional union education is still very much in evidence globally, as the need to offer education to union officials and members regarding all the aspects of union activity is just as important as always, if not more so. However, since the turn of the century, the literature on union education has identified a trend that includes an emphasis on workplace or lifelong learning. Taylor (2001) noted that the scope of union education in Canada broadened somewhat in the 1980s and 1990s to reflect more interest among labor educators on workplace training.

As union members began to encounter job losses due to work relocation, Canadian unions began to get more involved in developing their own agenda on training issues, to the point that the line between labor education and training became increasingly blurred. By the mid-1990s, the spread of labor involvement in training led to an initiative by the Canadian Labor Congress (CLC) to "develop a collective vision by exploring what labour's role in the training system should be and why labour was involved in training in the first place" (Taylor, 2001, p. 223).

There were some activists who thought that the union's involvement in training initiatives helped in the erosion of government and public institutions' responsibilities in this area, and in 1997, this became a divisive issue. In 1998, the CLC developed a protocol that regulated the union's involvement in delivering training, education, and employment services. In essence, the protocol expressed the principle that government should be responsible for the general funding of workplace training initiatives, that public institutions should be the main provider of training and education, and that labor efforts in this area should enhance and not duplicate public education's efforts (Taylor, 2001).

Recent developments from the international perspective of union education was reflected with the declaration at the 2007 International Worker's Symposium in Geneva that any discussion dealing with international union education must begin with the twin challenges of lifelong learning in developed countries and large informal economies in the developing world (ILO, 2007). Because in many countries it is not possible to train a worker at the beginning of his or her career in any technology that would be sufficient for a three or four decade career, the International Trade Union Confederation (ITUC) constitution:

> recognizes lifelong learning as a basic human right, not only for those employed in knowledge-based economies, but for all workers, wherever they are employed and whatever their employment. It is within this context of lifelong learning as a human right that union education is situated: it is simultaneously a way of building unionism and part of the struggle for decent education for all workers (ILO, 2007, p. 4).

Taylor (2001) also pointed out that according to some studies; UK management employees had a more negative attitude to training than any other group besides unskilled laborers. Employers also are reluctant in some cases to agree that training is an issue that should be negotiated with unions. This is not an isolated case, as Woolfson (2008) states that in Latvia, employers are openly hostile to trade union involvement in education at the workplace level. There is also always the suspicion that when a worker is asked to train in a new technology, for example, that it is the first step to being replaced on the job. One of the natural conflicts or tensions involved with union influencing workplace learning is that from the worker's perspective, profitability is not the ultimate goal. Though efficiency and productivity are part of the model of learning, direct social needs of the majority of workers are also a key motivation for workers (Sawchuck, 2001, Scully-Ross, 2006).

According to Bratton, Helms-Mills, Pyrch, & Sawchuk, (2003), the predominant view in Australia and North America is that vocational training is the responsibility of employers and the state, though other areas of the world, particularly northern and western Europe, take a somewhat different view.

The European Union (EU) addressed the issues of training and workplace learning within its charter of rights framework, specifically the Community Charter of the Fundamental Social Rights of Workers in the late 1980's. The declaration that all workers of the European community must have access to vocational training throughout their working lives met with varied response, though it was interpreted in general that this initiative would include the involvement of government, employers, and union. This was followed by the EU's 1997 "Employment Summit", which urged active participation by these partners to establish "formal agreements to enhance training, trainineeships, work-based experiential learning and lifelong learning capacity. Driving the process, as mentioned above, was the apparent need to develop a knowledge economy, and despite contention over what this term actually means, it seems a truism that 'training' is one of the few areas where employer and worker interest seem to converge" (Bratton, et.al. p. 151).

In the UK unions, for example, there are attempts underway to build an agenda in terms of training and lifelong learning (Bratton, et al. 2003, Waddington, 2005), In Britain, the Trade Union Congress (TUC) launched an initiative in 1994 seeking to include working people, unions, government and the wider community in order to make itself more relevant to a wider range of people. In the 1998 report *Union Gateways in Learning*, produced by its Learning Task Force Group, the TUC outlined a view of the learning society that would promote not only employability, but the development of citizenry with learning skills necessary to fully and

meaningfully participate not only in the workplace, but in local communities and more broadly in a democratic society (Forrester, 2001).

In this report, the TUC outlined its view of a learning society to include a shared commitment from employer, state, union, and employee; the employer, to invest in job specific training and employee development; the state to provide lifetime support for employees; the trade unions to promote and deliver quality lifelong learning opportunities to members; and perhaps most importantly, the employee to accept responsibility and ownership for their learning throughout their working lives (TUC, 1998a, p.3 in Forrester, 2001, Payne, 2001). Livingstone and Raykov (2005) maintain that in spite of discussion of learning organizations, there has been little attention paid to the effect union status has on participation in worker education and training activities. In fact, what little research has been done has produced mixed results, with some studies showing a positive relation between unionization and educational participation, and other studies finding either a lack of influence or a negative impact. However, through an extensive secondary analysis of available national surveys, their study (Livingstone & Raykov, 2005, p. 61) "…confirms that union status has had generally positive effects on worker' participation in education and training activities in Canada during the mid-1990's period of economic stagnation."

An initiative in the UK to help employees more fully participate in the lifelong learning opportunities available to them involved a career or learning counseling service. The need for such a service was the result of issues with the implementation of sufficient guidance; including lack of consistent or sufficient career guidance for adults and even students in higher education; weak ties between employment services and career guidance systems; and insufficient numbers

of professionals available in the career guidance field in much of Europe (Plant and Turner 2005).

Since 1998, when the primary points of contact for employees seeking guidance were local career services, voluntary organizations, or educational institutions, the TUC and individual trade unions have trained over 5000 Union Learning Representatives (ULRs) who offer guidance and support to their peers in the workplace. They also identify training needs in the workplace and promote the development employees' skills (Plant and Turner, 2005). The TUC holds the position that unions have a unique potential to reach learners with basic skill needs who will not confide in employers or education providers (Holland & Castleton, 2002). These are the workers for which a coworker who has the ability to provide learning guidance such as Union Learning Representatives may be necessary. Enlisting those non-participants is key to providing an equal opportunity for workers to be active citizens in a democratic society as well as enhance their ability to be competitive in the international work force (Plant and Turner, 2005).

Although these learning representatives receive training provided by the unions, they are not formally educated counselors with university degrees. As a result, there is evidence that professionals in the field of guidance provide some resistance to lay members of unions who are ULRs seeking out information on individual workers. Part of the task of modernity in this context is spanning the gap between trade union members who are now ULRs and education, training, and guidance professionals; and defining a clear distinction between the roles each will fill (Payne, 2001).

As mentioned earlier, the TUC views the commitment of employees to take ownership and responsibility of their own learning agenda throughout their working careers as one of the most important components to the success of the lifelong learning initiative. (Forrester, 2001,

Payne, 2001). Although the establishment of ULRs in the workplace has been helpful in this regard, some barriers remain. First of all, though ULRs have been established to aid workers in taking the first steps towards participation in lifelong learning, Plant and Turner (2005) point out that ULRs have reported they are regarded with some suspicion by both managers and employees.

In addition, some ULRs report that it is only when members realize their jobs are in danger that they start to think about the difficulty of finding a job without transferable skills. That is when they begin focusing attention on lifelong learning, and most likely the reason age is also a factor; with the attitude of younger workers that they are invincible and older workers that they will be done working soon contributing to the fact that they are the most resistant to participating in lifelong learning initiatives (Payne, 2001).

Plant & Turner (2005) maintain that lifelong learning is a relatively easy path to follow for those who have always have been able to utilize learning in one form or another to help them find their personal/career path. However, for those workers who have not had that experience, when the need to participate in lifelong learning initiatives is presented to them, it may look or feel more like coercion. Some workers are also reluctant to approach a management representative to reveal a shortcoming of basic skills like reading or numeracy. Age and educational levels appear to be related to the willingness of workers to participate in lifelong learning , and although the establishment of ULRs in the workplace has met with success (Plant), these are barriers that need to be overcome.

**Union education in the United States**

The approach to union education as it relates to vocational education in the US stems from an industrial relations framework made up of a combination of Taylorism and service

unionism that came about during World War II and the post-war years of mass production (Scully-Russ, 2006). Taylorism refers to Frederick Taylor's theory of scientific management in which time and motion studies were analyzed so that the most efficient way of doing a job was determined and prescribed for the worker. The "correct" way of doing the job was the exclusive domain of management and a basic tenet of scientific management was that the analysis of the work itself had to be separated from its actual execution. In other words, the prime obligations of workers were to just do what they were told by managers trained to determine the optimal methods of production. (Volti, 2005, p.28). In a departure from that position, Nissen (2003), states that this "Taylorized" separation between managing and doing the actual job must be abandoned, and that as hierarchies in organizations are flattened, all employees take on some form of responsibility or managerial control in the day to day fulfillment of their jobs.

This is a reflection of the change from the type of relation between unions and employers that has begun to appear in the last ten years, likely a reflection on the changing power base of the declining union membership in the US, and the fact that US unions were considered to be a model of service unionism (Spencer, 1996).

Service unionism refers to the concept of union power resulting from the ability of union leadership to provide services and benefits to union members. One of the changes from the craft unions to the mass industrial unions was that the craft union's source of power came from their occupational identity and the skills they possessed in demand by employers. The mass industrial unions that became referred to as "Big Labor" after World War II relied on contracts that bartered their work for economic stability and a higher standard of living. In this context, "…vocational training does not educate workers, rather it provides them with the information and feedback they needed to make the production model work" (Scully-Russ, 2006, p. 524).

This has also been called business unionism, as it emphasizes representation of specific groups of employees and acceptance of management rights, whereas social unionism connects with outside social movements and issues to advance the interests of workers (Ferman, Hoyman, Cutcher-Gershenfeld, & Savoie, 1991). Eimer (1999) points out the example of the Milwaukee County Labor Council turning its attention to the larger community, forming task forces on Jobs and Training; Environment and Transportation; Capital and Credit; and Education. This example of a union entity turning from a business unionism approach to a social unionism strategy to provide beneficial results for everyone was successful and well received in the Milwaukee area; possibly an example of future roles for unions in an era of declining membership. An example of a union creating a network to provide a support system for workers in the larger community is the alliance of the Garment Industry Development Corporation in New York, which is affiliated with the Union of Needletrades, Industrial, and Technical Employees to run training for operators throughout New York's garment industry. This operation "…provides training for employees dislocated from the industry, runs a marketing and technical assistance service for managers, and has established a job referral system called JOBNET" (Osterman, Kochan, Locke, & Piore, 2001, p. 143).

An alternative definition or theory among industrial relations academicians is that of value added unionism (VAO), also known as mutual gains unionism, which offers a non-adversarial approach to business in providing positive gains. Utilizing this approach, "Union goals must be pursued in different ways. Because unions add value in ways impossible absent a union, they can become a valued partner with business in a 'win-win' environment. Through training programs to upgrade skills and through influence *within* corporate management, unions

can find a niche within the new environment where they can represent worker interests" (Nissen, 2003, p. 136).

As the framework of industrial unions became subject to changes in the workplace due to global competition, decline of the manufacturing sector, technological change, and changes in the composition of the work force; training and development became an issue during the 1980s during the collective bargaining process of some US unions (Tomasko & Dickinson, 1991). This resulted in the establishment of a number of joint management/union training initiatives that were negotiated. These initiatives have a great variation in the degree of cooperation between unions and management as well as the range of programs offered and in the way they are structured (Ferman, Hoyman, Cutcher-Gershenfeld, & Savoie, 1991).

To begin the discussion of joint union/management training programs, it is useful to define or describe several characteristics they all entail. As the name implies, unions and employers jointly govern these programs, though some programs also include educational institutions and/or government entities. These programs also focus on training and personal development, which include courses that are not just narrow, job-specific training. Joint programs also reach a broad range of active workers who may not normally have access to training, due to the fact that traditional unilateral employer-sponsored training often targets professional and technical employees. Finally, even though the goal of these programs is collaborative problem solving, there is both cooperation and conflict involved in ironing out the details of implementing and evaluating these programs (Ferman, et al., 1991).

This again reflects the business unionism approach that has become common in the US, as opposed to the social unionism emphasis that has become more mainstream in countries like Canada. As a result, there has been support for a narrower curriculum, one that focuses more on

tools training courses and workplace problems than labor studies (Spencer, 1996). Regardless of the approach utilized, the tension between the two dynamics is always present in union activities (Nesbitt, 2002).

In the US, joint management/union models are a predominant form of union involvement in providing general and career education and training, though according to Byrd and Nissen (2003), a survey of national union educators reflected a concern that overall, there has been a decline in joint ventures of this type over the past decade.

The UAW and Ford Motor Company were the first to come to agreement on this type of partnership, and millions of dollars were set aside to support a joint effort to deliver a wide scope of training-related services. These include skill assessment, career education, and a wide variety of general education and skills upgrading programs to laid off and active workers (Tomasko & Dickinson, 1991). Currently, all the Big Three automobile manufacturing companies have put in place joint labor-management educational initiatives with the UAW; Ford/UAW, GM/UAW, and Chrysler/UAW. These initiatives run the gamut from computer literacy to quality training, and include both face to face and online delivery of classes.

**Use of elearning and online delivery methods for union education**

E-learning is changing the tradition of local unions having to take responsibility for their own training activities, and online courses can be used to offer training to a broader national membership. This can also provide consistency and accountability of training; particularly important if it is a compliancy issue such as health and safety. It may also enable unions to provide courses to members that enhance their employability Kearsley (2007). The advantages of participating in learning activities at a time and place of union members' choosing is similar to any adult learner who has multitude demands on their time. Information communication

technology (ICT) enables unions to offer to members, either alone, or in partnership with other organizations (employers, educational institutions, or government entities), online opportunities to register and participate in education and training (Darlington, 2004). Although online delivery of courses in general has become more accepted, union education offered at a distance, especially when utilizing digital communication, took a very different form a short time ago.

In keeping with their tradition dating from the 1940's, when the Canadian Brotherhood of Railway Employees offered union steward training and other courses utilizing distance education, Canadian labor educators have made use of education technology and distance delivery to provide a range of educational opportunities to serve members over thousands of miles of its vast country (Spencer & Law, 2001; Taylor, 2001 and Taylor, 2002). The Canadian Union of Public Employees (CUPE) "was arguably the first union in the world to use computer communications in a significant way and arguably the first national organization of any kind in Canada to establish its own computer communication system" (Taylor, 2002, p. 152). It began when in 1987, Marc Belanger, the union technology coordinator loaded an email and conferencing system onto a CUPE computer called Solinet. Utilizing modems, unionists could exchange email and conference with each other. The conferences open to the Solinet community become very popular and spawned a virtual lounge where any labor-related subjects were fair game for discussion (Taylor).

With the advent of the World Wide Web in 1995, the Solinet system could have been used to communicate internationally, which was one of the original intents, but union leadership decided in 1998 to only allow it to be accessed by CUPE members. Within a year, the system was disabled, thereby ending further plans to expand the system into an online international labor college, but Athabasca University, Canada's open and distance learning university then utilized a

system similar to Solinet and incorporated it in its labor studies program. Work continues with the Canadian Labour Congress to investigate how computer-based educational technologies or e-learning can be integrated into labor education (Taylor, 2001).

At a 1998 conference hosted by the Center for Distance Education for Lifelong Learning (CDELL) in New York, Pam Pease, president of International University (IU), reported the results of a needs assessment IU conducted of adult learners; and explained that those needs were the reason her institution delivered its courses electronically. These needs included "…accessibility, affordability, leading edge technology, relevance, lack of time, technical communication literacy skills – writing, speaking, interpersonal, and team effectiveness, combination of theory and practice, competency based outcomes, high levels of interaction – between instructor to student and student to student, courses applicable to a degree or certificate, and no residential requirement" (CDELL, 1998, p.5). These needs were also reported by several representatives of union-management education and training committees, who were considering implementing electronic-based distance learning to provide education opportunities to workers. For example, due to massive layoffs in the steel industry, the Institute for Career Development (ICD), a joint education and training program of the United Steelworkers union and the nation's four largest steel companies, joined with Empire State College in New York to provide help for workers making transition to jobs in other industries utilizing electronic distance learning solutions. At the time of the 1998 conference, they had yet to evaluate the pilot programs, (CDELL, 1998), but as of 2006, ICD offered over 500 courses online to workers through its career development programs (United Steelworkers/U.S. Steel-Fairfield Works Electro-Mechanical Maintenance Career Development Program, n.d.). The ICD also offered the option to complete an online degree from the National Labor College (Kearsley, 2007).

One of the earliest challenges to the use of e-learning for distance education purposes came from David Noble in regard to a project sponsored by the TeleLearning Network of Centres of Excellence (TLNCE) of Canada to investigate problems and possibilities of utilizing telelearning for labor unions. Noble, a historian of work and technology at York University criticized TLNCE as part of a wider critique on online learning and corporate control of higher education (Taylor and Briton, 1998). He claimed

> that university administrators are using computer technology to gain control of academic work in the same way that employers in every period of capitalist development since industrialization have used workplace technologies to transfer knowledge from the heads of workers to machines owned by employers. The automation of academic work through computer-based education will allow university administrators and their corporate sponsors to own and control the knowledge of their academic staff and to peddle it for their own profit (para. 5).

His advice to his comrades and colleagues in universities is to resist computer-mediated education as part of the necessary struggle for control of the academic labor process (Taylor and Briton, 1998).

Taylor and Briton (1998) responded by stating that "Labour-education andragogy relies to a large degree on face-to-face interaction and active participation by class participants, which has led some in the labour movement to conclude—without any research or investigation—that computer-based learning has nothing to offer them and their organizations." (para. 4) They go on to say that their analysis found computer-based learning to be a useful tool, and one that enables labor educators to interact with each other, sharing their common labor culture and issues that affect them resulting from activism and workplace engagement (Taylor and Briton).

In a research effort on an early (1996-2001) e-learning initiative in Canadian labor unions, some participants were unsatisfied with the lack of immediacy and clumsiness of email in responding to each other in the class, preferring a more immediate, informal approach to labor education efforts (Sawchuck, Gawron, and Taylor, 2002).

During research interviews, learners talked about the potential disconnect between the learning culture of unions and e-learning in a virtual environment. Although only a minority of union members considered these to be insurmountable barriers, there was some question about how the deeply ingrained oral tradition of union learning could be linked to a more compatible version of e-learning. The oral tradition stems from the story-telling method of relating information in a social and less controlled manner than what transpires in the written word or text. Possibly the element of trust and/or the inadequate reproduction of shared cultural values were the essential missing component for learners to successfully project their identities online.

There was discussion that indicated a connection made between the online and off line worlds in terms of common labor historical context helped build that trust (Sawchuk, et al.). This has also been demonstrated in an analysis of the UK website for union representatives, unionreps.org, where performance online bolstered offline reputations for being knowledgeable in issues discussed virtually (OBER, 2008). In addition, there was a challenge of developing more direct linkages between online learning and action in the labor movement, possibly with the creation of some different tools to facilitate that connection (Sawchuck, et al.).

In a study of a British Trades Union Congress (TUC) online course offered to women only, and designed to help them develop careers within a trade union and form a network of support with each other, some results were found to be somewhat negative. The women involved found the asynchronous nature of discussion to be laborious and time intensive while at the same

time found it difficult to motivate themselves to participate fully. Some also found that trying to discuss conflicting views, feelings, and people's lives was difficult in a text-based environment, especially when there was no physical presence or nuanced way of communicating (Kirton & Greene, 2002).

In spite of some negative input from early e-learning distance education ventures, there has also been research that shows more recent application of distance education delivery online has resulted in significant learning acquisition in the field of union education. Most of the research has been done in academic settings, but of research done in a Learning through Work (LtW) program, findings suggest that online dialogue between tutors and learners helps learners to interact with course material and ideas "…at the level of critical analysis and knowledge construction in the online environment" (Bosley & Young, p. 364). In fact, those social dimensions that critics of earlier e-learning efforts expounded on were found to be present in statements that did not have any particular application to the course material; those expressing greetings, humor, empathy, and expressions of feelings (Bosley, et al.).

Other examples of unions currently utilizing the internet to provide educational material include the Airline Safety Foundation of the Airline Operators and Pilots Association (AOPA), which offers more than a dozen flying-related courses to the public; the Communication Workers of America (CWA), which in partnership with Cisco Systems and Stanly Community College offers more than 50 technical courses for credit to its members; the International Association of Fire Fighters (IAFF), which offers courses it has developed on its website, some for members only and others for the public; the Service Employees International Union (SEIU), which offers several courses on union-related issues to interested persons subject to free registration; the United Food & Commercial Workers (UFCW) in Canada, which offers a course in safe food

handling to the public; and the United Steel Workers (USW) which in conjunction with an online training vendor, offers its members a large number of online courses. In addition, there are a number of strategic partnerships between unions, industry, academia, and even government agencies that provide online career counseling and education/training (Kearsley, 2007).

Aalto-Matturi (2005), reported that in the Finnish trade unions, training is one of the most discussed and utilized use of network-based communication. The significance of training will continue to increase as more projects are evaluated and refined, and more union members recognize the advantages of online delivery in balancing work and family life. One of the factors slowing the acceptance of ICT among trade union members is the competence and attitude of members towards utilizing computer-based communication. Among Finnish trade union members, nearly two thirds have access to the Internet, so it is expected that competence and attitudes will change as that number increases (Aalto-Matturi, 2005).

**Future role(s) of unions in providing lifelong learning**

There has been a great deal of information in the literature relating to unions discussing the declining numbers of union members in every developed country, though some are experiencing more dramatic declines than others. Included within this discussion are questions dealing with potential future roles or paths unions could take to bolster their numbers and better benefit their members. Payne (2001) states that the process of trade unions seeking new roles and methods of working has been termed “modernization” in the UK, and is both just a common sense term on one hand referring to ways of becoming more relevant in the face of declining density and membership; and on the other hand a term used more in a political sense by ministers in the Labour party to refer to neo-liberal economic ideas (Payne). With the advent of digital communication, or information communication technology (ICT), questions are often raised as

to how the Internet and ICT may be utilized to help better serve members and by doing so, expand their membership base (Kirton & Green, 2002, Pinnock, 2005, Jamieson, 2005, Aalto-Matturi, 2005, Nack & Tarlau, 2005, Newman, 2005, Stevens & Greer, 2005, and Fiorito, 2005).

"Open source unions" (OSU) is a form of unionism discussed by Richard Freeman (2004) that takes advantage of information technology to recruit and provide services for workers who may move in and out of union workplaces throughout their working careers. The advantage to such a system would be the ability of unions to bypass employer opposition; yet the challenge would be to offer members services that they would not be apt to get from other sources.

> Unions have, however, some advantages in providing services over the Internet to workers. As member-based organizations that are democratically accountable to workers, they should be more responsive and trustworthy agents than other organizations. And unions can mobilize many more members and activists on a volunteer basis to provide services to fellow workers than can smaller non-member based organizations (NBER, 2008, p. 28).

It is to the union's advantage, from a recruiting standpoint, that individuals associate trade unions with learning. This is an image that can be especially important if they are seen to utilize effective learning programs to help people improve their career progression and employment security. However, their impact is limited simply because of low union density, which is continuing to decline Payne (2001).

Scully-Russ (2006) questions the direct correlation of union density numbers to labor power, and in fact questions the true measure of labor power. She also discusses the possibility of incorporating training and education initiatives with organizing efforts. This has been an

option discussed at various points in the literature, but the opposing view seems to be that union leaders measure organizing success by the numbers of members who decide to join unions, so they don't see the possibility of those activities linked for two reasons; lack of resources, and the philosophical position that servicing is not organizing (Scully-Russ, 2006, Monk, 2003).

However, the question of education and training is becoming increasingly important to union members (Kearsley, 2007), and in his consideration of OS unionism, Freeman (2004) maintains member demand would determine services offered over the Internet and could appeal to a larger cross section of workers and therefore a broader social movement. In keeping with Freeman's view, members would get all services available along with their membership, while those who are not members would pay a fee for those services they demanded. While this view of a future union role is speculative at this point, there are trends both in available information technology and needs of union members that may make this a viable approach (Freeman).

Though Chaison (2005) acknowledges some opportunities for an online presence that could benefit unions, he also warns of a triple threat that information technology (IT) may pose. This includes his view that IT "…may transform work and thereby lessen workers' interest in unionization; it may enable employers to replace unions as the voice for workers; and it may diminish the relationships between unions and their members" (Chaison, 2005, p. 396).

Diamond & Freeman (2002, p. 578) opines that the internet will "change unionism in the form of five hypotheses relating to: (1) modes of organizing and recruiting members, (2) the services unions provide, (3) union democracy, (4) labour disputes and (5) international union activity."

One of the services that unions could provide or lead in some meaningful way via the internet is education and training. Wash Tech is the Washington Alliance of

> Technology Workers, an organization of software professionals at Microsoft and other high-tech companies who through the Newspaper Guild, is affiliated with the Communications Workers of America (CWA), and is a model of organization similar to the OS model of unionism (Osterman, Kochan, Locke, and Piore, 2001). In their study of Wash Tech, the characteristics of the organization which conformed most explicitly to the OS model were that it had two levels of membership, was not a majority representative model, and utilized information technology to communicate with and inform members on relevant work-related issues (Nack and Tarlau, 2005). However, one of the areas identified by the Wash Tech president where it experienced the least success was that of offering training opportunities for members and nonmembers alike. Lack of resources and willingness of members to participate in these activities proved to be a barrier to its success (Nack and Tarlau).

This is not to say that all training and education initiatives meet with the same results, as there have been numerous success stories from UK union efforts in providing online services, including training and education to their members. The British unions face different challenges than US unions; simply because national health care covers a large benefit cost and collective bargaining does not cost UK employers very much in terms of union wage premiums (NBER, 2008).

In keeping with the argument that unions need to personalize and improve their services to members (Diamond & Freeman, 2002), a relevant example that illustrates this point in the UK is the website launched by the Trade Unions Congress (TUC) in 2003. The site, unionreps.org., was developed to create an online community in which union representatives are able to discuss union-related issues that arise as a result of their duties. In addition, it provides resources and

links directly to representatives that may help them do their job more effectively. By limiting access to the site to those who have to give their full names and union email addresses, the community of practice theory has proven very applicable. Those who answer more questions and participate more often tend to acquire a reputation that follows them into the offline world, e.g. union halls and conferences (NBER, 2008).

**Summary**

Unions have had a long tradition of direct involvement in education. It first began in the early days of unions, even extending to the old guild organizations and apprenticeship systems. Support of adult education courses, initiation of labor education for members and officials alike, and support for public and vocational education initiations have been among the areas where unions have provided the majority of their activity in the education field. Unions have also long recognized the importance of adult learning techniques, reaching back to the 1930's and the utilization of the Highlander Folk school to provide education for union officials. In addition, unions have come to the realization that workplace changes; primarily technological change, globalization, and changing demographics of the work force, have dictated that continuous education and training (lifelong learning) is a need for all workers in order to provide a portable set of skills to help them maintain a productive, satisfying life. Unions have evolved in their level of involvement with lifelong learning for their members, and in their search for future roles for the betterment of their members, could utilize information technology to promote, counsel, and/or provide some of this education and training.

This chapter has provided the results of the literature review exploring union education from a historical perspective, both globally and US, the relevant adult learning theories most

commonly associated with union education, and the most current attitudes and approaches to union education in a time of workplace change.

Chapter 3 includes the following sections: Restatement of the Problem, Research Design, General Characteristics of the Study Population, Calendar of Events, Data Collection Instrument, Pre-Testing the Data Collection Instrument, Procedures of Data Analysis, Protection of Human Subjects, and Summary.

# CHAPTER 3

## Methodology

This chapter includes the following sections: Restatement of the Problem, Research Design, General Characteristics of the Study Population, Calendar of Events, Data Collection Instrument, Pre-Testing the Data Collection Instrument, Procedures of Data Analysis, and Protection of Human Subjects, and Summary.

### Restatement of the Problem

The problem of the study was to identify the attitudes of two Northwest Ohio UAW locals regarding participation in lifelong learning, utilization of online learning strategies and learning within a union environment.

### Research Design

This study was quantitative in nature, with an attempt to quantify relationships or associations between different variables within the context of the data analysis. As there was no attempt to alter or intervene in the participants' behavior, and the goal was to investigate associations between variables, this was also considered a descriptive study (Hopkins, 2000). The research design utilized a cross-sectional survey that consisted of three distinct sections. The first solicited demographic information, the second solicited opinions of lifelong learning that were adapted from a Scottish union survey (Findlay, Findlay, & Warhurst, 2007), and the third

solicited participants' perceptions of personal characteristics that have been determined to make up the profile of successful online learners (Illinois Online Network, n.d.).

The sample was purposive for the local meetings, as there was a specific audience present and targeted. For those who responded to the web-based survey, the sample was convenience because there was no method of selection, only those who acted on their own to access the web link on the locals' site. The only motivation they had to do so was to help contribute to the study's goal of gathering the information.

**General Characteristics of the Study Population**

The common trait of the study population was their membership in a UAW union in Northwest Ohio. The population included a wide range of workers who were diverse in terms of race, gender, levels of education and skills.

One of the locals included in the study was an amalgamated union (referred to as Local B), which included automobile assembly, parts production, health care, financial institutions, food service, clerical, and professional workers. It became a chartered Local within the UAW on January 1, 1936 and has always been an amalgamated local. Its active membership totaled approximately 10,000 members, making it one of the largest UAW locals.

The other local included (referred to as Local A) dealt strictly with automotive parts production. This local was chartered in 1943 by the UAW-CIO and throughout the years had a peak membership of 1,500 active members. It was the sole bargaining unit for an automotive manufacturing supplier where active working members numbered approximately 250 at the time of the survey and dropped to approximately 110 active working members at the beginning of 2010, due to relocation of a large percentage of the assembly facility to Mexico.

**Calendar of Events**

1. A rough draft of the survey instrument was submitted to Local B's education coordinator for any input on the questions – 2.3.09.
2. The survey instrument was subsequently approved by Local B's Executive Board and distributed to several meetings of union members before the study was approved by the Indiana State University (ISU) Institutional Review Board (IRB) – 3.5.09.
3. The non-compliance was reported to the ISU IRB – 3.6.09.
4. All necessary forms related to non-compliance were completed and turned into the IRB. – 3.10.09.
5. The ISU IRB sent a notification that the non-compliance investigation was completed and found to be non-serious and non-continuing. – 4.8.09.
6. The ISU IRB sent a notification that application for the study was approved and found to be exempt for further IRB review. – 6.1.09.
7. The final version of the survey was sent to Local B for Executive Board approval and subsequent distribution – 6.30.10.
8. The online version of the survey was made available to union officials at Local A for pilot testing – 7.22.09.
9. Local B Executive Board approved the survey and gave permission to collect hard copies and post a link to the web survey on the local's web site – 9.3.09.
10. The new education coordinator for the regional UAW was contacted to explore the possibility of expanding the availability of the survey to a larger sample – 9.16.09.

11. Due to a low number of responses to the web survey, Local A president was contacted and he agreed to put the survey link on the local's web site as well as allow fliers to be distributed through the union office publicizing the link – 9.21.09.
12. Hard copies of the survey were received and an email was sent to Local B for publicizing the web survey link on the local's newsletter – 10.6.09.
13. After receiving no new responses for a period of three weeks, the web survey link was shut down and Local A and Local B contacts were thanked for their help – 1.3.10.
14. All web survey responses were downloaded and imported into an Excel spreadsheet – 1.4.10.
15. Statistical analysis and study of the results began, using StatCrunch, a web-based statistical data analysis application available at http://www.statcrunch.com/ – 1.5.10.

**Data Collection Instrument**

The data collection instrument for this study consisted of a 24-item survey. The researcher designed the questions soliciting demographic information, focusing on age, gender, education level, and seniority at the participant's present place of employment for the first four questions of the survey.

The second section of the survey consisted of 10 questions soliciting participants' attitudes and interests in future education. These questions were adapted from a survey used for a report commissioned for the Scottish Trade Union Congress (STUC) entitled "Estimating the Demand for Union-Led Learning in Scotland" (Findlay, Findlay, & Warhurst, 2007). This 2006

study was the first systematic research on estimating demand for union-led learning derived from a review of literature, a telephone survey of 750 workers, and a postal survey of union learning representatives and union officers. “The survey was designed to elicit information for the purposes of identifying which characteristics make learning more likely and what, if any, are the barriers and motivators to learning” (Findlay, et al, 2007, p. 14).

The final section of the survey consisted of 10 questions designed to investigate participants’ perceptions of their personal characteristics related to success in an online learning environment. Factors that have been found to be significant in contributing to students’ success in online learning environment include “…access to tools; technology experience; learning preferences; study habits and skills; goals or purposes; lifestyle factors; and personal traits and characteristics” (Schrum and Hong, 2002, p. 1). These factors were included in a list of characteristics of successful online learners published by the Illinois Online Network (n.d.), and used in a number of college educational sites discussing online learning needs. These characteristics were used as the basis for the final 10 dichotomous questions in the survey.

A cover letter was included with both the hard copy and the web survey that conformed to the ISU template (See Appendix A). The hard copy version was emailed as a Word document attachment to the Local B representative, and the same questions were entered into an online version on the SurveyMonkey site.

SurveyMonkey was utilized because it was a proven, reliable web-based tool to create online surveys for marketing and research purposes; having operated successfully since 1999. SurveyMonkey incorporated features that were designed to conform to IRB guidelines, such as secure transmission with SSL encryption and an option to turn off the collection of IP addresses; which was implemented for this study. SurveyMonkey also allowed the informed consent cover

letter and had physical and environmental controls in place to protect data on their database. In addition, all SurveyMonkey surveys were fully accessible and 508 compliant, as certified by RampWEB Web Accessibility Consulting. Other certifications listed on the site included the TRUSTe site validation and EU Safe Harbor Framework for privacy, the MCAfee Secure certification, and a Better Business Bureau rating of A+.

**Pre-Testing the Data Collection Instrument**

The online survey was tested first on colleagues and friends in an informal manner as recommended in Czaja & Blair (2005). After feedback and subsequent discussion of any ambiguities the questions may pose, corrective action was taken in the editing of the questions to provide clarity. Then, a more formal pilot test was initiated with the officials of a UAW local. A link to the survey was emailed to all ten officials whose email addresses were listed on their local's web site. This population consisted of union members a wide range of age, seniority, and education level. They all had some familiarity with computers and many of them not only responded to the survey, but also responded to the researcher with positive comments on the content and ease of use. Other than the fact that they held office in a local UAW and therefore may have had a stronger sense of union loyalty than the typical rank and file member, they were representative of the larger population. Due to the response of the pilot study, the survey questions were not changed in content, order, or format (see Appendix B for hard copy version).

**Procedures of Data Analysis**

All of the results of the web survey questions were automatically recorded on the SurveyMonkey site. The results of the hard copy surveys were manually recorded on the site in a separate collection instrument and all results were downloaded at the end of the survey in cvs,

Excel, html, xml and pdf formats. These results were summarized on the same spreadsheets, but contained a code that would allow for analysis of separate collection instruments if desired.

The data was first analyzed in the downloaded Excel worksheets. Charts and graphs were created to summarize and organize the results to make them more comprehensible; consistent with the purpose of descriptive statistics (Minium, Clarke, & Coladarci, 1999, Fraenkel & Wallen, 2000 and Witte, 1993). In addition, StatCrunch, a web-based statistical analysis site was used to generate summaries of the descriptive statistics when data was grouped by age, education level, and seniority. These provided the means, standard deviations and histograms used in the data analysis.

The second phase of data analysis involved the use of inferential statistics. Inferential statistics provide a number of tools for generalizing beyond actual observations and permit inferences about a population based on the characteristics of a sample of the population (Minium, Clarke, & Coladarci, 1999, Fraenkel & Wallen, 2000 and Witte, 1993). The original inferential analysis involved t-tests to compare the means of age groups and educational levels and whether there was an association with positive scores on questions of interest towards further education, union-led education, and online delivery of education. After finding little significance and meeting with the director of the Bowling Green State University Statistical Consulting Center, a decision was made to use contingency tables and chi-square analysis to investigate possible associations. Chi-square ($X^2$) is a statistical test for frequency data, whereas the magnitude of $X^2$ reflects the amount of discrepancy between observed and expected frequencies, and the tenability of the null hypothesis (Minium, et al, 1999). The chi-square test may be applied to two variables, making it in essence a bivariate frequency distribution that can be

visually demonstrated through the use of contingency tables. These contingency tables were set up with the StatCrunch software and further analyzed in Chapter 4.

**Protection of Human Subjects**

The researcher complied with all Institutional Review Board (IRB) requirements and approval forms from Indiana State University. The IRB training was taken by the researcher in December 2008. Before the application and request for exemption for further IRB review was submitted a union representative prematurely distributed a rough draft of the data collection instrument. This made it necessary for the researcher to report a non-compliance to the IRB.

The researcher promptly submitted a report of the incident and in a response from the IRB, "The committee found that the non-compliance (Non-Compliance #9098) was not anticipated, non-serious, and non-continuing." (See Appendix C). Once this report was received, the application and exemption from further IRB review was submitted. Approval was granted for the application and an exemption for further IRB review, due to the determination of no more than minimal risk to participants. The data collection process then proceeded as previously planned.

**Summary**

Chapter 3 included the following sections: Restatement of the Problem, Research Design, General Characteristics of the Study Population, Calendar of Events, Data Collection Instrument, Pre-Testing the Data Collection Instrument, Procedures of Data Analysis, and Protection of Human Subjects.

Chapter 4 includes a description of the population and sample, followed by a presentation of descriptive statistics organized around the survey questions presented to the participants. Then

the inferential statistics were presented that were used to analyze the research questions and hypotheses of the study.

# CHAPTER 4

## Results

This chapter consists of a presentation of results from a survey disseminated on the web and via paper copy as explained in the Chapter 3 Methodology section of this study. The problem of the study was to identify the attitudes of two Northwest Ohio UAW locals regarding participation in lifelong learning, utilization of online learning strategies and learning within a union environment. This was important so that greater participation in lifelong learning among union members could be achieved, and by identifying some of these differences and similarities among the union population, learning initiative marketing may be better targeted. Both versions of the survey included the same questions, and were made up of three sections. The first solicited demographic information, the second solicited opinions of lifelong learning that were adapted from a Scottish union survey, and the third solicited participants' perceptions of personal characteristics that have been determined to make up the profile of successful online learners.

In the first section of the chapter, the sample and population were described, followed by a presentation of descriptive statistics organized around the survey questions presented to the participants. Then inferential statistics were used to analyze the study's research questions and hypotheses. Data was presented as an aggregate view of all members of groups who participated in this study simply because the total numbers involved gave a better statistical representation of the overall sample.

**Study Participants**

The survey instrument was distributed via a web survey and paper surveys to two samples of two different UAW locals in Northwest Ohio; hereinafter referred to as Local A and Local B.

Local A was chartered in 1943 by the UAW-CIO and throughout the years had a peak membership of 1,500 active members. It is the sole bargaining unit for an automotive manufacturing supplier where active working members numbered approximately 250 at the time of the survey and has dropped to approximately 110 active working members at the beginning of 2010, due to relocation of a large percentage of the assembly facility to Mexico.

Local B became a chartered Local within the UAW on January 1, 1936. It began and remains an amalgamated local, meaning that the local's total membership is made up of more than one worksite, or Unit. It currently represents members from over 50 companies that include such diverse activities as food service employees, health care workers, automobile assembly, financial institutions, and professional workers. Its active membership totals approximately 10,000 members, making it one of the largest UAW locals.

**Response Rate**

The initial pilot study for the web-based version of this survey consisted of the 10 union officials from Local A whose email addresses were listed on the Local's website. This resulted in 6 completed surveys (60% response) and positive comments on the survey itself, so no further changes were made to the survey. For this reason, these results were included in the aggregate data results. In addition, 26 completed surveys were returned of the possible 240 responses of the entire local's population. This resulted in a response rate of 10.8% for the rank and file members. See Table 1 below for a summary of this information.

Paper surveys were administered to two groups attending small Local B union meetings. Twenty-nine surveys were completed from the total of 38 people attending the two meetings. The resulting response rate for the paper surveys from Local B was 76.3%. In addition, the same set of questions was used to create a web survey, and the link to it was posted on the Local B's website. The link remained on the website for three months and was mentioned on the local newsletter, and left there below a link that was widely publicized to get member email addresses, but response was negligible as only 13 responses were obtained during that period of time. This information is summarized in Table 1 below.

Table 1. *Survey sample sizes and response rates*

| Local | Survey mode | # Responses/pop. | % Responses |
|---|---|---|---|
| A | Web | 6/10 | 60% |
| A | Web | 26/240 | 10.8% |
| B | Paper | 29/38 | 76.3% |
| B | Web | 13/4,000 | NA |
| **Totals** | | n = 74 | NA |

## Descriptive Statistics

### Gender

**Question 1. Gender (check the box that applies).**

Participants were asked to identify their gender, and out of a sample size of n = 74, 61 respondents reported they were male, 12 respondents reported they were female, and 1 respondent skipped the question. The resulting breakdown of gender was 83.6% male and 16.4%

female, as indicated in Figure 1. This heavily male sample was not meant to be indicative of either local's total population, as the demographic breakdown of either population was not known. However, when a contingency table was created with the sample of both locals, the breakdown remained fairly consistent, with Local A participants reporting 81.25% male, 18.75% female, and Local B reporting 85.37% male and 14.63% female as indicated in Table 2.

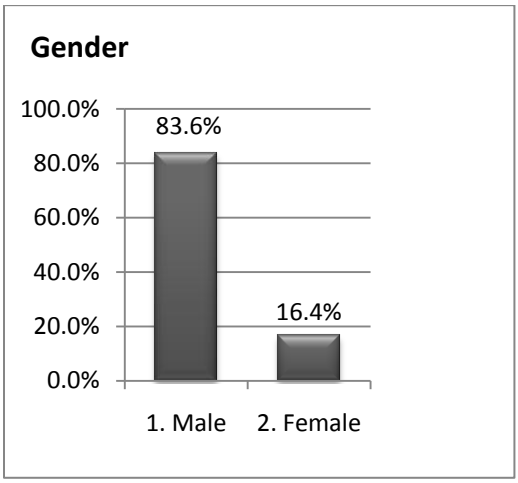



*Figure 1*. Bar chart indicating gender breakdown

Table 2. *Gender/ Local contingency table results:*
Rows: Group ID
Columns: Gender

| **Cell format** |
|---|
| Count |
| (Row percent) |
| Expected count |

| | 1. Male | 2. Female | Total |
|---|---|---|---|
| Local A | 26 | 6 | 32 |
| | (81.25%) | (18.75%) | (100.00%) |
| | 26.74 | 5.26 | |
| Local B | 35 | 6 | 41 |
| | (85.37%) | (14.63%) | (100.00%) |
| | 34.26 | 6.74 | |
| Total | 61 | 12 | 73 |
| | (83.56%) | (16.44%) | (100.00%) |

**Age**

**Question 2. Age (write in number of years).**

In question 2, participants were asked to indicate their age in years. The histogram displayed in Figure 2 visually represents the frequency of ages occurring in the sample and indicates a normal distribution. In addition, a summary of descriptive statistics revealed a mean age for the sample of 45.04 years old, a standard deviation of 9.525, and a range of 38; from 26 years to 64 years old. Quartile values were Q4>52 and Q1<38.

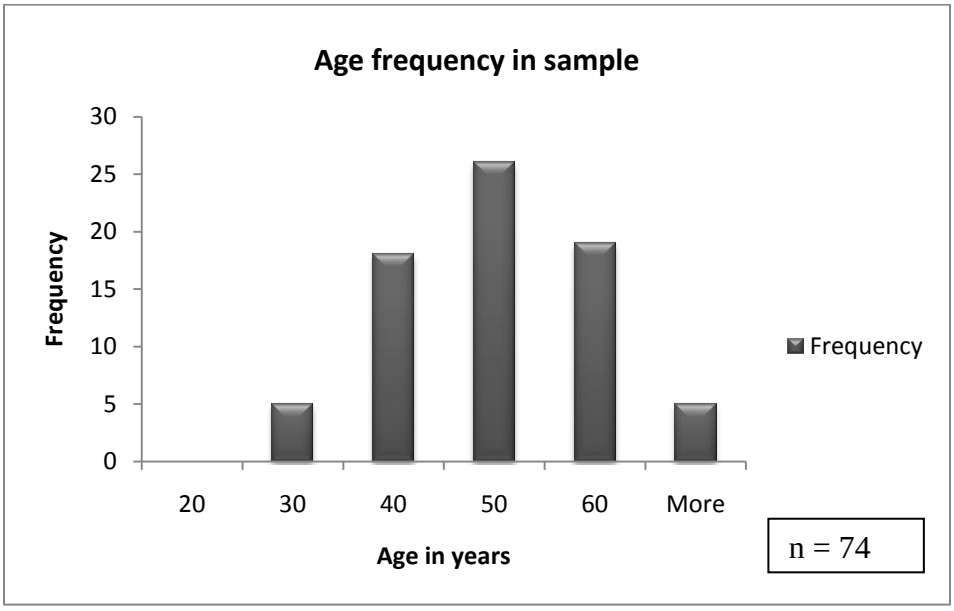
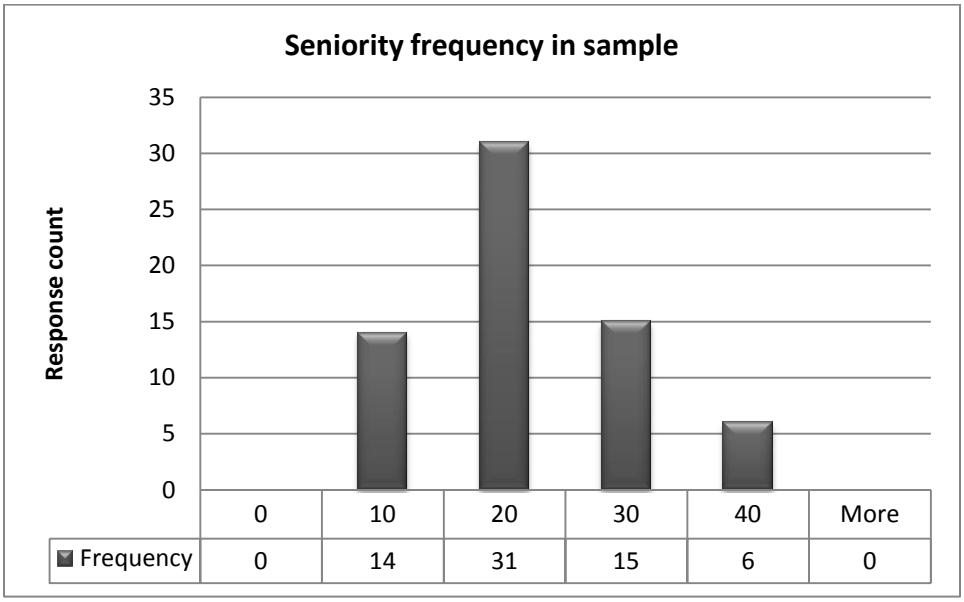



*Figure 2*. Age frequency in sample

**Seniority**

**Question 3. Seniority at your present workplace.**

In question 3, participants were asked to indicate their seniority in number of years of service at their present workplace. The histogram displayed in Figure 3 visually represents the frequency of years of seniority occurring in the sample and indicates a slightly skewed distribution on the side of higher seniority, particularly those over 30 years of service. In addition, a summary of descriptive statistics revealed a mean of 16.7 years, a standard deviation of 8.90, and a range of 38; from 3 to 37 years. One respondent skipped the question.




n = 73

*Figure 3.* Seniority frequency in sample

**Education level**

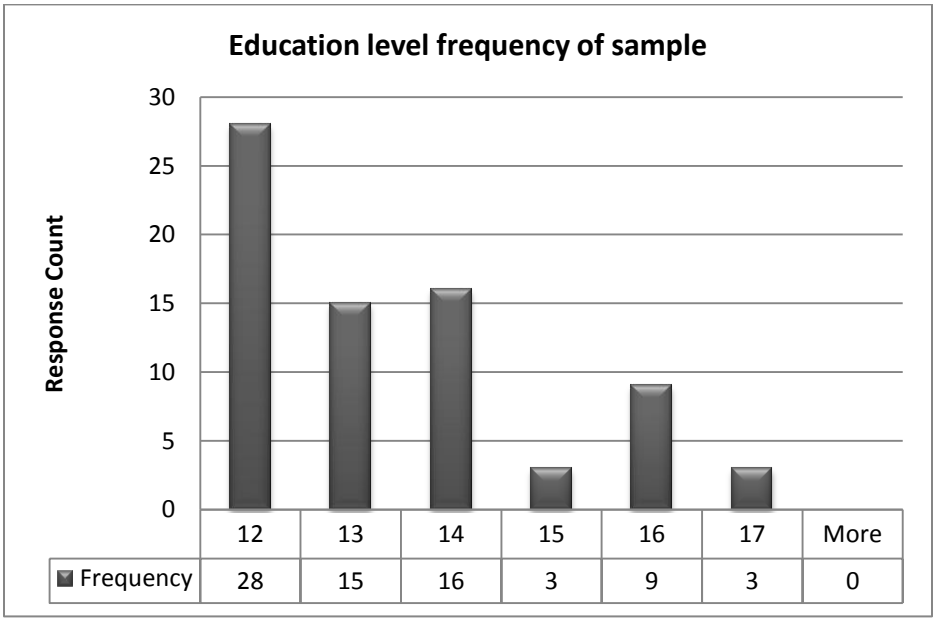
**Question 4. Education level in number of last school year completed.**

In question 4, participants were asked to indicate their education level by selecting the highest level of school they completed. Table 5 provides a visual reference for the data collected in response to this question. As shown, none of the respondents reported an education level less than 12 years or that of a high school graduate. The histogram displayed in Figure 4 visually represents the frequency with which each education level in years of schooling completed occurred in the sample. In addition, a summary of descriptive statistics revealed a mean of 13 years of education, which indicates one year of college completed, along with a standard deviation of 1.527. Years of school completed ranged from 12 – 17 years, indicating high school graduation to graduate school.

Table 3. *Overview of education level of sample in years completed*

Please check the number below that indicates the last year of schooling that you completed.

| **Answer Options** | **Response Percent** | **Response Count** |
|---|---|---|
| 8th grade or below | 0.0% | 0 |
| 9th | 0.0% | 0 |
| 10th | 0.0% | 0 |
| 11th | 0.0% | 0 |
| 12th - high school graduate | 37.8% | 28 |
| 13 - college freshman | 20.3% | 15 |
| 14 - college sophomore | 21.6% | 16 |
| 15 - college junior | 4.1% | 3 |
| 16 - college graduate | 12.2% | 9 |
| 17 or more - graduate school | 4.1% | 3 |
| *answered question* | | 74 |
| *skipped question* | | 0 |




n = 74

*Figure 4*. Education level frequency of sample

## Attitudes/interests in Future Education/Training

### Union educational priorities

#### Question 5. What should be your union's #1 educational priority?

In question 5, participants were asked to indicate their union's number one educational priority in terms of benefitting workers. Table 4 provides a visual reference for number of responses for each category. The histogram displayed in Figure 5 visually represents the percentage of responses that were tallied for each educational category.

Table 4. *Union #1 educational priority response count summary*

What should be your union's #1 educational priority in terms of benefiting workers?

| **Answer Options** | **Response Count** |
|---|---|
| Traditional union education topics, e.g., health and safety, grievance procedures, training to be a representative, etc. | 31 |
| Education that focuses on developing transferable skills to increase worker mobility | 26 |
| Job specific training to enhance workplace skills at your present workplace | 11 |
| Education that focuses on personal interests and enjoyment | 6 |
| *answered question* | 74 |
| *skipped question* | 0 |

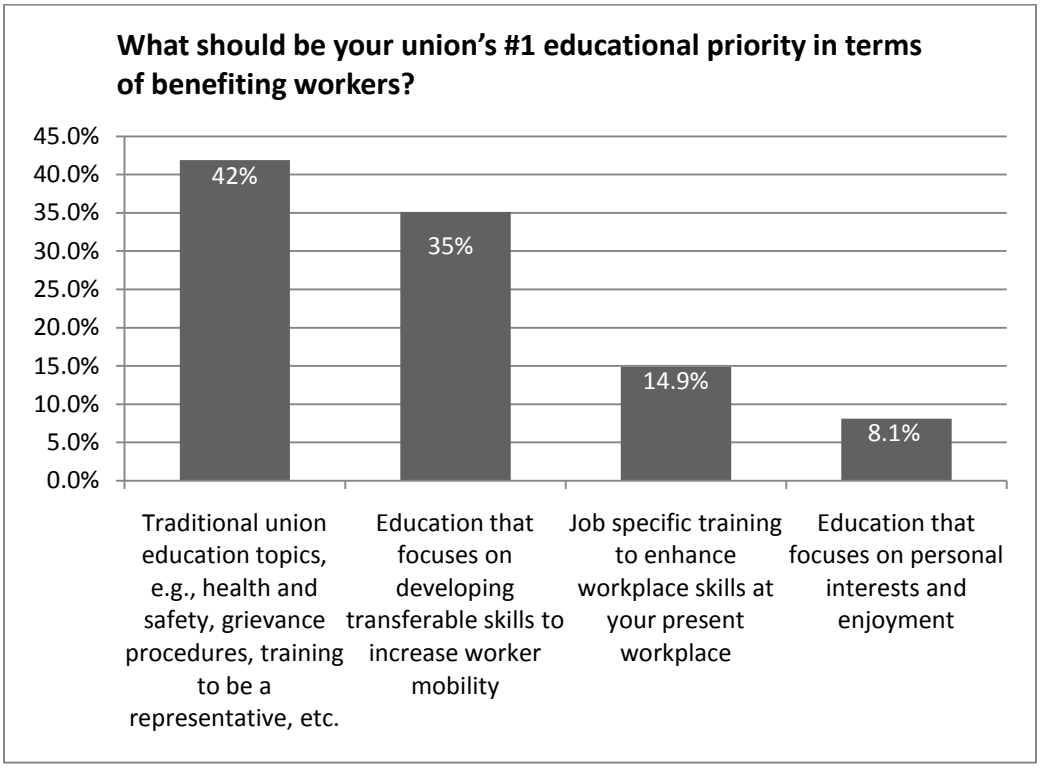



*Figure 5*. Union #1 educational priority percentage responses

### Question 6. What should be your union's #2 educational priority?

In question 5, participants were asked to indicate their union's number two educational priority in terms of benefitting workers. Table 8 provides a visual reference for the response count for each category. The histogram displayed in Figure 6 visually represents the percentage of responses that were tallied for each educational category.

Table 5. *Union #2 educational priority response count summary*

| What should be your union's #2 educational priority in terms of benefiting workers? | | |
|---|---|---|
| **Answer Options** | **Response Count** | |
| Traditional union education topics, e.g., health and safety, grievance procedures, training to be a representative, etc. | 15 | |
| Education that focuses on developing transferable skills to increase worker mobility | 28 | |
| Job specific training to enhance workplace skills at your present workplace | 27 | |
| Education that focuses on personal interests and enjoyment | 4 | |
| | *answered question* | 74 |
| | *skipped question* | 0 |

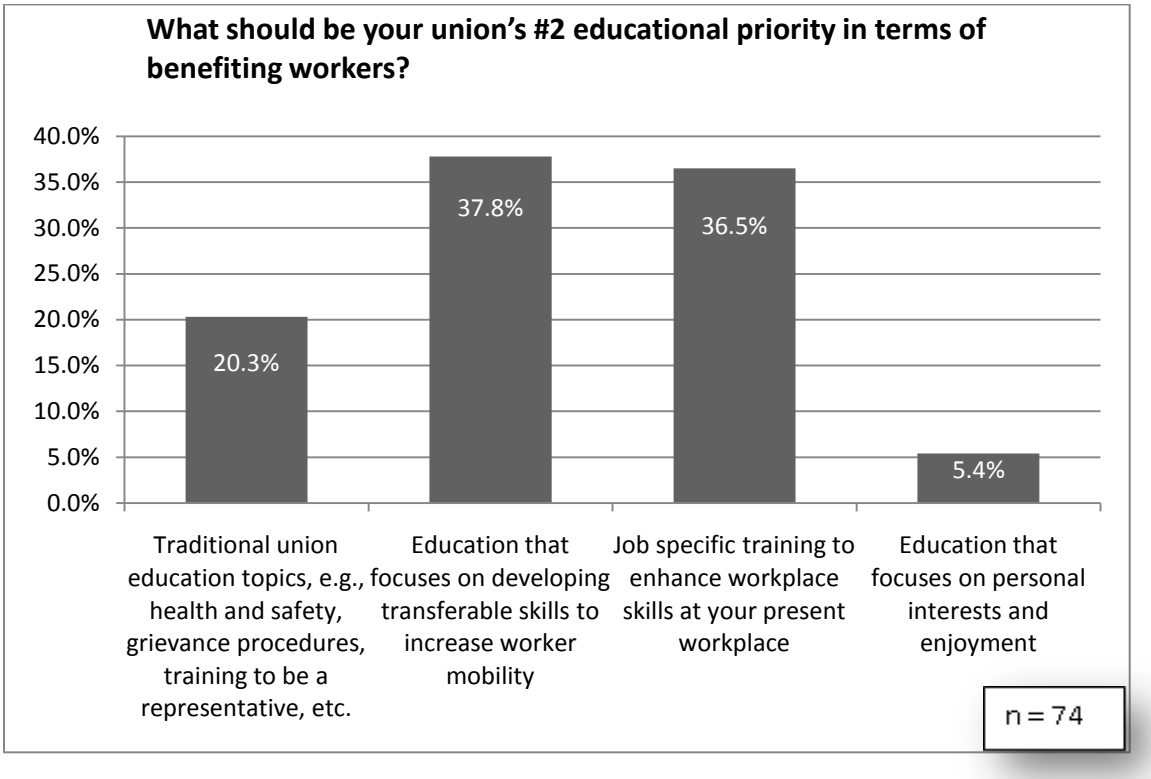



*Figure 6*. Union #2 educational priority percentage responses

### Question 7. Are you interested in taking part in any types of learning, training, or development at any point in the future?

In question 7, participants were asked to indicate their interest in participating in any type of learning, training, or development in the future in a three point likert scale. Table 9 provides a visual reference for the response count for each category. The histogram displayed in Figure 7 visually represents the percentage of responses tallied for each answer.

Table 6. *Continuing education interest response count*

| Are you interested in taking part in any types of learning, training or development at any point in the future? | | |
|---|---|---|
| **Answer Options** | **Response Count** | |
| Yes | 50 | |
| Possibly/Maybe | 19 | |
| No | 5 | |
| | *answered question* | 74 |
| | *skipped question* | 0 |

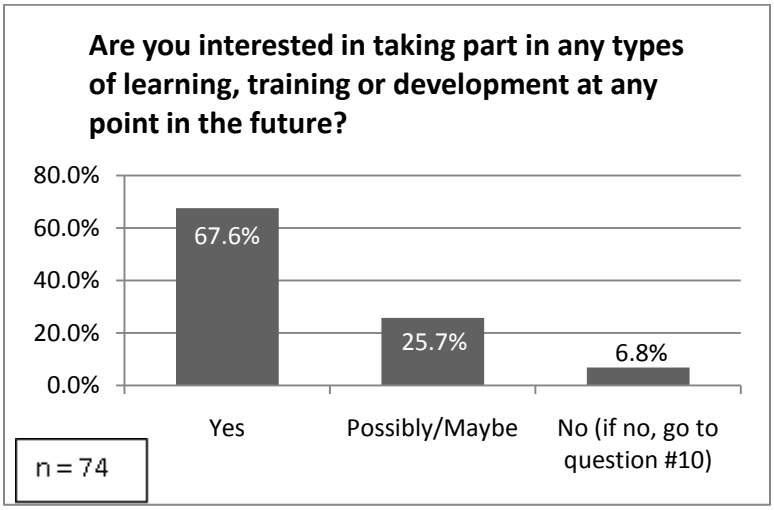



*Figure 7*. Continuing education interest percentage response

### Question 8. What kinds of learning, training, or development are you interested in?

In question 8, participants who responded to question 7 in either a positive or neutral fashion were asked to indicate their specific learning interests by checking all the selections that applied to them. Table 10 provides a visual reference for the response count for each category. For this question, n = 69, as 5 participants skipped the question as directed by those who answered "no" in question 7. In addition, two respondents selected the "other" option and wrote in "culinary" and "earn my bachelor's degree." The histogram displayed in Figure 8 visually represents the learning interests response count.

Table 7. *Learning interest percentage responses*

What kinds of learning, training or development are you interested in?

| **Answer Options** | **Response Percent** | |
|---|---|---|
| IT/computing skills | 58.0% | |
| Learning for my professional development | 44.9% | |
| Learning to achieve a formal qualification/accreditation | 42.0% | |
| For personal interest or enjoyment (e.g. new languages) | 42.0% | |
| Learning related to my current job | 26.1% | |
| Learning to be a union representative | 24.6% | |
| Basic skills – reading, writing, math | 18.8% | |
| Don't know/can't say | 2.9% | |
| Other (please specify) | | |
| | *answered question* | 69 |
| | *skipped question* | 5 |

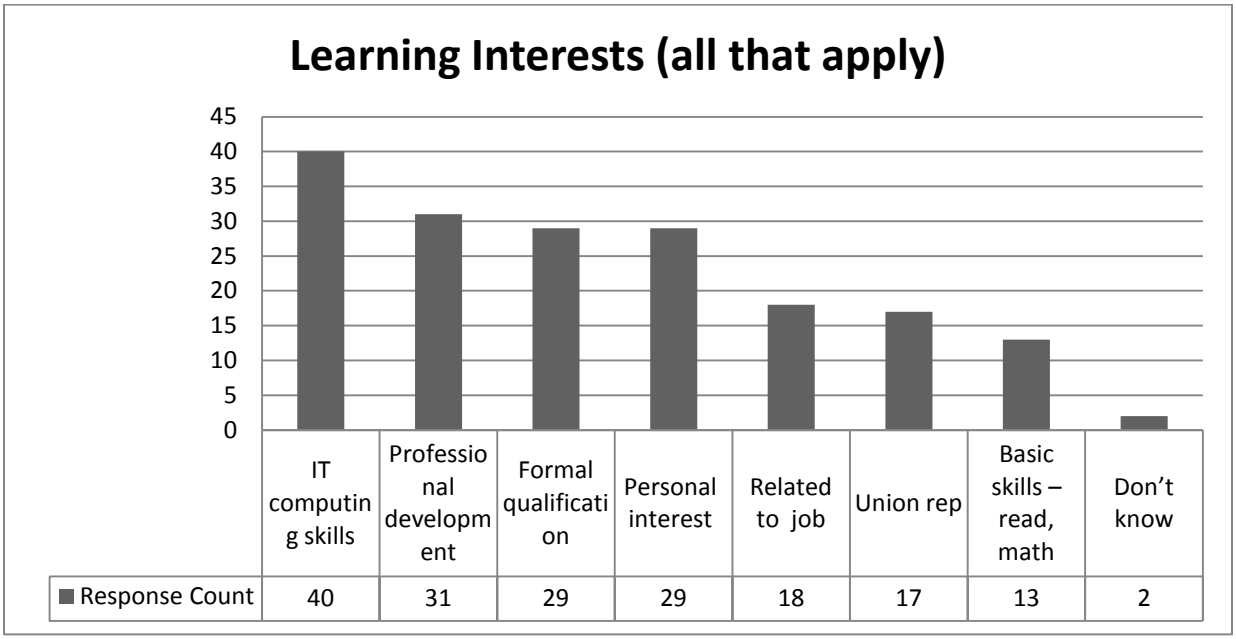



*Figure 8.* Learning interests response count n = 69

### Question 9. When would you consider taking part in learning, training or development?

In question 9, participants who responded to question 7 in either a positive or neutral fashion were asked to indicate when they would consider participating in some type of learning activity. Table 11 provides a visual reference for the response count for each category. For this question, n = 69, as 5 participants skipped the question as directed by those who answered "no" in question 7. The histogram displayed in Figure 9 visually represents the learning interests' timeline response percentage.

Table 8. *Learning interest timeline response count*

| When would you consider taking part in learning, training or development? | | |
|---|---|---|
| **Answer Options** | **Response Count** | |
| Next year | 42 | |
| Don't know/can't say | 10 | |
| I am currently undertaking learning | 9 | |
| Within 2-3 years | 8 | |
| Within 4-5 years | 0 | |
| 5 plus years | 0 | |
| | *answered question* | 69 |
| | *skipped question* | 5 |

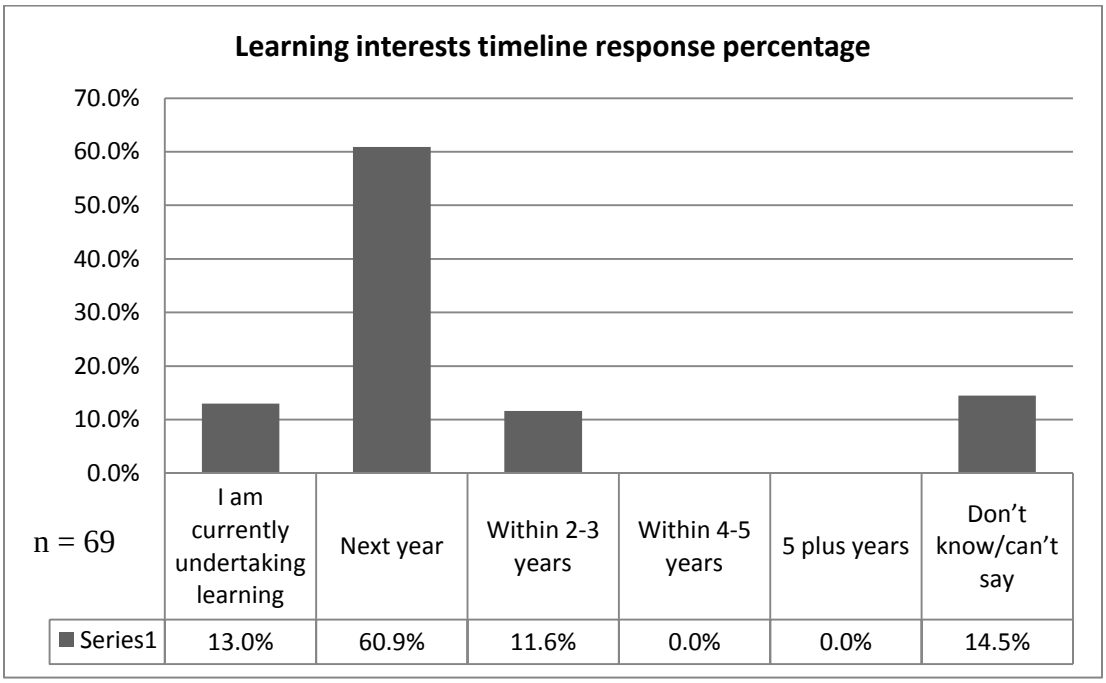



*Figure 9.* Learning interests timeline percentage response

### Question 10. If my union delivered, organized, or recommended continuing education opportunities, I would be more likely to participate in them.

In question 10, participants were asked to indicate their level of agreement with a statement regarding the union's role in educational opportunities, utilizing a 5-point Likert scale. Table 12 provides a visual reference for the response count for each of these categories of agreement. The histogram displayed in Figure 10 visually represents the percentage count of these responses.

Table 9. *Importance of union led education response count*

| If my union delivered, organized, or recommended continuing education opportunities, I would be more likely to participate in them | | |
|---|---|---|
| **Answer Options** | **Response Count** | |
| Strongly Disagree | 3 | |
| Disagree | 2 | |
| Undecided | 7 | |
| Agree | 25 | |
| Strongly Agree | 37 | |
| | *answered question* | 74 |
| | *skipped question* | 0 |

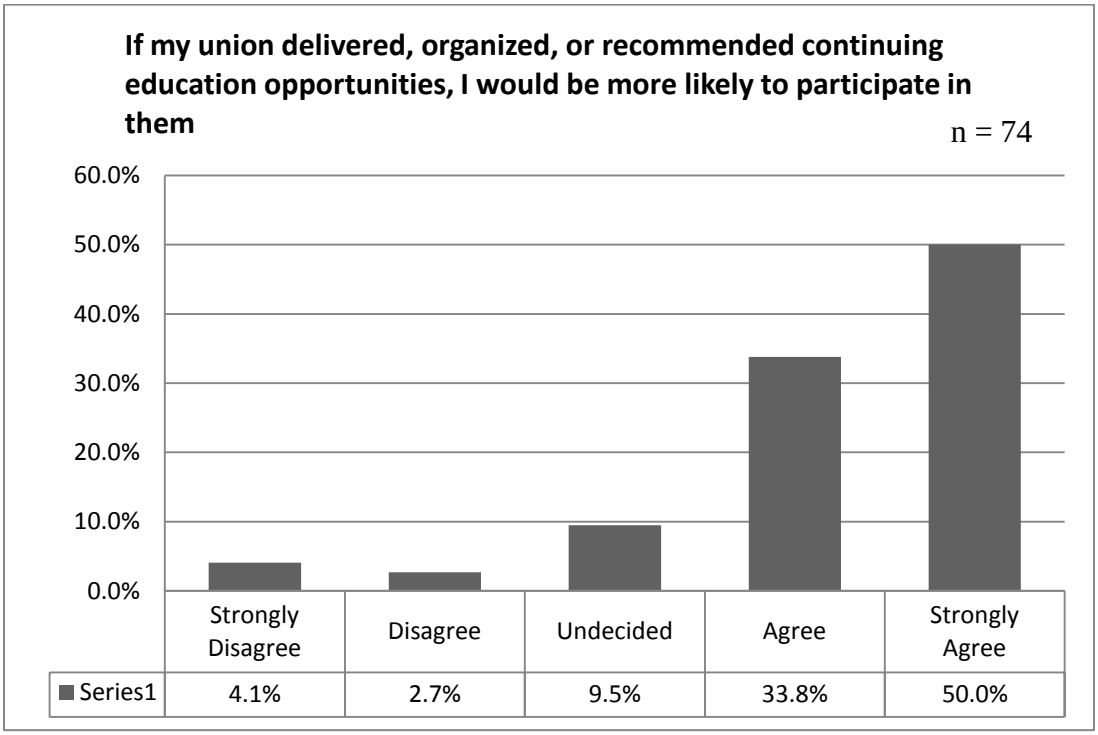


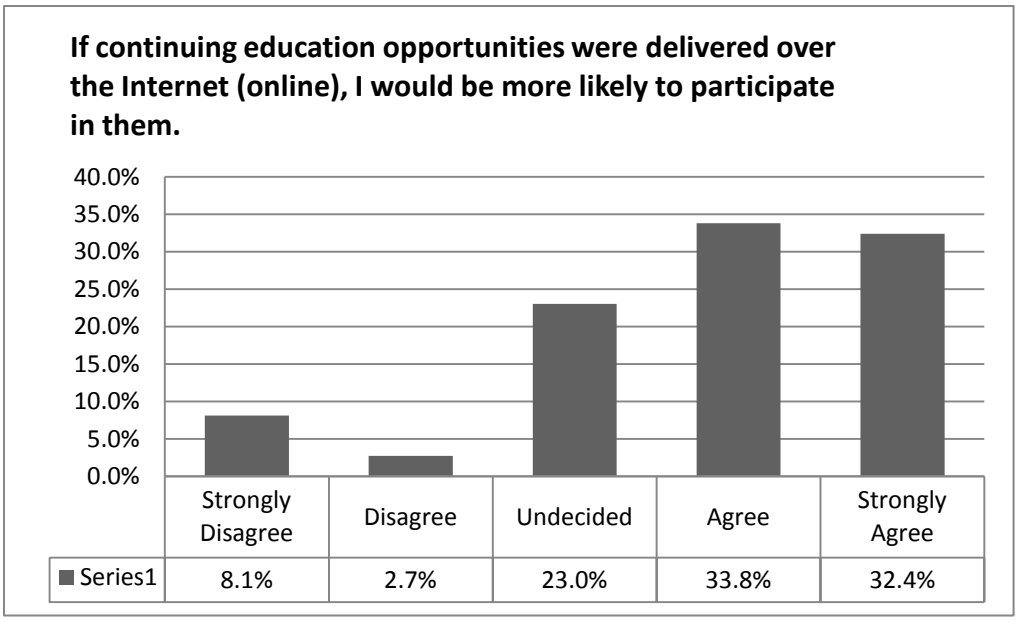

*Figure 10*. Importance of union led education percentage count response

### Question 11. If continuing education opportunities were delivered over the Internet (online), I would be more likely to participate in them.

In question 10, participants were asked to indicate their level of agreement with a statement regarding online educational opportunities, utilizing a 5-point Likert scale. Table 13 provides a visual reference for the response count for each of these categories of agreement. The histogram displayed in Figure 11 visually represents the percentage count of these responses. All 74 participants responded to this question.

Table 10. *Online education support level response count*

| If continuing education opportunities were delivered over the Internet (online), I would be more likely to participate in them. | | |
|---|---|---|
| Answer Options | Response Count | |
| Strongly Disagree | 6 | |
| Disagree | 2 | |
| Undecided | 17 | |
| Agree | 25 | |
| Strongly Agree | 24 | |
| answered question | | 74 |
| skipped question | | 0 |




n = 74

*Figure 11*. Online education support level percentage response count

## Question 12. What would make you more likely to take part in learning, training, or development?

In question 12, participants were asked to select all options they considered important to positively influence their decision to participate in learning activities. Table 14 provides a visual reference for the response percentage to each option. The histogram displayed in Figure 12 visually represents the response count. All 74 participants responded to this question, with one participant manually adding the option "learning content that matches job demand."

Table 11. *Inclusive factors percent to influence learning participation*

| What would make you more likely to take part in learning, training or development? (Check all that apply) | |
|---|---|
| **Answer Options** | **Response Percent** |
| Funding | 48.6% |
| Flexible delivery – eg. Distance learning, e-learning, online learning | 47.3% |
| More information on what learning is available | 45.9% |
| Finding something that I'm interested in | 43.2% |
| Learning available at work | 31.1% |
| Organized for you through a union | 29.7% |
| More self-confidence | 27.0% |
| A lower workload/fewer working hours | 23.0% |
| More encouragement to do so | 21.6% |
| Time off work | 18.9% |
| Taking part alongside friends or colleagues | 18.9% |
| Childcare facilities/more support with my dependents | 13.5% |
| Family support | 13.5% |
| Nothing | 4.1% |
| Don't know/can't say | 0.0% |
| *answered question* | 74 |
| *skipped question* | 0 |

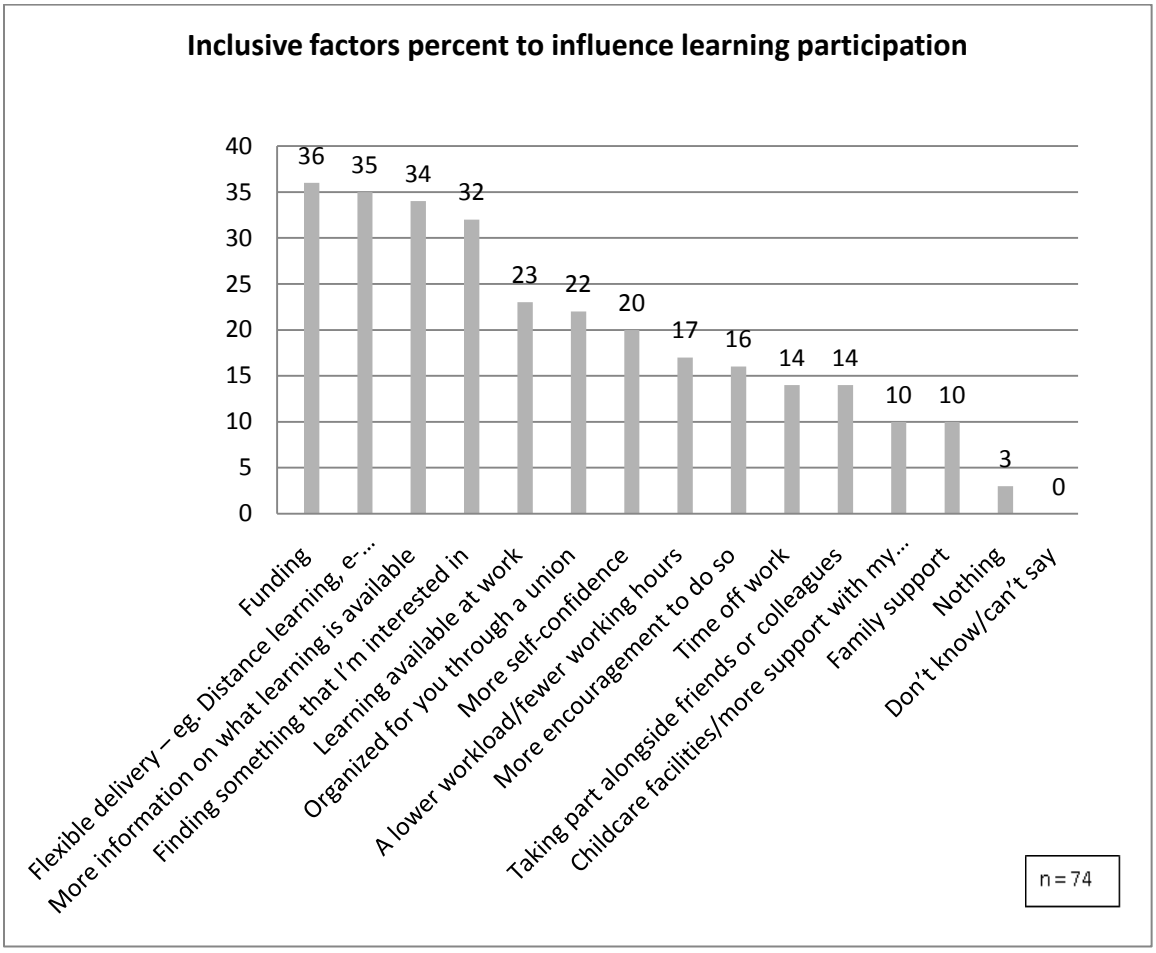



*Figure 12*. Inclusive list of perceived needs to take part in learning response count

### Question 13. Which of the items listed is the most important?

In question 13, participants were asked to select the one option they considered most important to positively influence their decision to participate in learning activities. Table 1 provides a visual reference for the response count for each option. The histogram displayed in Figure 13 visually represents the response percentage count. All 74 participants responded to this question.

Table 12. *Primary factor to influence learning participation response count*

| Which of the items listed in question 12 (above) is the most important (check one)? | |
|---|---|
| **Answer Options** | **Response Count** |
| Funding | 15 |
| Flexible delivery – eg. Distance learning, e-learning, online learning | 13 |
| Finding something that I'm interested in | 11 |
| More information on what learning is available | 10 |
| More self-confidence | 5 |
| Childcare facilities/more support with my dependents | 5 |
| Nothing | 2 |
| A lower workload/fewer working hours | 2 |
| Time off work | 2 |
| Learning available at work | 2 |
| Organized for you through a union | 2 |
| Family support | 2 |
| More encouragement to do so | 1 |
| Taking part alongside friends or colleagues | 1 |
| Don't know/can't say | 1 |
| Other (please specify) | 0 |
| *answered question* | 74 |
| *skipped question* | 0 |

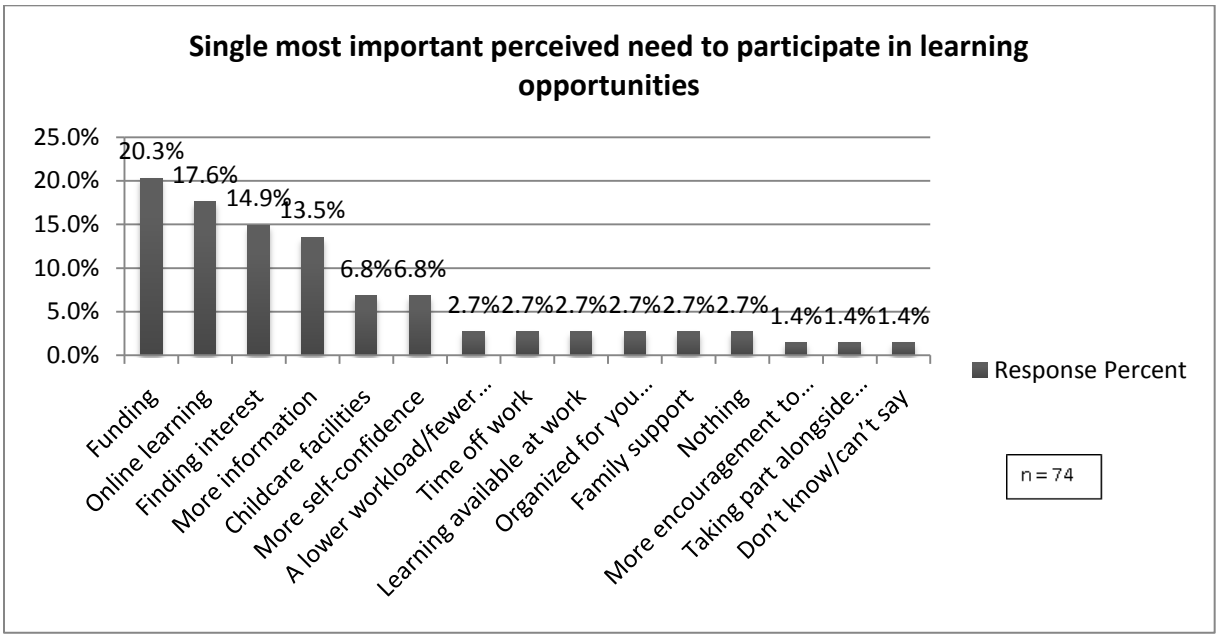



*Figure 13*. Primary factor to influence learning participation percentage count

**Question 14. Would you be more likely to get involved in learning, training or development if:**

a. you could get advice from someone at your workplace?

b. you could get encouragement from someone at your workplace?

c. it was organized for you through your union?

d. it was based at your workplace?

e. it was offered online (over the Internet)?

In question 14, participants were asked to respond with a yes or no answer to five different options or scenarios with the intent to find out if any would make a difference in their intent to participate in future learning activities. Table 16 summarizes the response count to each of the options offered, and Figure 14 presents a graphical representation of both percentage of responses and actual count in a stacked bar graph.

Table 13. *Five options for overcoming resistance to participate response count*

| **Would you be more likely to get involved in learning, training or development if** | | | |
|---|---|---|---|
| **Answer Options** | **Yes** | **No** | **Response Count** |
| a. you could get advice from someone at your workplace? | 42 | 26 | 68 |
| b. you could get encouragement from someone at your workplace? | 38 | 29 | 67 |
| c. it was organized for you through your union? | 50 | 18 | 68 |
| d. it was based at your workplace? | 46 | 23 | 69 |
| e. it was offered online (over the Internet)? | 54 | 17 | 71 |
| | | *answered question* | 74 |
| | | *skipped question* | 0 |

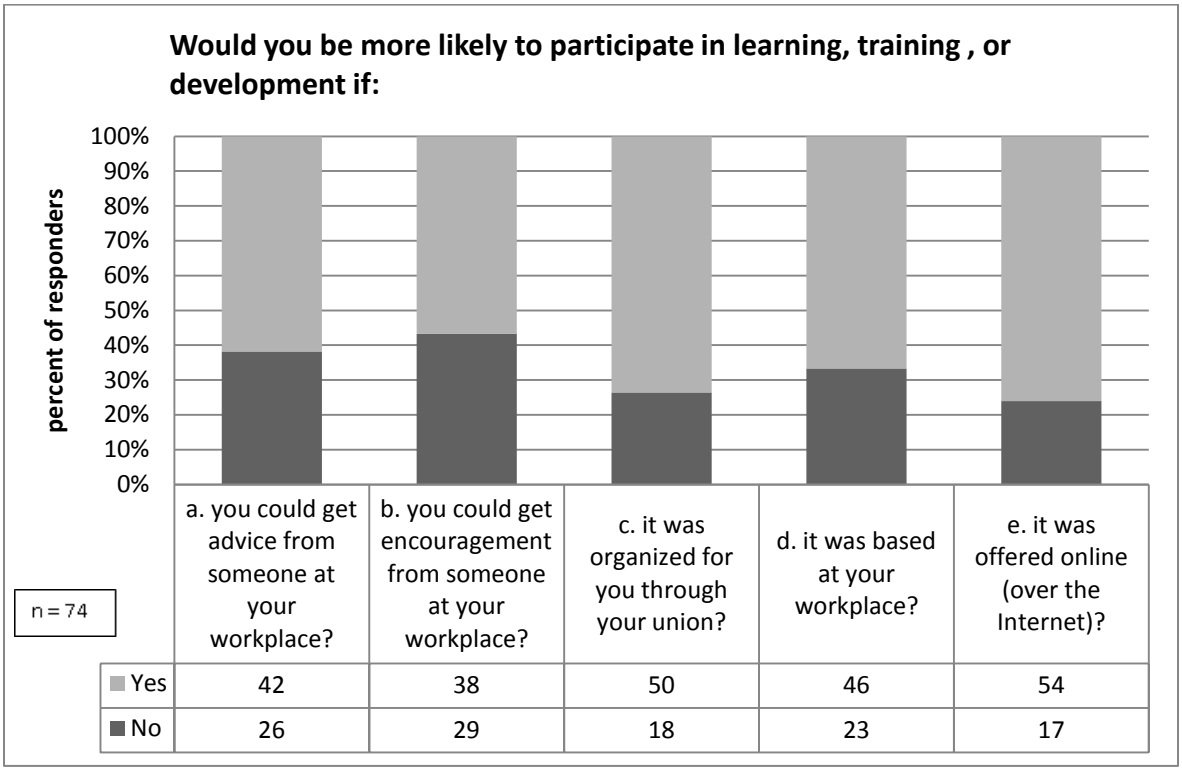



*Figure 14*. Five factor learning motivator percentage/ response count

**Successful online learner characteristics**

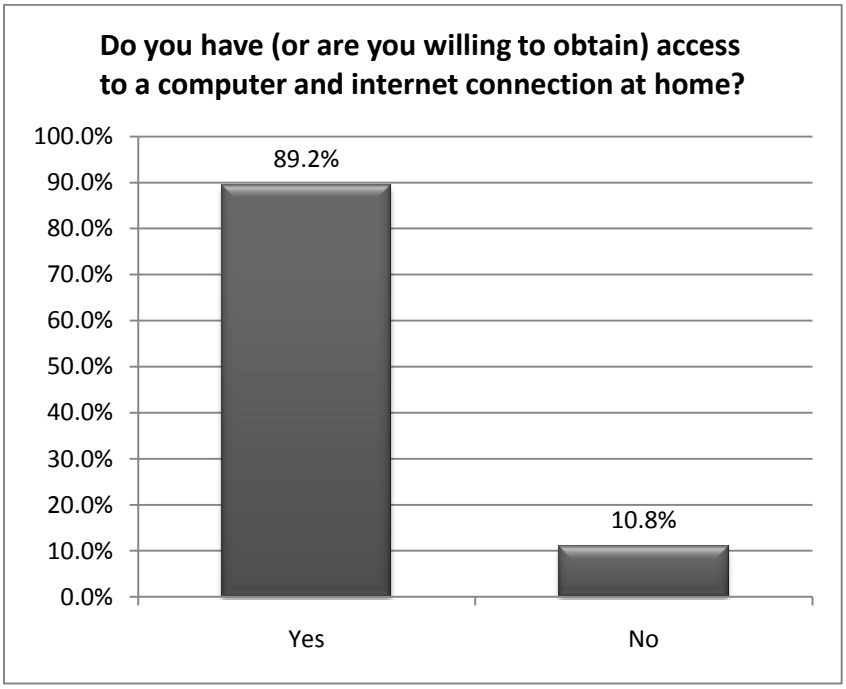
The following ten questions were the final questions asked in the survey, and participants were requested to give a yes or no answer to each. These questions are used to judge whether a potential student has the characteristics, abilities, and inclination to become a successful online learner. Or rather, it is the participant's perception of these characteristics and whether or not he/she possesses them that are the real responses.

Each of the final ten questions will be stated, followed by a table summarizing the response percent and response count, followed by a bar graph that will visually represent the response percent. This self-explanatory presentation of the data should not require any further discussion of this information in this chapter, but will be addressed further in Chapter 5.

## Question 15. Do you have (or are you willing to obtain) access to a computer and internet connection at home?

Table 14. *Internet access response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 89.2% | 66 |
| No | 10.8% | 8 |
| | *answered question* | 74 |
| | *skipped question* | 0 |



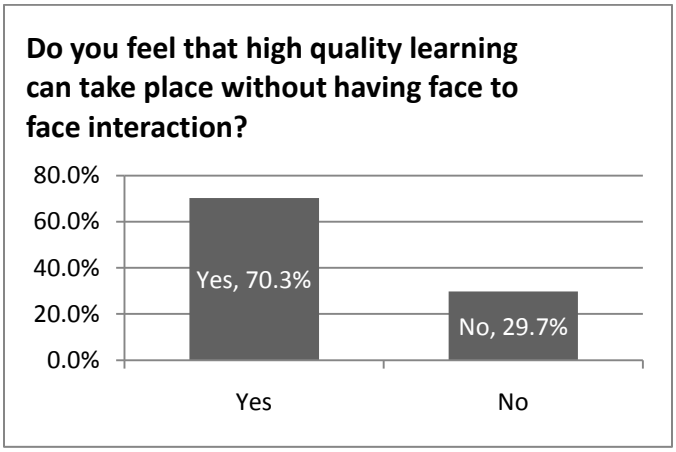

n = 74

*Figure 15*. Internet access bar graph percent

## Question 16. Do you feel that high quality learning can take place without having face to face interaction?

Table 15. *Face to face and quality learning response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 70.3% | 52 |
| No | 29.7% | 22 |
| *answered question* | | 74 |
| *skipped question* | | 0 |



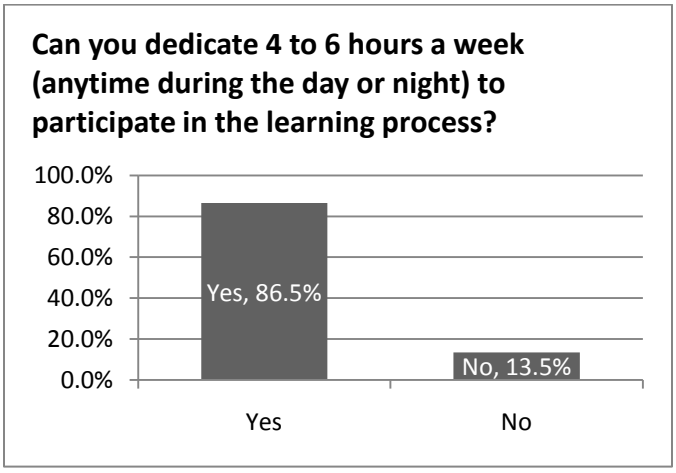

n = 74

*Figure 16*. Face to face and quality learning bar graph percentage response

## Question 17. Can you dedicate 4 to 6 hours a week (anytime during the day or night) to participate in the learning process?

Table 16. *Dedicate 4-6 hours per week response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 86.5% | 64 |
| No | 13.5% | 10 |
| *answered question* | | 74 |
| *skipped question* | | 0 |



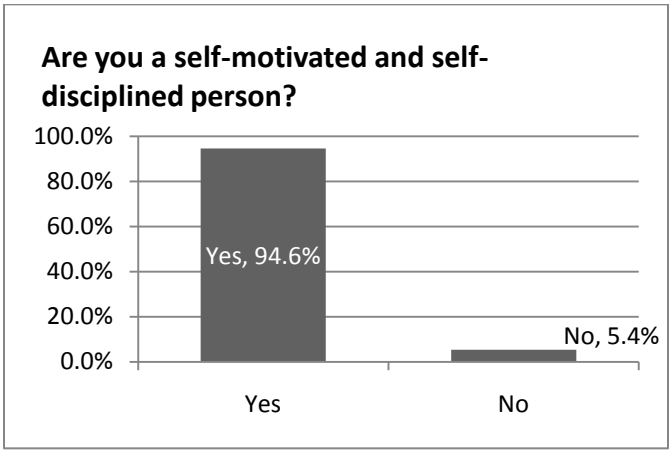

n = 74

*Figure 17*. Dedicate 4-6 hours per week bar graph percentage response

### Question 18. Are you a self-motivated and self-disciplined person?

Table 17. *Motivated and self-disciplined response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 94.6% | 70 |
| No | 5.4% | 4 |
| *answered question* | | 74 |
| *skipped question* | | 0 |



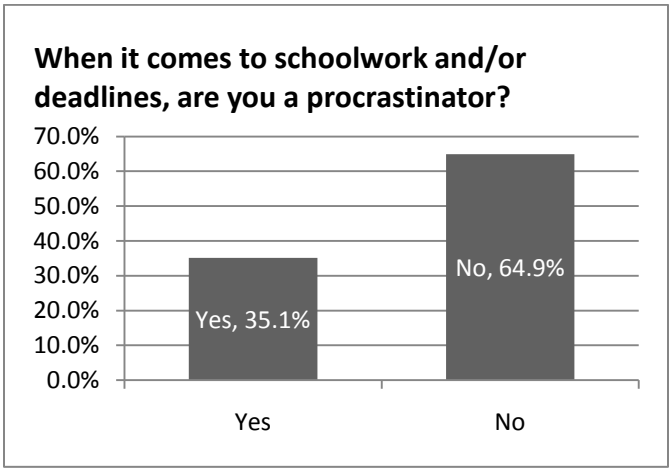

n = 74

*Figure 18*. Motivated and self-disciplined bar graph percentage

## Question 19. When it comes to schoolwork and/or deadlines, are you a procrastinator?

Table 18. *Procrastinator response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 35.1% | 26 |
| No | 64.9% | 48 |
| | *answered question* | 74 |
| | *skipped question* | 0 |



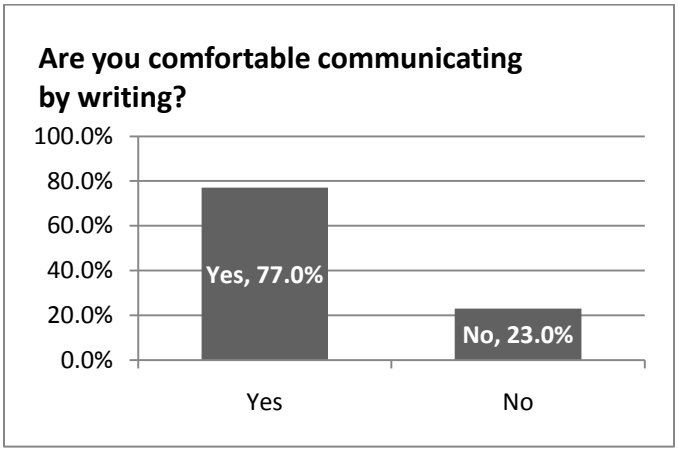

n = 74

*Figure 19*. Procrastinator bar graph percentage response

## Question 20. Are you comfortable communicating by writing?

Table 19. *Written communication response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 77.0% | 57 |
| No | 23.0% | 17 |
| | *answered question* | 74 |
| | *skipped question* | 0 |



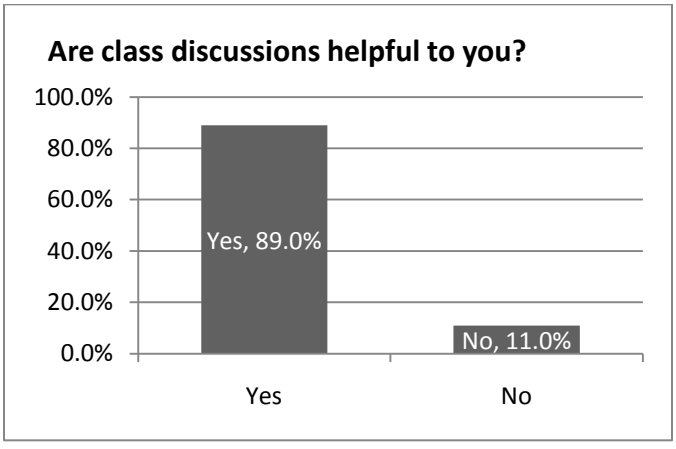

n = 74

*Figure 20*. Written communication bar graph percentage response

**Question 21. Are class discussions helpful to you?**

Table 20. *Class discussion response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 89.0% | 65 |
| No | 11.0% | 8 |
| *answered question* | | 73 |
| *skipped question* | | 1 |



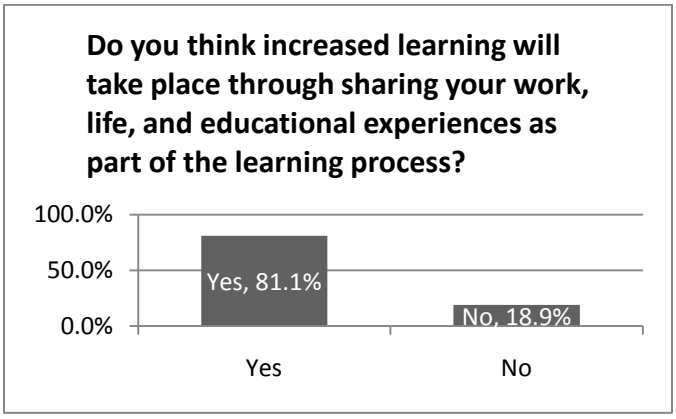

n = 73

*Figure 21*. Class discussion bar graph percentage response

### Question 22. Do you think increased learning will take place through sharing your work, life, and educational experiences as part of the learning process?

Table 21. *Life experience response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 81.1% | 60 |
| No | 18.9% | 14 |
| *answered question* | | 74 |
| *skipped question* | | 0 |



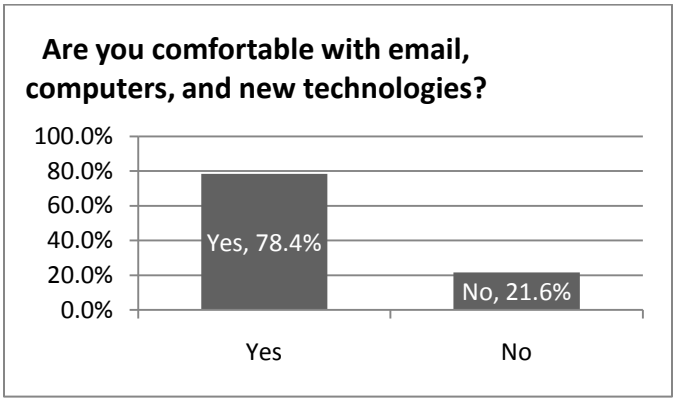

n = 74

*Figure 22*. Life experience bar graph percentage response

### Question 23. Are you comfortable with email, computers, and new technologies?

Table 22. *Comfort with technology response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 78.4% | 58 |
| No | 21.6% | 16 |
| *answered question* | | 74 |
| *skipped question* | | 0 |



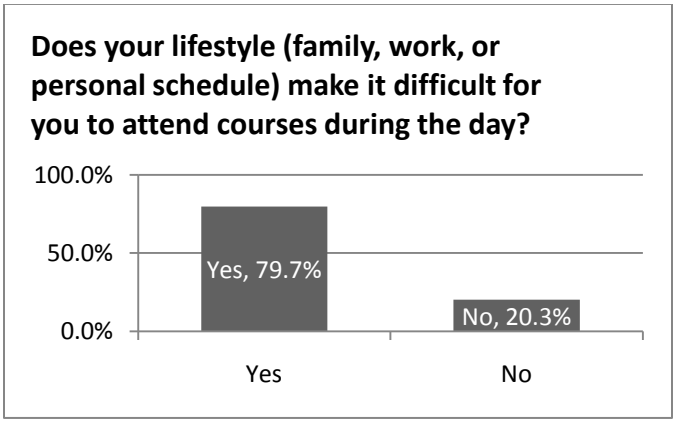

n = 74

*Figure 23*. Comfort with technology bar graph percentage response

**Question 24. Does your lifestyle (family, work, or personal schedule) make it difficult for you to attend courses during the day?**

Table 23. *Lifestyle response count*

| Answer Options | Response Percent | Response Count |
|---|---|---|
| Yes | 79.7% | 59 |
| No | 20.3% | 15 |
| *answered question* | | 74 |
| *skipped question* | | 0 |




n = 74

*Figure 24*. Lifestyle bar graph percentage response

## Statistical Analysis Results for Research Questions

A combination of inferential and descriptive statistics were used to analyze both the overall focus of the study assessing attitudes of union workers towards educational opportunities and the specific research questions that guided the design of the survey.

### Research question 1

1. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities?

This research question was addressed with question #7 on the survey which asked respondents whether they were interested in taking part in any learning, training, or development in the future. This question was intended to get a definitive answer since those who were definitely not interested in future learning opportunities would not have a relevant opinion on the remaining research questions. Accordingly, responses were tallied on a 3 point Likert scale and examined first relative to age. The age category was divided two different ways in order to determine if the upper and lower quartile range of ages were significantly different than the range of age divided by the means. The age categories broke down at the mean of 45.144, the upper quartile (Q4) >52 and the lower quartile (Q1) <38.

Overall, out of 74 responses, 50 or 67.6% were positive (coded 3), 19 or 25.7% were unsure (coded 2), and 5 or 6.8% were negative. In looking at the response rate divided by the mean age, where age> 45, 75.7% were positive, 16.2% were unsure, and 8.0% were negative and where age ≤ 45, 59.5% were positive, 35.1% were unsure, and 5.4% were negative. In looking at the response rate by age divided into the upper and lower quartile, where age > 52, 70.6% were positive, 23.5% were unsure, and 5.9% were negative; and where age < 38, 50% were positive,

38.9% were unsure, and 11.1% were negative. A summary of the response count and percentages of these breakdowns are represented in Table 24.

Table 24. *Response count/percentage learning interest by age category*

| | **Aggregate** | **Age > 45** | **Age ≤ 45** | **Age > 52** | **Age < 38** |
|---|---|---|---|---|---|
| Response | Count - % | Count - % | Count - % | Count - % | Count - % |
| 3 - Yes | 50 – 67.6% | 28 – 75.7% | 22 – 59.5% | 12 – 70.6% | 9 – 50.0% |
| 2 - Maybe | 19 – 25.7% | 6 – 16.2% | 13 – 35.1% | 4 – 23.5% | 7 – 38.9% |
| 3 - No | 5 – 6.8% | 3 – 8.1% | 2 – 5.4% | 1 – 5.9% | 2 – 11.1% |
| **Total # respondents** | n = 74 | 37 | 37 | 17 | 18 |

A general observation of this data shows that in the upper level age categories, where age > 45 and age > 52, the percentage of positive responses is greater than the aggregate, while the lower level age categories where age ≤ 45 and age < 38, the percentage of unsure responses were noticeably higher than the aggregate.

To investigate whether any significant associations could be determined, t-tests were first conducted, but no significance was found. A Chi-square test was then performed with the ages divided into three categories and the dependent variable divided into a dichotomous response to give the greatest amount of variance without violating the minimum expected value of each cell. The age ranges were coded as follows: 1 = 26 – 41 years; 2 = 42 – 50 years; 3 = 51 – 64 years. In addition, the responses were coded as follow: 1 = not yes; 2 = yes. The resulting Chi-square value of 1.88 and p-value of .3909 indicated no statistical significance between age and union workers' response to participating in lifelong learning opportunities (see Table 25).

**Research Hypothesis 1 (Age/lifelong): The hypotheses are as follows:**

$H_o$ : Age has no effect on union workers' attitudes about participating in lifelong learning opportunities.

$H_{1\ (rq1)}$ : Age does have a negative effect on union workers' attitudes about participating in lifelong learning opportunities.

**Results Research Hypothesis 1 (Age/lifelong)**

The resulting Chi-square value of 1.88 and p-value of .3909 indicated no statistical significance between age and union workers' response to participating in lifelong learning opportunities (see Table 25). This is relative to research question 1, Hypothesis 1, as follows: Given a test statistic of 1.88 with degrees of freedom 2 and an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference among the groups.

Table 25 *Age category vs. continuing ed. contingency table results*
Rows: Age Cat where 1 = 26 – 41 years; 2 = 42 – 50 years; 3 = 51 – 64 years
Columns: Conted 1 = not yes; 2 = yes

| **Cell format** |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 11 | 15 | 26 |
| | (42.31%) | (57.69%) | (100.00%) |
| | (45.83%) | (30%) | (35.14%) |
| | (14.86%) | (20.27%) | (35.14%) |
| | 8.432 | 17.57 | |
| 2 | 7 | 17 | 24 |
| | (29.17%) | (70.83%) | (100.00%) |
| | (29.17%) | (34%) | (32.43%) |
| | (9.459%) | (22.97%) | (32.43%) |
| | 7.784 | 16.22 | |
| 3 | 6 | 18 | 24 |
| | (25%) | (75%) | (100.00%) |
| | (25%) | (36%) | (32.43%) |
| | (8.108%) | (24.32%) | (32.43%) |
| | 7.784 | 16.22 | |
| Total | 24 | 50 | 74 |
| | (32.43%) | (67.57%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (32.43%) | (67.57%) | (100.00%) |

| **Statistic** | **DF** | **Value** | **P-value** |
|---|---|---|---|
| Chi-square | 2 | 1.8788568 | 0.3909 |

The second part of research question 1 referred to a potential relationship between the education level of the respondents and their intent to participate in future learning, training or development. The mean of the Education category, which consisted of the number of years of school the respondent completed, was 13.44. Utilizing the Chi-square test in a manner similar to

the first part of the question where age was the independent variable, the Education category above and below the mean of 13.44 was used as the independent variable and tested with the responses to the question corresponding to their interest in continuing education. The education level ranges were coded as follows: 1 = 12-13 years of schooling completed; 2 = 14-17 years of schooling completed. In addition, the responses were coded as follow: 1 = not yes; 2 = yes.

**Research Hypothesis 2 (Educ/lifelong): The hypotheses are as follows:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in lifelong learning opportunities.

$H_{2\ (rq1)}$ : Educational level does have a positive effect on union workers' attitudes about participating in lifelong learning opportunities.

**Results Research Hypothesis 2 (Educ/lifelong)**

The resulting Chi-square value of 1.07 and p-value of .301 indicated no statistical significance between education level and union workers' response to participating in lifelong learning opportunities (see Table 26). This is relative to research question 1, Hypothesis 2, as follows: Given a test statistic of 1.07 with degrees of freedom 1 and an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference between the groups.

Table 26 *Education level vs. continuing ed. contingency table results*
Rows: Education Category where 1 = 12 – 13 years and 2 = 14-17 years schooling.
Columns: Conted where 1 = not yes; 2 = yes

| Cell format |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 16 | 27 | 43 |
| | (37.21%) | (62.79%) | (100.00%) |
| | (66.67%) | (54%) | (58.11%) |
| | (21.62%) | (36.49%) | (58.11%) |
| | 13.95 | 29.05 | |
| 2 | 8 | 23 | 31 |
| | (25.81%) | (74.19%) | (100.00%) |
| | (33.33%) | (46%) | (41.89%) |
| | (10.81%) | (31.08%) | (41.89%) |
| | 10.05 | 20.95 | |
| Total | 24 | 50 | 74 |
| | (32.43%) | (67.57%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (32.43%) | (67.57%) | (100.00%) |

| Statistic | DF | Value | P-value |
|---|---|---|---|
| Chi-square | 1 | 1.0688272 | 0.3012 |

**Research question 2**

2. Does age and education level affect attitudes of union workers about participating in union-led lifelong learning opportunities?

In question 10, participants were asked to indicate their level of agreement with a statement regarding the union's role in educational opportunities, utilizing a 5-point Likert scale. More specifically, the question asked if the respondent would be more likely to participate in educational opportunities if their union delivered, organized, or recommended it. The question

was first analyzed relative to age. The age category was divided two different ways in order to determine if the upper and lower quartile range of ages were significantly different than the range of age divided by the means. The age categories broke down at the mean of 45.144, the upper quartile (Q4) >52 and the lower quartile (Q1) <38.

Overall, out of the aggregate 74 responses, 50% of the respondents strongly agreed with the statement, 33.8% agreed, 9.5% were undecided, 2.7% disagreed, and 4.1% strongly disagreed. In looking at the response rate divided by the mean age, where age> 45, the respondents maintained a fairly equal split with all five levels of support, differing mainly in the undecided category where a 8.1% higher response for the age ≤ 45 was recorded. Looking at the response rate by age divided into the upper and lower quartile, differences between the two groups were minimal, but those where age > 52, indicated 88.1% strongly agreed or agreed, and 11.8% strongly disagreed, while where age < 38, 72.2% strongly agreed or agreed and the remainder were divided between undecided, disagree and strongly disagree categories. A summary of the response count and percentages of these breakdowns are represented in Table 27.

Table 27. *Response count and percentage of union led support by age categories*

| | **Aggregate** | **Age > 45** | **Age ≤ 45** | **Age > 52** | **Age < 38** |
|---|---|---|---|---|---|
| Response | Count - % | Count - % | Count - % | Count - % | Count - % |
| 5 - Strongly Agree | 37 – 50.0% | 19 – 51.4% | 18 – 48.7% | 8 – 47.0% | 6 – 33.3% |
| 4 - Agree | 25 – 33.8% | 13 – 35.1% | 12 – 32.4% | 7 – 41.1% | 7 – 38.9% |
| 3 - Undecided | 7 – 9.5% | 2 – 5.4% | 5 – 13.5% | 0 – 0% | 3 – 16.7% |
| 2 - Disagree | 2 – 2.7% | 1 – 2.7% | 1 – 2.7% | 0 – 0% | 1 – 5.6% |
| 1 – Strongly Disagree | 3 – 4.1% | 2 – 5.4% | 1 – 2.7% | 2 – 11.8% | 1 – 5.6% |
| **Total # respondents** | n = 74 | 37 | 37 | 17 | 18 |

To investigate whether any significant associations could be determined, a Chi-square test was performed with the ages divided into two categories and the dependent variable divided into a dichotomous response to give the greatest amount of variance without violating the minimum expected value of each cell. The age ranges were coded as follows: 1 = 26 – 45 years; 2 = 47 – 64 years. In addition, the responses were coded as follow: 1 = not agree; 2 = agree.

**Research Hypothesis 3 (Age/union led): The hypotheses are as follows:**

$H_o$ : Age has no effect on union workers' attitudes about participating in union-led lifelong opportunities.

$H_{3\,(rq2)}$ : Age does have a negative effect on union workers' attitudes about participating in union-led lifelong learning opportunities.

**Results Research Hypothesis 3 (Age/union led)**

The resulting Chi-square value of .398 and p-value of .528 indicated no statistical significance between age and union workers' response to the question of whether they would be more likely to participate in educational opportunities if they were delivered, organized, or recommended by their union (see Table 28). This is relative to research question 1, Hypothesis 3, as follows: Given a test statistic of .398 with degrees of freedom 1 and an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference between the groups.

Table 28 *Age category vs. union led learning contingency table results*
Rows: Age Cat 2 where 1 = 26 – 45 years; 2 = 47 – 64 years
Columns: union led cat2 where 1 = not agree; 2 = agree

| **Cell format** |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 7 | 30 | 37 |
| | (18.92%) | (81.08%) | (100.00%) |
| | (58.33%) | (48.39%) | (50%) |
| | (9.459%) | (40.54%) | (50%) |
| | 6 | 31 | |
| 2 | 5 | 32 | 37 |
| | (13.51%) | (86.49%) | (100.00%) |
| | (41.67%) | (51.61%) | (50%) |
| | (6.757%) | (43.24%) | (50%) |
| | 6 | 31 | |
| Total | 12 | 62 | 74 |
| | (16.22%) | (83.78%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (16.22%) | (83.78%) | (100.00%) |

| **Statistic** | **DF** | **Value** | **P-value** |
|---|---|---|---|
| Chi-square | 1 | 0.39784947 | 0.5282 |

The second part of research question 2 refers to a potential association between the education level of the respondents and their level of agreement with the statement that union involvement in education would positively influence their intent to participate in learning, training, or development. The mean of the Education Category 2, which consists of the number of years of school the respondent completed, was 13.44. Utilizing the Chi-square test in a manner similar to the first part of the question where age was the independent variable, the Education category above and below the mean of 13.44 was used as the independent variable and tested with the responses to the question corresponding to their interest in union-led learning. The education level ranges were coded as follows: 1 = 12-13 years of schooling completed; 2 = 14-17 years of schooling completed. In addition, the responses were coded as follow: 1 = not agree; 2 = agree.

**Research Hypothesis 4 (Educ/union led): The hypotheses are as follows:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in union-led lifelong opportunities.

$H_{4\ (rq2)}$ : Educational level does have a positive effect on union workers' attitudes about participating in union-led lifelong learning opportunities.

**Results Research Hypothesis 4 (Educ/union led)**

The resulting Chi-square value of 3.74 and p-value of .053 indicated no statistical significance between education level and union workers' response to the question of whether they would be more likely to participate in educational opportunities if they were delivered, organized, or recommended by their union. (see Table 29 below). This is relative to research question 2, Hypothesis 4, as follows: Given a test statistic of 3.74 with degrees of freedom 1 and

an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference between the groups.

Table 29 *Education level vs. union-led contingency table results:*
Rows: Education Category 2 where 1 = 12 – 13 years and 2 = 14-17 years schooling.
Columns: union led cat where 1 = not agree; 2 = agree

| **Cell format** |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 10 | 33 | 43 |
| | (23.26%) | (76.74%) | (100.00%) |
| | (83.33%) | (53.23%) | (58.11%) |
| | (13.51%) | (44.59%) | (58.11%) |
| | 6.973 | 36.03 | |
| 2 | 2 | 29 | 31 |
| | (6.452%) | (93.55%) | (100.00%) |
| | (16.67%) | (46.77%) | (41.89%) |
| | (2.703%) | (39.19%) | (41.89%) |
| | 5.027 | 25.97 | |
| Total | 12 | 62 | 74 |
| | (16.22%) | (83.78%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (16.22%) | (83.78%) | (100.00%) |

| **Statistic** | **DF** | **Value** | **P-value** |
|---|---|---|---|
| Chi-square | 1 | 3.7439036 | 0.053 |

**Research question 3**

3. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities delivered online?

In question 11, participants were asked to indicate their level of agreement with a statement regarding the availability of online educational opportunities, utilizing a 5-point Likert

scale. More specifically, the question asked if the respondent would be more likely to participate in educational opportunities if they were available online. The question was first analyzed relative to age. The age category was divided two different ways in order to determine if the upper and lower quartile range of ages were significantly different than the range of age divided by the means. The age categories broke down at the mean of 45.04, the upper quartile (Q4) >52 and the lower quartile (Q1) <38.

Overall, out of the aggregate 74 responses, 32.4% strongly agreed, 33.8% agreed, 23% were undecided, 2.7% disagreed, and 8.1% strongly disagreed. In looking at the response rate divided by the mean age, the respondents maintained a fairly equal split with all five levels of support for online delivery, differing mainly in the agree category where a 8.2% higher response for the age > 45 was recorded and a 10.8% higher response in the combined disagree and strongly disagree categories for the age ≤ 45 group. Looking at the response rate by age divided into the upper and lower quartile, differences between the two groups were minimal, but those where age > 52 indicated an 18.9% greater response to the agree category, though this was somewhat offset on the positive-negative scale with a 9.8% higher response in the age < 38 group for the strongly agree category. In addition, for the age <38 group, there was a 10.8% higher response in the strongly disagree category. A summary of the response count and percentages of these breakdowns are represented in Table 35.

Table 30. *Response count/percentage online support by age categories*

| | Aggregate | Age > 45 | Age ≤ 45 | Age > 52 | Age < 38 |
|---|---|---|---|---|---|
| Response | Count - % | Count - % | Count - % | Count - % | Count - % |
| 5 - Strongly Agree | 24 – 32.4% | 12 – 32.4% | 12 – 32.4% | 4 – 23.5% | 6 – 33.3% |
| 4 - Agree | 25 – 33.8% | 14 – 37.9% | 11 – 29.7% | 7 – 41.1% | 4 – 22.2% |
| 3 - Undecided | 17 – 23% | 9 – 24.3% | 8 – 21.6% | 5 – 29.4% | 5 – 27.8% |
| 2 - Disagree | 2 – 2.7% | 0 – 0% | 2 – 5.4% | 0 – 0% | 0 – 0% |
| 1 – Strongly Disagree | 6 – 8.1% | 2 – 5.4% | 4 – 10.8% | 1 – 5.9% | 3 – 16.7% |
| **Total # respondents** | n = 74 | 37 | 37 | 17 | 18 |

To investigate whether any significant associations could be determined between the independent variable of age and the dependent variable of online learning support, a Chi-square test was performed. Age was divided into two categories and the dependent variable divided into a dichotomous response to give the greatest amount of variance without violating the minimum expected value of each cell. The age ranges were coded as follows: 1 = 26 – 45 years; 2 = 47 – 64 years. In addition, the responses were coded as follow: 1 = not agree; 2 = agree.

**Research Hypothesis 5 (Age/online): The hypotheses are as follows:**

$H_o$ : Age has no effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

$H_{5\ (rq3)}$ : Age does have a negative effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

**Results Research Hypothesis 5 (Age/online)**

The resulting Chi-square value of .544 and p-value of .4609 indicated no statistical significance between age and union workers' response to the question of whether they would be more likely to participate in educational opportunities if they were available online. (see Table 31). This is relative to research question 3, Hypothesis 5, as follows: Given a test statistic of .544 with degrees of freedom 1 and an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference between the groups.

Table 31. *Contingency table results*
Rows: Age Cat 2 where 1 = 26 – 45 years; 2 = 47 – 64 years
Columns: online cat where 1 = not agree; 2 = agree

| **Cell format** |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 14 | 23 | 37 |
| | (37.84%) | (62.16%) | (100.00%) |
| | (56%) | (46.94%) | (50%) |
| | (18.92%) | (31.08%) | (50%) |
| | 12.5 | 24.5 | |
| 2 | 11 | 26 | 37 |
| | (29.73%) | (70.27%) | (100.00%) |
| | (44%) | (53.06%) | (50%) |
| | (14.86%) | (35.14%) | (50%) |
| | 12.5 | 24.5 | |
| Total | 25 | 49 | 74 |
| | (33.78%) | (66.22%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (33.78%) | (66.22%) | (100.00%) |

| **Statistic** | **DF** | **Value** | **P-value** |
|---|---|---|---|
| Chi-square | 1 | 0.54367346 | 0.4609 |

The second part of research question 3 referred to a potential association between the education level of the respondents and their level of agreement with the statement that online delivery of education would positively influence their intent to participate in learning, training, or development. The mean of the education level, which consisted of the number of years of school the respondent completed, was 13.44. Utilizing the Chi-square test in a manner similar to the first part of the question where age was the independent variable, the Education category above and below the mean of 13.44 was used as the independent variable and tested with the responses to the question corresponding to their interest in online learning. The education level ranges were coded as follows: 1 = 12-13 years of schooling completed; 2 = 14-17 years of schooling completed. In addition, the responses were coded as follow: 1 = not agree; 2 = agree.

**Research Hypothesis 6 (Educ/online): The hypotheses are as follows:**

$H_o$ : Educational level has no effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

$H_{6\ (rq3)}$ : Educational level does have a positive effect on union workers' attitudes about participating in lifelong learning opportunities delivered online.

**Results Research Hypothesis 6 (Educ/online)**

The resulting Chi-square value of .538 and p-value of .463 indicated no statistical significance between education level and union workers' response to the question of whether they would be more likely to participate in educational opportunities if they were delivered online (see Table 32). This is relative to research question 3, Hypothesis 6, as follows: Given a test statistic of .538 with degrees of freedom 1 and an alpha level of .05, there was insufficient evidence to reject the null hypothesis. In other words, there was no statistical difference between the groups.

Table 32. *Education level vs. online support contingency table results*:
Rows: Education Category 2 where 1 = 12-13 years; 2 = 14-17 years
Columns: online cat where 1 = not agree; 2 = agree

| Cell format |
|---|
| Count |
| (Row percent) |
| (Column percent) |
| (Total percent) |
| Expected count |

| | 1 | 2 | Total |
|---|---|---|---|
| 1 | 16 | 27 | 43 |
| | (37.21%) | (62.79%) | (100.00%) |
| | (64%) | (55.1%) | (58.11%) |
| | (21.62%) | (36.49%) | (58.11%) |
| | 14.53 | 28.47 | |
| 2 | 9 | 22 | 31 |
| | (29.03%) | (70.97%) | (100.00%) |
| | (36%) | (44.9%) | (41.89%) |
| | (12.16%) | (29.73%) | (41.89%) |
| | 10.47 | 20.53 | |
| Total | 25 | 49 | 74 |
| | (33.78%) | (66.22%) | (100.00%) |
| | (100.00%) | (100.00%) | (100.00%) |
| | (33.78%) | (66.22%) | (100.00%) |

| Statistic | DF | Value | P-value |
|---|---|---|---|
| Chi-square | 1 | 0.5384166 | 0.4631 |

**Summary**

Chapter 4 included a description of the population and sample, followed by a presentation of descriptive statistics organized around the survey questions presented to the participants. Then the inferential statistics were presented that were used to analyze the research questions and hypotheses of the study. Discussion of these results; along with a summary of the study and further recommendations, are included in Chapter 5.

# CHAPTER 5

## Summary, Conclusions, and Recommendations

This chapter begins with a brief summary of the study, followed by a discussion of findings directly related to the research questions, and drawn from the data related to union members' attitudes towards continued lifelong learning; union-led lifelong learning; and online learning. Conclusions; recommendations for further study and practice; and implications for human resource development conclude the study

The stated problem of this study was to identify the attitudes of two Northwest Ohio UAW locals regarding participation in lifelong learning, utilization of online learning strategies and learning within a union environment.

This was broken down into an analysis of responses to a survey administered to a sample of UAW members in a Midwest state. The purpose of the survey questions was to identify aspects of union members' attitudes towards lifelong learning and how that attitude might be affected in the context of the union environment and online delivery. The research questions were directed towards answering the questions of whether age or education level affects these attitudes.

### Study Summary

In a union workplace, unions are the primary representative of workers' interests and have a vested interest in encouraging their members to acquire the skills, knowledge and

qualifications that enhance their employability (Hensley, 1993, & Nesbitt, 2002). Historically, the labor movement has initiated worker education in a variety of forms. Noted educator Horace Kallen was one of the original organizers of the Worker's Education Bureau, and argued that all the worker education initiatives of the 1920s neglected to educate workers about understanding industry and extending democracy to the workplace. He was one of the first voices supporting increased worker education as a means to becoming a full-fledged partner with management; thereby forming a more productive, democratic workplace (Taylor, 1998).

In the 1920s and 1930s, the International Ladies Garment Workers' Union (ILGWU) became the most prominent of the unions developing their own internal educational capacity to promote a worker-centered liberal education, among other education programs (Taylor, 2001). Worker's education reached its peak in 1926, when there was an enrollment of 40, 000 worker-students in thirty states throughout the US (Taylor, 1998).

As unions became larger and the need for recruiting and organizing became more of a priority, education efforts became more focused on what are now considered traditional union education topics, e.g., grievance procedures, representative training, collective bargaining, etc., and worker education as was formerly practiced became a thing of the past. With declining union density and a changing workplace, it may now be time for unions to reevaluate their role and consider a potential role in promoting lifelong learning for their members.

However, disappointing worker response to current workforce development efforts in the US has been pointed out as one of its failings (The Albert Shanker Institute, 2004). In the United Kingdom, there is some evidence that age and education level of workers does affect the level of voluntary participation in lifelong learning initiatives (Payne, 2001, Plant and Turner, 2005). If it could be determined that age and education level do indeed affect the level of interest or

participation in the workplace, then being able to identify these demographics and target them specifically according to their needs would help guide efforts to increase participation. In order to address various aspects or components of the attitudes demonstrated by respondents, the results of this study were examined in terms of the research questions, which investigated possible effects of age and education level as it relates to lifelong learning, union-led lifelong learning, and online learning; and then in terms of members' opinions on union educational priorities, specific educational interests, timeline for participation, and factors influencing participation.

## Conclusions

Noted psychologist Raymond Cattell defined attitude as three separate components: intensity of interest, interest in an action, and interest in action toward an object (Rymarchk, n.d.). Responses to the survey questions revealed different aspects of these components towards the three different learning contexts addressed in the study. The results of the survey were discussed first in terms of the research questions and then in terms of responses to attitude-related questions in the survey and what they revealed about union members' attitudes towards lifelong learning, union-led learning, and online learning.

### Research question discussion

1. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities?

The results did not show a difference for either age or education level regarding workers' willingness to participate. However, there was strong support for continuing education over the entire range of age and education level, as indicated by the survey. There was not any demonstrated statistical significance for any effect or association of either age or education level

with interest in lifelong learning, but 67.6% indicated they would be interested in taking part in learning, training or development in the future, while 25.7% were undecided, and only 6.8% indicated no interest. These results indicated that throughout the range of age and education level, the majority of respondents expressed an interest in participating in learning.

2. Does age and education level affect attitudes of union workers about participating in union-led lifelong learning opportunities?

The results did not show a difference for either age or education level regarding workers' attitude towards union-led learning, though with a p value at .053, a general trend was indicated that higher education level may be associated with positive agreement to the question. This question was addressed with question #10 on the survey which asked respondents to indicate their level of agreement with a statement regarding the union's role in educational opportunities, utilizing a 5-point Likert scale. More specifically, the question asked if the respondent would be more likely to participate in educational opportunities if their union delivered, organized, or recommended it. Fifty percent of respondents strongly agreed, 33.8% agreed, and only 6.8% either disagreed or strongly disagreed. This indicated that a majority of respondents would be positively influenced to participate in learning if their union had some involvement or leadership in the initiative.

Overall, the response that union involvement would positively influence union members' intent to participate was supported by one of the responses included in question 14. This question asked for a yes/no response to five factors that would positively influence respondents' intent to participate in learning, training, or development. One of those factors was that learning would be organized through their union, and 50 participants indicated a positive (yes) response as opposed to 18 who indicated a negative (no) response. Therefore, for this particular sample, union

involvement in learning, training, and development was viewed as a positive factor in influencing their decision to participate in learning.

3. Does age and education level affect attitudes of union workers about participating in lifelong learning opportunities delivered online?

The results did not show a difference for either age or education level regarding workers' attitudes towards online learning. This question was addressed in question 11 where participants were asked to indicate their level of agreement with a statement regarding the availability of online educational opportunities, utilizing a 5-point Likert scale. More specifically, the question asked if the respondent would be more likely to participate in educational opportunities if they were available online. Overall responses to the question were positive towards education delivered online. Out of 74 responses, 24 (32.4%) strongly agreed and 25 (33.8%) agreed that they would be more likely to participate in continuing educational opportunities if they were delivered online. In comparison, 17 (23%) were undecided and 8 (10.8%) either disagreed or strongly disagreed.

This response was supported by one of the responses included in question 14. This question asked for a yes/no response to five factors that would positively influence respondents' intent to participate in learning, training, or development. One of those factors was that learning would be offered online, and 54 participants indicated a positive (yes) response as opposed to 17 who indicated a negative (no) response. In addition, question 13 asked respondents to indicate which factor out of 14 options would be the most important in positively influencing their decision to participate in learning, and the response of flexible, learning, e.g. distance learning, e-learning came in a close second to the need for funding. Therefore, for this particular sample,

and through responses to three different questions, education delivered online was viewed as a positive factor in influencing respondents' decision to participate in learning opportunities.

Even though online delivery was viewed in a positive light for this particular sample, there was a question of whether respondents fit the profile of successful online learners; especially across the spectrum of age and education level. The final 10 questions of the survey addressed the issue of how they perceived their personal characteristics in this area. They were simply asked to give a response to the ten questions, without any indication of the logic behind them. The ten questions were adapted from a list of ten personal characteristics exhibited by successful online learners. The responses were totaled so that the higher the number out of ten responses, the higher the rating of their perceptions in the category of successful online learners. Out of 74 responses, 17 responded with all 10 positive answers, 20 with 9, and 17 with 8; a total of 54 who lacked at the most two of the ten characteristics. Although this self-reported information was based purely on their own perceptions of themselves, this does indicate that respondents perceive that they have personal characteristics compatible with the profile of successful online learners.

### General attitude response analysis

There were a number of questions that were intended to broaden the inquiry of attitude-related items in relation to learning opportunities. The results of these questions were discussed in the chronological order in which they appeared in the survey.

## Union educational priority

Questions 5 and 6 asked respondents about their opinion on what their union's educational priorities should be; question 5 asking for the union's #1 priority and question 6 asking for the union's #2 priority. Out of 74 responses to question 5, 42% chose traditional union

education topics, 35% chose education focusing on developing transferable skills, 14.9% chose job specific training, and 8.1% chose education that focuses on personal interests and enjoyment. Keeping in mind that this is a sample of members that is likely more actively involved in union activities than the normal rank and file membership, the response to this question indicates that even though 42% favored traditional union topics of education, 58% chose other options.

When looked at by age; where results were examined in two groups divided at the mean age of 45.04, the younger group indicated a stronger response on education that focuses on transferable skills, while those in the older group, chose traditional union education as their choice for the union's #1 priority for education involvement. This could indicate a trend of opinion among the younger union members that unions could lead, promote, or somehow become involved in educational initiatives that were more skill or work-oriented rather than the traditional union education topics. It is purely speculation on what might be at the root of such a trend, and could have included a sense of insecurity or dissatisfaction in their jobs or perhaps reflected a weaker support for traditional union priorities. Regardless, the study showed that there was support among all ages for their union to consider alternative areas for their educational priorities.

### Union member educational interests

Sixty-seven percent of the respondents responded positively to question 7, which asked whether they were interested in taking part in any types of learning, training, or development in the future. Those that responded positively or unsure to the question were asked to indicate all kinds of learning, training, or development they might be interested in pursuing. Of the 69 who responded; 40, or 58% indicated that they were interested in IT/computing skills; 31, or 44.9% indicated they were interested in learning for professional development; 29 or 42.0% were

interested in learning to achieve a formal qualification/accreditation; 29 or 42.0% were interested in learning for personal interest or enjoyment; 18 or 26.1% were interested in learning related to their current job; and then 17 or 24.6% were interested in learning to be a union representative, followed by 13 or 18.8% who were interested in learning basic skills like reading, writing, and math.

This question encompassed a wide range of learning interests and the response that IT/computing skills was selected most frequently corresponds with the Scottish study on the demand for union-led learning (Findlay, Findlay, and Warhurst, 2007). It is interesting to note that of the 31 respondents who indicated that the union's #1 educational priority should be traditional union topics, only 8 indicated an interest in learning to be a union representative; the only traditional union educational topic option listed. However, 18 indicated an interest in IT/computing skills 13 indicated an interest in personal interests, 10 in learning for professional development, 8 learning to achieve a formal qualification/accreditation. 6 in basic skills and 6 in learning related to current job.

Also, 26 out of the 31 who believe the union should have traditional education as their #1 priority indicated they agreed or strongly agreed that they would be more likely to participate in lifelong learning if their union delivered, organized, or recommended continuing education opportunities, with 3 undecided, 2 who strongly disagreed, and 1 who disagreed. This suggests that even though there was a large number of supporters for traditional union education as the union's #1 priority, many of them who indicated they would be more likely to participate in learning opportunities if their union was involved in some way; the majority of them were personally interested in areas of education that related to job skills and personal development.

## Union member education timeline

Survey question 9 asked respondents who did not completely rule out participation in learning to indicate a time period in which they would consider taking part in learning, training, or development. Although 13% were currently enrolled in some type of learning, 60.9% indicated that they would consider participating within the next year, and none indicated any interest 4 or more years in the future. This was not a specific proposed timetable, but did indicate a willingness among respondents to participate in the near future, with very few expressing any interest in beginning participation in the distant future.

## Factors to influence intent to participate

Survey questions 12 and 13 presented a list of 14 factors that could influence respondents to asked respondents to indicate what factors would positively influence their intent to participate in learning. Question 12 asked respondents to indicate all factors that would be a positive influence, and question 13 asked respondents which single factor would be the most important. The top four answers for question for both questions were funding; flexible delivery, e.g., distance or e-learning; more information on what learning is available, and finding something that I'm interested in, with funding and flexible delivery as the top two responses respectively to both questions.

The concern for adequate funding for education was not directly related to the focus of this study, but not unexpected as the top ranked response. However, that fact that in both questions, flexible delivery was the second-ranked factor that could influence respondents to take part in learning, training, or development was relevant to the focus of the study. This strongly supported the positive view respondents indicated for the role of online learning. It also indicated

that although respondents were interested in learning, they would be more likely to get involved if they had more information and it involved something they were interested in pursuing.

**Recommendations for Practice**

Unions have had a long tradition in representing workers in education-related activities, with the goal of helping workers reach their full potential. Union density in the United States has declined from 29.3% in 1964 to 12.4% in 2009 (Hirsch, Macpherson, & Vroman, 2010), indicating a need for unions to reevaluate their mission and goals in terms of their members' needs. As there has been support for the idea that workers will be more loyal to an organization that provides them with educational opportunities that increase their level of employability (Scully-Russ, 2006), an opportunity exists for unions to become more involved in the educational needs of its members.

European unions have been more active than US unions in promoting lifelong learning among their members. The Trade Union Congress in Great Britain utilized a 1998 report to outline its view of a learning society with shared commitment between unions, government, employers and employees. It suggested a role for unions to promote and deliver quality lifelong learning opportunities to its members (TUC, 1998a, in Forrester, 2001); a role that this study indicated would be supported by its respondents.

In terms of the research questions, there was a strong positive response to interest in lifelong learning, and union involvement and online delivery were indicated as positive factors influencing respondents to participate. These conclusions corresponded to results of the Scottish survey that served as the basis for a report on union-led learning. That report found that provision or organization of learning opportunities by a union was a major factor in making an individual more likely to participate in learning. In addition, it provided some evidence that

along with encouragement and support within the workplace, unions may be able to create their own demand for such learning opportunities (Findlay, Findlay, and Warhurst, 2007).

Although the roles of unions in the US are different than in Britain, there may be some opportunity for US unions to be proactive in promoting lifelong learning among its members, and in doing so, foster a slightly different role and persona. It could broaden the union's appeal and highlight it as a positive force regarding worker's adaptability in a changing workplace. As an active advocate for members' learning and subsequent advancement, unions could fill a role that would lead to higher workers' skill levels and professional development. This study provides support for that concept, and additionally, provides support for utilizing online learning as the method of delivery for such learning initiatives. More specifically, information technology and computer skills were listed as the number one occurring educational interest in both this study and the Scottish study, so that may be an area to begin exploring. This is also an area of study where online delivery could be implemented with minimal difficulty.

The concept of Open Source Unionism (OSU) was introduced in Chapter 2, and promoted the idea that by utilizing information technology, unions could offer services to workers who did not have a union to represent them in contractual negotiations. Offering online learning to members would fit into this category and possibly further the appeal of the OSU concept. One concrete step to investigating the potential among non-union 9workers would be to conduct a study similar to this one for different samples of non-union workers in diverse areas of the workforce. The results could indicate whether this is an area that would appeal to a broader group, and the feasibility of offering learning or career counseling services electronically along with other services OSU might include.

## Recommendations for Further Study

There were a number of variables based on the responses of this study that indicated interest among union members for different types of learning experiences. The review of literature also revealed that it may be in the best interest of both unions and its members for unions to alter its role to remain a viable force in the global economy. These are factors that indicated a potential need for further research into the role unions might pursue as related to members' educational needs. One alternative to a quantitative study could be a qualitative study that would do a more in-depth investigation to identify themes. Themes could include trust in unions and/or management, personal goals, motivators for advancement, etc. This could benefit workers, unions, and employers, and provide some common ground to begin more substantive discussion on how to provide needed educational opportunities. This would also eliminate the necessity of securing a large sample and facilitate richer description and more in depth analysis of factors that could lead to increased understanding of relevant issues involved in implementing online learning among union members.

### Sample and population

Finding a population that can be represented by a particular sample was challenging at best. A limitation of using strictly a quantitative approach to gather the information and variables can be a lack of depth, particularly in a population as diverse in terms of occupation, age, and union loyalty as is present in union environments. However, with union cooperation, more studies relating to these topics of lifelong learning, union involvement, and online learning within the union could reach a larger sample and be more generalizable in its results. The sample for this study included a wide range of ages, and seniority, but was fairly homogeneous in terms of gender and education level. One of the unexpected results of the study was the large number

of respondents who had college education. Also, there was a small percentage of women who took part of the survey and perhaps a larger sample size would have revealed more diversity in both gender and education level within the population.

**Data collection methods**

One of the issues with collecting data from union members was the difficulty in getting in contact with members to distribute the survey. Union officials were very supportive of the goals of this study and offered every encouragement to collect data that could reveal attitudes about education opportunities. One representative who was very helpful said that the union was taking shots in the dark when promoting or offering different training events or educational opportunities because they didn't have any data to support any specific direction in their offerings. However, there was little they could do to reach the rank and file members because they didn't have an email list of their members, and the average member does not necessarily attend regular meetings where paper surveys could be distributed. In addition, there was not a feasible way to get into the members' workplace to distribute the surveys nor would management look favorably on using company time to do so.

In the case of Local B, the majority of data collected was with paper surveys in which a high percentage of respondents were made up of union officials. In addition, those web surveys that returned were on the local's website, which would only be found by going to the site and noticing the survey link or reading the information in the union newsletter and making a special effort to go to the website, finding the link and responding to the survey. This would likely involve a higher percentage of members responding who are more closely tied to the union than the average rank and file member may be.

In the case of Local A, the local president put the web survey link on the local's website and then a volunteer member put up notices in the break areas, the bulletin boards, and the union office itself promoting the link on the local union's web site. Here again, when this local's officials were contacted by email, there was a response rate of 60%, but when the only way to elicit responses was to advertise the availability of the survey link, the response rate was sharply lower. It was the feeling of the researcher that obtaining a complete list of email addresses would greatly increase the response rate and thus result in a more representative sample.

For the union leadership, results of the study suggested opportunities to further investigate whether there is indeed a role the union could fill in leading the educational efforts necessitated by accelerating technology and globalization. To gather better and more conclusive information, the union occupies a unique position; one that could gain advantages for both union and management in terms of developing their members to their highest potential. Unions, and in particular, the UAW has suffered from dropping membership and a certain degree of image problems. Many workers do not make the wages UAW workers do and some think UAW members are overpaid and contributed to the automakers' downfall. However, the person expected to be elected president in June has signaled that the union will be more transparent and open in the future (Snavely, 2010). Promoting education for its members could be one strategy the UAW might employ to everyone's benefit.

**Implications for Human Resource Development**

"Human resource development (HRD) can be defined as a set of systematic and planned activities designed by an organization to provide its members with the necessary skills to meet current and future job demands." (DeSimone & Harris, 1994, p. 2,). Accordingly, career development (CD), "…an ongoing process by which individuals progress through a series of

stages, each of which is characterized by a relatively unique set of issues, themes, and tasks (Greenhaus, 1987, p. 9, as cited by DeSimone & Harris, 1994, p. 10) has been a primary focus for HRD managers over a long period of time (DeSimone & Harris, 1994, Hite & McDonald, 2008, Herr, 1996, Herr, 2001, McDonald & Hite, 2005, and Zunker, 1998).

One of the issues of career development has always been the tension between development and training for the purposes of meeting the organization's needs versus the need for the individual to improve their level of knowledge, skills, and abilities regardless of who or what, in the case of the organization, benefits. This tension has been heightened as globalization, downsizing, outsourcing, and automation technology has cut into the labor base and contributed to higher rates of unemployment. Employers can no longer offer workers a long, uninterrupted career within their organization, yet need employees with adequate skills and knowledge to support their strategic goals. However, employees also need to keep raising their skill and knowledge levels to keep their employability profile as high as possible, especially in the event they need to look for another job (Noe, 2002).

In order for career development to remain an important part of the HRD function, employees need to take more responsibility in planning their careers, while employers need to make training and educational opportunities available to employees and support their efforts to expand their knowledge/skill base for whatever period of time they may be employed by the organization. One of the main differences is that both employers and employees recognize that their relationship is temporary in nature, unlike the unspoken contract in the past where it was likely employees would spend their entire career at the same organization (MacDonald & Hite, 2005, Hite and MacDonald, 2008).

In a unionized environment, workers have had their local union representatives available to support them when work rule questions needed to be answered and when there were questions of punishment for not following procedures. This led to confrontational approaches that sometime hampered a harmonious work environment and at times there was little trust between management and workers. However, in recent years, contracts have been concessionary in nature, with the hope that this would lead to increased job security. This included agreements for a wage freeze and "no-strike" provision before 2015 between GM and Chrysler and the UAW (Snavely, 2010, and Greenhouse, 2010). In addition, the terms of the bailout of GM and Chrysler included exchanging company stock in return for health fund payments agreed to in former contracts. "With the union's health fund set to own 17.5 percent of G.M.'s shares and 55 percent of Chrysler's, the U.A.W. will both represent workers and be an owner, a novel dual role" (Greenhouse, 2010, para. 4). This may, however also be an opportunity for unions and management to devise career development opportunities and strategies that would be mutually beneficial.

Speculation that management and unions may have entered an era of cooperation for their mutual benefit may be premature at this point. However, this study has shown that a sample of the UAW population is interested in future learning, training, and development; union-led learning, and online delivery of learning. If HRD departments find career development opportunities to be beneficial for supporting the organization's strategic plan, and it requires educational and training initiatives, the results of this study indicated that union members may be interested in taking advantage of them.

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APPENDIX A

**Cover Letter**

Indiana State University

March 9, 2009

**Union members' attitudes toward online learning**

You are being invited to participate in a research study about intended to identify adults' opinions concerning continuing education, online learning, and the role of unions in leading education efforts. The term "continuing education" includes credit and non-credit classes, workshops, seminars, discussion groups, conferences, training programs, and any other organized learning activity for adults who have completed or interrupted their formal schooling. This study is being conducted by UAW local 533 member David Heiser and Dr. Larry Hatch, who are affiliated with the College of Technology at Indiana State University and Bowling Green State University for this research.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide will be used to analyze what types of educational opportunities you feel positively about and will be shared with your union when the study is finalized.

The questionnaire will take about ten minutes to complete. The information collected may not benefit you directly, but the information learned in this study should provide general benefits in increased awareness of education-related issues in some workplaces. Some of you may have taken a similar survey on March 6, 2009, but due to an error in collection, the data was lost, and you are encouraged to participate once again so that we can tabulate your opinions.

This survey is anonymous. Do not write your name on the survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study, and it will in no way affect your standing in your union or your place of work. Individuals from the Institutional Review Board at Indiana State University may inspect these records. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing and handing in this questionnaire, you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

If you have any questions about the study, please contact David P. Heiser, by phone at 419.619.1210, email at dheiser@bgsu.edu, or Dr. Larry Hatch, 131 College Park, Bowling Green University, Bowling Green, Ohio, 43403, 419.372.7574, and lhatch@bgsu.edu.

If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu. Thank you for your help, it is enormously appreciated.

David P. Heiser

APPENDIX B:

**Hard Copy Survey**

**DIRECTIONS:**

Please take a few minutes to complete this questionnaire. Your cooperation is most important to the success of this study. Your responses will be kept in the strictest confidence. Do not write your name anywhere on the questionnaire.

Please read the following list of statements. There are no right or wrong opinions. For each item circle the response that best describes your feeling about the statement:

1. Gender (check the box that applies) 1. ☐ Female 2. ☐ Male

2. Age (write in number of years) ☐

3. Seniority at your present workplace (write in number of years). ☐

4. Please circle the number below that indicates the last year of schooling that you completed. For example, if the last grade you completed was the 10th grade, circle "10".

☐8th grade or below ☐9 ☐10 ☐11 ☐ high school graduate

☐13 ☐14 ☐15 ☐16 ☐17 or more
College Graduate School

5. What should be your union's #1 educational priority in terms of benefiting workers? (please check the box you believe should be the first-ranked educational focus of the union)

- ☐ a. Traditional union education topics, e.g., health and safety, grievance procedures, training to be a representative, etc.
- ☐ b. Education that focuses on developing transferable skills to increase worker mobility
- ☐ c. Job specific training to enhance workplace skills at your present workplace
- ☐ d. Education that focuses on personal interests and enjoyment

6. What should be your union's #2 educational priority in terms of benefiting workers? (please check the box you believe should be the second-ranked educational focus of the union)

- ☐ a. Traditional union education topics, e.g., health and safety, grievance procedures, training to be a representative, etc.
- ☐ b. Education that focuses on developing transferable skills to increase worker mobility
- ☐ c. Job specific training to enhance workplace skills at your present workplace
- ☐ d. Education that focuses on personal interests and enjoyment

7. Are you interested in taking part in any types of learning, training or development at any point in the future?

a. ☐ Yes
b. ☐ Possibly/Maybe
c. ☐ No (if no, go to question #10)

8. What kinds of learning, training or development are you interested in? (Check all that apply)

a. ☐ For personal interest or enjoyment (e.g. new languages)
b. ☐ Basic skills – reading, writing, math
c. ☐ IT/computing skills
d. ☐ Learning related to my current job
e. ☐ Learning for my professional development
f. ☐ Learning to achieve a formal qualification/accreditation
g. ☐ Learning to be a union representative
h. ☐ Other (please specify) _____
i. ☐ Don't know/can't say

9. When would you consider taking part in learning, training or development?

a. ☐ I am currently undertaking learning
b. ☐ Next year
c. ☐ Within 2-3 years
d. ☐ Within 4-5 years
e. ☐ 5 plus years
f. ☐ Don't know/can't say

10. If my union delivered, organized, or recommended continuing education opportunities, I would be more likely to participate in them.

☐ Strongly Disagree ☐ Disagree ☐ Undecided ☐ Agree ☐ Strongly Agree

11. If continuing education opportunities were delivered over the Internet (online), I would be more likely to participate in them.

☐ Strongly Disagree ☐ Disagree ☐ Undecided ☐ Agree ☐ Strongly Agree

12. What would make you more likely to take part in learning, training or development? (Check all that apply)

a. ☐ Nothing
b. ☐ More self-confidence

c. ☐ Finding something that I'm interested in
d. ☐ More information on what learning is available
e. ☐ More encouragement to do so
f. ☐ A lower workload/fewer working hours
g. ☐ Time off work
h. ☐ Learning available at work
i. ☐ Flexible delivery – eg. Distance learning, e-learning, online learning
j. ☐ Organized for you through a union
k. ☐ Funding
l. ☐ Childcare facilities/more support with my dependents
m. ☐ Family support
n. ☐ Taking part alongside friends or colleagues
o. ☐ Other (please specify) _____
p. ☐ Don't know/can't say

13. Which of the items listed in question 12 (above) is the most important (check one)?
a. ☐ Nothing
b. ☐ More self-confidence
c. ☐ Finding something that I'm interested in
d. ☐ More information on what learning is available
e. ☐ More encouragement to do so
f. ☐ A lower workload/fewer working hours
g. ☐ Time off work
h. ☐ Learning available at work
i. ☐ Flexible delivery – eg. Distance learning, e-learning, online learning
j. ☐ Organized for you through a union
k. ☐ Funding
l. ☐ Childcare facilities/more support with my dependents
m. ☐ Family support
n. ☐ Taking part alongside friends or colleagues
o. ☐ Other (please specify) _____
p. ☐ Don't know/can't say

14. Would you be more likely to get involved in learning, training or development if
a. you could get advice from someone at your workplace? Yes ☐ No ☐
b. you could get encouragement from someone at your workplace? Yes ☐ No ☐
c. it was organized for you through your union? Yes ☐ No ☐
d. it was based at your workplace? Yes ☐ No ☐
e. it was offered online (over the Internet)? Yes ☐ No ☐

15. Do you have (or are you willing to obtain) access to a computer and internet connection at home? ☐ Yes ☐ No

16. Do you feel that high quality learning can take place without having face to face interaction? ☐ Yes ☐ No

17. Can you dedicate 4 to 6 hours a week (anytime during the day or night) to participate in the learning process? ☐ Yes ☐ No

18. Are you a self-motivated and self-disciplined person? ☐ Yes ☐ No

19. When it comes to schoolwork and/or deadlines, are you a procrastinator? ☐ Yes ☐ No

20. Are you comfortable communicating by writing? ☐ Yes ☐ No

21. Are class discussions helpful to you? ☐ Yes ☐ No

22. Do you think increased learning will take place through sharing your work, life, and educational experiences as part of the learning process? ☐ Yes ☐ No

23. Are you comfortable with email, computers, and new technologies? ☐ Yes ☐ No

24. Does your lifestyle (family, work, or personal schedule) make it difficult for you to attend courses during the day? ☐ Yes ☐ No

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

APPENDIX C

**Non-compliance IRB #9098 Report**

David,
The investigation of the non-compliance you reported is complete. The committee found that the non-compliance was not anticipated, non-serious, and non-continuing. However, it was mentioned when you reported the non-compliance that you needed to submit your application as soon as possible. We are still awaiting receipt of your IRB application. Please provide an update on the status of your application and when we can expect to receive it in the IRB office.

Thank you,
Vicki Hammen
Vice Chair, IRB

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