

# Workplace Education Works:

The Results of an Outcome Evaluation  
Study of the Nova Scotia Workplace  
Education Initiative

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## Glossary

**Activities** are the tasks performed by the partners of the Workplace Education Initiative to fulfill its objectives.

**Document Literacy** refers to “the knowledge and skills required to locate and use information contained in various formats, including job applications, pay roll forms, transportation schedules, maps, tables, and graphics”(OECD & Statistics Canada, p. 10, 1996).

**Essential Skills** are the transferable skills that people use everyday on the job, in the community and at home. They include reading, writing, math, problem solving, critical thinking, decision making, oral communication, planning, organizing and basic computer skills.

**Goals** are specific statements that describe the desired outcomes of employers and program participants. They are the motivators for taking part in workplace education.

**Inputs** are the resources such as grant money, staff time, facilities and equipment that each of the partners supplies to the Initiative.

**Lifelong Learning** is a attitude about learning. Those who have this attitude believe that learning is a lifelong activity, that learning never stops. This attitude is fuelled by the constant condition change that people face throughout their lives at work, home and in the community.

**Literacy** is “the ability to understand and employ printed information in daily activities, at home, at work and in the community, to achieve one’s goals and to develop one’s knowledge and potential” (OECD & Statistics Canada, p. 14, 1995).

**Objectives** are specific statements that describe the desired outcomes of the Workplace Education Initiative.

An **Organizational Needs Assessment** identifies the present situation in a workplace by examining an organization’s culture, climate and needs. They indicate to project teams if there is a need for a workplace education program and help determine the nature of those needs.

**Outcomes** are the changes that occur in participants resulting from the program activities. These changes can relate to behaviour, skills, knowledge, attitudes, values or condition. There are three different types of outcomes. *Initial outcomes* are the changes that are closely related to the outputs. In the case of Workplace Education, they are enhancements essential skills and confidence. *Intermediate outcomes* are the changes in behaviour and attitudes that result from new skills, knowledge or attitudes. In this case, they are signified by alterations in the way

**Outcome Indicators** are measurable or observable items of information that provide evidence of a change in skill, knowledge, attitude, behaviour, values or condition. For example, a change in writing skills is demonstrated by memos that are more clear and easier to understand.

**Outcome Evaluations** focus on documenting if a program is achieving the desired effects on the program participants. For workplace education, these effects include enhancing the essential skills of workers and encouraging an interest in lifelong learning.

**Outputs** are the products of Initiative's activities such as the number of programs developed or participants taught.

A **Project Team** is a group of the primary partners involved with the development, implementation and evaluation of workplace education programming. Generally, this team is made up of managers, union representatives, supervisors, workers, the instructor, and a field officer from the Department of Education.

**Prose Literacy** refers to "the knowledge and skills needed to understand and use information from texts" (HRDC & Statistics Canada, p. 10, 1996) such as memos, letters, newsletters, reports and manuals.

**End-of-Program Evaluations** are used to assess the quality and overall effectiveness of workplace education programs at each site.

**Quantitative Literacy** refers to "the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers, embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement" (HRDC & Statistics Canada, p. 10, 1996).

**Workplace Education** refers to various types of learning programs that help workers improve their essential skills by using workplace issues and materials.

**Workplace Education Initiative** is a Nova Scotian partnership between business, labour, and government which provides learning programs for workers who need to upgrade their essential skills for work and community living.

## Executive Summary

Workplace education works. This is something that the practitioners, managers, supervisors, labour representatives and participants who have been involved with workplace education over the past ten years already know in general terms. Despite this knowledge or maybe because of it, there has been little research conducted about the impacts of workplace education in Canada. ABC Canada and the Conference Board of Canada have documented the impacts of workplace education in studies which were released in 1997. The results of both supported what many in the field of workplace education already know. This study is an attempt to build on their results by providing some insights into why and how workplace education has an impact. This goal is accomplished by evaluating the degree to which Nova Scotia's Workplace Education Initiative has met its objectives.

The Initiative was set-up to create accessible learning opportunities for the workers of Nova Scotia by helping workplaces design and implement education programs for their employees. The purpose of these programs is to help workers to improve the essential skills that they use at work, at home and in the community everyday. The theory behind providing essential skills educational opportunities in workplaces is that it would have an economic and social impact while encouraging the establishment of a lifelong learning culture.

Feedback was gathered from a number of people, who have been involved with the Workplace Education Initiative in order to determine if the Initiative's objectives have been met. This report is based on the results of a series of end-of-program evaluations gathered from the managers and participants of 24 workplaces across the province as well as in-depth interviews with the managers, supervisors, union representatives, instructors and participants at five of these sites. 282 participants, 24 managers, eight supervisors, five union representatives and five instructors provided insights into the impacts of workplace education through questionnaires and interviews.

Based on the comments, observations and experiences of these people it can safely be concluded that the workplace education delivery model works and that the Workplace Education Initiative is increasing the accessibility of essential skills education to Nova Scotia's workplaces, that workers are increasing their essential skills and that these increases are causing a variety of positive outcomes for Nova Scotians and our workplaces. These outcomes indicate that the Initiative is contributing to the economic and social development of the province as well as to the creation of a life-long learning culture.

### Study Highlights:

- ✓ 96% of the workplaces successfully indicated that workplace education met their goals.

*“I see improvements in the charting notes. Doctors are receiving more concise and clear notes from staff.” -Manager, Breton Bay*

- ✓ 87% of the participants completed workplace education courses at their work sites and 73% of those surveyed would have not enrolled in essential skills or academic upgrading programs if they were not offered throughout their workplace.  
*“If this program had not been set up for people who work in a factory working shift work, there is no way that I would have tried to get my GED.” -Participant, Crossley Carpet Mills Ltd.*
- ✓ 75% of the participants who took part in the General Education Development (GED) preparation courses at CKF Inc., Crossley Carpet Mills Ltd. and Glen Haven Manor received their GED certificates.

### **Workplace Partners**

- ✓ 92% indicated that they observed improvements in the participants’ essential skills at work.  
*“The program impacted communications, readiness for training and improved the concept of working as a team member.” -Manager, Valley View Villa*
- ✓ 92% noticed that workplace communications improved because of workplace education.  
*“I see an improvement in their ability to communicate with the direct supervisors because of better verbal and organizational skills.” -Manager, Citadel Inn*
- ✓ 67% observed improvements in the confidence levels of participants.  
*“People have more confidence to deal with the new equipment, technology and work practices.” -Union Representative, Crossley Carpet Mills Ltd.*
- ✓ 66% stated that workplace education improved productivity.  
*“They take more initiative, are more organized and improved problem solving. They set up a committee to deal with issues around lift technology that is used to assess patients.” -Supervisor, Shoreham Village*
- ✓ 67% believed that worker-management-labour relations improved.  
*“Workplace education improved relations between management, workers and the union.” -Union Representative, CKF Inc.*

### **Participants**

- ✓ 89% reported that their general essential skills improved.

- ✓ 82% indicated that their workplace specific essential skills improved.  
*“It is easier for one shift to know what the previous shift had encountered [because writing improved in the logs].”* -Participant, Valley View Villa
- ✓ 91% experienced a growth in self-confidence which was facilitated by workplace education.  
*“I am more confident at meeting guests and giving the right answers to questions. This makes the guests more comfortable and friendly.”* -Participant, Citadel Inn
- ✓ 83% stated that they improved their ability to communicate in the workplace.  
*“I leave better notes for the co-workers who are coming on the next shift.”*  
-Participant, Crossley Carpet Mills Ltd.
- ✓ 74% improved their overall job performance.  
*“I have to make changes to the printing machine when they are necessary. To do this, I have to follow the diagrams and change the colour, font etc. I understand the diagrams better.”* -Participant, CKF Inc.
- ✓ 90% are better equipped to participate in further training and 86% of those interviewed indicated the workplace education program encouraged them to seek out further educational and training opportunities.  
*“Participating in this course has helped me ease my fear of working with numbers. I am presently taking an accounting course that I probably would not have taken without the math refresher.”* -Participant, Halifax Shipyards
- ✓ 63% feel more loyalty toward their employers and unions because of the investment in workplace education.  
*“It made me appreciate my employers more for taking the time and money to offer this program.”* -Participant, Avon Foods

# Introduction

Essential skills such as reading, writing, math, communication, critical thinking and problem solving are becoming increasingly important in the changing workplaces of the information age. The growth of technology, training, quality assurance programs, multi-tasking and team management strategies are placing new demands on workers from the shop floor to managers. Everyone is being required to use a wider range of essential skills to complete new job tasks and to contribute to the productivity of the workplace. These constant changes are not only increasing the range of skills needed by workers, but they are also elevating the need for adults to learn to adapt to change. Many organizations are implementing workplace education programs to help workers increase their skills and ability to learn. These employers have recognised that the key to competitiveness in the rapidly changing world of work is a highly efficient and versatile workforce. Improving production is no longer just a “function of capital and labour, but also a function of knowledge and ideas” (OECD & HRDC, p. 82, 1997).

Many workplaces are able to start workplace education programs in Canada because of government initiatives that have been designed to partner with businesses and unions to create educational opportunities for a large segment of the population. Approximately 40% of adults in Nova Scotia have not completed high school (LMDS, 1999) and 52% are at a literacy level of two or less (OECD & Statistics Canada, 1995). This means that many Nova Scotians can only read materials that are written simply and clearly laid out. Government has a vested interest in helping these people to improve their skills because of the many benefits reaped by a literate and educated society. By improving the skills of workers, government invests in the economy by building the strength of its businesses to adapt to change, to improve the workplace environment and to increase productivity. Social development is encouraged by creating another means for a significant portion of the population to become more aware and involved in larger social issues as well as able to contribute to the growth of family literacy.

A third partner in most workplace education programs is labour. Unions have a long history of involvement in the education of its members. Their involvement in workplace education is spurred on by a desire to help workers prepare for change and to increase their quality of life. Members who enhance their essential skills have more opportunities to be informed about the issues at work and in the community that impact their daily lives. A more literate and educated membership is a more active membership.

These three groups business, labour and government have partnered in Nova Scotia to form the Workplace Education Initiative which aims to bring essential skills education into the province’s workplaces. Government acts as the initiator and coordinator of this Initiative by promoting workplace education to employers and labour and by helping these partners to design, implement and evaluate programs at work sites around the province. Each partner brings valuable perspectives and tools to the programs. The Department of Education, the primary government partner, provides the adult education expertise through the Workplace Education Field Officers. The employers contribute an understanding of the future trends that will effect their organizations and the unions understand and represent the needs of their members.

All three groups form a project team at each site. They along with the instructor and a few workers and supervisors work together to set-up the programs. The project team promotes the program on-site; helps the field officer conduct an Organizational Needs Assessment to determine the learning needs within the workplace; and then implements, administers, monitors and evaluates each course.

The courses are designed to help participants enhance their essential skills using a curriculum that is built from the documents, manuals, contracts, blueprints, math concepts and issues that they encounter at work. These materials are used in the classroom to build learning activities using information that is relevant to their daily lives. Workers are able to practice their newly improved skills on-the-job. Using workplace issues and materials as the basis to improve skills builds a foundation for the development of transferable skills that can be applied outside in the workplace, at home and in community life. As their skills improve, participants are often encouraged to apply what they have learned to other areas of their lives. This practice works to increase their skill levels and improves retention.

The Workplace Education Initiative has four objectives:

1. To create accessible learning opportunities for workers in Nova Scotia's workplaces.
2. To enhance the essential skills of participants in Nova Scotia's workplaces.
3. To influence the economic and social development of Nova Scotia by providing relevant education that impacts individuals where they work and live.
4. To encourage the establishment of a lifelong learning culture in Nova Scotia and its workplaces.

The success of individual programs have been evaluated using a number of different on-site evaluation methods. As mentioned earlier, the Organizational Needs Assessment focuses on assessing the learning needs of potential participants; project team meetings are used to discuss and monitor the progress of the program; a mid-program evaluation assesses the program delivery; and an end-of-program evaluation is used to summarize the impacts and effectiveness of the program. These tools provide the project teams with valuable information about the implementation and impact of the program. None of this information has ever been compiled to evaluate the overall impact of the Initiative until now. This report contains the results of this research.

The project researchers carried out the study using two research methods: an examination of the end-of-program evaluations and a number of detailed interviews with various program partners. The end-of-program evaluations from 32 courses at 24 different sites were surveyed to gather data about the impact of the Initiative and to create evaluation interview schedules for project team members from five of these sites. The end-of-program evaluation data was used by the project researcher to gather the statistics about the impact of the Initiative, and the interview schedules were used by field officers to gather qualitative information about the reasons behind the Initiative's impact.

The experience gained while conducting this research provided the Department of Education with a number of insights into how to improve the existing end-of-program evaluations so that they could be used to gather data about the overall impact of the Initiative. A number of recommendations about changing these evaluation questionnaires will allow the Department to gather more statistics about all of the outcomes that are influenced by workplace education. The findings in each section of this report are summarized by a number of the recommendations that came about from the learning that occurred during this study.

This report is the culmination of the findings gathered from the end-of-program survey and the interviews. It is divided into six sections that focus on answering the following questions:

1. Why do employers and workers get involved in workplace education?
2. Do the partners and participants achieve the goals they set for workplace education?
3. Are workplace education programs accessible to workers?
4. Do the participants' skills improve as a result of workplace education programs?
5. Do workplace education programs influence economic and social outcomes?
6. Does workplace education contribute to the development of a lifelong learning culture in Nova Scotia?

The results of this study support the findings of the Conference Board of Canada and ABC Canada by indicating that enhancing the essential skills of workers can be linked to improvements in job performance, workplace communications, productivity, health and safety, an organization's ability to train, workers' confidence levels, morale, and worker-management-labour relations. Furthermore, these results support the notion that workplace education has significant impacts on family literacy and the lives of participants outside of work.

## Background

The issues around literacy and essential skills came to the forefront of the national consciousness in 1987 when the Southam Literacy Survey captured headlines by indicating that 38% of Canadian adults had problems reading and writing well enough to function within the literacy demands of everyday life. Many were surprised when a Statistics Canada study, *Literacy Skills Used in Everyday Activities* (1989), made the front page with similar results. The federal government responded to this need by creating the National Literacy Secretariat to facilitate the development of literacy research, resources and train the trainer programs. The provincial governments responded by directing resources to essential skills and literacy education of adults. In Nova Scotia, the Department of Education created regional literacy facilitators to support the existing community literacy initiatives in 1989 and developed the Community Learning Initiative in 1994 to establish networks of community-based literacy programs across the province. The Department also created the Workplace Education Initiative in 1989 to help employed individuals gain access to educational opportunities that focussed on helping workers to improve their skills within the context of the world of work. This Initiative was expanded in 1994 to better meet the needs of workers and businesses.

The work in the fields of literacy education and workplace education over the last ten years as well as the research that has been done through the Organisation for Economic Co-operation and Development (OECD) with the International Adult Literacy Survey (IALS) has contributed greatly to our understanding of the meaning of literacy, essential skills and their connection to the social and economic development of our society. What follows is a brief explanation of these issues for those readers who are not familiar with the findings of recent research studies in literacy and workplace education.

### What is literacy?

The definition of literacy has changed over the last 50 years. Literacy used to be defined as the ability to read and write. A person either possessed or lacked these skills. This definition has evolved with the ever increasing demands of literacy skills at home, at work, and in the community. Now, it is viewed as a skill continuum that includes not only reading and writing, but math too. The literacy question has changed from ‘Can you read?’ to ‘How well do you read, write and use numbers?’ (OECD & HRDC, p. 11, 1997). The OECD defines literacy as “the ability to understand and employ printed information in daily activities, at home, at work and in the community, to achieve one’s goals and to develop one’s knowledge and potential” (OECD & Statistics Canada, p. 14, 1995). This includes being able to understand and use the information contained in a wide variety of materials like memos, manuals, reports, e-mails, specifications, newspapers, books, labels, graphs, forms, maps, budgets, bank statements and loans. The International Adult Literacy Survey (1994) provides the most recent and reliable information about the literacy capabilities of Canadians.

## What are the literacy levels of Canadian adults?

The IALS was a groundbreaking study which determined and compared the literacy skills of citizens from Canada, Germany, the Netherlands, Poland, Sweden, Switzerland, and the United States. The survey designers defined three different types of literacy, developed a level system, and created a bank of literacy tasks for the participants to perform. All this information was used to determine the literacy rates of the participating countries. **Table 1** below defines the different types of literacy, describes the IALS level system, and **Table 2** shows the results for Canada and the Atlantic Provinces.

**Table 1:  
What are the literacy levels of Canadians?**

<b>Prose Scale</b>				
The knowledge and skills needed to understand and use information from text including notes, letters, memos, reports, manuals, books, contracts, journals, and specifications.				
<b>Region</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4/5</b>
<b>Canada</b>	22%	26%	33%	20%
<b>Atlantic Canada</b>	25%	26%	35%	15%
<b>Document Scale</b>				
The knowledge and skills required to locate and use information contained in various formats, including signs, labels, tables, schedules, reference books, forms, graphs, blueprints, and maps.				
<b>Region</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4/5</b>
<b>Canada</b>	23%	24%	30%	22%
<b>Atlantic Canada</b>	28%	26%	32%	14%
<b>Quantitative Scale</b>				
The knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a chequebook, figuring out a tip, completing an order form, determining the amount of interest on a loan from an advertisement, budgeting, accounting and measurement.				
<b>Region</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4/5</b>
<b>Canada</b>	22%	26%	32%	20%
<b>Atlantic Canada</b>	23%	30%	30%	16%

**Table 2:  
What do the literacy levels mean?**

<b>Level 1</b>	People at this level have great difficulty reading. They have few of the basic skills needed to interpret and work with texts.
<b>Level 2</b>	People at this level have limited skills. They can read, but not very well. They can only deal with material that is simple and clearly laid out.
<b>Level 3</b>	People at this level read well, but might have difficulties with more complex texts and tasks.
<b>Level 4/5</b>	People at these levels have very high literacy skills, they have a wide range of literacy skills and can deal easily with complex materials.

### **What are essential skills?**

Essential skills are those transferable skills that people use everyday on-the-job, in the community and at home. They include literacy skills like reading, writing and math but they also pertain to problem solving, critical thinking, decision making, oral communications, planning, organizing, and basic computer skills. These skills enable workers to perform the required tasks of their jobs, provides them with a foundation to learn new skills and knowledge, and enhances their ability to adapt to changes in the workplace. Essential skills are much like muscles, they get stronger with use and weaker without use.

### **Why are essential skills important?**

The essential skill demands that have been placed upon Canadian workers over the last decade is startling in the light of the statistics that IALS presents. A significant number of workers are being challenged to use a wider range of skills at a higher level with the introduction of quality initiatives such as ISO 9000, new technology, team work and more sophisticated work processes. In addition to reading and writing, today's workers need to have excellent oral communication skills and must be able to use documents presented in chart, graph, diagram or electronic formats. Jobs that focussed on one task now require more complex forms of communication, documentation and cooperation. Occupational health and safety issues have led to the growth of required training for employees in such areas as hazardous materials, confined spaces and first aid. In general, there has been a movement in the Canadian workplace towards job-related certification programs. Construction workers that work on roads have be certified in signing. Public works employees have to pass the water treatment and distribution certification exam to work at water treatment plants. Personal care workers must be certified and even hotel room attendants and taxi drivers have to be certified.

## Why is Workplace Education needed?

Many workers are in need of on-the-job education and training in order to manage these changes and meet the new demands. The problem for many workers is that they either do not have access or are not in the position from a skills point of view to benefit from the training. In general, non-management employees receive less training than management employees. According to *The Value of Words* (1998) study, adults with marginal literacy skills received less job-related training and education than those with high level skills. The IALS interprets its results this way: a larger proportion of workers at the higher levels participate in adult education and training than those at the lower literacy levels. This may be attributed to the fact that, in the IALS, a significant proportion of workers with low literacy skills rate their skills highly and do not see a reason for improvement. It may also indicate that employees with lower skills do not have the confidence to participate in a group settings where they must apply their skills.

Given that individuals spend more hours working during their lifetime than doing any other activity, including attending school, the workplace provides a very appropriate venue in which to extend the arm of public education. The IALS reports underscore the fact that literacy skills are not 'fixed' forever. Individuals can lose skills after they leave school through lack of use, or they can gain skills through practice and additional training. Workplace experiences are considered a key to continued literacy and so learning opportunities at work are vitally needed to encourage working Atlantic Canadians to maintain and improve their literacy skills in order to keep their jobs, advance in their jobs or be in a position to apply for the increasing number of future jobs which will require high literacy skills.

# Methodology

This report is an analysis of the data that we collected from 24 managers, 282 program participants, eight supervisors, five union representatives and five instructors from 24 workplaces across Nova Scotia (See [Appendix A](#) for a list workplaces and unions that participated in this study.) The data was collected in two stages. The first stage consisted of an analysis of the manager and participant end-of-program evaluations from 32 courses that were held at 24 sites. The project team and union end-of-program evaluations were reviewed, but there was no relevant information about the impact of workplace education contained within these questionnaires. Those end-of-program evaluations were not designed to collect any impact data from the project team or union representatives. The end-of-program survey was used to compile the statistics about the impact of the programs.

The second stage of the study used the data collected from the end-of-program survey to create detailed outcome measurement interview schedules. Outcomes are the changes in skills, knowledge, attitudes, behaviours, values or conditions that a program is designed to influence. Program outcomes are determined by the mission or objectives of an organization. The project researcher used the objectives of the Workplace Education Initiative to determine which outcomes could be documented to indicate that the Initiative's objectives were being met. The end-of-program survey provided a good deal of information about the realization of the desired outcomes, but more specific tools needed to be developed to provide greater insights into the impacts of workplace education. These tools were used at five sites to gather information from the various partners about the outcomes.

The development of this study has been described below in more detail.

## Phase 1: Review of end-of-program evaluations

This phase consisted of an analysis of the end-of-program evaluations from 24 sites. The project researcher randomly selected 32 courses from 24 sites for analysis. The chosen courses ended between May 1996 and June 1998. They covered a range of topics from academic upgrading to communication skills. The information collected during this survey were compiled into data tables and analysed. This process served two functions. First, it provided statistics about and examples of the impacts of workplace education. The results indicated that workplace education is having an impact on the skills, education levels and productivity of participants. This analysis also provided insights into creating the data collection tools used in the second part of the study.

## Phase 2: Determining the outcomes

Phase two focussed on the development of data collection tools which were designed to determine if the Initiative's objectives were being met by identifying measurable or observable outcome indicators that could be used to gauge success. An outcome indicator is an observable characteristic of an outcome. The first step taken toward determining outcome indicators was to identify the inputs, activities, outputs and outcomes of the Initiative. The combination

of inputs, activities and outputs lead to outcomes. Inputs are the resources that the various partners have contributed to the Initiative like program funding and staff time. Activities are the things done to create the outputs such as promoting workplace education to businesses or conducting Organizational Needs Assessments. Outputs are the direct products of the activities such as the number of classes taught. Outcomes are the changes that were influenced by a program like improving their essential skills or changing reading habits. Each of these factors works with the following to create a domino effect that leads to the creation of desired outcomes. The success of a program can be measured by determining realistic and observable indicators of the achievement of outcomes. Identifying the inputs, activities, outputs and outcomes helped the researchers to set the indicators.

The second step in the process was to connect the outcomes to the Initiative's objectives. The Initiative was designed to create accessible learning opportunities for workers to help them improve their essential skills which influences economic and social impacts by encouraging the establishment of a lifelong learning culture. A number of desired outcomes were organized under the heading of each objective and outcome indicators, the observable or measurable evidence of change, were chosen for each outcome. These indicators built the framework for the data collection tools used in the second part of the study. Sets of interview schedules and questionnaires were drafted, reviewed and revised by the workplace education staff a number of times before they were piloted. They were created to gather information about the achievement of outcomes from management, union representatives, instructors, supervisors and program participants.

Ray MacNeil, a Department researcher, consulted with the Workplace Education staff during the development stages of the project. He provided some direction in development, piloting and administration of the data collection tools.

### Phase 3: Pilots

Two pilots were run to test the tools. The first was a full pilot at a non-unionized construction firm. The project researcher interviewed an instructor, a management representative, two supervisors and two participants. The results of this pilot were used to measure the effectiveness of the questions. Were they clear? Did they gather the information that we wanted? The necessary revisions were made to the tools and they were piloted again by the field officers who were interviewing the representatives at the participating work site in their region. Their insights were used to revise the tools again. Finally, the field officers came together one last time to review the schedules and to go over the interview procedures. A few last revisions were made prior to the data collection phase which took place in June of 1998.

### Phase 4: Data Collection

The interviews were set up at work sites that had been a part of the end-of-program evaluation analysis. A workplace was chosen from each region except for Cape Breton where the field officer position was recently vacated. Each field officer conducted their interviews with managers, supervisors, union representatives, instructors and participants during the month of

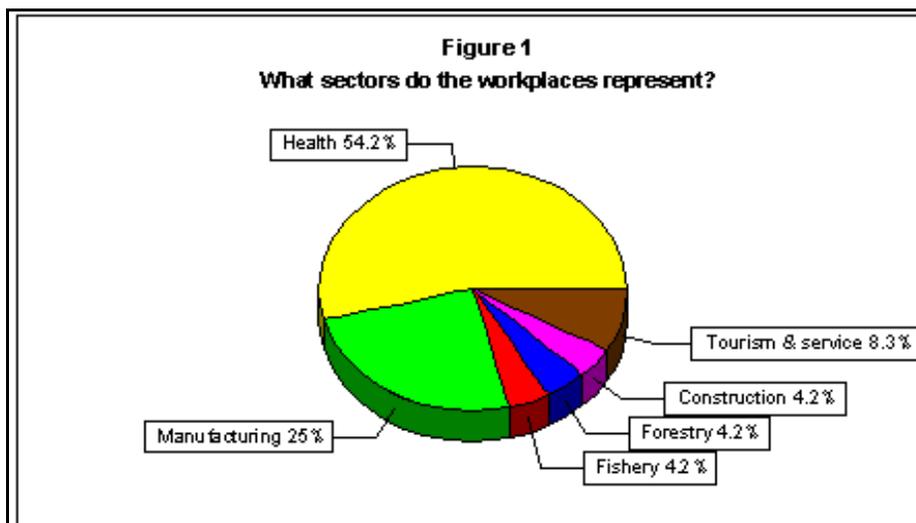
June 1998. The interviews were confidential and lasted approximately 60 minutes each. In addition to an interview, the instructors were asked to rate the skill improvements demonstrated by each of their students using prepared skill forms. The completed interview schedules and skill forms were sent back to the project researcher in Halifax to be compiled and analysed.

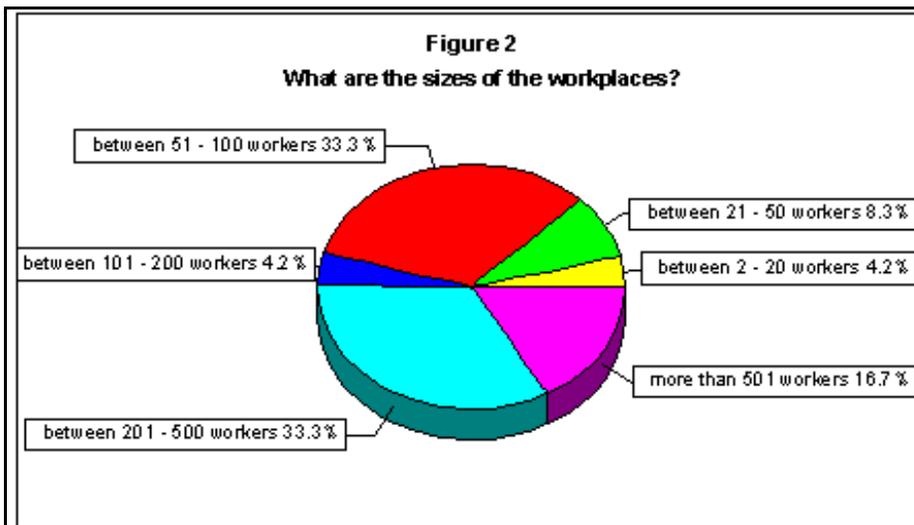
#### Phase 5: Data Analysis

The data from the interview schedules was compiled into data collection tables. These tables organized the responses under the headings of the objectives question by question. For instance, the participants' responses about attending education programs outside of the workplace were organized under objective one to create accessible educational opportunities for workers. All of this information was analysed by the project researcher before and during the drafting of this evaluation report.

### Sample

This study contains information gathered from 282 participants, 24 managers, five union representatives, eight supervisors and five instructors from 24 workplaces. It includes workplaces from all of the regions (See **Table 3**), a number of different industrial sectors (See **Figure 1**) and a wide range of sizes (See **Figure 2**).





**Table 3:**  
**What workplaces are included from each region? What programs did they run?**

Region	Organization	Program
<b>Cape Breton</b>	Breton Bay Margaree Tourism Association New Dawn Enterprises Seaview Manor	Introduction to Health Assessment Essentials of Tourism Charting Charting and Communications
<b>Metro</b>	Citadel Inn Dartmouth General Hospital Dexter Construction Co. Ltd. Glades Lodge Halifax Shipyards Hermes Electronics Inc. St. Vincent's Guest House	Business Writing and Communications Communications GED Preparation GED Preparation Math Upgrading Basic Skills Upgrading Communications
<b>Southwestern</b>	Bowater Mersey's Oakhill Sawmill Deep Sea Trawlers La Have Manor Corporation Rosedale Home for Special Care Shoreham Village	GED Preparation Academic Upgrading GED Studies Workplace Skills Focus Charting
<b>Strait-Northern</b>	Crossley Carpet Mills Ltd. Glen Haven Manor St. Martha's Regional Hospital Valley View Villa	GED GED Academic Upgrading Focus Charting
<b>Valley</b>	Avon Foods CKF Inc. Eastern Protein Foods Western Regional Health Care	GED Preparation GED Preparation GED Preparation Reading, Writing and Interpreting Medical Terminology

# Why do employers and workers get involved with workplace education?

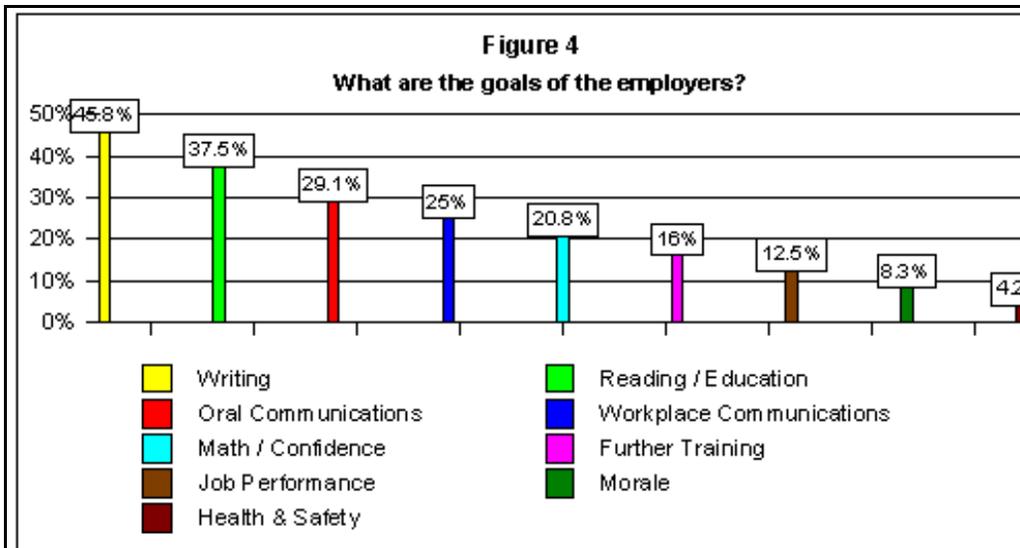
Although the purpose of this report is to convey the results of the outcome evaluation study that examined the degree to which the Workplace Education Initiative met its objectives, it is useful to look at the goals of the workplaces and the participants involved with the study. Their goals provide an insight into their motivations for participating in workplace education; the achievement of their goals provides an indication if the Initiative has been successful; and their responses help to create an understanding of the complex sequence of outcomes influenced by workplace education.

This section presents the data under the sub-headings “Workplace Partner Responses” and “Participant Responses”. The Workplace Partner section includes responses from managers, supervisors and union representatives, but the statistics in this section only contain figures from the larger manager survey. The supervisors and union representatives were only included in the smaller survey designed to gather more detailed information about the goals. The Participant section contains their responses about the achievement of their personal goals.

There is an overlap between the workplace partners and program participants motivations. Their statements clearly reflect an awareness about the relationship between a worker’s essential skills and the abilities to communicate, take further training, adapt to changes and improve job performance. Each organization developed courses with support from the field officers and instructors that aimed at enhancing those goals identified through the Organizational Needs Assessment. This assessment might have identified the need to improve communications in the workplace or the education level of workers. Each workplace shared a common goal with the others. Whether or not an academic upgrading course or a communication course was implemented, the common motivator was to improve the workplace by providing essential skills education.

## Workplace Partner Responses

The managers noted a variety of goals or outcomes that they expected from workplace education as motivations for starting up a program. **Figure 4** categorizes the goals of the employers from the response that appeared with the greatest frequency to the least. Two points should be noted here. First, these figures were created from the responses to an unprompted open ended question, if responses had been prompted many of the percentages would be higher. Second, the figures are actually not as important as the theme of the responses, to improve the workplace by increasing the level and range of the workers’ essential skills.



The most common motivator among employers was improved writing skills which was often connected to improving the overall communications at work.

*“To increase a better communication flow between management, supervisors, employees(on shop floor).” -Manager, CKF Inc.*

*“To enhance communication skills(verbal & written). To increase awareness of co-workers’ role from all departments. To improve team skills. To increase appropriate communication from employees to residents.” -Manager, Shoreham Village*

*“To help employees to develop their writing skills for the job.” -Manager, Dartmouth General Hospital*

For some, improvements in writing and communications in the workplace were motivators because they were related to issues of health and safety.

*“To improve the communication skills of our staff. Concise charting is required to ensure charts are accurate and resident safety is protected.” -Manager, Breton Bay*

Improving oral communications motivated many respondents as well because of its obvious connections to enhancing the overall communications at work.

*“To improve communication skills both spoken and written. The charts require concise wording, and doctors require clear descriptions, not long dialogues about the patient. We were hoping to improve these skills in our staff members.” -Manager, New Dawn Enterprises*

Improving reading skills of workers was also a motivator for many employers. These skills are not only important for workers faced with training and certification programs, but also play an important role in the communications of the workplace. Workers need to be able to understand what they read in order to perform everyday job tasks. More jobs are requiring higher literacy levels than ever before.

*“At the end of the course, the participants would be able to analyse and define the component parts of medical terms and medical abbreviations.”* -Manager, Western Regional Health Care

Many partners expressed a desire to provide workers with an opportunity to increase their formal education by helping them prepare for the GED exam.

*“To provide the opportunity for employees to upgrade their education.”* -Manager, Crossley Carpet Mills Ltd.

*“To give people more self-confidence. To better employee’s education. To get more feedback from employees.”* -Supervisor, CKF Inc.

*“To try to provide opportunities for members to further their education.”* -Union Representative, Glen Haven Manor

*“To provide the opportunity for employees to upgrade their education.”* -Manager, Crossley Carpet Mills Ltd.

Of course the skills that workers develop through workplace education will build a foundation for future training programs too. This was a consideration for many of the employers.

*“To further their education and enable them to apply for positions that they may not have been able to get because of testing.”* -Supervisor, Crossley Carpet Mills Ltd.

*“To try to help members to qualify for jobs that they were being disqualified for. There were senior people being disqualified for jobs because they could not pass the math test requirements.”* -Union Representative, Crossley Carpet Mills Ltd.

*“To give employees the opportunity to improve their reading and writing skills and math skills and reach a level of education from which further training could be possible.”* -Manager, Bowater Mersey’s Oakhill Sawmill

*“To position employees so as to enable them to go for further education and training if they so desire.”* -Manager, St. Martha’s Regional Hospital

Math skills are integral for many workers employed in the manufacturing sector. The manufacturers’ motivation to improve these skills as well as reading and writing was usually connected to increasing job performance.

*“To upgrade employees’ basic reading, math, writing and oral communications to meet the job requirements.” -Manager, Hermes Electronics Inc.*

Many of the partners also indicated that providing an opportunity for workers to increase confidence levels was a key motivator as well. The expected improvements in self-confidence were closely connected to increased skills and education.

*“To prepare workers in the tourism industry, to make them more qualified and confident in doing their job.” -Representative, Margaree Tourism Association*

*“To give people more self-confidence. To better employees’ education. To get more feedback from employees.” -Supervisor, CKF Inc.*

A few partners were motivated to set-up workplace education programs in an effort to increase morale within the organization. An expected boost in morale was connected to the opportunities that workplace education opened up for the workers.

*“To prepare workers for the GED or other training programs and increase morale and self-esteem of employees.” -Manager, Glades Lodge*

Changes in the workplace processes also motivated some of the Partners.

*“To teach charting skills and prepare staff members for a necessary change in the workplace.” -Manager, Valley View Villa*

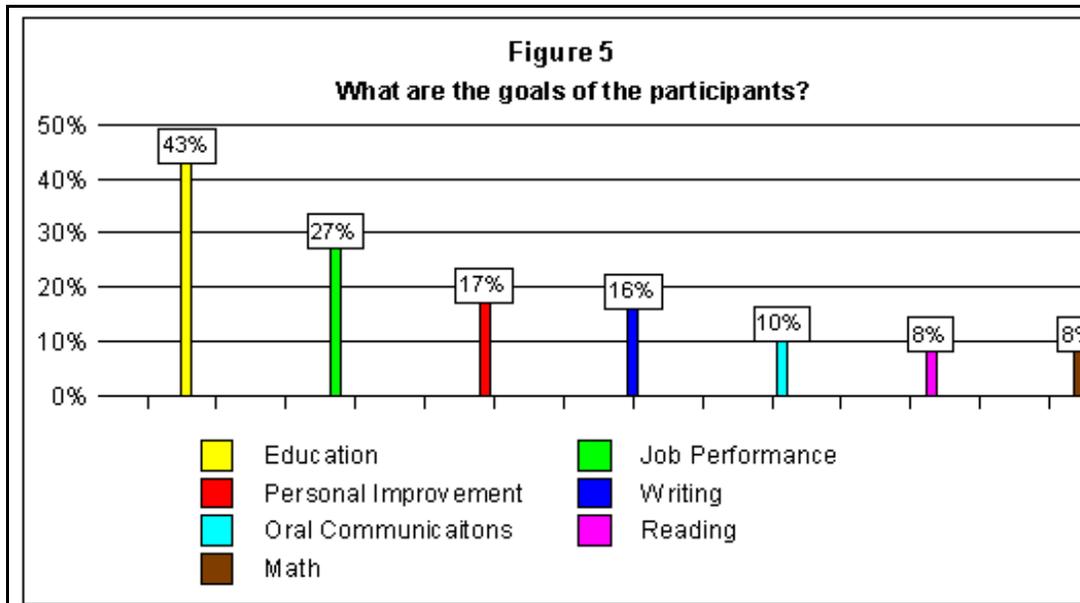
A couple of employers even connected improved communication skills as a way to encourage workers to become more involved in worker-management-labour relations by increasing participation in committees.

*“To strive for less grievances in labour contracts. For employees to be more involved in labour management relations. Having opinions of employees heard. Increased participation on committees.” -Manager, CKF Inc.*

It was difficult to categorize the various goals for the programs because many were holistic. The partners wanted to improve essential skills because of the positive impacts that they would have on workplace communications, job performance, further training, self-confidence of participants, their ability to handle change, morale or worker-management-labour relations. The participant responses were equally difficult to catalogue and they also reveal the belief that improving skills will lead to positive outcomes that effect the workplace.

## Participant Responses

The goals of the participants also indicate a belief in the connection between essential skills, education and job performance. Despite expressing the same belief, there is one significant difference. The participants' motivations are more specific to their individual needs rather than the global needs of the workplace. Again, it should be noted that the frequency of responses may have been higher for some categories if the participants were prompted and that the figures are less important than the theme identified. **Figure 5** below provides a visual representation of their answers.



The most common motivator for participants was to improve their level of formal education by preparing for the GED. This goal was often related to the hope of securing higher paying jobs within the organization or more beneficial employment opportunities elsewhere.

*“By obtaining my GED, I get the opportunity to get my employment elsewhere or apply for other positions within the company.” -Participant, Crossley Carpet Mills Ltd.*

Many saw the opportunity to get their grade 12 equivalency as a necessary requirement to get promoted or an activity that was vital to helping them cope with workplace change.

*“I wanted to further my education. Job postings require grade 12 and it’s also necessary for promotions and change.” -Participant, Glen Haven Manor*

Many simply viewed the opportunity as a second chance to finish their high school education and maybe continue on to achieve higher goals.

*“To see if I could finish grade 12 and go on further.”* -Participant, CKF Inc.

A lot of the workers recognized that improving their essential skills could increase their ability to communicate and thus enhance their job performance. This was their key motivator.

*“To better communicate with residents and co-workers.”* -Participant, Shoreham Village

*“To improve my work, dealings with guests and to be part of the hotel team.”*  
-Participant, Citadel Inn

No matter which motivator was key for the partners and participants, it is important to note two points from their responses. First, issues like self-confidence, morale and worker-management-labour relations did not appear to be motivators for the participants. They were more focussed on individual goals like increasing their formal level of education or job performance. The partners connected the skills improvements to more global workplace issues like morale, health and safety, workplace communications and worker-management-labour relations. Second, despite this difference, there is significant overlap between the theme that each group identified. This overlap clearly indicates that employers and participants took part in workplace education because they understand that improving essential skills will pay off by improving communications, job performance, further training and confidence among other things. The first measure of the Initiative’s impact is achievement of these goals. The next section focuses on this question: Did workplace education pay off for each of these workplaces?

## Do the partners and participants achieve the goals they set for workplace education?

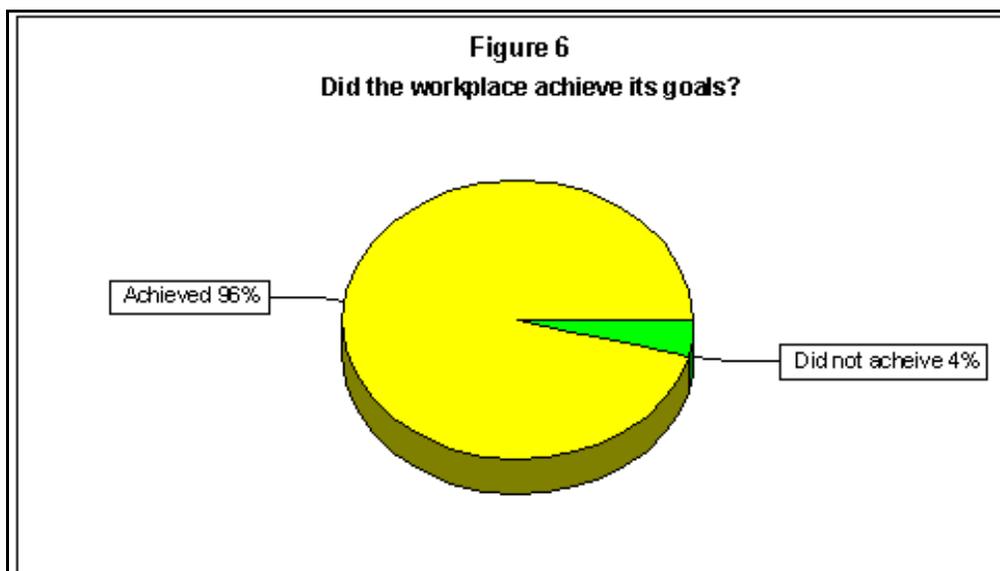
The Workplace Education Model used in Nova Scotia allows for each organization to create workplace education courses that meet the specific needs of their workplace. At each site, the project team creates a list of goals based on the needs that were identified in the Organizational Needs Assessment. The goals become the basis for measuring the success of their workplace education courses. They vary from workplace to workplace as was shown in **Table 3**. Some are designed to improve academic skills while others focus on workplace specific skills like communications.

This section presents the data that was collected under the sub-headings “Workplace Partner Responses” and “Participant Responses” as was done above and again, the figures for the partners only include the responses from management.

### Workplace Partner Responses

The managers mentioned a number of indicators when they were asked about the achievement of the workplace education goals. Their responses about the fulfilment of their program goals demonstrates the connection between skills improvements, confidence, education and workplace communications, job performance and morale by validating the existence of a positive relationship between them. Many of the partners’ linked skills improvements to increases in workplace communications or job performance when they talked about meeting the program goals.

Ninety-six percent of the managers indicated that the workplace education program achieved the goals that were set out by the project team as can be seen in **Figure 6**.



They noted improvements in writing skills that have enhanced workplace communications, job performance and health & safety.

*“I see improvement in the charting notes. Doctors are receiving more concise and clear notes from our staff.”* -Manager, Breton Bay

Some connected the improvements in communications to unexpected impacts such as team work and quality of service.

*“Charting has improved overall awareness and helped to promote the ‘team’ approach.”* - Manager, Valley View Villa

*“We improved communication with residents.”* -Manager, Seaview Manor

A few partners commented that a significant number of workers from their workplace were able to increase their formal level of education by passing the GED. In fact, 75% of the participants in the GED Preparation Programs at CKF Inc., Crossley Carpet Mills Ltd. and Glen Haven Manor wrote and passed their GED exam after they completed their workplace education courses.

*“There have been seventeen participants who have received their GED.”* -Union Representative, Crossley Carpet Mills Ltd.

Of course these kind of results improved morale.

*“Morale is high with this group.”* -Manager, Crossley Carpet Mills Ltd.

All of these benefits worked together to influence more significant impacts like improved relations between workers, management and labour or positive attitudes about work.

*“We have seen a greater increase in morale and the open door policy between employees and management has grown.”* -Manager, CKF Inc.

*“Many members have better writing skills and their attitudes about work have changed for the better.”* -Union Representative, Citadel Inn

It even influenced participants to contribute more to the workplace by getting more involved with issues at work which may be partially attributed to increased confidence levels.

*“Some employees have given some ideas and written material for our newsletter.”*  
-Manager, CKF Inc.

Unfortunately, their comments about the goals do not summarize all the impacts that workplace education has had on their workplaces. The additional section of this report will provide more insights into why and how workplace education works. The noteworthy point here is that 96% of the workplaces fulfilled their workplace education goals.

## Participant Responses

The current end-of-program evaluations do not document whether participants met their goals. The question was never asked, but if the high percentage of participants who improved their general essential skills, workplace specific essential skills, self-confidence, workplace communications and ability to take further training is any indicator, than there is probably a good chance that the majority of participants did meet their goals.

The participants in the smaller study were asked if they achieved the goals that they set forth for themselves and all of the participants that were interviewed answered positively.

Many replied that workplace education helped them prepare for and pass the GED exam.

*“I completed the program and received my GED...if I couldn’t work here I could go on to some other work. It has meant a lot to my children, particularly my daughter, to me, do this.”* -Participant, Glen Haven Manor

*“I got my grade 12 certification.”* -Participant, CKF Inc.

Others stated that increased confidence or improved skills positively influenced their job performance.

*“I have regained my confidence and do my work more efficiently.”* -Participant, Citadel Inn

*“I take more time to communicate with residents and I discuss more things with co-workers now.”* -Participant, Shoreham Village

A few measured their success by improving their ability to apply for better work.

*“I have more options to get employment elsewhere or apply for positions within the company.”* -Participant, Crossley Carpet Mills Ltd.

Success for the participants was measured by the fulfilment of self-imposed goals. The success of the Initiative has been measured by the fulfilment of its objectives. Reviewing what the partners and participants said about their goals is a good way to understand the complexity of measuring the success of the outcomes that the Initiative set out to influence. As with the descriptions of the partners’ achievements, the participants’ success demonstrates the various outcomes that can be influenced by workplace education. They also provide an insight into the nature of the outcomes, that they are holistic and linked to each other. In fact, the links are so strong that it is hard for the partners and the participants to speak of one element exclusively of the other. For example, a participant may speak of an improved ability to communicate in the workplace and mention how this ability was influenced by increased self-confidence, new oral communication strategies and enhanced writing skills. All of these elements worked together to improve workplace communications, but they may also have worked to prepare a participant

for the GED exam. None of the categories of outcomes that will be discussed in later sections are mutually exclusive of the other. They are all connected.

## **Recommendations**

As previously mentioned, one of the purposes of this study was to provide some insights into changing the existing end-of-program evaluations in order to gather more detailed information about the achievement of desired outcomes. In light of the previous information, the recommendation is to gather data about the achievement of the participants' goals. All of the participants that took part in the interviews stated that they met the workplace education goals that they set for themselves. Gathering information about their goals and whether they have been met would render valuable data about the impact of each individual program while creating another mechanism to evaluate the delivery of the courses. Discovering why participants are not meeting goals could help the project teams to support the development of more effective programs.

## **Are workplace education programs accessible to workers?**

The first objective of the Workplace Education Initiative is to create accessible learning opportunities for the workers of Nova Scotia's workplaces. As a part of the Adult Education Section of the Department of Education, the Initiative was designed to meet the needs of workers who would benefit from essential skills education. It aims to meet this objective by creating a viable educational opportunity for workers who are unable to access community opportunities and by developing relevant skills education that workers can use on-the-job.

Providing an accessible alternative is important for workers, their employers and the province's economy and society. According to the Labour Market Development Secretariat, "40% of Nova Scotia's working age population has not completed high school, the majority being workers over the age of 40 who will continue to be a significant factor in the labour force for another 15 to 20 years" (p.101, 1999). Many of these workers fall into the fifty-two percent of Atlantic Canadians with a literacy level of two or less. It is important to provide educational opportunities for these workers to help them enhance their existing skills so that they can better cope with the changing workplace, the employer can increase efficiency and the government can foster the creation a more literate workforce and society.

Recent research by Jenny Horseman, Arlene Fingeret and Allan Quigley indicates that there are a lot of barriers that prevent adults from accessing educational opportunities. Adults are committed to the responsibilities of work, family and community. Their education usually comes second to their children and hurdles like tuition fees, cost of child care, transportation and scheduling work together to prevent many adults from participating in community educational opportunities.

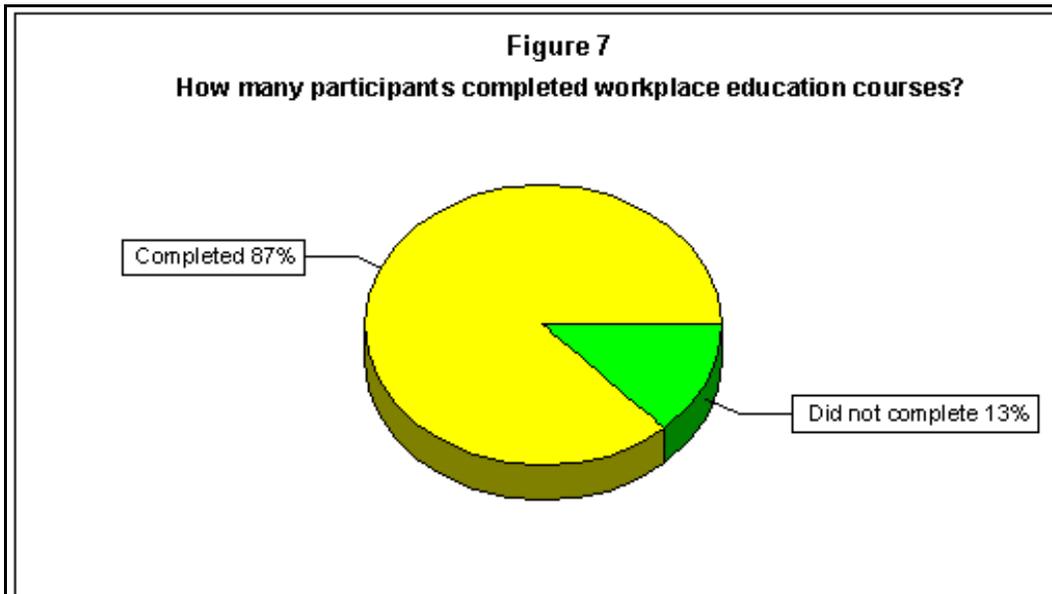
Another factor that prevents many adults from participating in adult education programs is the fear that the classroom holds for them. Many of the people who would benefit from essential skills education had negative experiences related to school. They left school early for economic reasons because they could earn a good living in fishery, agriculture or manufacturing. Others left school because they were not successful in that environment. No matter what the reason, going back to school holds a lot of fear for many of the adults that could benefit from it.

If adults are going to overcome the hurdles to participate in a program, they must be assured that an educational opportunity will benefit them, their families and their work. The realities of life make it vital that their investment have immediate and long-lasting payoffs which improve their quality of life. The workplace education model used by the Initiative removes many of barriers that working adults face with regards to education. Each program is delivered on-site at no cost to the participants while they are at work. Participants are asked to contribute 50% of their own time in the course while the employer pays them for 50% of their time. For many workers the incentive of having an education program offered to them at work, partially during work time and at no financial cost to them eliminates the majority of extrinsic barriers that prevent them from seeking adult education opportunities elsewhere. Others are encouraged to participate because the fear of entering a classroom is reduced by the knowledge that they will be learning in an environment with people that they know. The knowledge that they will be in small classes working with an instructor who aims to build on their strengths and focus on skills used at work convinces many that they will be able to learn skills that will have a direct impact on their daily lives at work, at home and in the community.

This section measures the impact of providing accessible education by looking at the completion rate of the Initiative and whether or not participants would have taken part in an adult education program if it was not offered through the workplace. The figures used to determine the completion rate were derived from the workplaces that took part in the end-of-program evaluation survey. Unfortunately, only the participants that took part in the smaller study were able to be reached to comment if they would have taken part in an essential skills education program outside of the workplace.

## Completion Rate

As you can see, **Figure 7** shows that 87% of the participants who enrolled in workplace education programs completed their courses. This means that a total of 356 of a possible 409 participants finished.



This high rate can be attributed to the benefits of the workplace education model that are described above. The location, low costs and encouragement that comes with participating in a program designed for the workplace worked to influence workers to participate.

*“The workplace education program was much more convenient and economical for me.”* -Participant, Dexter Construction Co. Ltd.

*“If this program had not been set up for people who work in a factory (working shift work) there is no way that I would have tried to get my GED.”* -Participant, Crossley Carpet Mills Ltd.

*“If it was not for this program, I would not have taken the GED.”* -Participant, CKF Inc.

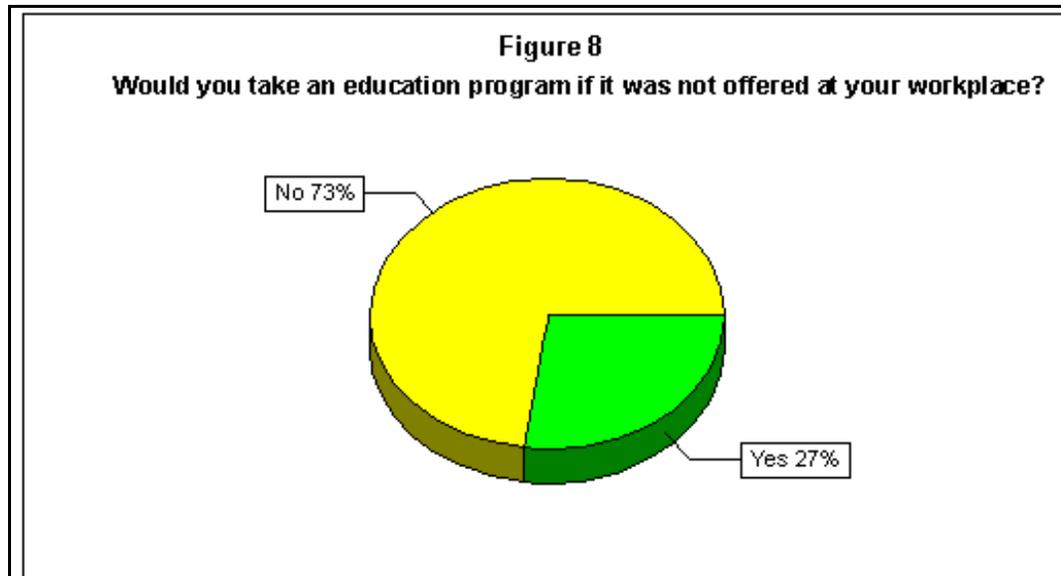
*“If this program would not have been put on by our company, I may not have had the chance to upgrade my education.”* -Participant, Dexter Construction Co. Ltd.

*“I chose to take this course so I could help my older children with their school work. And it was at my workplace.”* -Participant, Breton Bay

*“These workplace education programs are very good for people here on site. We know each other and we are more likely to open up and give it a really good try. As to going to night classes might not be our cup of tea, overall this is the way to do it.”*  
-Participant, Bowater Mersey’s Oakhill Sawmill

Some of the comments from the participants in the end-of-program survey led the researcher to include on the interview schedules a question to participants asking them if they would have taken advantage of any adult education opportunities outside of workplace education on the interview schedules.

Seventy-three percent of the participants interviewed (**Figure 8**) indicated that they would not have sought out educational opportunities outside of the workplace or that they had and numerous barriers prevented them from completing these courses.



Here is what some of them said:

*“Because of shift work, it would have been difficult to fit in and the cost.”* -Participant, Crossley Carpet Mills Ltd.

*“I wouldn’t have had the initiative to go on my own. It was just the perfect opportunity.”* -Participant, Glen Haven Manor

*“Because I needed the encouragement and confidence.”* -Participant, Crossley Carpet Mills Ltd.

*“The program was here and it was convenient. Went to class with co-workers. Everyone knew each other.”* -Participant, CKF Inc.

*“I had thought about it and put it off year after year. Having it here spurred me on. The location was so convenient.”* -Participant, Glen Haven Manor

*“I wanted my grade 12, but I didn’t enroll in any programs prior to workplace education.”* -Participant, Glen Haven Manor

The fact that many workers may not have sought out opportunities to improve essential skills elsewhere is not unique to Nova Scotia. *Literacy Skills For the Knowledge Society: Further Results from the International Adult Literacy Survey* explains that much of the increase in adult education participation rates in many countries can be attributed to increases in job related adult education (OECD & HRDC, 1997). Although this is a positive trend, many workers cannot benefit from the training that is being offered because they do not possess the skills needed to take part in much of the work sponsored education. The IALS data showed that most of the training that is available goes to the highly skilled (OECD & Statistics Canada, 1996).

The keys to helping much of the workforce adapt to the changes in the world of work is to help it improve essential skills in order to navigate the new landscape and benefit from the training that is being offered. Many of the workers who need essential skills training are those over the age of forty who did not complete high school. They probably make up a significant part of the older adults with lower literacy skills. The IALS data shows that your literacy skills older Canadians have lower literacy skills while younger adults generally have higher skills (OECD & Statistics Canada, 1996). This means that workers within this category over the age of 40 are at more of a disadvantage with the emergence of a knowledge-based economy. They may not have the skills to cope with the changes and thus need to be able to access opportunities so that they can enhance their skills to continue to contribute to the workforce over the next 20 years. Workplace Education is the only viable opportunity for many of these workers.

## **Recommendations**

Compiling and analysing the data about the completion rates revealed a flaw in the existing end-of-program evaluations. There was no information documented about why thirteen percent of the participants left workplace education programs early. This information could be useful for evaluating the overall impact of the Initiative. The participants reasons for leaving could reveal a number of barriers that may have not been removed by the program model. At least more concise documentation would account for this 13%, even if no such barriers were revealed. Any of this information could be used to devise more effective strategies to make workplace education more accessible to workers. Of course this is only an issue of documentation at the provincial level, because the project teams do monitor the participation in the programs and they usually find out why participants leave programs early. Despite this, the Department should look into devising some early exit procedures to better document why some participants are leaving workplace education programs early to ensure that there is nothing that can be done to make programs more accessible.

## **Do the participants' skills improve as a result of the workplace education programs?**

The second objective of the Workplace Education Initiative is to enhance the essential skills of workers in Nova Scotia by providing opportunities that allow workers to develop their skills using the workplace context. The workplace education model encourages participants by building on their strengths and focussing on the skills and materials that are used in their workplace. By making the curriculum relevant to their everyday lives and helping them enhance the skills they need, programs have a more direct and immediate impact. Participants see the results and improve by practising them at work, at home and in the community.

The IALS data found that literacy skills are like muscles, they get weaker when not used (OECD & Statistics Canada, 1995). This means that it is important for the participants to be able to practice their skills so that they not only maintain them, but so that they can get stronger with time. The key to a successful workplace education program is that it improves the skills of the participants. All the other outcomes like improved self-confidence, workplace communications, productivity, preparation for further training and even morale, worker-management relations and family literacy occur because participants increase their range and level of skill. Measuring the impact on skill levels is a difficult task for workplace educators. There are a lot of issues that must be considered before evaluation methods are chosen. What follows is a brief explanation of some of the tools and the reasons behind the choices that were made for this study.

There are many different types of assessment strategies that can be used to determine the skill level of participants in workplace education programs and to evaluate what they have learned. There are standardized tests, custom-designed tests, portfolios, questionnaires and interviews.

Standardized tests have been used in adult education for many years. Today, three of the more widely used standardized tests are the Canadian Adult Achievement Test (CAAT), the Test of Adult Basic Education (TABE) and the Adult Basic Learning Examination (ABLE). These tests can be used to assess a participant's progress by comparing the results of a pre-test with the results of a post-test. The difference in the scores provides program evaluators with an indication of the effectiveness of the program by exhibiting which skills participants improved.

There are many issues that have to be considered with the use of standardized tests in workplace education programs. The first is their relevance. Standardized tests like the TABE and the ABLE measure general reading abilities, not workplace specific reading skills. So, although such a test may demonstrate that a worker has improved some skills, it will not demonstrate if he or she improved the skills that they use in the workplace. Therefore, the test does not provide a reliable indication of program effectiveness because it does not assess all the skills that the participants are working on in the program (MiKulecky & Lloyd, 1992). This of course, is not the only disadvantage encountered when using these tests in workplace education. A second disadvantage is that the use of standardized tests often works to influence teachers to teach to the test and participants to prepare for the test rather than focus on

developing the skills that are used in everyday life on the job. Furthermore, the use of such tests can often to intimidate learners who have had bad experiences with tests in the past and who are likely to be uneasy about re-entering an educational situation. The tests work to prevent workers from signing up for programs or may focus them on developing skills that they do not use at work. (MiKulecky & Lloyd, 1992)

Custom-designed tests can be used like standardized-tests to provide a comparison between a pre- and a post-assessment, but these tests such as the Test of Workplace Essential Skills (TOWES) are developed from job profiles completed at the workplace to incorporate the skills specific to daily job tasks. This of course is the advantage that customized-tests have over standardized tests. However, the Workplace Education Initiative programs are custom-designed to focus on the unique goals of the workplace each participant. This makes it impossible to create a test that assesses a workplace specific set of skills that instructors and participants worked on in the classroom because each course is different. For instance, the focus of the CKF program was academic upgrading and many of the participants wanted to upgrade their skills in preparation for the GED. The focus of the Citadel program was workplace communications. Some of those participants wanted to focus on their reading skills while others chose to improve their writing skills. The variety of programs and program goals make it difficult to create a custom-designed workplace essential skills test that can be used across the Initiative. It is not like high school where the students are learning a set curriculum and evaluators can test them to see if they have developed the prescribed skills. There are no sets of prescribed skills across the WEI because the needs of each workplace and the interests of each learner varies from program to program. It is of course, possible to create a custom-designed test for each of the workplaces, but this would require a great deal of time and resources. Not to mention for many workers, a test is still a test.

Portfolio assessments have been used by adult literacy educators as an alternative to standardized tests for many years. A portfolio is an on-going compilation of the participants work, self-evaluation and instructor feedback. It allows participants to self-assess their progress with the help of the instructor as well as to demonstrate their improvements throughout the course. Instructors can create custom-designed activities that are work specific to be included in the portfolios in an effort to focus participants on those skills. However, participants can still work on more general skills too, because portfolios allow the participants to focus on all their personal goals. This is one advantage that this form of assessment has over customized tests. Customized tests may focus on workplace specific tasks, but they do not assess individual goals.

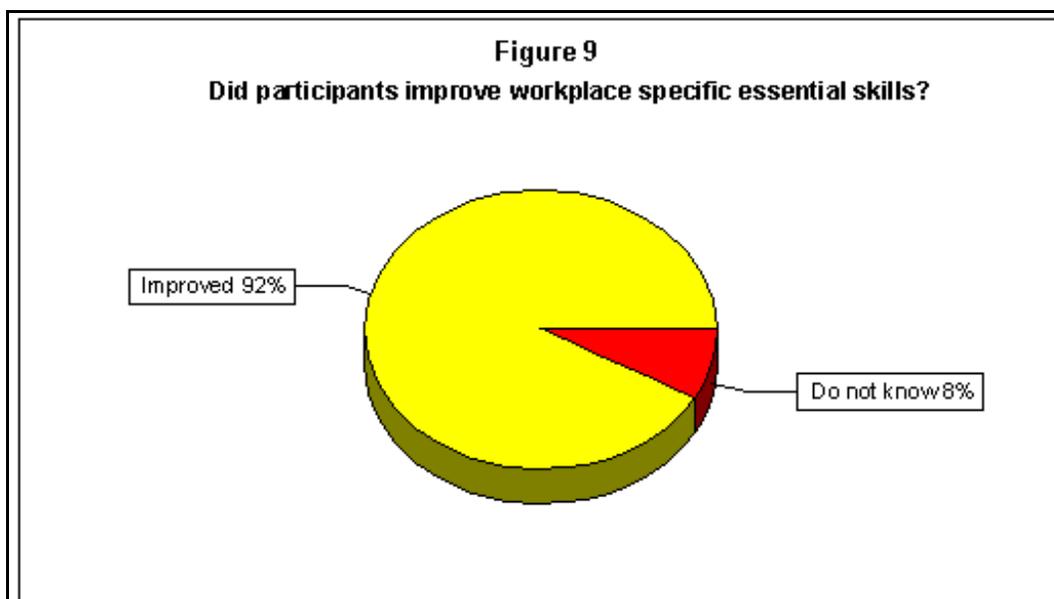
Questionnaires and interviews can be used to gather data about the skills improvements that participants have experienced. These tools can be used not only to get information from the participants' about their progress, but they can be developed to get feedback about improvements from instructors, supervisors, union representatives and managers. All of these partners have not only observed how skills have improved, but they can also comment on how the improvements have impacted the participants and workplaces.

The evaluation study used a combination of portfolio assessments, questionnaires and interviews to assess the skill improvements of program participants. This combination provided the researcher with a wealth of information about the skills improvements and their impacts. Participant and manager end-of-program questionnaires were used to gather data from these partners about experienced and improved skill improvements. An instructor skill rating form was designed to be used by the instructor to assess the skill improvements that participants demonstrated based on a review of the portfolios. Interview schedules were created for participants, managers, supervisors, instructors and union representatives to collect information about the improvements.

This section includes results gathered from all of these data collection tools. The information is presented here under the sub-headings “Workplace Partner Responses”, “Participant Responses” and “Instructor Ratings”. One of the difficulties of writing this report was separating the development of the various skills from the applications. Many of the respondents noted the improvements that they observed or experienced by providing examples of real-life applications. Again, this highlights the holistic nature of the various outcomes influenced by workplace education mentioned earlier in this report. None of the outcomes are mutually exclusive; they are related in many different ways to create various benefits. This difficulty forces us to mention only some of the responses relating to skills improvements because many of the respondents comments also relate to outcomes such as improved productivity and morale which are discussed in the next section.

### Workplace Partner Responses

Ninety-two percent of managers observed improvements in the essential skills of the workers who participated in workplace education (See **Figure 9** ).



Participants improved a wide variety of basic skills that include reading, writing, math, oral communications, problem solving, and critical thinking. This translates into improvements into how participants do their work and communicate on the job. These improvements vary from workplace to workplace depending on the nature of the participants' work. Many of the health care institutions set up charting courses that focussed on improving the participants' ability to pronounce, spell and define medical terms correctly, read for meaning, and write clearly in an effort to improve communications within the workplace. Many industrial workplaces focussed on improving the participants' reading, writing, math and study skills to prepare them for the GED, and to equip them with the skills and confidence needed for further training. The partners' comments about skills improvements use examples from the workplace.

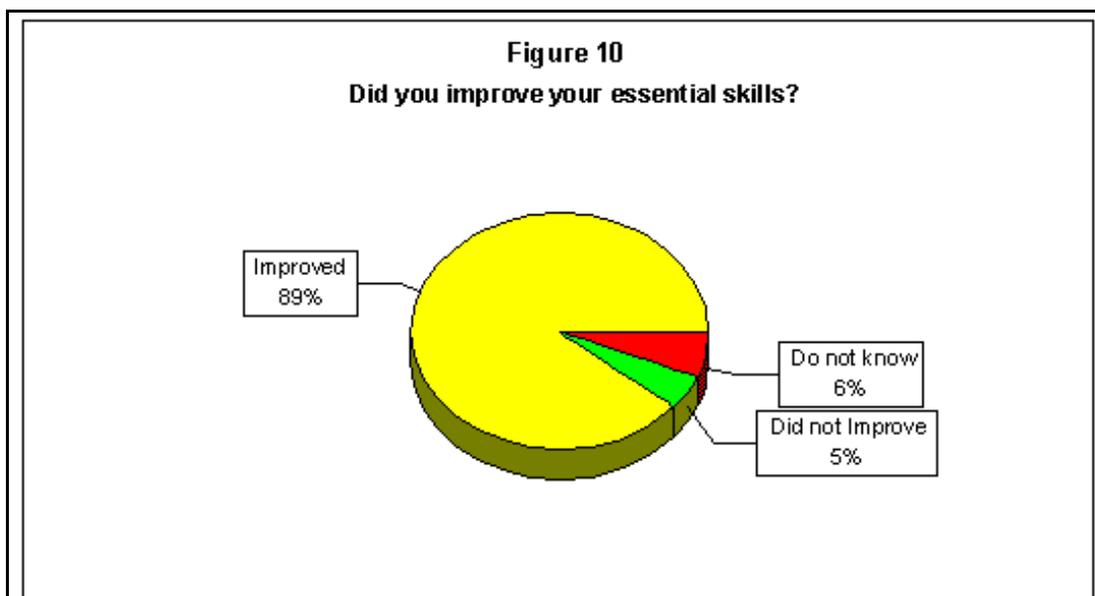
*“One particular participant began to edit interdepartmental memos and help the front office manager compose some of his own which she did not do before.” -Manager, Citadel Inn*

*“This program has already made a difference in our approach and attitude toward charting - even our Physicians are now using focus charting. The staff feels a real sense of pride in it and now it is multi disciplinary instead of everyone charting on their own forms.” -Manager, Shoreham Village*

*“The program impacted communications, readiness for training and improved the concept of working as team member.” -Manager, Valley View Villa*

## Participant Responses

Eighty-nine percent of the participants indicated that they improved their general essential skills (See **Figure 10** ).



Participants noted that they made improvements in reading, writing, math and oral communication skills.

*“It helped me understand what I read and write better.”* -Participant, Dexter Construction Co. Ltd.

*“The program helped me to improve my reading, writing and math skills. I comprehend what I read much more than before I took the program.”* -Participant, Hermes Electronics Inc.

*“I now sound out the words to get the spelling right. Knowing the spelling rules have made me a better speller.”* -Participant, Crossley Carpet Mills Ltd.

*“The program helped me to improve my writing and oral communication skills.”*  
-Participant, Citadel Inn

*“I learned the basics and now I can tell how much I forgot after being out of school.”*  
-Participant, Crossley Carpet Mills Ltd.

*“I feel a lot better with math which I need for work.”* -Participant, Dexter Construction Co. Ltd.

*“It gave me a better knowledge of math and other subjects so that I could apply them to everyday living.”* -Participant, New Dawn Enterprises

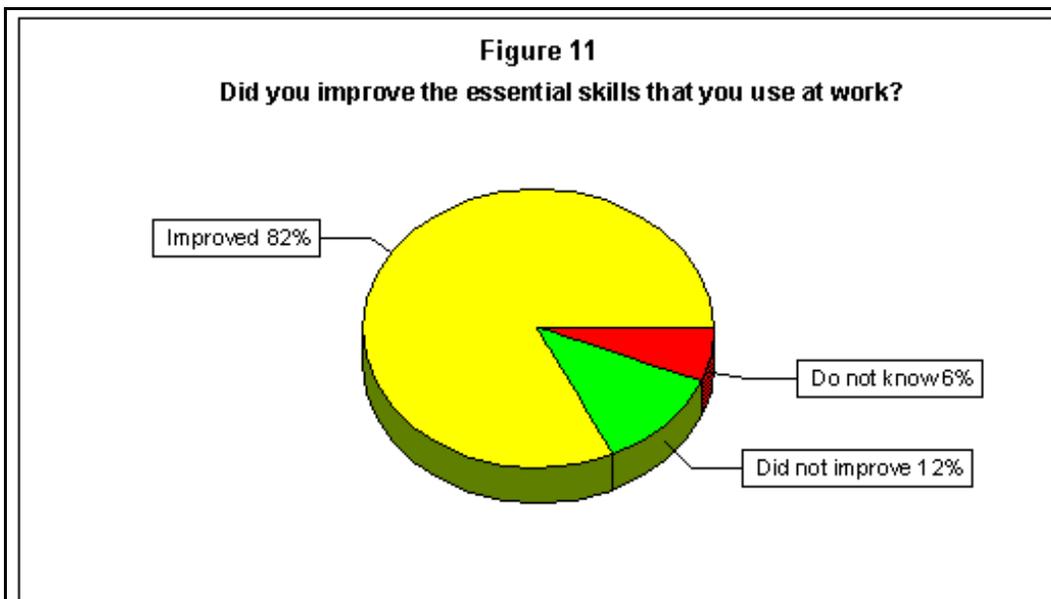
*“I found that the program has helped me understand the math concepts better.”*  
-Participant, Halifax Shipyards

Many indicated that the improvement of a skill set led to changes in habits. This was usually related to reading.

*“I am now reading a lot more.”* -Participant, Dexter Construction Co. Ltd.

Comments such as these sparked some interest in asking participants more detailed questions about the impacts that workplace education may have had on their life at home or in the community, the responses to which are compiled in the next section.

Participants also improved their workplace specific essential skills; 82% indicated that they improved these skills (See **Figure 11** ).



Quite a number indicated that the improvements that they made improved the quality of their work and in their ability to communicate to others on the job.

*“It helped me to try to organize my thoughts more prior to charting.”* -Participant, Shoreham Village

*“My spelling has improved and, therefore, helps me with doing my shift reports.”*  
-Participant, Crossley Carpet Mills Ltd.

*“I feel that by taking this course I have improved in communication and take my time to think about what I am going to say or write.”* -Participant, Citadel Inn

*“I learned a lot of things to help and assist me in my work.”* -Participant, Glades Lodge

*“It gave me good basic skills in doing my job, to be able to relate to others, to help others and most important it gave a good outlook on respect towards others.”*  
-Participant, St. Vincent’s Guest House

*“It is easier for one shift to know what the previous shift had encountered.”*  
-Participant, Valley View Villa

*“I am involved in a newsletter committee. This program came along at the same time the newsletter committee was formed. I find that I am more interested in writing now than at any other time in my life. I think that this program has had something to do with that.”* -Participant, Glades Lodge

*“It gave me insights on documentation procedures for nursing notes.”* -Participant, Valley View Villa

*“I can now read, write and comprehend medical terms a lot easier.”* -Participant, Western Regional Health Care

*“It gave me insights on documentation procedures for nursing notes.”* -Participant, Valley View Villa

The impacts on work are discussed in more detail in the next section of this document. What is important to note here is that eighty-nine percent of the participants improved some of their essential skills. This is especially interesting because only eighty-two percent indicated that they improved the essential skills that they used for work. Why is there a discrepancy between these two figures? There are two likely explanations for this difference. The first is the everyday reality for many of today’s workers which is that not all workers are performing job tasks that exceed their abilities. There are a number of workers whose skills are underutilised within the world of work. Harvey Krahn and Graham Lowe (1998) address this phenomenon in their IALS monograph study, *Literacy Utilization in Canadian Workplaces*. They found that some workers possess more than the minimum level of skills needed to fulfill job requirements. Although, the degree to which this phenomenon exists is much debated among researchers, it is probably safe to assume that such a situation does exist for some workers. Some of the workers who improved their essential skills, but not the particular skills they use for work, probably fit within this category.

The other likely explanation for this difference is that some of the participants focussed on improving more general essential skills rather than workplace specific essential skills. They may have been more interested in preparing for a GED exam and focussed on improving their test taking skills or they may have focussed on improving particular skills that they use at home and in the community rather than at work, like budgeting math or writing letters. These participants probably had an inexperienced instructor who focussed on more general skills because he or she was not as adept at creating workplace specific curricula. This explanation is taken up in more detail with the instructor assessments which are discussed below.

## **Instructor Ratings**

The instructors rated the participants who took part in the second part of the study according to a list of generic and workplace specific skills in the areas of reading, writing, math, oral communications and problem solving. Each instructor rated the participants’ skill levels before and after the course. They used the pre-course assessments to determine each participants’ level of proficiency on a rating scale of 1 to 5, level 1 being beginner and level 5 being advanced. Then, they used the portfolios as a post-course assessment to determine each participant’s level of proficiency after the course.

Although the instructors were not given benchmarks with which to measure, these ratings do provide a good indication about skill levels of participants before and after they took part in workplace education as well as an idea about the percentage of those who did improve certain skill sets. The data gathered for each skill set is broken down here into the pre- and post- range of skill levels demonstrated by participants. It also includes the percentages of those who did improve at least one skill in the skill set.

## **Reading Skills**

### General

The participants' pre-course assessments ranged from level 2.7 to level 2.8. Their post-course assessments ranged from level 4.1 to level 4.8. Eighty-six point nine percent of the participants demonstrated a significant improvement in one or more of the general reading skills.

### Work Specific

The participants' pre-course assessments ranged from level 2.7 to 3.2 level. Their post-course assessments ranged from level 4.2 to level 4.8. Ninety-five point four percent of the participants demonstrated a significant improvement in one or more of the work specific reading skills.

## **Writing Skills**

### General

The participants' pre-course assessments ranged from level 2.3 to level 2.8. Their post-course assessments ranged from level 3.8 to level 4.6. Ninety-four point three percent of the participants demonstrated a significant improvement in one or more of the general skills.

### Work Specific

The participants' pre-course assessments ranged from level 1.9 to level 3.5. Their post-course assessments ranged from level 3.8 to level 4.7. Ninety-two percent of the participants demonstrated a significant improvement in one or more of the work specific skills.

## **Math Skills**

### General

The participants' pre-course assessments ranged from level 1.2 to level 4.5. Their post-course assessments ranged from level 3.2 to level 4.8. Eighty-four point four percent of the participants demonstrated a significant improvement in one or more of the general skills.

### Work Specific

The participants' pre-course assessments ranged from level 1.7 to level 3.6. Their post-course assessments ranged from level 4.3 to level 5.0. Ninety-six point eight percent of the participants demonstrated a significant improvement in one or more of the work specific skills.

## **Oral Communication Skills**

### General

The participants' pre-course assessments ranged from level 3.0 to level 3.8. Their post-course assessments ranged from level 4.0 to level 4.9. Seventy-six point six percent of the participants demonstrated a significant improvement in one or more of the general skills.

### Work Specific

The participants' pre-course assessments ranged from level 2.7 to level 3.3. Their post-course assessments ranged from level 4.3 to level 4.7. Ninety point six percent of the participants demonstrated a significant improvement in one or more of the work specific skills.

## **Problem Solving Skills**

### General

The participants' pre-course assessments ranged from level 2.9 to level 3.5. Their post-course assessments ranged from level 4.4 to level 4.9. Ninety-one point four percent of the participants demonstrated a significant improvement in one or more of the general skills.

### Work Specific

The participants' pre-course assessments ranged from level 2.5 to level 3.4. Their post-course assessments ranged from level 4.0 to level 4.5. Eighty-three point two percent of the participants demonstrated a significant improvement in one or more of the work specific skills.

The current research about the transfer of learning from the classroom to the workplace indicates that skills must be learned within a specific context in order for them to transfer to another domain (Perkins and Salomon in MiKulecky and Lloyd, 1993). In other words, it is more likely that a workplace education program participant will write better memos if the learning activities include practising writing memos using the same format and language that is used at work. Different tasks require different skills. Reading a newspaper is different from reading a chart or a map or a poem or a novel or a manual. Certainly, there is a degree of overlap among some of the tasks, but this often is not enough to encourage transfer for most learners at lower levels.

Sticht's research in the early 1980's indicates that teaching general literacy to armed forces enlisted men did improve their skills, but these gains did not transfer to work specific job tasks (1982). This finding has significant implications for workplace education programs that aim at improving the on-the-job skills of workers because a significant amount of research found that literacy skills would atrophy if they are not used regularly (OECD & Statistics Canada, 1995; Sticht, 1982; Taylor, 1998). This means that learning gains will only hold up if learners continue to practice the skills that they have learned in everyday life.

Although the small samples that were rated according to skill level are not statistically reliable, some of the trends that emerged correlate with the existing research about the transfer and retention of workplace literacy skills. For instance, a significant percentage of more workers improved their workplace specific reading and math skills. This is also true of workplace specific communication skills. It is safe to assume that more workers improved these

workplace specific skills rather than the more general skills because they were able to practice them on-the-job throughout the duration of the course while commitments to family and community may have prevented some from practising the more general skills.

It is interesting to note that more participants improved their general writing skills rather than their work specific writing skills. This may be the result of using a small sample or it indicates that the focus of the course did not reflect the writing skills used on the job. Many of the participants did not have to write significant amounts of text in the form of memos or reports as a part of their jobs. They worked in positions in the health and manufacturing sectors that probably did not give them an opportunity to practice their learned skills during the work days. More participants improved their general problem solving skills than their workplace specific problem skills too. This trend is different from what would be expected from most customized workplace education courses except that many participants in the programs interviewed were preparing for the GED exam and were probably focussing on test problem solving skills rather than workplace specific problem solving skills. The latter of the two emphasizes an ability to work in teams to solve problems while the former focuses on identifying and solving test problems. These tasks include different skill sets which probably do not transfer well.

Many instructors new to workplace education have difficulty finding the balance between helping participants to develop academic upgrading skills and workplace specific skills. There is very little training for workplace education instructors in Canada. The Department of Education has been developing a formalized certification program for instructors to help them learn how to create customized workplace education programs that facilitate learning transfer from the classroom to work. Part of the impetus behind the development of this certification program came from this finding.

## **Recommendations**

It would be interesting to gather data about skills improvements that are based on custom-designed tests such as the Test of Workplace Essential Skills to provide benchmarks for instructors so that they can assess the participants' improvements based on the skills used at work. Although it might be possible at some work sites, it would be a labour intensive endeavour. Creating these tests is time consuming, however, the partners should look into continuing to develop an effective tool that could provide an indication to the degree of the participants' improvements.

## Do workplace education programs influence economic and social outcomes?

The third objective of the Workplace Education Initiative is to influence the social and economic development of Nova Scotia by providing relevant education that impacts individuals where they work and live. The achievement of this objective stems from the Department of Education's effort to improve the essential skills of many workers by making education accessible to them. The development of a highly skilled workforce contributes to the economic development of the province by increasing the ability of workers to communicate, adapt, learn, perform, produce, and be safe within the workplace. This strengthens businesses capacity to incorporate the changes that they need to make to remain competitive within the growing global market. Workplace education influences the economic development of the province by providing working adults with an opportunity to improve their skills. These skills transfer into the workplace as outcomes like increased confidence, better communication skills, improved job performance and enhanced production. This not only helps businesses trying to better the bottom line, but it also helps organizations such as homes for special care which are trying to implement changes to improve the service of care. It encourages social development by influencing outcomes at home and in the community in various ways too. Improved skills and increased confidence levels can encourage or even enable participants to teach their children to read, take on new responsibilities and participate more fully in other aspects of their community lives.

The responses from the participants and partners in this section allude to improved essential skills, and also describe the notable impacts of workplace education on their lives and their workplaces. The data concerning workplace impacts is categorized here as "Self-Confidence", "Workplace Communications", "Productivity and Job Performance", "Health and Safety", "Opportunities for Promotions", "Worker-Management- Labour Relations" and "Morale". Each category presents the responses under the sub-headings "Workplace Partner Responses" and "Participant Responses". As with previous sections, the Workplace Partner segment includes observations from managers, supervisors and union representatives and uses figures that were derived from management evaluations in the larger manager survey. The union representatives were not asked about these impacts on the end-of-program surveys and the supervisors did not take part in the end-of-program surveys.

The data collected about the impacts that participants experienced at home and in the community is presented under the category, "Life at Home and in the Community". Unfortunately, there are no statistics available with this information. A number of participants in the end-of-program survey commented about the impacts that their workplace education experience had on their lives outside of work. As a result, this was probed in the in-depth survey. The findings appear to support the premise that workplace education can have an influence on the overall quality of life of participants and family literacy.

## Impacts at the Workplace

The statistical data highlighting the impacts at the workplace was collected from the end-of-program evaluations. The managers and participants were asked about specific impacts such as self-confidence, workplace communications and morale. The smaller study netted a number of valuable insights concerning these impacts by posing specific questions to managers, union representatives, supervisors and participants.

The data collected about the outcomes did not involve getting workplaces to measure the impacts on productivity by comparing the pre-course numbers with the post-course numbers. This would have been difficult considering that many organizations do not measure impacts quantitatively. Long found in the ABC Canada study that 90% of the organizations surveyed did not measure the benefits of workplace education quantitatively and 84% of them did not measure impacts of training (1997). It is too time consuming and costly for most organizations to monitor quantitative measures when they already know that they are getting a return on their investment. How do you effectively measure the impact on self-confidence and morale quantitatively anyway? A failure to do so does not mean that there were no improvements, it only means that these outcomes must be reported differently. The fact that the participants and partners observe impacts and that these impacts make a difference is proof enough for the organizations involved.

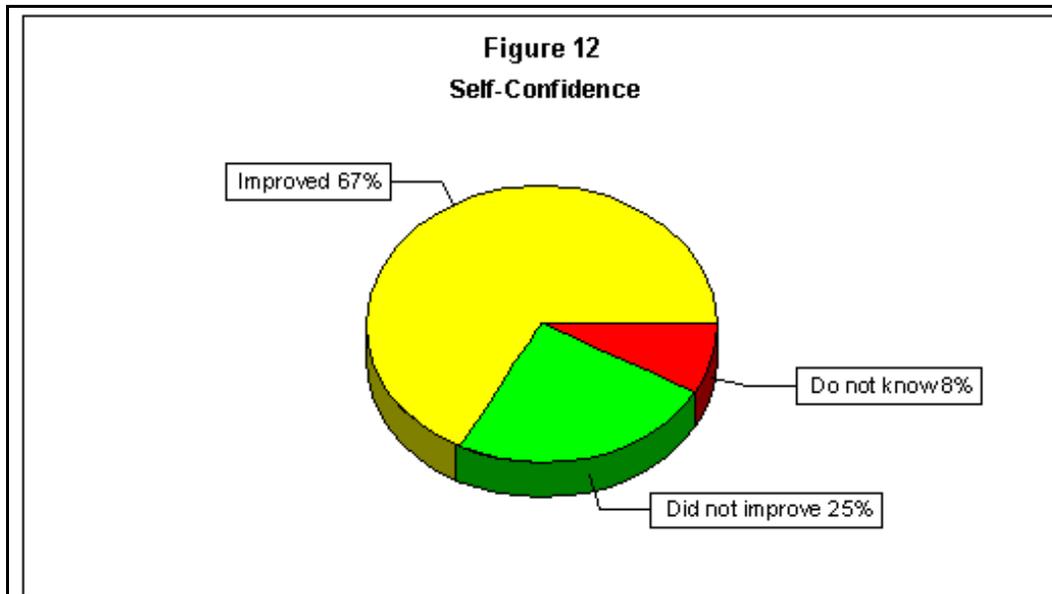
### Self-Confidence

It probably is not a surprise to educators that workplace education has had a positive impact on the confidence levels of participants. Many studies about adult education have documented increases in the confidence levels of participants (Horseman, 1990 and Long, 1997). Participants and instructors are often quick to comment on how participants have become more confident with the progression of a program. Of course, this is a natural result of taking a risk and succeeding. When a person tries something once, does it well and enjoys it, then he is encouraged by this result and tries it again. If the person is learning, he generally improves with each attempt and becomes more confident in his ability. The willingness to take risks is an essential element of learning and improving in any environment. This is why self-confidence is such an important outcome of workplace education.

The changes that are occurring in the workplace are requiring workers to adapt more frequently than in the past. The ability to adapt is largely determined by confidence. A confident worker is more willing to take risks, to try new things and to learn. As Long points out, “confidence is the engine that drives workers to problem-solve, to communicate, to lose their fear of technology”(1997). It is an essential component of success for workers entering the new millennium when change will be occurring faster and more often than ever before. So, any program that helps workers to increase confidence levels is important to them and their workplaces and by all accounts, workplace education does improve confidence.

## Workplace Partner Responses

Sixty-seven percent of managers noticed increased levels of self-confidence in the workplace education participants at their workplaces (See **Figure 12**).



Workplace partners noticed that improvements in self-confidence had direct impacts on individuals, their job performances and the overall atmosphere of the workplace. This supervisor makes the connection between participants' experience and how it made them more confident in their jobs.

*"The program has helped people feel more confident in their roles in the workplace."*  
-Supervisor, Citadel Inn

As other supervisors have noted, participants are doing job tasks better than before because they have learned skills that are applicable to work in their courses and they see the direct link between the skill improvements and the increases in self-confidence.

*"Workplace documentation has improved and self-confidence has increased among participants."* -Supervisor, Glen Haven Manor

*"People are better able to understand manuals and have more confidence as a result."*  
-Union Representative, Glen Haven Manor

*"Workers are understanding things better. They don't put themselves down now. This equals self-confidence."* -Union Representative, CKF Inc.

*“They are more comfortable in job tasks and they don’t rely on the supervisors to give all the answers.” -Supervisor, Crossley Carpet Mills Ltd.*

The relationship between improved skills and self-confidence seems to be reciprocal, one feeds of the other. The improvement of skills stimulates feelings of self-confidence. The increased feelings of self-confidence inspires participants to try new things. This spins off into longer-term benefits for workplaces because some participants become more willing to contribute to the workplace in ways that they did not contribute before.

*“Employees have more self-esteem and confidence in themselves to volunteer for company safety committees.” -Manager, CKF Inc.*

*“Self-confidence has increased in a big way. People are speaking at meetings. They make suggestions for changes and are more open to suggestions. Self-esteem has increased immensely.” -Manager, Glen Haven Manor*

*“People are feeling better about themselves, attitudes have changed. People are being given opportunities to try new things.” -Manager, Crossley Carpet Mills Ltd.*

*“People’s confidence levels are up as well as self-esteem. People that didn’t apply for jobs before are now applying for jobs with higher qualifications and are meeting the requirements as a result of workplace education.” -Union Representative, Crossley Carpet Mills Ltd.*

The increased willingness to do new things that comes with increased self-confidence is tied to many of the impacts that will be discussed in more detail within this section. It is important to start making the connection between increased levels of self-confidence and the other impacts related to workplace education at this point in the report because self-confidence is often seen as a soft return. It is hard for researchers to quantify the degree of impact that increases in the self-confidence levels of workers have on the bottom-line. The difficulty of quantifying the relationship between self-confidence and other improvements in productivity, workplace communications, worker-management relations, among other things, should not cause those involved with workplace education to ignore the relationship.

Many partners commented on how increased confidence levels helped participants to deal with the changes in the workplace or encouraged greater participation in the workplace. They commented that increases in self-confidence helped many of the participants deal with the new equipment or training programs.

*“People have more confidence to deal with the new equipment, technology and work practices.” -Union Representative, Crossley Carpet Mills Ltd.*

*“Because of the program and a gain in self-confidence, one employee is now running a machine alone where as before she worked in a group.” -Manager, Crossley Carpet Mills Ltd.*

*“Many benefited from gaining certification because they were more confident and skilled.” -Union Representative, Citadel Inn*

This of course relates back to the reciprocal relationship between skills and confidence as does the connection between self-confidence and participating more at work and with the union.

*“Workers have more self-esteem and confidence in themselves to volunteer for company safety committees.” -Manager, CKF Inc.*

*“Participants are more assertive, take initiative and have more pride in their work.”  
-Supervisor, Shoreham Village*

*“One of the participants passed her GED. As a result she was very eager on the job and her supervisor started to give her more training for a supervisory role. This program has had a definite effect on the people that I supervise. Their self-confidence and self-esteem has greatly improved.” -Supervisor, Crossley Carpet Mills Ltd.*

*“One woman came up asking questions about union items and volunteering with EAP. She was a participant that was now confident enough to attempt this.” -Union Representative, CKF Inc.*

*“There has been an increase in participants volunteering to do different and more job tasks.” -Supervisor, Crossley Carpet Mills Ltd.*

*“Participants are more assertive, take more initiative and have more pride.” -  
Supervisor, Shoreham Village*

*“Two female participants are going on course in September. It’s called Women’s Rights in the Workplace. This is an example of how self-confidence has given some participants the courage to speak when their interest is peaked.” -Union Representative, CKF Inc.*

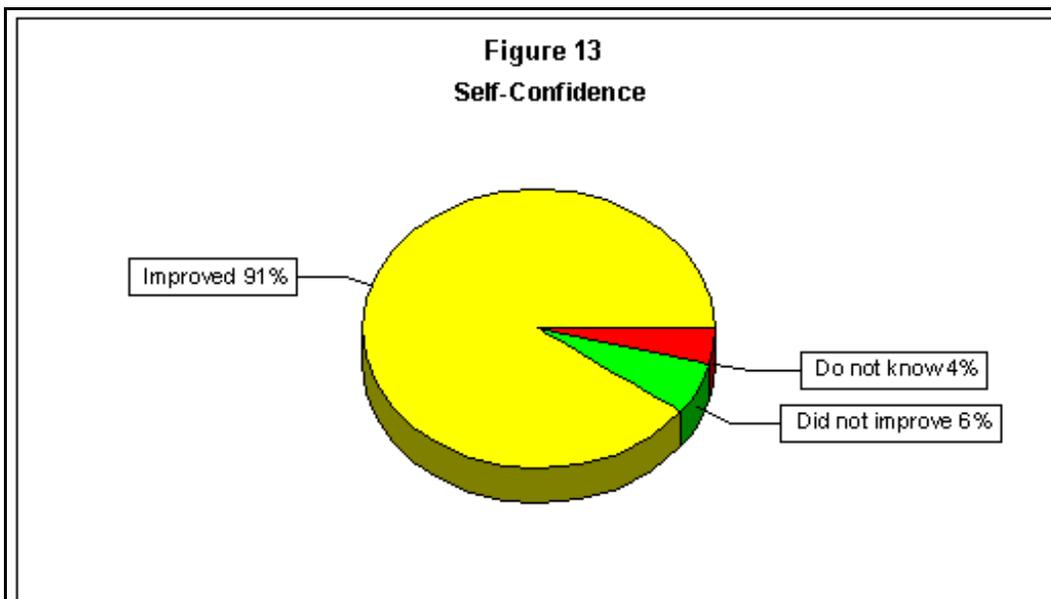
Although the reciprocal relationship between skills development and confidence increases plays a large role in the enhancement of participants self-confidence, it is not the only factor influencing the change. Another factor that some of the partners connected to these changes was that workers felt better about themselves and their positions within the organization because the employer was investing in them. Self-confidence is related to feeling valued. Workers who feel valued by employers feel more comfortable within the workplace structure because the investment demonstrates that their contribution to the workplace is an important part of the operation.

*“Staff feel that by taking part in the program, management has offered them a chance to hone their skills. This has improved self-esteem and makes employees feel valued.”  
-Manager, Breton Bay*

This factor and some of the connections between self-confidence and the other impacts of workplace education are explained more fully with the participants' responses.

## Participant Responses

Ninety-one percent of the participants experienced increased levels of self-confidence as a direct result of participating in workplace education (See **Figure 13**).



Most of them explained that the opportunity to focus on improving the essential skills that they used at work, at home and in the community was connected to these feelings. This relationship is a result of the workplace education model where the classroom learning is derived from the participants' everyday needs and interests. This focus sets up a situation where participants find it easier to succeed because their learning is centred around what they already know and expands from there. This all works together to provide the participants with a comfortable learning environment that stimulates their self-confidence by enabling them to transfer what they learn in class to their work and everyday lives. By enhancing the skills that they need to use everyday, they enhance their self confidence.

*“I have more confidence. I can explain things more clearly than before. I feel that I can approach the supervisor.” -Participant, CKF Inc.*

*“The program has given me great confidence. I have used my skills not only at work but also at home. I am able to understand my job instruction sheets better. Now when I read about units of measurement, I understand what they mean. I have also been able to help my children more with their school assignments.” -Participant, Hermes Electronics Inc.*

*“Since I have started this program, I have had other co-workers ask me related questions that I was able to help them with. I find that I have become more organized. I also feel that I have a lot more confidence in myself.”* -Participant, Hermes Electronics Inc.

The participants had similar observations about the connection between their skills development and their confidence levels. They too thought that increased confidence levels led to more willingness to contribute to the workplace.

*“This program helped me to overcome my shyness, gave me more confidence in myself and helped me improve my writing and math skills.”* -Participant, CKF Inc.

*“I think the course was great. It gave me more confidence to talk out loud.”*  
-Participant, Citadel Inn

Many of the participants connected their increases in self-confidence to the learning that they did throughout the workplace education program. Their success in the classroom also contributed to the improvements in self-confidence.

*“It encourages you to do more things that you never thought that you of all people would be doing, and it made me feel that I can learn anything.”* -Participant, New Dawn Enterprises

*“This program was helpful for me. Being out of school for many years, I felt like I needed to understand more of what is going on around me. It made me feel like I was not alone, and the other people needed to learn. I was very comfortable in class and learned a lot. Thank you for the opportunity to participate.”* -Participant, St. Vincent’s Guest House

*“It sharpened skills that I hadn’t used for a long time and gave me self-confidence.”*  
-Participant, Avon Foods

For many, the completion of a workplace education program provided them with a feeling of accomplishment, and for others this feeling was symbolized by their success at preparing for and passing the GED. Achieving their high school equivalency contributed greatly to their confidence levels.

*“It gives me a better feeling that I have continued and finished school.”* -Participant, Dexter Construction Co. Ltd.

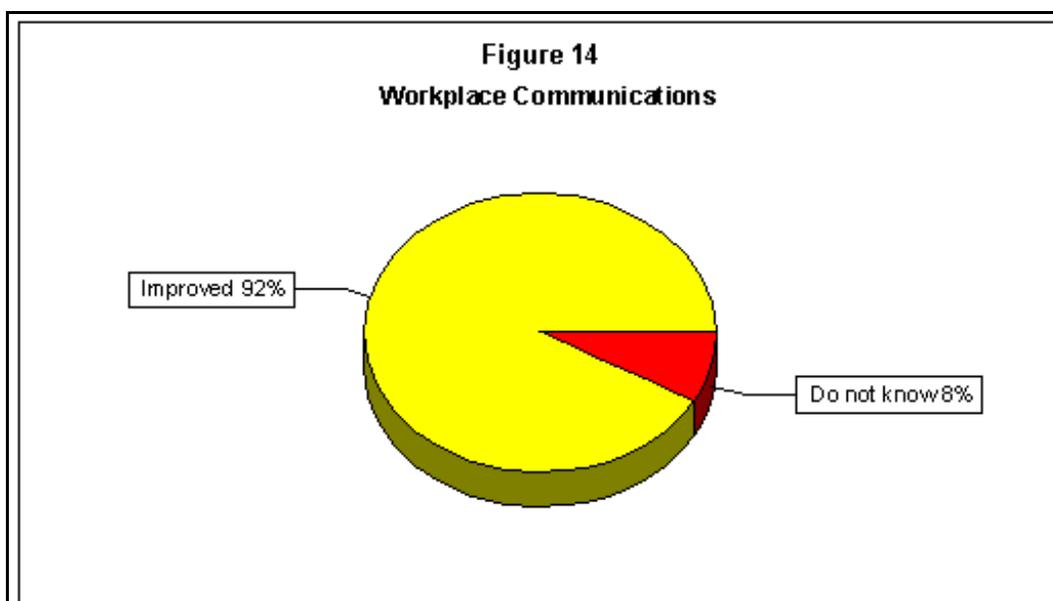
There is no disputing the reciprocal relationship between essential skills and self-confidence even though we have not done a lot of studies on this connection. The existence of this relationship explains much about the impacts that are created by workplace education programs. Many of the partners and participants comments about the larger impacts of workplace education relate back to improvements in essential skills and self-confidence.

## Workplace Communications

Another important outcome of workplace education is improved communications. How well workers communicate to each other within a workplace is determined by a number of factors such as communication structures, technology and the ability of workers to express themselves clearly. Their ability to communicate is related to their reading, writing and oral communication skills. The partners have observed that improved reading helps workers to read and understand memos, e-mails, news letters, reports and other prose texts that are used to communicate workplace policies, activities, changes and processes; that improved writing helps workers to write more clearly and efficiently so that their memos, e-mails and reports are easier to understand; and that better oral communication skills help workers to talk to, listen to and understand each other during the course of the work day.

## Workplace Partner Responses

Ninety-two percent of the managers (See **Figure 14**) in the end-of-program survey observed improvements in the communications within the workplace.



Many of the union representatives indicated that they knew that a number of participants were having an easier time understanding written materials.

*“Many participants understand the union contract language better.”* -Union Representative, Crossley Carpet Mills Ltd.

*“People are better able to understand the manuals and they have more confidence.”*  
-Union Representative, Glen Haven Manor

Other partners noted how the participants' writing skills had improved and that this made written documents like notes, memos and charts easier for others to understand.

*"I see improvement in the charting notes. Doctors are receiving more concise and clear notes from our staff."* -Manager, Breton Bay

*"Many members have better writing skills and their attitudes about work have changed for the better."* -Union Representative, Citadel Inn

*"Charting has improved overall awareness and helped to promote the 'team approach'."* -Manager, Valley View Villa

*"They write clearer and neater notes."* -Supervisor, Citadel Inn

The improvements made in oral communication skills helped open the lines of communications within the workplace. Many partners noted participants were more confident and willing to communicate at work because of their learning experiences through workplace education.

*"People have increased self-esteem and they express their opinions more."* -Manager, Glen Haven Manor

*"I see an improvement in their ability to communicate with the direct supervisors because of better verbal and organizational skills."* -Manager, Citadel Inn

*"People are speaking at meetings. They make suggestions for changes and are more open to suggestions. The self-confidence of participants has increased immensely."* -Manager, Glen Haven Manor

*"Participants are more likely to make suggestions and take initiative."* -Manager, Shoreham Village

*"Union meetings are more harmonious. People get along really well. They communicate better."* -Union Representative, Citadel Inn

This has led to significant impacts on the development of teamwork within and outside of departments within various workplaces.

*"There is more team participation now."* -Supervisor, Shoreham Village

*"Workers are more team oriented as a result of workplace education."* -Supervisor, Glen Haven Manor

*"They are more willing to help each other on the job."* -Supervisor, CKF Inc.

*“The program increased positive working relations between departments.”* -Manager, Dartmouth General Hospital

*“They now give more instructions and guidance to new employees.”* -Supervisor, Citadel

*“They tend to help others and get involved and take over.”* -Supervisor, Crossley Carpet Mills Ltd.

*“They are more apt to volunteer. They want to get more involved in the total care of the residents.”* -Supervisor, Shoreham Village

*“There is more cooperation amongst employees. They are more willing to listen to co-workers’ points of view and are trying to find solutions on their own.”* -Manager, Shoreham Village

*“They are more willing to ask questions and know what questions to ask when doing new tasks.”* -Supervisor, CKF Inc.

*“They express thoughts and feelings about workplace issues more freely and confidently.”* -Supervisor, Shoreham Village

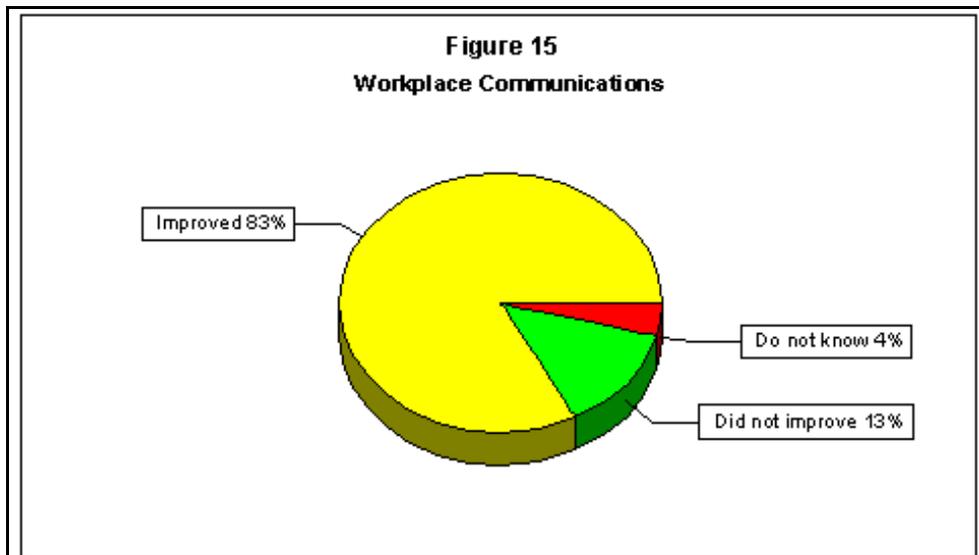
Improvements in teamwork influenced by workplace education most likely started in the classroom and expanded beyond its walls into the workplaces.

*“Participants of this program grew together as a family and supported each other especially when a participant missed class and needed to get homework information or when a classmate needed extra help on assignments. They worked together as a team.”*  
-Manager, CKF Inc.

The time that participants spend in a course allows them to build relationships with other workers that are different from those that they have at work.

## **Participant Responses**

Eighty-three percent of participants (See **Figure 15** ) experienced improvements in how they communicated at work.



Many workers explained that improving their reading skills helped them at work by increasing their ability to understand changes that are happening in the workplace, instructions about job tasks or notes and reports from previous shifts.

*“I have a better understanding of the plant memos.”* -Participant, Avon Foods

*“It is easier for one shift to know what the previous shift had encountered.”*  
-Participant, Valley View Villa

*“I understand the written instructions left for any changes that have to be made during the shift better.”* -Participant, CKF Inc.

*“I read and understand directions better. I am not scared of big words. I understand the terminology in workplace notices on the bulletin board.”* -Participant, CKF Inc.

Other workers commented that improving their writing skills have helped them on the job by making them clearer writers and more efficient note takers.

*“I think I have improved in report writing and when I communicate with other staff.”*  
-Participant, La Have Manor Corporation

*“I leave better notes for the co-workers who are coming on the next shift.”*  
-Participant, Crossley Carpet Mills Ltd.

*“My notes to co-workers are more clear and my instructions can be followed right away now.”* -Participant, Citadel Inn

*“I write better minutes at meetings.”* -Participant, Citadel Inn

*“I now take better minutes at union meetings.”* -Participant, Crossley Carpet Mills Ltd.

Workers also noted that improvements in their ability to communicate orally has helped them on the job by giving them a chance to build the confidence to speak up and by making them clearer communicators.

*“I have more confidence. I can explain things more clearly than before. I can approach the supervisor.”* -Participant, CKF Inc.

*“I speak at RA meetings more frequently.”* -Participant, Citadel Inn

*“I speak up more at work.”* -Participant, Citadel Inn

*“I am more confident at meeting guests and giving the right answers to questions. This makes the guests more comfortable and friendly.”* -Participant, Citadel Inn

*“My improved public speaking skills are very helpful for me in my job.”* -Participant, Dartmouth General Hospital

*“It helped me communicate better with residents.”* -Participant, Shoreham Village

*“It helped me with my communication skills. I discovered that a willing, kindly approach works more positively.”* -Participant, Shoreham Village

*“I can explain phone messages more plainly now.”* -Participant, Citadel Inn

All of these improvements have helped workers to increase the quality of work that is produced by the workplace. Health care workers are better able to improve the quality of care for patients and residents.

*“I have a better understanding of the needs of the residents of Shoreham and feel as though I can communicate easier with them. I have tried putting myself in their position and to try to see things from their point of view.”* -Participant, Shoreham Village

*“I am able to understand the physician when he or she talks in medical terms, and typing reports has become a lot easier.”* -Participant, Western Regional Health Care

*“I take the time to listen to staff and residents, to listen to what people are saying and try to comply with their needs.”* -Participant, Shoreham Village

Cleaning staff in the hotel industry feel more comfortable interacting with guests or writing clearer reports for supervisors.

*“I speak more. I am more friendly. I smile more. I find that I get a good response back.”* -Participant, Citadel Inn

*“My supervisor understands my writing better.”* -Participant, Citadel Inn

Line workers in factories can communicate problems to supervisors so that they come up with solutions quicker.

*“I can explain things more clearly. For example, if I have a problem with a machine, I can explain what’s wrong. I pay more attention.”* -Participant, CKF Inc.

These outcomes not only helped to improve the flow of communications between workers, but also contributed to the development of an atmosphere of teamwork within the workplaces as was mentioned by the partners. This probably has a lot to do with the relationships that develop among the workers in a workplace education course. Two essential factors of clear communications are trust and comfort. Participants were able to enhance their levels of trust and comfort within the confines of the classroom.

*“The sharing and helping that went on between participants in class led to strong teamwork on the job.”* -Participant, CKF Inc.

*“It was the right time. I improved by helping others. Helping others helped me.”*  
-Participant, CKF Inc.

Increased trust and comfort levels worked to build the confidence levels of participants in a space that allowed them to try new things.

*“I presented compositions to co-workers for the first time ever!”* -Participant, CKF Inc.

This allowed them to further develop their abilities to read for meaning and communicate more clearly which transferred to improvements in workplace communications and team work. Participants became more comfortable with their skills and their roles within the workplace as a result of their experience.

*“I am more comfortable providing directions and instructions to co-workers.”*  
-Participant, CKF Inc.

*“I am better at giving instructions to new RA’s.”* -Participant, CKF Inc.

*“To a certain degree, I discovered that giving directions and instructions to co-workers is appropriate.”* -Participant, Shoreham Village

*“I am more patient at providing good directions and instructions.”* -Participant, Shoreham Village

Of course, part of clear communications is not solely located in the ability to articulate and process thoughts, but it is contained with the ability to listen and collaborate. Participants often work on communication strategies like 'active listening' during the course. Communication strategies such as this focus on listening to what others have to say and trying to understand their point of view.

Many workers have indicated that they improved these skills.

*"I slowed down and stopped to listen to co-workers."* -Participant, Shoreham Village

*"I now feel more comfortable asking questions."* -Participant, CKF Inc.

*"I ask and respond to questions in the office better."* -Participant, Citadel Inn

A number of them made the connection between these improvements and the adoption of good problem solving strategies and better team work.

*"If a problem came up at work, I would feel more confident to talk about it now."*  
-Participant, CKF Inc.

*"Because I have become a better listener, I can see co-workers' points of view."*  
-Participant, Shoreham Village

*"I am better at solving conflicts and finding solutions at work."* -Participant, Citadel Inn

*"This allowed me to be more confident to express myself to co-workers involving problems or concerns that I was not able to deal with in the past."* -Participant, Shoreham Village

*"Now, if there is a problem I don't let it fester."* -Participant, Citadel Inn

*"I see that staff is attempting to use our new tools to resolve conflicts."* -Participant, Shoreham Village

*"There is better communication with supervisors because of the team effort involved."*  
-Participant, Shoreham Village

*"I am more patient and open. I am taking a lot more time to listen and speak."*  
-Participant, Shoreham Village

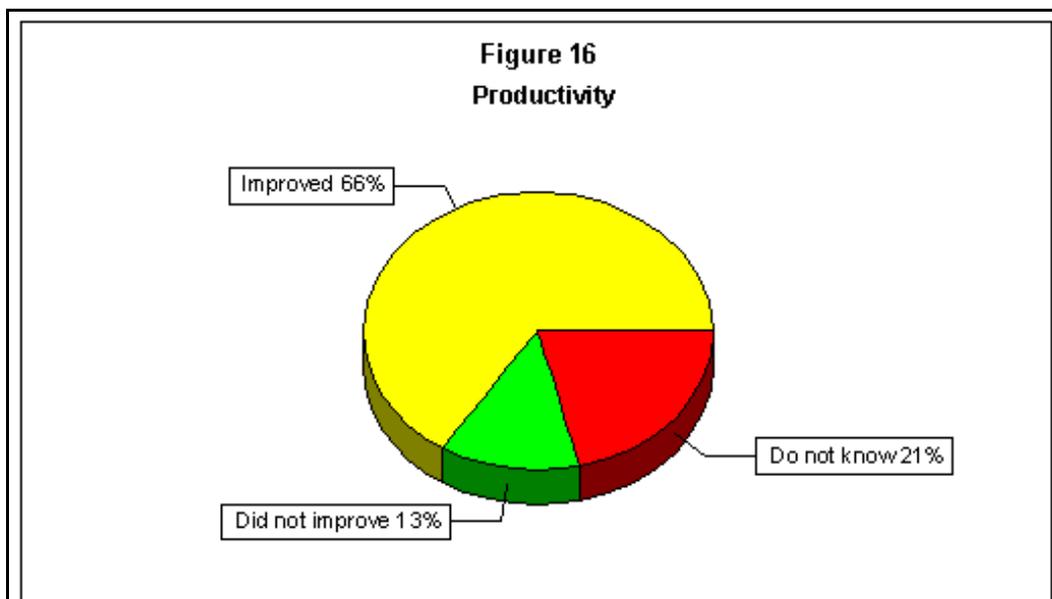
All of these improvements in communication are connected to the improvements in productivity, morale and worker-management-union relations.

## Productivity and Job Performance

Productivity is influenced by workplace education because participants are often able to improve their job performance by increasing their skill and confidence levels. By enhancing their job performance, workers are able to reduce time per task, reduce error rates and increase the quality of their work. These outcomes work together to improve the overall productivity of the workplace. Many of the respondents have also stated that the workplace has provided them with the skills, confidence and encouragement to contribute to the workplace in ways that they were not contributing before.

### Workplace Partner Responses

Sixty-six percent of the managers (See **Figure 16**) observed improvements in productivity that were influenced by workplace education.



These findings are in-line with the results of ABC Canada's study, *The Impact of Basic Skills on Canadian Workplace* (Long, 1997). It indicated 64% of the workplaces experienced productivity increases with programs that were less than 3 years old. ABC Canada's study was able to make a comparison between programs that were less than three years and programs that were more than three years and the results were very promising. They indicated that the impacts on productivity increased with time. Eighty-seven percent of the workplaces with programs that were more than 3 years old noted productivity improvements (Long, p. 28, 1997).

This study evaluated programs that have been running programs for 3 years or less. Although the significant differences that ABC Canada cannot be correlated by this study, their findings hold a lot of promise for those workplaces involved with the Initiative.

The partners' responses provide a lot of insight into the connection between improvements in productivity and the enrichment of essential skills, self-confidence and workplace communications. They have observed reductions in the time that it takes workers to perform job duties.

*"Reports written at the end of the day are done much more quickly and fluently."*  
-Supervisor, Crossley Carpet Mills Ltd.

*"Workers are not asking as many questions, they are more confident to figure things out for themselves."* -Supervisor, Crossley Carpet Mills Ltd.

*"Staff are more organized which increases productivity by reducing time per task."*  
-Supervisor, Shoreham Village

*"Their ability to think things through and find the shortest and easiest way to do things has increased."* -Supervisor, Crossley Carpet Mills Ltd.

*"One student commented that he is now learning more about exams than he ever did before and is handling more mechanical problems than before the program as a result of increased confidence."* -Manager, Crossley Carpet Mills Ltd.

They have noted reductions in the errors that some workers have made on the job.

*"We have reduced errors in math calculations on the job by 25%."* -Supervisor, Crossley Carpet Mills Ltd.

*"Workers are communicating better with residents."* -Supervisor, Shoreham Village

*"Before the program they would try something, make a mistake, and then ask a question. Now, if they are unsure about something, they will ask the question first."*  
-Supervisor, Crossley Carpet Mills Ltd.

They have commented on the increased ability of workers to adapt to new technology and equipment.

*"Employees are more willing to adapt to changes in technology."* -Supervisor, Citadel Inn

*"Because of increased confidence, they are more willing and able to adapt to new technology."* -Supervisor, Crossley Carpet Mills Ltd.

*"Workers are more open to change now than before."* -Supervisor, Glen Haven Manor

*"Now, they are more willing to try new equipment because of increased confidence."*  
-Supervisor, CKF Inc.

They have witnessed changed work habits that have improved job performance.

*“Workplace education made workers begin to think more about how they were performing on the job and could improve their performance.”* -Manager, Crossley Carpet Mills Ltd.

*“They make sure they have their carts stocked before they go home at night.”*  
-Supervisor Citadel Inn

*“They now think about whether the room is clean enough for the guests.”* -Supervisor, Citadel Inn

They have experienced a greater willingness on the part of workers to contribute to the development of the workplace and even initiate improvements themselves.

*“Employees are volunteering for committees more than before.”* -Supervisor, CKF Inc.

*“Employees are volunteering for tasks, they never did before.”* -Supervisor, Crossley Carpet Mills Ltd.

*“Once the program started, participants would come to talk and ask questions. They wanted to know how things worked.”* -Manager, CKF Inc.

*“Participants are providing more input on their accreditation teams.”* -Manager, Glen Haven Manor

*“The awareness of a lot of issues was increased. It made employees begin to think about how they were performing on the job and how they could improve their performance.”* -Manager, Shoreham Village

*“This program has not had any adverse effect on productivity even though participants are away from the line for an hour.”* -Manager, Crossley Carpet Mills Ltd.

*“They take more initiative, are more organized and have improved problem solving. They set up a committee to deal with issues around the lift technology that is used to assess patients.”* -Supervisor, Shoreham Village

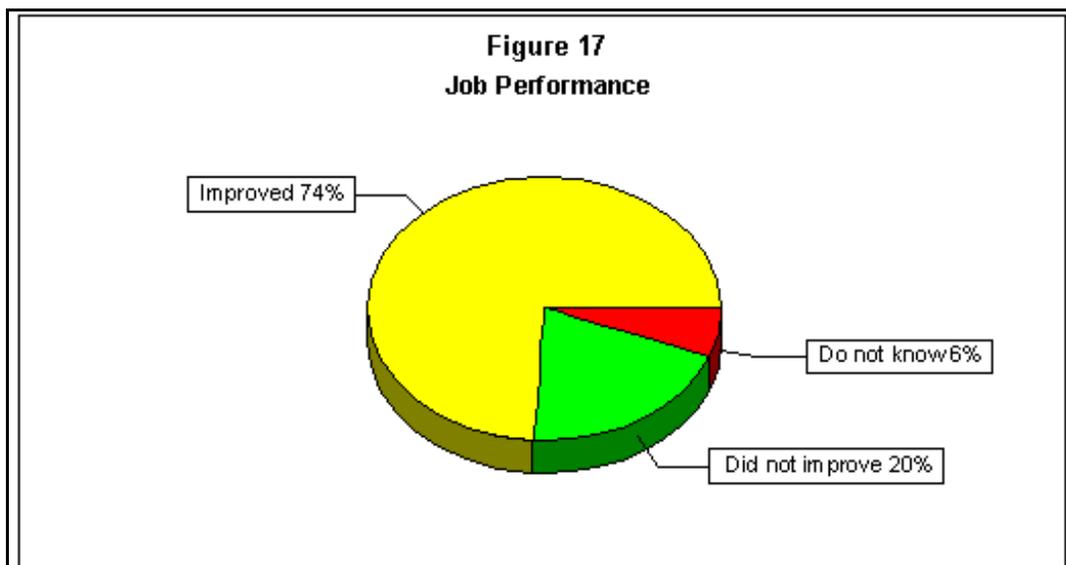
*“Many participants increased their awareness of other people’s points of view and this led to better treatment of residents.”* -Manager, Shoreham Village

*“There are four or five different committees and most participants from the workplace education program sit on one of these committees.”* -Manager, CKF Inc.

All of these changes indicate that workplace education has helped organizations to develop a workforce that is more engaged in the job. The increased confidence levels and abilities to communicate create an atmosphere where workers are more likely to speak up about issues, troubleshoot problems, ask questions and provide feedback that affects productivity and quality.

## Participant Responses

Seventy-four percent of the participants (See **Figure 17** ) indicated that workplace education helped them to improve their overall job performance.



The participants were not asked about the impacts that workplace education has had on the overall productivity of the organization. Instead, they were asked about the impact that workplace education had on their overall job performance. Improvements in the speed and efficiency in which they perform their job tasks will have led to improvements in the productivity of the workplace.

Many participants stated that they were able to reduce the amount of time that it took them to perform job tasks. These reductions in time are related to reading and math skills.

*“It makes the job easier. Taking more time to read takes the frustration out of it. I don’t misinterpret and take things the wrong way as much. I take more time with memos, reports and letters.” -Participant, Citadel Inn*

*“It helps me read material on the work floor easier and gives me more self-confidence.” -Participant, Hermes Electronics Inc.*

*“I have to make changes to the printing machine when they are necessary. To do this, I have to follow the diagrams to change the colour, font etc. I understand the diagrams better.”* -Participant, CKF Inc.

*“I can read memos, notes and emergency procedures once to understand them. Before I had to read them 3 times.”* -Participant, Citadel Inn

*“I find it easier to figure out metric problems that I encounter at work. I am better at estimating the size of cones on the wall to make beams.”* -Participant, Crossley Carpet Mills Ltd.

*“I can do math quicker and I have more knowledge of the process. I couldn’t do percentages well and now its much easier to figure out percentages on the job.”*  
-Participant, Crossley Carpet Mills Ltd.

*“I don’t take so much time or effort to work out problems. I’m a lot quicker on the up take. Can use my head now to figure things out.”* -Participant, Crossley Carpet Mills Ltd.

*“I don’t have to stop and think so much to convert into metric.”* -Participant, CKF Inc.

*“I improved my understanding of metric and I do a lot of conversion from standard to metric.”* -Participant, Crossley Carpet Mills Ltd.

*“Math done at work is done more quickly.”* -Participant, CKF Inc.

*“I now clearly understand what needs to be done. The course has helped to decrease stress because I am able to communicate my needs better which results as a good time saver.”* -Participant, Shoreham Village

The reductions in error are largely related to a concerted effort to take more care and plan their work related writing tasks.

*“I did the employee evaluations more carefully and clearly.”* -Participant, Citadel Inn

*“I now take more time to fill out forms and reports. I take more pride in what I write.”*  
-Participant, Crossley Carpet Mills Ltd.

*“I used a dictionary to learn unfamiliar words and to write out their meanings.”*  
-Participant, CKF Inc.

*“I will now look up words when I am not sure of their spelling.”* -Participant, Crossley Carpet Mills Ltd.

*“It made me think and notice more in the workplace. I find it easier to write workplace reports now.”* -Participant, CKF Inc.

*“I now have an understanding of the work that I do and now math problems are easier to figure out.”* -Participant, Crossley Carpet Mills Ltd.

*“I understand the directions from my shift supervisor better.”* -Participant, CKF Inc.

*“If I don’t understand instructions, I’ll ask. My communication strategies have changed.”* -Participant, Citadel Inn

*“I am more comfortable speaking with my supervisor. I even told my supervisor about an error that he made.”* -Participant, CKF Inc.

Participants indicate that they find it easier to interpret and understand workplace literature.

*“I understand memos better. I understand the union contract better now”* -Participant, Citadel Inn

*“I am better able to read for meaning, to pull the information that I need from something that I am reading.”* -Participant, Crossley Carpet Mills Ltd.

For many participants, improved job performance came with the ability to communicate problems clearly or clarify work issues.

*“Now, I usually ask questions. I pay more attention. I am more focussed due to the class. I now take in what people are saying.”* -Participant, CKF Inc.

*“When I have problems at work, I write reports more clearly so that others can understand. This makes my work easier and more efficient.”* -Participant, Citadel Inn

*“I realized now that it is OK to ask for solutions from my supervisor or management. I now take the initiative to seek out solutions.”* -Participant, Shoreham Village

A few participants even comment on how their newly improved skills have helped them to contribute to the workplace in ways they were not able to before.

*“I have offered suggestions to better organize things.”* -Participant, CKF Inc.

*“I have a better knowledge of what is expected. I even helped to develop a new PCW sheet. I would not have done that before.”* -Participant, Glen Haven Manor

*“I came up with a new cleaning policy, presented it to the supervisor and it has now been implemented. I am very satisfied.”* -Participant, CKF Inc.

*“I ordered a vacuum cleaner for work based on the research that I did.”* -Participant, CKF Inc.

*“I look at problems more. I will try to figure it out and ask questions. When something doesn’t work, I make a few adjustments on my own. I show more initiative now.”* -Participant, CKF Inc.

*“I can solve the problem right away. I can approach the right person to solve my problems right away.”* -Participant, Citadel Inn

*“I am now training the new RA’s.”* -Participant, Citadel Inn

*“One of the clients has MS. We had to eliminate a few of his transfers to increase his comfort level when we were bathing him. Every time he needed to get a bath, it required four lifts to get him into the tub. The Personal Care Workers brainstormed and designed a set of assistive trousers that eliminated two of the lifts. We presented our design to our supervisor who agreed that it was an excellent idea. The supervisor presented the idea to the Occupational Therapist who said, ‘Wonderful!’. We got a seamstress to make the trousers. It was a team effort that involved three departments.*

*“The front-line staff used our problem solving skills learned in workplace education to make us more efficient.”* -Participant, Shoreham Village

And of course, improved job performance was enhanced by a better understanding of work processes.

*“I better understand how invoices are set up and why they are done a certain way.”* -Participant, Crossley Carpet Mills Ltd.

It is interesting to note that a more detailed review of these results supports the theory that the transfer of skills from the classroom to the workplace is greater with participants who focus more on work specific skills rather than those who concentrate on more general skills. Eighty-three percent of the participants that were in courses that concentrated on charting, workplace communications or work math improved their overall job performance while only 60% of the participants that worked on more academic skills that helped them to prepare for the GED indicated that they improved their overall job performance. This finding supports the earlier recommendation to develop educational opportunities for instructors to enhance their abilities to develop workplace specific curricula.

## Health and Safety

Other studies have made reference to the organizational impacts that workplace education can have (Bloom et al., 1997; Long, 1997; MiKulecky & Lloyd, 1993). Not surprisingly, they found that workers with higher reading and communication skills are more likely to understand and follow safety procedures. Although the end-of-program surveys did not collect information about impacts on health and safety records, some information was gathered by the interviewers from the supervisors and managers which indicated that health and safety at their workplaces was improved.

*“The accident rate has been reduced because some workers read the labels on bottles and realize that they can’t mix certain chemicals.”* -Supervisor, Citadel Inn

*“The accident rate has been reduced.”* -Manager, Crossley Carpet Mills Ltd.

*“The rate reduced for one employee in particular who was always having accidents. Now, there has not been one in a long time.”* -Supervisor, Crossley Carpet Mills Ltd.

*“I have noticed that there has been a reduction in safety incident reports.”* -Supervisor, Shoreham Village

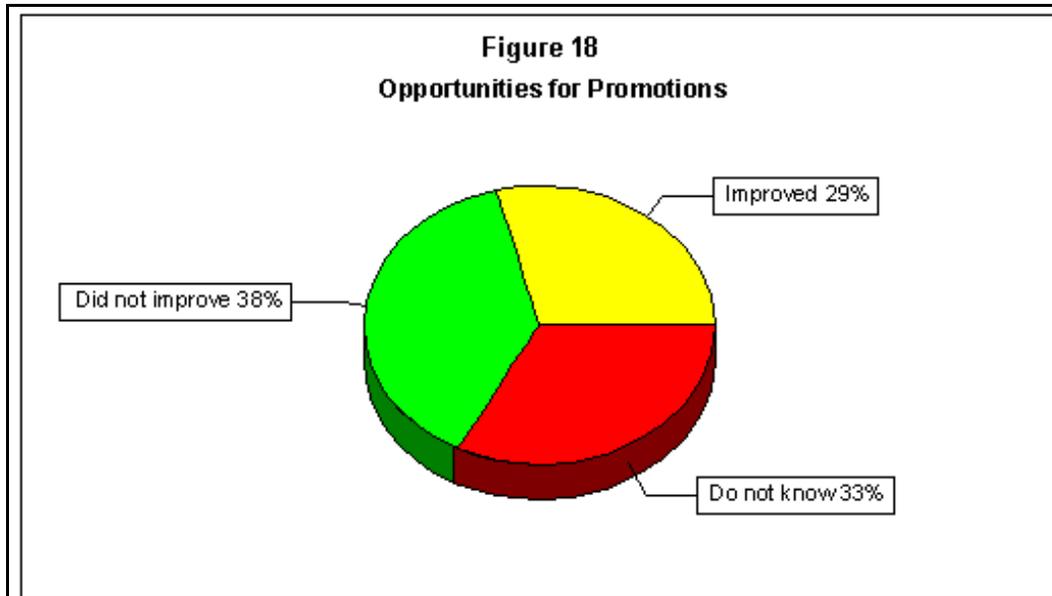
*“There is more input from employees at safety meetings.”* -Manager, CKF Inc.

## Opportunities for Promotions

The IALS data has indicated that there is a strong relationship between literacy skills, earnings and employment. Generally, higher literacy skills are connected to higher earnings, less incidence of unemployment and more full-time employment over one’s lifetime (OECD & HRDC, 1997). This is bad news for many workers with lower essential skills because it means that it is harder for them to avoid being laid off, find more secure work or get better paying jobs. This prompted the researchers to find out if any of the participants were able to obtain more secure work, raises or promotions as a result of improving their skills. Did workplace education improve the job status of the participants?

### Workplace Partner Responses

Twenty-nine percent of managers (See **Figure 18**) noted that workplace education had an impact on the participants’ suitability for promotions.



Some of the partners indicated that enhanced skill levels and confidence increased the chances of many participants to obtain promotions they were once ineligible for.

*“Workplace education would increase their chances of a promotion if they were applying for another position.” -Supervisor, Citadel Inn*

*“They have a chance at promotions by acquiring new skills and gaining the confidence to apply.” -Supervisor, Crossley Carpet Mills Ltd.*

Others stated that some participants did improve their skills enough to meet the qualification standards for other jobs and have moved into these positions.

*“This has been a great thing. People’s confidence levels are up. People who didn’t apply for jobs before are now applying for jobs with higher qualification standards, and they are meeting these requirements as a result of workplace education.” -Union Representative, Crossley Carpet Mills Ltd.*

*“There have been several participants who have participated in the program and have move to more responsible jobs.” -Manager, Crossley Carpet Mills Ltd.*

*“It has helped some become more suitable for promotions. All postings for trade jobs in the company require grade 12. Two participants have applied for two new postings which are still in the selection stage. The opportunity is now there for participants.” -Manager, CKF Inc.*

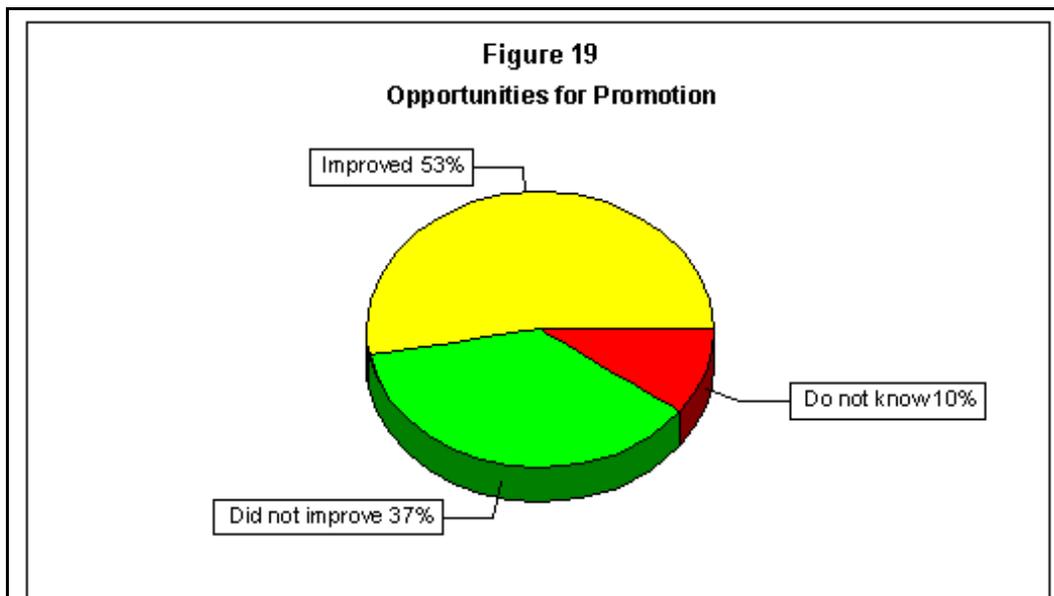
Although improvements in skills and confidence levels can lead to the ability to achieve higher requirement standards, the fact still remains that few opportunities for promotion exist within many organizations. Participants may be more eligible for promotions, but the lack of upward mobility within organizations prevents them from cashing in on this potential benefit. Two possible reasons for this lack of mobility may be that good jobs are hard to come by in rural areas and are more valued by workers who keep them for many years or that the baby boomers are clogging the channels of promotion by occupying many of the positions for long periods of time. Either way, it should be understood that while workplace education can help participants improve their chances for promotions, this is only one step toward improving job prospects.

*“There are not many opportunities for promotion at this workplace.” -Manager, Shoreham Village*

It is also important to note that many promotions in areas like health care require significantly higher levels of education. Improving essential skills is only one step toward higher paying and more secure employment opportunities. For workers who want to take part in further education and training, workplace education is a good first step. It helps them improve their skills so that they are better prepared to reap the benefits of certification programs that will qualify them for higher paying jobs. This outcome is mentioned here, but discussed in more detail in the next section.

### Participant Responses

Fifty-three percent of participants (See **Figure 19**) indicated that workplace education may impact their chances for promotion.



Those that did answer positively to this question were well aware of the circumstances that influenced their chances for promotions.

*“Workplace education will help, but there are not opportunities at present.”*

-Participant, Citadel Inn

*“There have not been any opportunities yet, but now I would be more eligible for the jobs that are posted in the future.”* -Participant, Glen Haven Manor

Although promotional opportunities are not currently available, workplace education participants have developed the confidence to apply for future jobs as a result of their increased eligibility. In the meantime, these participants will be comforted by the knowledge that others have improved their job status by getting promotions, wage increases or even full-time work as a few participants did.

*“I applied for another posting and got it. I got a wage increase and a promotion.”*

-Participant, CKF Inc.

*“I now have a full-time position and achieving my GED through workplace education had an impact on that.”* -Participant, Glen Haven Manor

*“I have to qualify for an honorarium each year as a volunteer coordinator. My enhanced performance will increase my chances of receiving this honorarium.”*

-Participant, Shoreham Village

*“I decided to go into a new line of work. I had thought about applying for this position before. Now, I have done it since the program. I am now running a machine rather than working as a production worker. I got the grade 12 qualification that I needed to apply.”* -Participant, CKF Inc.

These results are promising, but a more thorough evaluation of workplace education’s real impact on job opportunities will take more time. It stands to reason that, not unlike productivity, the impact on job opportunities will grow over a period of time. Those participating in workplace education over a period of five years could experience more significant impacts than those who have only participated for one year. This would be especially true for those who needed significantly more training and education to improve their employment opportunities. Workplace education might start these workers on their way by helping them improve their essential skills so that they can go on to take training programs. A more accurate idea about the influence that workplace education may have had on these participants would require a study conducted over a longer period of time.

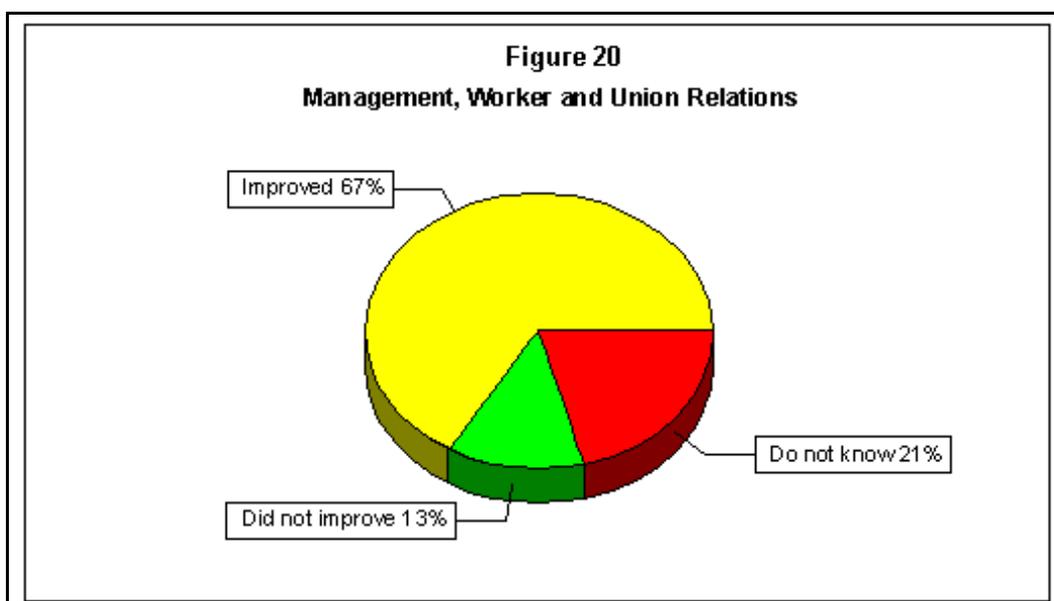
## Worker-Management-Labour Relations

Worker-management-labour relations have improved in some workplaces as a result of workplace education. This improvement can be related to skills improvements, but more likely has to do with the opportunity and the model used. Many workers are encouraged by the investment that the employer and union are making in them by creating these educational opportunities. The development of a program is interpreted by workers as a recognition of their importance to the organization. The investment makes them feel valued, and this goes a long way to foster good relations.

It should be noted that the workers were asked about the impact that workplace education had on their loyalty to the employer and union rather than on their relationship with these two groups.

### Workplace Partner Responses

Sixty-seven percent of the managers (See **Figure 20**) indicated that workplace education helped to improved worker, management and union relations.



Many partners attributed this improvement to higher confidence levels and communication skills. They felt many workers had improved their ability to solve problems between workers, management and the union.

*“Workplace education improved between management, workers and the union. Now some people are not scared to approach management. People are using more tact when requesting time off from management.” -Union Representative, CKF Inc.*

*“Relations have improved because the shop stewards deal much more calmly with management. They word things more diplomatically and are more confident about speaking out.” -Union Representative, Citadel Inn*

*“Now, some people are not afraid to approach management and they are using more tact when requesting time off.” -Supervisor, CKF Inc.*

One workplace was even able to settle resolutions faster than before.

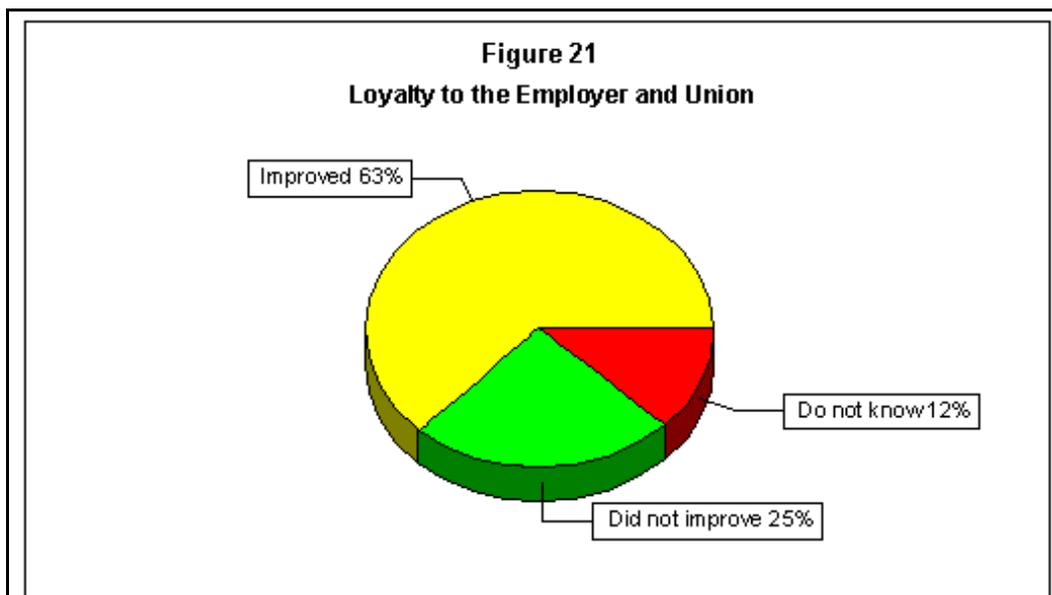
*“The company has set up union/company meetings to discuss issues. Step one of the grievance procedures takes place with increased communication skills. The need to go on to step two has been decreased.” -Manager, CKF Inc.*

*“The company has recently settled its contract quickly. It was settled within the first month of expiry. This is a significant improvement.” -Union Representative, CKF Inc.*

Interestingly enough, 9% of the managers indicated that there were already good relations and that they could not be improved.

## Participant Responses

Sixty-three percent of the workers (See **Figure 21**) surveyed indicated that the establishment of a workplace education program increased their feelings of loyalty toward their union and employer.



They viewed workplace education as a sign of the company's commitment to invest in the workers.

*"It made me appreciate my employers more for taking the time and money to offer this program."* -Participant, Avon Foods

*"By taking this course I hope that I will be able to give something back to the company."* -Participant, Dexter Construction Co. Ltd.

It should be noted that many of the thirty-seven percent who answered 'no' indicated that they were already loyal to their employers. They understood the question of loyalty to be an either or situation. They were already loyal so their loyalty could not increase.

## **Morale**

As with Worker-Management-Labour relations, much of the impact of workplace education on the organization results from the act of providing the opportunity and the model used to implement programs. Workers feel valued at the workplace because the employer and union are investing in their education and because the workers have input into the development of the program from start to finish. They take part in the Organizational Needs Assessment which is used to determine the types of courses that will be developed. Their strengths and interests determine the content of the courses. And a few of them sit on the project team which administers and evaluates the program.

Morale also increases because of the various positive outcomes that workplace education initiates. Improved skills, workplace communications, productivity, job performance, worker-management-labour relations and capacity to learn work in combination to increase the morale of the participants and the workers. It is quite simple. People feel good about success and this translates into higher morale.

## **Workplace Partner Responses**

Although there were no statistics compiled explicitly on morale, the workplace partners who were interviewed provided many insights into why and how workplace education improves morale. It should be noted that an overwhelming majority of the partners who were interviewed indicated that morale had improved as a result of workplace education.

Many partners connected the boost in morale to the investment that was being made in the workers. They felt that the morale of workers was being lifted up by the knowledge that the employer and the union valued their contributions.

*"This program gives people incentives and builds morale through investing in employees."* -Union Representative, Citadel Inn

*“Morale has increased because the participants see that the company is there for them.”* -Supervisor, CKF Inc.

*“Morale increased because frontline workers were encouraged to take opportunities to enhance their workplace skills.”* -Supervisor, Shoreham Village

Of course, some connected the boost in morale to increased levels of confidence and team work that led to improved worker-management-labour relations. Morale increased with the growing capability of workers, management and unions to work together. This was facilitated by the increased skills and confidence of workers as well as by the trust and team work that developed between project team members.

*“Morale has increased because workers have more confidence and are working together.”* -Supervisor, Citadel Inn

*“It increased because of increased self-confidence. This is evident on the floor.”*  
-Supervisor, Crossley Carpet Mills Ltd.

*“We have seen a greater increase in morale and the open door policy between employees and management has grown.”* -Manager, CKF Inc.

Others connected increases to the group work in the classrooms. They believe that it also influenced morale by allowing participants to get to know each other better and bond as a team.

*“Employees are understanding things better. There is a definite bonding among participants.”* -Union Representative, CKF Inc.

An interesting aspect about the boost in morale that occurred in many workplaces is that it spread throughout the workplace. Many partners noted the improved morale was in fact contagious.

*“The improved morale of the participants has encouraged others to join the program.”*  
-Manager, Crossley Carpet Mills Ltd.

*“The employees feel better about themselves and they are making the people around them feel better.”* -Supervisor, Crossley Carpet Mills Ltd.

*“It boosts us up. We have changed attitudes so that everyone gets along. We help each other now and work in a more relaxed atmosphere.”* -Union Representative, Citadel Inn

The only explanation for this epidemic is that people feed on the success of others. The positive impacts of workplace education work not only to make the participants feel good, but to make surrounding co-workers feel good too. As one manager noted, it even encouraged others to take part in the program.

Another interesting aspect about increases in morale is the impact that it can have on the quality of work. This is especially true for those who work in the health care or service industries.

*“Improved morale has improved relations with residents by resulting in better service.”* -Manager, Glen Haven Manor

## **Participant Responses**

No statistics were compiled to document the impacts on participants’ morale. Consequently, there are no figures available to reflect their thoughts on the subject. However, some of their comments suggest that morale was influenced by the opportunity to improve their skills, to get to know other workers better and to bond as a team.

*“I feel more comfortable with workplace forms. I take my time and I don’t let them intimidate me.”* -Participant, Glen Haven Manor

*“It is easier to deal with paper work now. I feel more sure when dealing with numbers or quantities.”* -Participant, CKF Inc.

*“I do a lot more writing on the job. I have more confidence.”* -Participant, Crossley Carpet Mills Ltd.

*“Metric conversion is easier.”* -Participant, Glen Haven Manor

*“My stress level is down because I learned new coping skills.”* -Participant, Shoreham Village

*“It has made me a better worker. I had felt burnt out and now I am encouraged by new prospects in the workplace.”* -Participant, Shoreham Village

*“The sharing and helping that went on between participants in class led to strong teamwork on the job.”* -Participant, CKF Inc.

## **Recommendations**

A number of recommendations came out of the experiences gained while documenting the outcomes that occurred at each workplace. The in-depth questions used in the interviews were more successful at gathering data on the various impacts of workplace education on participants and their workplaces. Revising the existing end-of-program evaluations to include these types of questions will yield more outcome data in the future and allow the Department of Education to compile the results each year. This would provide the Department with a more reliable gauge to measure and document the success that the Initiative has had in meeting its objectives. The revised forms should include some questions about morale and health and safety, which are omitted from the present end-of-program evaluations.

Presently, there are no end-of-program evaluations specific to supervisors involved with workplace education. The interviews that were conducted with them supplied a significant amount of information about the various impacts on participants' application of skills at work as well improvements in confidence, workplace communications, job performance, productivity, health and safety, morale and worker-management-labour relations. Most supervisors work closely with many of the participants and this puts them in an excellent position to observe the changes influenced by workplace education. An end-of-program evaluation form should be created for supervisors so that their observations can be collected to provide project teams with a more complete view of program impacts.

The union representatives were able to provide some valuable information about the outcomes in the interviews as well. Currently they are not asked to comment on observed outcomes using the existing end-of program evaluation form. Again, revising this form would provide a more holistic view of the benefits experienced at the various workplaces.

Implementing these recommendations will improve the end-of-program evaluation process by supplying more holistic and detailed information about the impacts of the Initiative. This information can be used to help project teams improve their programs and aid the Department in determining the course of future workplace education related strategies.

## **Life at home and in the community**

No statistics on the spill-over effects of workplace education are available because end-of-program evaluations are not designed to gather data concerning the outcomes that participants experienced in their homes and community. Therefore, the interviews were used to collect this information in an effort to understand how workplace education influences the social development of Nova Scotia .

Many of the social impacts that workplace education stimulates occur outside of the workplace. Participants improve other aspects of their lives by enhancing skills that they use not only at work, but also at home and in the community. These impacts develop with their skills and more importantly with changes in attitudes about things like reading for pleasure, writing letters or dealing with math. Many participants have indicated that reading has become more of a habit of pleasure and that improved skills and attitudes have allowed them to contribute to their family and to the community in new ways.

This segment of the report looks at these outcomes and provides some explanation as to why these outcomes are important.

Many participants have commented that they are reading for pleasure about topics that interest them more often than before.

*"I read the paper more."* -Participant, Citadel Inn

*“I read more of the paper and I understand more.”* -Participant, Citadel Inn

*“I am doing crosswords. I read more sections of the newspaper and I spend more time at it.”* -Participant, CKF Inc.

*“I read a lot more for personal satisfaction.”* -Participant, Glen Haven Manor

*“I read more scouting manuals and training materials.”* -Participant, Citadel Inn

They have indicated that the increased amount of time that they have spent reading has helped them develop better reading skills and strategies.

*“I can understand the YMCA materials better.”* -Participant, Citadel Inn

*“At Sunday school, I must read instructions carefully to the children. It helps to read better.”* -Participant, CKF Inc.

*“I spend more time reading and I have a dictionary in the living room now. I look for more words in the dictionary.”* -Participant, CKF Inc.

They are also writing more often and this too helps them to further develop these skills. As previously mentioned, the IALS data indicated that “literacy practices and literacy skill mutually reinforce each other”(OECD & HRDC, p. 77, 1997). They found that adults who are more engaged in literacy skills at home have higher literacy skills. Basically, the theory is that skill increases make activities like reading and writing more likeable and therefore pursued with more frequency. The participants of workplace education are encouraged to read and write more because their skill levels are increasing. This allows them to retain their proficiency or even improve it with practice. Using their skills at home and in the community is another way for them to grow by engaging in a wider range of literacy activities with more frequency.

*“I now write letters home.”* -Participant, Glen Haven Manor

*“I now write a letter to my grandson every week and a friend monthly.”* -Participant, Glen Haven Manor

*“I have more confidence in writing for other reasons such as the obituary that I recently wrote.”* -Participant, Citadel Inn

*“I now write for my church newsletter.”* -Participant, Glen Haven Manor

*“I assisted with an article that was written for the Hants Journal.”* -Participant, CKF Inc.

*“I began to do crosswords.”* -Participant, CKF Inc.

Improved skills led to increased confidence which works to encourage participants to enhance their skills further with practice.

*“I am more confident to meet people and express my view and ask questions.”*  
-Participant, CKF Inc.

*“I have written articles for the Scouting newsletter.”* -Participant, Citadel Inn

*“The applications for the YMCA group for my daughters are easier to complete.”*  
-Participant, Citadel Inn

*“I now write for the church newsletter.”* -Participant, Glen Haven Manor

Increased math skills have proven to be very useful for many participants as they carry out and take on new everyday tasks.

*“I use fractions now for baking. I use ratios and proportions at home for renovations. I use percentages while shopping to figure out the discounts, planning events and for baking. I can figure out the sales tax now.”* -Participant, CKF Inc.

*“It is easier to figure out the taxes when shopping.”* -Participant, CKF Inc.

*“Learning more about percentages helped a great deal with things such as bank loans and even a better understanding of my kids’ marks.”* -Participant, Glen Haven Manor

*“I can now use measurements both ways. Improving my knowledge about metric helped me in the areas of baking and knitting”* -Participant, Glen Haven Manor

*“I have a better understanding for work and at home.”* Participant, Glen Haven Manor

*“I can figure things out easier when I am building things at home. It comes much quicker.”* -Participant, Crossley Carpet Mills Ltd.

*“It helps with the budgeting of money and provided me with a better understanding of finances and loans.”* -Participant, Glen Haven Manor

*“I have always been involved in fund raising for various organizations. Now, I don’t second guess myself as often.”* -Participant, Glen Haven Manor

The development of other skills like oral communications and problem solving are useful for many participants in their interactions with acquaintances, friends and family. Many have stated that they have employed their new communication skills and strategies when dealing with others.

*“I have more self-confidence regarding communications, for example, family discussions.”* -Participant, CKF Inc.

*“I just deal with everything by finding the time to sit down and explain things more.”*  
-Participant, CKF Inc.

*“This enhanced my communication with my daughter.”* -Participant, CKF Inc.

*“I understand my bills better and I phone and ask questions when they do not make sense. I am more calm and settled. I have more self-esteem. I speak out more at church meetings. Life at home has improved a lot. I am now more relaxed at home, I carry on more. I don’t let problems bother me as much.”* -Participant, Citadel Inn

*“My comfort level at work rose and now there is less stress at home. The time management skills helped me better manage my responsibilities at home.”* -Participant, Shoreham Village

*“I have more confidence in speaking and doing training with scouts and leaders.”*  
-Participant, Citadel Inn

These outcomes are working to improve the quality of life of many of the participants as they learn to communicate and solve problems better than they have in the past. Many have noted how their enhanced problem solving skills have benefited them outside of the workplace.

*“I deal with things better. I no longer have a fear of failure as I once did.”* -Participant, CKF Inc.

*“I have used these skills at home and helped my daughter with the pros and cons of apartment hunting.”* -Participant, CKF Inc.

*“It is easier because we negotiate together instead of hollering. I take people’s opinion’s and we work together.”* -Participant, Citadel Inn

*“I find solutions easier. I know what to do. I have more confidence to deal with my children.”* -Participant, Citadel Inn

*“It is the same as a job. I look at problems of other groups and try to help.”*  
-Participant, Citadel Inn

*“I am more positive in all areas and I share and respond to information.”* -Participant, Citadel Inn

These outcomes contribute to the participants' quality of life by helping them to do tasks better, develop self-confidence and contribute to their communities and families in different ways than before. One of the most significant impacts of workplace education that resulted from this study is related to family literacy. This relationship has also been documented by American studies. Researchers like MiKulecky and Lloyd have found that workers with lower skills who improve their essential skills and confidence levels are better able and more likely to teach their children to read and write (1993). This outcome is likely to contribute to the development of family literacy within the province. Research has found that a child's language and literacy development is related to the quantity and quality of the language that she is exposed to in the early years. A number of studies has documented that improving the parents' skills will have significant effects on their children's development. (Deutsch et al., 1983; Levenstein et al., 1983; and Schweinhart et al., 1993 in OECD & HRDC, 1997) Quite simply, the more literacy rich a child's environment is, the better chance there is that she will grow up with higher literacy skills.

Any effort that results in parents increasing their literacy activities at home or their ability to encourage children to read for enjoyment and do their homework will facilitate the development of the children's skills. It seems that workplace education is able to have a positive impact on the literacy skills of children by helping parents to help their children. Changes in the parents' reading and writing habits have already been discussed to some extent above, but they are important to bring up here because of the influence that these changes have on family literacy.

Approximately 50% of the participants interviewed indicated that they either read themselves, read to their children or visited the library more times a week as a result of workplace education. These increases in frequency will work together to expand the literacy environment of the children in these homes.

Of course the impact on family literacy is also realised by the participants' increased capacity to help their children with homework. Many of the participants that we surveyed indicated that workplace education helped them to help their children with their homework because they increased their skills.

*"Now, the children in the family bring homework to me."* -Participant, Citadel Inn

*"I have a better understanding of the proper form of writing and I am helping my son with his writing at home."* -Participant, Crossley Carpet Mills Inc.

*"My son is doing the same thing at home, writing sentences. I helped him."*  
-Participant, Citadel Inn

*"I teach my children. I share books and notes with them. I help them with essays. We are from the Philippines and English is our second language."* -Participant, Citadel Inn

*“I am better able to help my children with their homework.”* -Participant, Crossley Carpet Mills Ltd.

*“I find it easier to help my children with their math homework.”* -Participant, Crossley Carpet Mills Ltd.

*“I use metric and percentages in my daily life. I help my daughter with her homework. I have taken over the family budgeting which I would not have done before.”*  
-Participant, Glen Haven Manor

## **Recommendations**

The influence that workplace education has had on family literacy has not been effectively studied in Canada. The relationship that exists between parents' education and literacy levels and their children's language and literacy development warrants further study about the impacts that workplace education is having on family literacy. There is much to be learned about such outcomes that could provide the Department of Education with insights into how to better influence family literacy through adult education initiatives. Therefore, the participant end-of-program evaluations should be changed to include some questions that will help the Department better gauge the influence that adult education is having on family literacy.

# Does workplace education contribute to the development of a lifelong learning culture in Nova Scotia?

The final objective of the Workplace Education Initiative is to encourage the establishment of a lifelong learning culture in Nova Scotia. This of course is achieved not only by creating an accessible education program that improves the participants' capacity to learn, but by influencing the development of an attitude toward learning as a lifelong pursuit. The establishment of more training programs and an increase in the willingness of workers to take part in them indicate the development of such a culture. The results of this study point to the achievement of this objective.

This section presents the data as "Workplace Training" under the sub-headings "Workplace Partner Responses" and "Participant Responses". The end-of-program evaluations provided information about the impacts on the participants' capacity to learn and the interviews were used to reveal more information about the development of a learning culture.

## Workplace Training

Training and education are rapidly becoming more commonplace in the world of work. Quality assurance programs as well as health and safety programs are raising the training requirements for factory workers. Training programs for hotel room attendants, waiters, bar tenders, taxi drivers, personal care workers, public works employees and many other job descriptions are springing up everywhere. It is essential within this environment that workers have the skills to take and benefit from these training programs. For those who don't, workplace education provides an avenue to enhance skills for further training. Has workplace education helped workplaces prepare their workers for further training?

## Workplace Partner Responses

Sixty-seven percent of managers (See **Figure 22**) felt that workplace education improved the capability of participants to take further training.

The increases in the participants' capacity to take part in further training were attributed to increases in skill and confidence levels and to a new enthusiasm about learning.

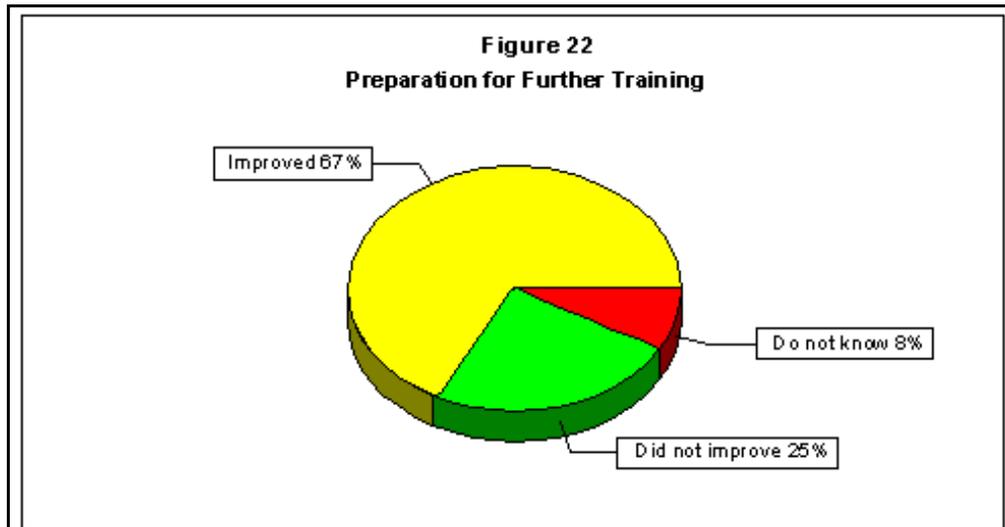
*"Their self-confidence has increased, so their capability has increased."* -Supervisor, CKF Inc.

*"Their skills have improved and they want to better themselves."* -Supervisor, Citadel Inn

*"There is an increase in the confidence level which makes them more capable."* - Supervisor, Crossley Carpet Mills Ltd.

*“Their essential skills have increased so has their capability.”* -Supervisor, Glen Haven Manor

*“Employees have better skills to train with, and their enthusiasm for training has increased.”* -Supervisor, Shoreham Village



The growth in enthusiasm for more opportunities can probably be attributed to the model and success of workplace education. Participants are set up to succeed by the workplace education model because the instructors focus on the strengths and knowledge of the participants. As stated earlier, instructors assess the strengths of participants and then build a curriculum that fits their learning needs. By using materials that are familiar to them, participants are able to concentrate on developing their skills. Improvements are noticed by the participants almost immediately because they are practising their skills everyday at work and at home. These small successes build up into significant impacts that breeds an enthusiasm for learning. This effect is the same as the effect that improving reading skills had on many participants’ willingness to read.

The majority of the partners who were interviewed indicated that workplace education increased workers to ask for and participate in more training and education.

*“There have been more requests to take further training like safety.”* -Supervisor, CKF Inc.

*“They have indicated that they want more training opportunities.”* -Supervisor, CKF Inc.

*“They ask about more programs in the workplace. One person is taking an outside course.”* -Supervisor, Citadel Inn

*“Employees are volunteering to take more courses.”* -Supervisor, Crossley Carpet Mills Ltd.

*“They sign up for every posting now.”* -Supervisor, Crossley Carpet Mills Ltd.

*“There is now more interest in the charting course.”* -Supervisor, Glen Haven Manor

*“They are now interested in the Palliative Care Training.”* -Supervisor, Shoreham Village

*“There has been an increased interest about training. Confidence building has led to participants wanting more challenges.”* -Manager, CKF Inc.

*“Interest in training has increased. It’s the domino effect. People see others doing it and they want to participate. It builds a training culture.”* -Manager, Citadel Inn

*“Interest has increased. The success of the ones who have participated have led them to wanting more.”* -Manager, Crossley Carpet Mills Inc.

*“They know that they can do it now. They want more.”* -Manager, Glen Haven Manor

Of course, the participants’ willingness to participate in education and training is not enough to sustain the development of a learning culture. The workplaces must be willing and able to increase or support further opportunities for education and training. The managers that we interviewed indicated that workplace education has had a positive influence on the development of a learning culture at their workplaces, and they have increased the number of education and training opportunities in part due to their experience with workplace education. One example of this is that the five workplaces which took part in the interview portion of the study have offered a total of twenty-five new courses to their employees since they became involved with workplace education.

*“We have increased the number of in-house training programs. This is because the new owners focussed on training and the mutual influence of workplace education and other training courses.”* -Manager, Citadel Inn

*“The amount of in-house training programs have increased because there has been an overwhelming interest in other programs.”* -Manager, Crossley Carpet Mills Inc.

*“There has been increased interest in-house training because of the workplace education program experience with communications and GED.”* -Manager, Crossley Carpet Mills Inc.

*“There has been an increased interest in education that grew out of the workplace education program.”* -Manager, Shoreham Village

Many of these workplaces have also increased spending on education and training as a result of their new commitment to creating a learning culture within their organizations.

*“We increased spending to have workplace education next year.”* -Manager, CKF Inc.

*“We increased spending because we recognized the work of employees, the more training the better.”* -Manager, Citadel Inn

*“We increased spending to stay current in the world of business.”* -Manager, Crossley Carpet Mills Inc.

*“We increased spending because we value education.”* -Manager, Glen Haven Manor

*“We increased spending because we see the importance of training and education in the workplace.”* -Manager, Shoreham Village

A couple of workplaces have even decided to alter their training policies to mesh with their new commitment to creating a learning culture.

*“We changed our policies. Workplace education enhanced our training culture and encouraged its development.”* -Manager, Citadel Inn

*“There will probably be an in-service coordinator hired in the future to formalize training. Workplace education influenced this by showing the need for this.”* -Manager, Shoreham Village

All of these signs point to the success that workplace education has had in influencing the development of a learning culture within Nova Scotia’s workplaces. The foundation of this achievement appears to be the growth of the participants’ capacity to learn.

## **Participant Responses**

Ninety-percent of the participants (See **Figure 23**) indicated that they were better prepared for further training.

Of course, participants related this outcome to improvements in skills and confidence.

*“When you learn how to communicate better, you automatically improve your basic skills. I think the course was just laying the ground work for more training, building up your confidence so you’d feel more at ease in a group. The more learning a person has, the greater the chance for advancement at work.”* -Participant, St. Vincent’s Guest House

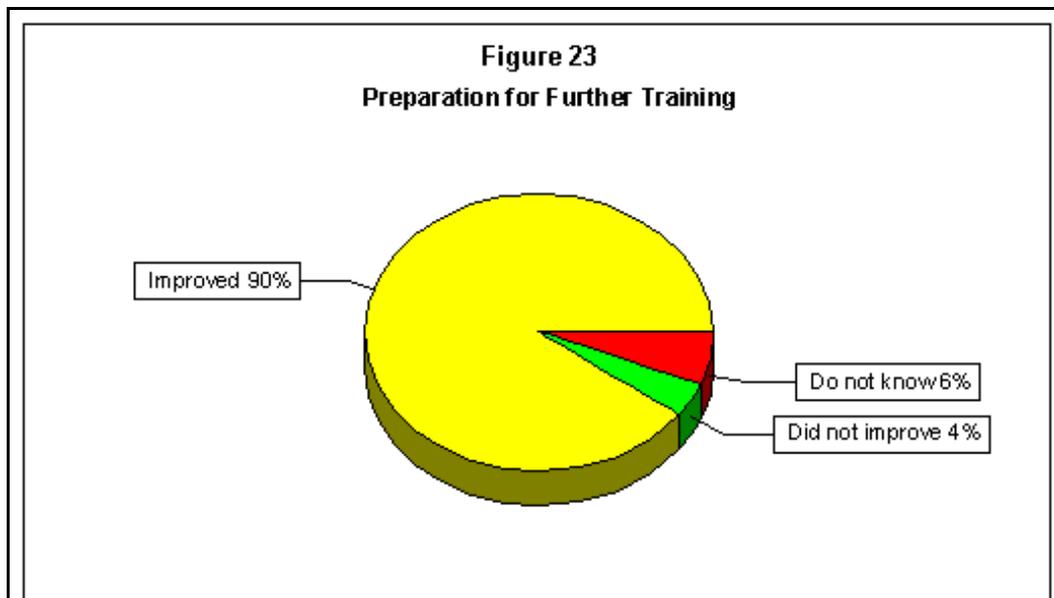
*“It helped me become a better student. I improved my reading skills and communicating skills with fellow workers.”* -Participant, CKF Inc.

*“I learned study skills, improved my reading and math skills, boosted my self-esteem and even improved my memory.” -Participant, CKF Inc.*

*“I improved my basic skills and I learn a lot better.” -Participant, St. Martha’s Regional Hospital*

*“Participating in this course has helped ease my fear of working with numbers. I am presently taking an accounting course that I probably would not have taken without the math refresher.” -Participant, Halifax Shipyards*

*“It helped my writing, wanting to read and gave me more confidence in myself. The program re-introduced me to my schooling skills and made me understand better.” -Participant, New Dawn Enterprises*



The benefits of becoming better learners prepares workers for the demands of further training and education and helps them learn more easily on the job.

*“I pick up things quicker. I retain more. I just began a new job, and I had to read a book for this job. It was easier.” -Participant, CKF Inc.*

*“I find it easier to understand the orientation manual for Room Attendants.” -Participant, CKF Inc.*

*“I am more confident in all areas. I do not do a lot writing at work, but I am convinced that I have the skills. I want to take a charting program and this will be a great asset for that.” -Participant, Glen Haven Manor*

*“I have a new position. I am told to do things by my supervisor and this is easier to understand. I am now in a “men’s line” and I have the confidence to learn new things.”* -Participant, CKF Inc.

The participants who were interviewed stated that their experience in workplace education encouraged them to seek further education and training opportunities inside and outside of work. In fact, 86% of the participants we interviewed stated that workplace education influenced their desire to take part in future educational opportunities. This influence was largely connected to the success that they enjoyed in workplace education and confidence that came out of this success.

*“Having grade 12 gives you the qualifications to enroll in further programs. This gives me the opportunity to go on to something better.”* -Participant, CKF Inc.

*“It has given me more confidence that I can succeed, more confidence to try if I don’t succeed the first time.”* -Participant, CKF Inc.

*“From my experience in this program, I know I can do it and want to do more.”*  
-Participant, Crossley Carpet Mills Ltd.

*“Through my participation in workplace education, I was encouraged to participate in the communications and first aid program.”* -Participant, Crossley Carpet Mills Ltd.

*“It gave me more confidence to consider taking other kinds of programs.”* -Participant, Crossley Carpet Mills Ltd.

*“It has given me confidence. To be able to go back after all these years and accomplish what I did was a great boost.”* -Participant, Glen Haven Manor

*“I might take some writing courses. I have made some inquiries.”* - Participant, CKF Inc.

## **Recommendations**

The Workplace Education Initiative is having a substantial impact on the development of a learning culture in Nova Scotia by helping a large number of adults improve their skills, ability to learn and desire to learn. It is also working to encourage employers and unions to increase their efforts to provide education and training to workers. To fully assess this impact, the Initiative should address some questions on the end-of-program evaluations to the changes that workplace education has brought about in workers and in the work organization. As has already been demonstrated, managers, union representatives and participants are in unique positions to describe the impact of these outcomes.

## Summary

The outcomes influenced by the Workplace Education Initiative are difficult to discuss in isolation from each other because they are part of a logical sequence of changes. Many of the outcomes that resulted from workplace education were the products of various combinations of changes that led to more changes. For example, the ability of workers to communicate increased when they improved their oral and written skills. The development of these skills worked to increase many of the participants' self-confidence. All of these changes worked together to enhance their capacity to communicate on-the-job which improved communications in many of the workplaces.

The objectives of the Workplace Education Initiative have been met because of a similar sequence of effects. By providing access to essential skills education to workers, the Initiative created opportunities for many adults to increase their skill and education levels. These outcomes led to increases in the confidence of many participants. All of these changes impacted many participants' ability to communicate, to learn and to take further training, which has worked to improve their job performances and the productivity of their organizations. Many partners have also noted improvements in health and safety and in an ability to promote from within. These benefits strengthen the capacity of Nova Scotia's workplaces to manage the multitude of changes that will effect them in the future. This is a significant contribution to the continued development of the province's economy.

Furthermore, helping many Nova Scotians who did not have the opportunity to finish high school to improve their skills within the workplace has a significant impact on the province's social development. The Initiative has been able to contribute to the growth of family literacy within the province by helping parents to encourage their children's skill development. Parents who took part in workplace education were better able to teach their children to read and help with homework as well as more likely to read at home.

All of the impacts of the Initiative are related to its effort to encourage the development of a lifelong learning culture. This objective is partially met by providing opportunities to people who were unable to access education because of a number of different circumstances. Other indicators that this objective has been realized include having an impact on the participants' ability and willingness to learn and encouraging employers and unions to develop learning cultures at the workplace.

Another contributing factor to the impacts on the participants and their workplaces can be attributed to the delivery model used by the Initiative. Nova Scotia's model of implementation is characterized by the project team which is a collaborative partnership between management, labour, supervisors, workers, the instructor and the field officer. The development of these relationships within the workplace has contributed to positive relations between workers, the employers and the unions. It has also had a huge impact on morale which was influenced by the availability of workplace education and the success of the participants.

The bottom-line is that workplace education works because it sets a complex chain of effects into action. There is still a lot to be learned about this inter-related sequence of outcomes and the weight of the impacts. The staff of the Workplace Education Initiative plan to take what has been learned from this study to alter the existing end-of-program evaluations to better document the outcomes experienced at each workplace in the future. The following list of recommendations will be reviewed and discussed by representatives of the Initiative's partners before the present end-of-program evaluations are changed.

## Recommendations

The process of conducting this study has provoked a lot discussion and thought about evaluating the impact of the Initiative. Some of these ideas have been mentioned throughout the body of this study. What follows is a list of recommendations about changing the end-of-program evaluations to gather information documenting the impacts of workplace education. This data can be compiled by the Department of Education to better document and track the impact of its initiative on a regular basis.

1. The existing end-of-program evaluations should be altered to collect more detailed information about the outcomes resulting from workplace education programs. Management, union representatives, participants and supervisors should be asked specific questions relating all of the outcomes so that more complete statistics can be gathered.
2. Exit forms should be created to gather information from the participants who left programs early to determine why they left and if anything can be done differently to prevent participants from leaving early in the future.
3. Profile forms should be created to collect information about who's participating in workplace education. How old are they? Are they male or female? What level of formal education have they reached?
4. Profile forms should be created to collect data about the organizations that are implementing workplace education programs. How many people do they employ? What industry do they operate in? How much training do they do a year?
5. Participants should be asked questions about the impacts that workplace education has had on their reading habits at home as well as their capacity and willingness to encourage their children to read.
6. Participants should be asked questions about impacts that workplace education has had on their ability and willingness to perform tasks in the community.
7. Data tables should be designed so that the information from the new evaluations can be compiled and reported on easily.
8. A strategy should be developed to conduct a study that compares the impacts of program after one year to the impacts that have developed over three years.

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# Appendix A

## Participating Workplaces and Unions

### Cape Breton Region

Breton Bay (CUPE, NSNU)  
Margaree Tourism Association (Not unionized)  
New Dawn Enterprises (CUPE, PCW)  
Seaview Manor (CUPE, NSNU)

### Metro Region

Citadel Inn (BCT)  
Dartmouth General Hospital (CAW, NSNU)  
Dexter Construction (Not unionized)  
Glades Lodge (CUPE)  
Halifax Shipyards (N/A)  
Hermes Electronics (IBEW)  
St. Vincent's Guest House (CUPE, NSNU)

### Southwestern Region

Bowater Mersey's Oakhill Sawmill (Not unionized)  
Deep Sea Trawlers (UFCW)  
La Have Manor Corporation (Not unionized)  
Rosedale Home for Special Care (CAW)  
Shoreham Village (CUPE)

### Strait-Northern Region

Crossley Carpets (CAW)  
Glen Haven Manor (CUPE, NSNU)  
St. Martha's Regional Hospital (CAW)  
Valley View Villa (CUPE, NSNU)

### Valley Region

Avon Foods (BCT)  
CKF Inc. (CEPW)  
Eastern Protein Foods (CAW)  
Western Regional Health Care (CUPE, NSNU)

# Appendix B:

**Workplace Education Initiative Outcomes Table**

Inputs	Activities	Outputs
<p>Department of Education contributes:            ✓ staff and resources</p> <p>NS Partners contribute:            ✓ time and advice</p> <p>EDA contributes:            ✓ small grants for employers to hire instructors</p> <p>Employers contribute:            ✓ classroom facilities            ✓ administrative support to the instructor            ✓ paid release-time for workers to attend classes</p> <p>Unions contribute:            ✓ classroom materials</p> <p>Workers contribute:            ✓ time to attend classes and study</p>	<p>✓ The Workplace Education staff conducts research; promotes workplace education; recruits and trains instructors; and helps workplaces to develop programs.</p> <p>✓ The NS Partners meets regularly to provide advise on policy issues, future directions and actions to respond to identified needs.</p> <p>✓ The partners at the workplace form a project team; promotes the program; conducts an Organizational Needs Assessment; secures funding for courses; hires an instructor; sets-up and evaluates the courses.</p>	<p>✓ Workplaces create educational opportunities for workers.</p>
Outcomes		
Initial	Intermediate	Longer-term
<p>✓ Workers begin to improve their essential skills and enhance their confidence.</p>	<p>✓ Workers use their newly enhanced skills at work, at home and in the community.</p> <p>✓ Improvements in skill and confidence levels have a noticeable impact on workplace communications, job performance, productivity and health and safety.</p> <p>✓ Improvements in skill and confidence levels have a noticeable impact on workers' lives at home and in community.</p>	<p>✓ Employers and workers support or participate in further educational opportunities.</p> <p>✓ Relations between workers, management and the union improve.</p> <p>✓ Workers get promoted because of skills improvements.</p> <p>✓ Morale increases within the workplace.</p> <p>✓ Workers read, read to their children and/or help their children with their homework more often.</p>

# Appendix C:

**General Reading Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Reading independently	3.7	4.4	12	4 (5)      1 (4)	17
Using grapho-phonemic, syntactic and semantic cuing systems	3.7	4.6	9	1 (5)	10
Using skimming, scanning, substituting, reading ahead and predicting strategies	3.1	4.2	16	1 (5)	17
Reading for meaning	3.2	4.3	16	1 (5)	17
Using grapho-phonemic cues to decode words	3.8	4.6	8	2 (5)	10
Reading a variety of texts, ie. prose and poetry	2.8	4.1	14	2 (3)      1 (4)	17
Understanding the main idea	3.2	4.5	15	1 (4)      1 (5)	17
Making inferences from what is read	3.2	4.3	15	1 (4)      1 (5)	17
Drawing conclusions based on what is read	3.3	4.8	15	1 (4)      1 (5)	17
Identifying the cause and effect in what is read	3.0	4.5	12	1 (5)	13
Identifying fact and opinion in what is read	3.1	4.3	14	2 (4)      1 (5)	17
Recognizing bias in what is read	2.7	4.4	12	1 (5)	13

## Workplace Specific Reading Skills Rating Table

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Reading and understanding memos	3.0	4.7	8	1 (5)	9
Reading and understanding letters	3.1	4.5	16	1 (5)	17
Reading and understanding reports	3.0	4.4	15	0	15
Reading and understanding occupational health and safety information	3.2	4.3	11	0	11
Reading and understanding training materials	3.1	4.2	9	0	9
Reading and applying the information from manuals	2.7	4.3	6	0	6
Reading and comprehending information from the employee handbook	3.0	4.0	5	1 (3) 1 (4)	7
Reading and understanding short forms	3.1	4.8	14	0	14
Reading and understanding long workplace forms	3.2	4.2	5	0	5
Reading and understanding workplace graphs, tables and charts	3.2	4.2	5	0	5

**General Writing Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Spelling	2.6	4.1	15	2 (4)	17
Punctuation	2.5	4.2	15	2 (4)	17
Subject/verb agreement	2.5	4.1	15	4 (4)	17
Using parts of speech accurately	2.6	4.2	13	4 (4)	17
Writing complete sentences	2.8	4.6	16	1 (5)	17
Organizing ideas for writing	2.4	4.5	17	0	17
Writing paragraphs	2.5	4.5	17	0	17
Writing a full page of text	2.3	4.4	17	0	17
Researching for writing	2.8	3.8	11	1 (4)	12
Writing several pages of text	2.8	4.1	12	0	12
Writing for a variety of purposes	2.6	4.4	16	1 (4)	17
Expanding ideas to substantiate and give detail	2.4	4.4	17	0	17
Taking into account purpose, audience, format and point of view	2.5	4.3	17	0	17
Editing written work to add, change or delete ideas	2.3	4.2	16	1 (3)	17
Proofreading written work for proper use of punctuation, grammar and spelling	2.3	3.8	17	0	17

**Workplace Specific Writing Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Writing memos	2.6	4.7	9	0	9
Writing letters	2.5	4.1	17	0	17
Writing reports	1.9	3.9	9	0	9
Creating written materials for the workplace, ie. job descriptions	2.3	3.9	11	1 (3)	12
Taking minutes at meetings	2.6	3.8	5	0	5
Taking telephone messages	3.5	4.0	1	1 (4)	2
Writing notes to co-workers	2.4	4.0	13	2 (3)	15
Filling out short workplace forms, ie. invoices	2.8	4.4	9	0	9
Filling out long workplace forms, ie. accident reports	2.8	4.5	4	0	4

### General Math Skills Rating Table

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Adding	4.5	4.7	3	9 (5) 1(4)	13
Subtracting	4.5	4.7	3	9 (5) 1(4)	13
Multiplying	3.8	4.8	10	3 (5)	13
Dividing	3.5	4.7	10	3 (5)	13
Using decimals	3.1	4.7	11	2 (5)	13
Using fractions	2.5	4.7	13	0	13
Using percentages	2.5	4.6	13	0	13
Using math formulas	2.4	4.5	13	0	13
Solving simple word problems	2.8	4.5	13	0	13
Ratios and proportions	2.5	4.5	13	0	13
Algebra basics	1.6	3.9	12	1 (1)	13
Geometry basics	1.05	4.03	12	1 (1)	13
Trigonometry basics	1.2	3.5	10	1 (1)	11
Algebra word problems	1.3	3.8	11	1 (1)	12
Geometry word problems	1.3	4.2	12	1 (1)	13
Trigonometry word problems	1.2	3.2	9	1 (1)	10
Solving advanced word problems	1.4	3.9	12	1 (1)	13
Writing workplace problems as math equations	1.9	4.2	12	1 (1)	13

**Workplace Specific Math Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Using estimation skills to plan work tasks	3.4	4.3	7	1 (5)	8
Using math formulas to solve problems at work	3.0	4.3	8	0	8
Using math to calculate wages, benefits and overtime	3.0	4.8	9	1 (5)	10
Using math for stock and inventory control	3.6	4.6	5	0	5
Filling out forms with numbers such as invoices	3.4	4.6	5	0	5
Computing ratios and fractions for metric conversion	1.7	4.5	6	0	6
Reading graphs and doing data analysis	2.0	5.0	5	0	5

**General Oral Communication Skills Rating Table**

<b>Skill</b>	<b>Pre-program</b>	<b>Post-program</b>	<b>Number of people who improved</b>	<b>Number of people who did not improve (and their skill level)</b>	<b>Total number of people who worked on the skill</b>
Showing comfort level in communicating orally	3.3	4.1	5	3 (4)	8
Maintaining eye contact when speaking	3.6	4.8	4	4 (4)	8
Engaging in conversation willingly and confidently	3.4	4.4	8	3 (4)	11
Performing social courtesies	3.8	4.4	4	1 (4)	5
Speaking at an appropriate volume	3.4	4.3	6	2 (4)	8
Speaking at an appropriate speed	3.5	4.3	6	2 (4)	8
Adjusting voice inflection for statements, requests, directions, exclamations and questions	3.3	4.9	5	1 (3)      1 (4)	6
Pronouncing words clearly	3.0	4.0	4	0	4
Speaking with a well developed vocabulary	3.0	4.0	3	1 (4)	4
Speaking in complete sentences	3.3	4.2	5	1 (4)	6
Using correct grammar	3.2	4.0	5	1 (4)	6
Maintaining the focus on the topic	3.5	4.2	8	3 (4)	11
Giving appropriate responses	3.5	4.5	9	2 (4)	11
Being aware of listener's reaction and responding	3.2	4.5	11	0	11
Understanding conflict resolution	3.3	4.5	8	0	8

**Workplace Specific Oral Communication Skills Rating Table**

<b>Skill</b>	<b>Pre-program</b>	<b>Post-program</b>	<b>Number of people who improved</b>	<b>Number of people who did not improve (and their skill level)</b>	<b>Total number of people who worked on the skill</b>
Giving presentations to co-workers, visitors or customers	2.7	4.4	7	0	7
Speaking at team or safety meetings	2.7	4.3	6	0	6
Providing verbal directions and instructions	3.0	4.7	11	0	11
Understanding verbal directions and instructions	3.3	4.3	5	5 (4)	10
Listening, responding and asking questions in one to one conversations	3.0	4.4	9	1 (4)	10
Reporting and explaining issues and concerns to supervisors	3.3	4.5	8	2 (4)	10
Dealing with conflict through enhanced interpersonal communication skills	2.5	4.0	2	0	2

**General Problem Solving Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Identifying the problem	2.9	4.9	15	1 (4)	16
Determining steps to solve the problem	3.0	4.4	15	1 (4)	16
Applying experience and knowledge to solve the problem	3.3	4.6	15	1 (5)	16
Evaluating what information is needed to solve the problem	3.0	4.5	12	0	12
Determining what additional information is needed to solve the problem	2.9	4.4	14	1 (4)      1 (5)	16
Locating information	3.1	4.4	14	2 (4)	16
Putting the steps to solve the problem in motion	3.3	4.7	15	1 (5)	16
Evaluating how well the solution worked and making necessary adjustments if needed	3.1	4.6	15	1 (4)	16

**Workplace Specific Problem Solving Skills Rating Table**

Skill	Pre-program	Post-program	Number of people who improved	Number of people who did not improve (and their skill level)	Total number of people who worked on the skill
Offering suggestions to deal with problems or issues in the workplace	3.4	4.5	8	3 (4)	11
Applying past learning experience to a current workplace problem	3.4	4.4	8	1 (3)      1 (4)	10
Seeking information from other sources when uncertain	3.4	4.6	10	0	10
Modifying existing procedures for solving problems to meet new needs	3.5	4.4	7	2 (4)	9