

The Impact of Providing Labour Market Information Training on Trainees' Perceptions of Job Related Self-Efficacy: A Comparison of the Influence of Two Delivery Methods on Expressions of Competence and Confidence

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Abstract

The results of interviews conducted with displaced automotive workers who participated in a field experiment testing the impact of labour market information interventions on job related self-efficacy are reported. Self-efficacy, expressed through competence and confidence impacts labour market behaviour. Career decision making assistance may be better suited to one-on-one counseling sessions in order to tailor the training to individual interests. Job search LMI interventions are perceived as more effective when delivered in group sessions. Social support enhances job related self-efficacy by building competence and confidence.

Resumé

Les résultats des entrevues menées auprès de travailleurs de l'automobile déplacées qui ont participé à une expérience de terrain de tester l'impact des interventions du travail d'information du marché liées à l'emploi auto-efficacité sont rapportés. L'auto-efficacité, exprimée à travers la compétence et la confiance des impacts com-

portement du marché du travail. Choix de carrière aide peut être mieux adapté à des séances de counseling en tête-à-tête afin d'adapter la formation aux intérêts individuels. Recherche d'emploi IMT interventions sont perçues comme plus efficace lorsqu'elle est fournie à des séances de groupe. Le soutien social améliore l'auto-efficacité liée à l'emploi par renforcer les compétences et la confiance.

Self-efficacy (SE) influences feelings, thinking, motivation, and behaviour and is a person's belief in his or her ability to produce outcomes (Bandura, 1994). High SE influences motivation to set goals and to persist in their attainment. When SE is high, a person's perception of coping skills is positive. People with high SE believe that they can overcome challenges and have higher commitment to their goals. They are also more resilient in the face of setbacks.

Self-efficacy has been defined as "an individual's judgment of his or her capability to organize and execute a course of action required to attain a designated type of performance" (Sadri, 1996, p. 51). This definition includes aspects of both

competence and confidence. Motivated action is the result of effective behaviour that is rooted in both competence and confidence. Motivated action is goal directed and focused and involves considerable persistence (Sadri, 1996). Where self-efficacy is at play, one will observe a willingness to reflect on performance and a willingness to change and adjust behaviours to achieve the desired outcomes. One must perceive that one has an appropriate type and level of skill (competence) and that one can use these skills effectively to bring about a favourable outcome (confidence).

In the self-efficacy literature, the terms competence and confidence are sometimes used interchangeably (Paulsen & Betz, 2004). There is a danger in this thinking. It is quite possible for people who, on any objective measure, have the skills and abilities to search the web for job leads to underperform in that task, if they lack confidence in their abilities. Confidence is related to the expectation of success and is intimately tied to self-efficacy through the ability of confidence to provide the energy to motivate action. Paulsen and Betz (2004), in their work on



career decision making self-efficacy, showed that even where competence is controlled for, expectations of success are critical to the actual achievement of success.

Competence has been referred to as a “universal drive” (Bandura, 1977, p. 164). It relates to a skill or a set of skills (Sadri, 1996). Competency in the use of web-based Labour Market Information (LMI) resources would suggest an understanding of the basic skills involved in using relevant hardware and software as well as the ability to access and understand websites and search through levels of information in websites. Competency implies knowing what to look for, how to look for it, and how to use the information once it has been located.

Confidence often implies calculation of the probability of an outcome occurring given a level of competence at a task and given that the behaviour has to occur in a specified environment. Perceived barriers reduce confidence and perceptions of self-efficacy. They can play a particularly important role in career decision-making. “Perceived barriers may lead individuals to approach career decisions with a general lack of confidence” or “to avoid aspects of the careers decision making process” (Quinby, 2004, p. 324). Formal training can build confidence (Orpen, 1999).

High SE has been associated with more intense job search efforts and positive perceptions of the likelihood of job searches resulting in landing a job (Joseph, 1999). Job Related Self-Efficacy

(JRSE) involves a belief in one’s ability to use his or her existing skills to find a new position in his or her previous field of employment (Job Search Self-Efficacy – JSSE) or to be able to transfer their skills to secure employment in a different field (Career Decision-Making Self-Efficacy – CDMSE). JSSE concerns the level of motivation, effort, and persistence that a person must emit in the actual search for a job. CDMSE refers to the activities undertaken to identify one’s skills, consider skill transferability and to take action to build ladders of jobs that would reflect career progression and success. JRSE is the sum of CDMSE and JSSE.

LMI assists the employed, the unemployed, and new labour market entrants with making decisions about careers, education, and training. Effective provision of LMI would result in improved JRSE. LMI is often provided by computer. LMI value is increased when a counselor is involved (Magnusson, Bezanson & Savard, 2004). The effectiveness of LMI in terms of labour outcomes is contingent on information timeliness and ease of access (Sharp, 2009)

The Research Study

This research project was part of a broader Human Resources and Skills Development Canada (HRSDC) initiative to develop the capacity to respond to regional unemployment crises as the Canadian economy underwent fundamental structural change. These changes were particularly apparent in automotive

manufacturing regions of Southwestern Ontario. When this study was initiated, employment levels in the Windsor-Sarnia economic region had declined by 18,500 jobs from October 2008 to October 2009 (Service Canada, 2009, p.1). The unemployment rate rose from 7.8% to 10.9%, the highest rate among all economic regions in Ontario with job losses coming mostly from full-time employment (Service Canada, 2009, p.1)

One key HRSDC policy objective is to assist individuals in making career choices and human capital investments. The present research contributed to the development of the knowledge base in that area. In the process, it provided valuable training on LMI to a number of displaced automotive workers in geographic locations where they will benefit greatly from this knowledge.

The goal of this research was to analyze the relationship between the provision of LMI and JRSE.

Method

The larger research project from which this present report is drawn involved the random assignment of participants to a control group or one of two experimental groups. In total, there were 188 participants (control = 69; group treatment = 64; one-on-one treatment = 55). One experimental group received the LMI training in a group setting and the other received the training in a one-on-one setting. Self-efficacy measures were taken via a questionnaire as the study



began and after the one month, four month and 12 month period. CDMSE was measured via an assessment tool developed specifically to measure a person's confidence and competence around career decision-making (Taylor & Betz, 1983). The assessment tool for JSSE, was developed specifically to measure that variable (job search self-efficacy). The tool included a scale comprised of 11 items related to aspects of job search including perceived proficiency in planning job search activities, locating job openings, and interviewing skills. Both scales have been tested for factor validity and were used concurrently in another HRSDC study on LMI (Currie, Downie, Nicholson, Oreopoulos & Voyer, 2009).

Medium sized groups (8-10) were deemed the most appropriate learning environment to maximize participation and minimize distraction (Loeb, Penrod & Hupcey, 2006; Helde, Brodtkorb, Brathen & Bovin, 2003; Lohman & Finkelstein, 2000; Gladding, 1994; Hwang & Guynes, 1994)

Whiston, Brecheisen & Stephens (2003) found that regardless of group size "counselor free interventions are less effective than those with counselor involvement" (p. 406). Therefore, this research employed trained teachers and career counsellors to facilitate the group-based and individual one-on-one LMI interventions.

A package of customized LMI was prepared and delivered to participants who were randomly assigned to one of the treatment groups. The control

group received no customized LMI.

The treatment was composed of internet based LMI sources delivered by a trained facilitator. The materials and the discussion were designed to provide information on skills identification, matching, and development opportunities, as well as detailed occupational, educational, and industry information. Information on recent announcements about jobs in the local vicinity was also provided.

Training sessions were approximately one hour in length. Training material consisted of a PowerPoint presentation of LMI (with a handout of the slides). Subject matter focused on building trainee knowledge around the nature of LMI, sources of information, and its various uses. The treatment group information was customized in that it was built around the skill sets and experiences of workers who had been displaced from manufacturing enterprises – especially automotive workers. Macro and micro level LMI was presented so that participants could gain competency at searching from the broad levels of occupation or industry, for example, or narrow searches where the training focused on identifying their level of skills and creating skill matches. As well, information was presented on searches oriented to matching interests and strengths to training and education opportunities. Additional sources directed participants to timely information on job vacancies. Control group participants received only general information in the form of a two-

page handout containing some general guidelines for effective job search (which was given to all participants). No effort was made to direct control group members to any websites that focused primarily on their particular skills sets. The control group did not receive any form of training or assistance from the research team.

Results

Reported in the following section are the results from 27 interviews held at the one-month follow-up period. Nine participants had received the one-to-one treatment, 12 participants had undergone the group intervention and six were from the control group.

Self-Efficacy and LMI

Given that the interview was semi-structured, with mostly open ended questions, it provided the participants with the opportunity to elaborate on their answers and to express perceptions of self-efficacy in their own words. Efficacy is defined as the "conviction that one can effectively execute behaviour required to produce an outcome" (Bandura, 1977, p. 79). High perceived self-efficacy leads to better coping. It was anticipated that those with high self-efficacy would be more optimistic and resilient and would be expected to "keep trying." In this analysis, confidence and competence are viewed as related, but separate and distinct attributes of self-efficacy.

It was hypothesized that when compared to the control





group members, those who received the customized LMI treatment would report higher high self-efficacy and that this would be associated with a more active job search. We expected that those with high perceived self-efficacy would exhibit greater competence in their job search and would articulate greater levels of confidence in their search skills and strategies. Participants would verbalize competence and confidence with words that illustrated perceived mastery and motivation, as well as optimism and resilience. The participants with higher self-efficacy would articulate more competence with the use of LMI. They would also perceive themselves as having more mastery over the various tools and would articulate a higher level of skill in their use. Additionally, high self-efficacy would also be articulated as greater confidence in the use of the tools and in overall success or the probability of success, once the tools were employed. Participants were expected to express a level of certainty in achieving favourable labour market outcomes and would convey a belief that they were in control of these outcomes. As a general rule, the greater the confidence and competence, the higher the self-efficacy and the more proficient and effective would be the subject's use of LMI.

Confidence and Competence were Enhanced by the Treatment

The treated participants reported being engaged in active job searches using a wide range

of the internet resources introduced through the training. Additionally, compared to the control group, the treatment group reported accessing their social networks on a more regular basis to identify job leads and other employment-related resources. Their tone was optimistic and open. Their confidence was illustrated by their willingness to share ideas and approaches with others. One participant exemplified this strategy, describing his behaviour and the impact of the LMI intervention as follows:

“[I] am still actively searching on a daily basis...The information was helpful [providing] new sites and sources for job leads. [I] ask people... [I] go on site.”

In reflecting on the use of the LMI intervention training resources, another subject said the training “gave me a lot of new websites and tools to use – especially to look for a new job in a new field.” Another subject described how the LMI training was used; “I use as many pages as I can find in the computer. I use several pages and I try to find a job.”

The treated participants appeared energized and self-assured. They were excited to report their progress. They attributed their renewed energy, confidence, and greater competence to the LMI training. Even the participants who had returned to school continued to actively job search using the LMI tools provided in the treatment.

The treated participants reported feeling confident. They were secure and self-assured.

They were active and motivated, continually trying, and optimistic. They exhibited competency in the use of the LMI that was contained in the treatments. They appeared better able to target their job search. They expressed the belief that their job search activities were now better, easier, faster, and more accurate and appropriately customized. Overall, the subjects communicated a high degree of self-efficacy. They communicated pride – both verbally and non-verbally. They communicated self assurance and motivation. They were actively setting and tracking job search activity goals, targets and timelines. In particular, competence-related aspects of self-efficacy appeared to be enhanced by the treatment, especially as this related to job search activities.

The control group expressed lower competence and confidence. Many of their responses reflected a very high level of frustration. Their job searches appeared to be more “scatter-shot” with one member of this group describing his behaviour as follows:

“Once a week I go through a session. I look for hours and apply to hundreds of jobs.” Echoing this approach another control group member reported that he had “sent out 150 resumés and up after 20 cold calls.”

Another control participant reported daily searches but was not confident in the methods he was using stating that “it is hard to know your impact.”

In the case of a majority of the control group members,



job search activities depended mostly on traditional methods of resumé writing, visits to job sites, and attempts to make face-to-face contact with decision makers. They expressed less competence and confidence in web-based searches and tools, overall. As one control group member put it “it’s not like the old days.”

Self-Efficacy and Career Decision-Making

Expressed motivations related to career decision-making indicate that the treatment positively impacted the confidence aspects of self-efficacy. This supports the findings of previous research (Paulsen & Betz, 2004). A total of nine treated participants (42%) were either engaged in education or training programs, or were seriously considering their options. Only one of the control group members (16%) had returned to school. None of the other control group members were considering further education or training.

Among the treated subjects who were engaged in education or training, all were acquiring skills that are currently or will be shortly in high demand in the local labour market, including aerospace and supply chain logistics. The program choices related well to the information presented in the LMI treatments and indicated that this information was being used in decision-making around re-skilling for the new economy. One subject specifically cited the LMI training as an impetus to seek education and training: “[The LMI training] helped [me]

think about [it]. I researched it after the one-on-one counseling.” Another participant stated that “[The LMI training] got my wheels turning. [It] made me think a bit about other options.”

For another participant, the LMI “helped me think about it and research it.” The one-to-one training may have been most helpful in prompting participants to think more about education and training, because it may have promoted more discussion of specific individual training needs. In that approach, the training can be both customized and personalized.

One subject related that the LMI training “got me looking again for something with more growth and how to transfer skills.” This person communicated a very high level of self-efficacy, confidence and job-search competency in stating “[I] did a skills inventory [and am] looking at how I can find work using things I am good at [like] sales, people skills, creativity.”

Regardless of the delivery method, the LMI training encouraged participants to view education as a viable option, suggesting a degree of self-efficacy. Confidence related to career decision-making appeared to be particularly enhanced by the LMI intervention.

One participant responded to the question of whether the training had impacted his or her self-confidence this way: “Absolutely. The training made me realize I’m stuck in a dead end job. I can find full time work in a better field. [The training] also got me motivated.” For another

participant, the training “reassured me that I was on the right path.” Still another replied “For sure, all in all I was happy with everything.” Again, these findings support those of Paulsen and Betz (2004).

Self-Efficacy and Job Search Intensity

Subjects were probed more deeply on job search activity to assess the level of effort expended. Compared to the control group, all of those who had received the LMI intervention expressed optimism and a relatively high level of self-efficacy. They reported a more intense use of a broader range of resources. They were more active in both online and face-to-face searches. They reported checking and re-checking sites, making regular phone calls to prospective employers, and making active use of their social networks.

Eight participants from the treated groups could be described as high intensity job searchers. They were engaged in at least one type of search activity on a daily basis. Most of these high intensity searchers used multiple search techniques - computers, cold calls, news media, job banks, networking, or job clubs - at least four or five days per week. One high intensity searcher described the activities as “like a full time job” involving six to eight hours per day. The high intensity searchers appeared to be well organized. They had combined and categorized resources and research and typically kept records of their activities. These subjects could



be described as highly motivated – a hallmark of perceived high self-efficacy. One participant reported an innovative use of social networks wherein a group of friends met regularly to review each other’s job search activities and exchange contacts and résumés. They had formed their own job club and displayed great self-assurance in the willingness to share information openly. This creativity is indicative of aspects of both the competence and confidence aspects of self-efficacy.

The moderate to low job search intensity group appeared to express low motivation and self-efficacy. Most expressed this in terms of competence. Moderate to low intensity job searchers used fewer means and spent less time engaged in these re-employment activities. This group described focusing on job search activities for 1 to 2 hours per day and utilizing fewer and less varied sources.

Low intensity job search and low self-efficacy were both apparent in discouraged workers and were mostly found among the control group. It may be that some of the genesis of this discouragement may lead to discomfort and low self-efficacy related to the training platform as well as other factors. They expressed lower levels of competence and confidence. One low intensity job searcher found the internet “frustrating” while another was not using the computer at all, preferring to make phone calls and face-to-face contacts. Still another was using the computer only on a weekly basis.

Self-Efficacy and Job Search Activity

When the treatment groups were asked about the role of the customized LMI training in their job search activity, they reported a positive impact.

One participant reported that the training had a positive impact on attitude, making him patient and helping him to not get discouraged. Still another subject reported that the LMI intervention motivated him to make phone calls for jobs. Information on skills transferability was cited by three of the participants as particularly motivating and energizing. It appeared that the LMI interventions opened the participants up to new fields and opportunities and brought a new source of hope and optimism to their job search activities. They reported accessing new resources and leveraging old resources differently as a result of the interventions.

One group training recipient reported that the training “made me more aware of what’s really going on in the city.” For another member of this training intervention group, the LMI was “lots of help” and he was “now using the internet and checking recommended websites.” Another group training participant used the information to learn more about companies and felt that the training helped them “know better where to go.” This was repeated by a fourth group trainee who felt that he was “now looking in the right places” and that he had “more confidence.”

These responses are indicative of very high levels of

self-efficacy. The openness, energy, and optimism displayed by the treatment group in describing their job search activity and approach were very evident. The same cannot be said for those in the control group.

The control group expressed “frustration,” “confusion,” and feelings that workers such as themselves were “falling through the cracks.” They felt isolated, angry, and resentful. When asked whether he had found any new sources of LMI on his own, one control group member responded that “If I had, I wouldn’t tell anyone. I would keep it to myself.”

Perceptions of the Training Methods

Those with more advanced computer and internet skills did not find the intervention as impactful as those who had not previously been introduced to the range of internet tools used in this training. Some participants who had received significant employment training through other sources appeared confused about what training they had been given through this research (e.g. - help with résumé preparation was deemed as not useful with this type of training but also was not included in our LMI intervention). These data suggest that LMI customization should consider participants’ interests and experience, and their competency and familiarity with general LMI and the training platform and leverage all of the re-employment training they have previously undergone. To truly have an impact on self-effi-



cacy and motivation, training must account for individual differences in knowledge, skills, and abilities.

The majority of the one-to-one treatment group liked the format. Only one interviewee in this group said he would have preferred the group-based training. That participant cited the potential of the group format for more information sharing as the reason. All but one of the group-based participants liked the training format. They appreciated learning from each other's questions, and enjoyed the opportunity to share experiences.

One subject who received the group training but did not find it useful stated "It may have helped someone who was ignorant in the technique... however for me, I have been looking at jobs for 20 years so I know how to write a cover letter and a resumé."

Interestingly, the customized LMI training used in this study did not specifically address the preparation of cover letters and resumé. That this participant assumed it had, may indicate the presence of perceptual errors related to some type of job search training overload. The research participant was unable to differentiate the content of the customized LMI training in this study from that of previous training he had received from other providers. This may also point to a problem in the training itself if the customized LMI is not being perceived as distinctly different. It could also indicate that displaced workers seeking help begin to confuse the services that they have received. This could

mean that they will repeatedly seek out and receive the same service and may miss receiving other useful services altogether. This cycle of "over service – under service" could directly and negatively impact both confidence and competence and result in lower self-efficacy. More data are required on the perceptions and experiences of those participants who received the group-based LMI intervention. A means of tracking service needs and acquisition to avoid service overlap is described in the discussion section of this paper that might address the issue of service confusion and conflation.

Participants who received the one-to-one training reported favourable reactions to the intervention. One stated that the method was "...right for me. [The material] was explained and tailored to what you needed. [It was] personal, warm. I liked to be able to be talked through it."

Another subject found the one-to-one method to be "...a good way to get questions answered. [There were] no distractions. [The] one-on-one was more personalized. [It was] easier to focus."

Still another participant stated that the training was "...pretty good. I've always liked one-on-one format better. I'm usually well-prepared so one-on-one is more tailored to my needs."

The personalized and targeted nature of the one-to-one format allowed for deeper investigation of information that was specific to each respondent. One subject reported that "[I received] information on how to start a

business. The one-on-one was helpful. I liked the straight forward approach."

Those who assessed the training experience as poor to average reported that they "already knew the information" and that the information "would be more useful to someone newly unemployed... a lot of it was repeated, if you had had [other] training." These responses may suggest the need for more screening procedures and perhaps even greater customization of the training materials. If the purpose of customized LMI training is to target the specific needs, abilities, and past experiences of the job seeker it is critical to know the profile of these individuals and those who will benefit most from this type of training.

There is danger in not fully understanding existing competence when initiating training. Not only does skills under-estimation waste scarce resources but subjecting trainees to repeated interventions in already-developed knowledge and skills areas may diminish confidence and thereby reduce overall self-efficacy.

The majority of subjects who received the one-to-one training assessed the quality of the experience as good to great. They described the training as "useful," "in-depth," "informative," "detailed," and "helpful." As one interviewee reported "(the training) helped me focus, was the right duration, and detailed what I am looking for." Some commented on the ability of the one-to-one approach to effectively match their needs and learning style. As one respondent



reported “The one-to-one has value for visual learners. I need to do hands-on to really learn.” In the one-to-one format, individual differences in competency and confidence can be addressed more effectively.

Another participant stated that “They made sure you really understood.” Others remarked on the quality of the materials presented finding them “useful” and that they helped “focus” the job search. The training materials were also described as “in depth” and “good reference materials.” Still, those with advanced computer and internet knowledge were not as satisfied with the training. As one subject said “the training was OK. My level of knowledge is more than most.”

Overall, most of the one-to-one treated participants were satisfied with the quantity of the information referring to it as “good”, “pretty good”, “lots,” “adequate” and “just enough”. One subject who received the one-on-one training felt that the session was lengthy, stating that “For me, it was too long but for most people it is probably OK.” Competence was improved for this person.

Group-based recipients were almost unanimous in assessing the training quality as good to very good. They found the training “very informative” and of “good quality.” They reported that the training introduced them to “useful tools,” was “easy to follow,” and that they “learned a lot.” They cited the effectiveness and experience of the trainer stating that she “really knows her stuff” and that she was well prepared. They felt that the training

was retained and “stuck with me.” They expressed that they had learned a “great deal” and especially “learned from others.” In this study, it would appear that the group setting had an impact on both perceived competence and confidence-related self-efficacy.

For most of the group treatment participants, the quantity of training was perceived as good. They felt the hand-out was useful and that they had been offered adequate support. One respondent described receiving “a lot more information than I first had.” For another participant, the information was “adequate for what you were trying to do – not too much – not too little.” Yet another reported that the quantity of the training was “pretty good – we went through the whole book, so I was impressed with how much we covered in such a short time.” Another respondent described wanting more hands-on training. Still another would have preferred a longer training session. One person in this treatment group expressed a desire for more training on job titles and for more information on resumé writing and strategies to focus on better presentation of skills.

The control group received no training but the invitation to attend the event did make some feel more optimistic. They felt that “someone was doing something” and that “someone cared.” The event itself did offer an opportunity for informal social interaction and the social support offered through the gathering may have had a positive psychosocial impact, at least in the short term, for control group members.

It did not appear to impact JRSE for the control group members, however.

Self-Efficacy and Autonomous Learning

One question probed independent new learning subsequent to the training interventions. It was oriented to provide feedback on whether participants could leverage the training for more and deeper learning on LMI in the future. Had they become independent learners? Had they identified new sources of LMI that were specific to their individual needs? Were they putting new tools to creative uses? Half of the subjects reported that they had done so. One reported “feeling confident that I can try something different.” Another related making more face-to-face contact with college administrators to research retraining. Still another respondent was researching means of online “self-advertising” while another was considering making use of alternate job posting sites (Kijiji). For those who had not discovered new sources or uses of the tools, they reported being confident with the tools that were provided through the training. Some had become acutely aware of the care that must be taken when using “unqualified” online resources. As one respondent stated:

“The internet is both positive and negative, the information you get is only as good as the site. They could be just harvesting your information.”



Overall, those who had received one of the LMI treatments displayed a high degree of confidence in their ability to use these tools to further their job search. They remained open to new ideas and new approaches. They presented themselves as optimistic. They had told others of their experiences and the new resources that they had learned. They were willing to teach others what they had learned. They had become autonomous learners.

For the majority of the treatment group members, who perceived the LMI training as propelling and motivating their self-directed searches for LMI, the treatment appeared to have a positive impact on confidence, competence and self-efficacy. Agreeing that the intervention did influence self-directed LMI search behaviour, one respondent stated “The training highlighted what I knew. It made me feel more confident that I am on right track.”

Commenting on his improved job search skills competency, one respondent described the more targeted use of tools after the intervention as follows: “Before [the training] I was looking but I couldn’t exactly find [what I wanted/needed]. The websites [from the training] were the right ones with useful information. [I now] spend my time more effectively.” Improved confidence and self-efficacy were evident in the respondent who reported that “[Before] I doubted my research skills. Part of it was desperation, but the more tools you have, the better you can do.”

The influence of the training on networking activity was

cited by several treated respondents. One participant in the one-to-one training stated:

“I heard the counselor tell a story about networking. Then I met a guy and overheard him talking about a job. I had my resumé in the car. He called me to follow-up. The training helped me to be more prepared.”

Perceptions of Support

Participants were asked to identify the aspects of their job search in which LMI training had offered the most and the least support. The treatment participants reported that the training made them feel supported and more confident. They valued the targeted nature of the LMI tools and felt that these internet-based tools significantly improved their job search competence. Several respondents found the tools matching personal skills to job and career options to be particularly useful and motivating. One respondent reported that skills-match sites taught him to not underestimate his own skills.

The introduction of the new tools and the targeted nature of the LMI interventions were perceived as most useful. None of the respondents identified a component of the training which was not useful. None of those having received one of the interventions felt that they had not been offered support.

Those in the one-to-one treatment groups specifically cited the “Working in Canada” website as a practical and useful tool to help identify and classify skills. Skills transfer was partic-

ularly valued. One participant related that he learned “[not to] underestimate your own skills.”

Another subject who received one-to-one counseling emphasized the value of the targeted nature of the LMI stating that “this information was local and specific to the area. [I appreciated] the knowledge base of the counselor. She could really direct me based on what I needed.”

The group-based participants agreed that tools included in the treatment for the identification of personal strengths and skills were invaluable. In fact, one of the group based treatment subjects emphasized that those tools offered him the most support and built his confidence and job search and career decision-making self-efficacy. Other group-based treatment subjects also identified tools for specific company searches as providing great support

The group-based treatment subjects repeatedly mentioned the benefits they received from learning with others. They felt that the group learning environment was enriched by the sharing of experiences and knowledge. They expressed the belief that greater learning occurred within these sessions. They cited “learning new things and short cuts” from the group. They learned from others’ questions. They liked sharing information. As one respondent reported, “[in the group] sometimes you pick up more information.” Another group-based subject agreed, stating, “I thought it was really good...I loved the group. I get along in any situation. There is no embarrassment



in asking questions.” The social support offered by the group was reflected when group-based subject observed that, “At least in the group you know you have people with you and you are not on your own.”

Potential Additions to the Customized LMI Training

Participants were asked for their input on what else could be added to the training. One respondent from the one-to-one intervention group would have liked more in depth career counseling. Another from this same treatment group would have liked assistance with the interview process, particularly as that relates to reducing stress and interviewing successfully. One respondent would have liked enriched information on existing local job vacancies, above what was provided. The researchers did attempt to provide timely information on vacancies and also included sites within the training for independent research.

Some participants would have liked more information on job fairs, while others desired more information on resumé preparation, interviews, and career counseling.

With the group-based treatment participants, some expressed the desire for follow-up sessions. This may be suggestive of the desire for some type of support group where strategies could be reviewed and feedback could be sought. Unemployment can be isolating and the social aspect of the group-based training offers many psycho-social benefits beyond those actually related

to LMI training itself. These factors play a role in enhancing self-efficacy and should not be overlooked when planning training interventions.

Implications/Discussion

Self Determination Theory argues that motivation includes three essential factors: autonomy, competence, and relatedness (Guay et al. 2006). As evidenced in this research, effective training can encourage and enhance autonomous learning. Autonomy is best served through building confidence to act and must be based on the realization of competence. This realization emerges from the provision of timely and accurate feedback and is a critical role that the trainer must play in order to positively impact the learner’s self-efficacy. The role of the service provider, trainer, or teacher has to be to build competence through the effective transfer of knowledge and skills and to provide feedback on the trainees’ skills in such a manner that confidence is built. Formal feedback through the use of follow-up sessions and the implementation of performance tools will increase learning and influence both competence and confidence.

Relatedness is best addressed through group learning and social support. Service providers should design programs that use group-based learning and provide ample opportunities for group interaction. Truly, there can be few more alienating events than job loss and the best designed programs will begin by comprehending and

addressing the psycho-social needs of the unemployed worker. Program goals must be structured to build and enhanced both all aspects of self-efficacy.

The researchers expected that high self-efficacy would be expressed as greater competence and confidence in the use of LMI and in such direct expressions of self-efficacy as renewed motivation, pride, feeling better informed, and being engaged in goal setting behaviours. The researchers found evidence to support the proposition that the customized LMI training intervention did have a positive impact on workers’ JRSE. Treated respondents reported feelings of mastery and proficiency, indicating more job search competence. They reported feeling happier, more secure, and more self-assured than the control group. They indicated a high level of confidence in their abilities to effectively use the customized LMI tools presented in the intervention to achieve favourable labour market outcomes. They were optimistic.

The provision of LMI was found to increase JRSE and to encourage job search behaviours. In this study, the customized LMI and training positively impacted both the component parts of JRSE – JSSE and CDMSE. Increased use of online tools, especially those to identify transferable skills and to find education and training opportunities, was enhanced by the provision of the customized LMI treatment. The benefit of customized LMI and training on the use of this information rests in the ability of the displaced work-



ers to better understand the sources and uses of computer-based LMI and thereby become more competent in the new technology and new information. Trainees were able to target their job searches and to engage in more highly motivated and energetic process with greater confidence as well as greater perceived competence. The tools provided in the training allowed respondents to build more robust personal skills inventories and to make more accurate matches between their skills and job/career opportunities within both the old and new economies.

At least in this research, customized LMI did not necessarily result in more favourable labour market outcomes as they relate to procuring full time employment. Other economic and labour market factors were likely at play and had a major impact on securing employment. In both geographic areas under study, the unemployment rate remained high during the time period of the project, with more limited opportunities for employment than in other locations. These barriers can be viewed as “confidence busters” that reduce labour market activity and self-efficacy.

The provision of LMI and the training sessions appeared to favourably influence career decision-making self-efficacy as expressed by a desire to seek further education and training or to actually enrollment in a program. Many of the people interviewed reported using the tools presented in the training to compare and create skills profiles for new sector employers. They found the training particularly

useful in researching the companies themselves, creating targeted application packages that highlighted skills and experiences matched to employer requirements. A number of the interviewees also reported coupling these online activities with traditional face-to-face visits to the companies. They reported that the training and the research they were able to do on their own made them more confident in making personal contact with prospective employers. The training built confidence and motivated thinking related to career change as well as prompting independent learning.

Participants had very favourable responses to group-based LMI training, particularly as this relates to the competency and confidence aspects of job search self-efficacy. They felt they learned from the experiences and questions posed by other group members. They found interaction with others to be a key source for building self-efficacy and sustaining motivation. The group experience reinforced labour market activities (job search intensity). Implementing formalized opportunities for group interactions may assist in delaying worker discouragement.

Programs that include psycho-social support and development through group based training methods may be more beneficial in building JSSE. Group sessions should have very clear goals and focus on labour market tools mastery. Prior to beginning any training, skills assessments must be done to ensure that self-efficacy is not diminished by continually teaching al-

ready acquired skills. In group sessions, clear ground rules must be implemented that keep groups motivated and on task. Each member must take a role in the mutual development of impactful learning environment that builds competence and confidence across the group and thereby promotes future autonomous learning. This will place the learner in control of the learning process and build self-efficacy.

In this study, one-on-one training seemed to be perceived as especially useful for career decision making behaviours (CDMSE). This may be a consequence of the highly individual nature of career desires and the ability of personalized training to become more of a “coaching conversation” tailored to the specific needs of the individual and to provide fast and specific feedback on the learning.

It is essential that trainers and service providers understand the important role they play assisting in the development, maintenance, and growth of workers’ self-efficacy and labour market activity. Feedback from trainers must highlight and reinforce where and how displaced workers’ actions are having an impact in labour market outcomes. Trainers and service providers should act in a coaching capacity in order to sustain and build self-efficacy.

A problem solving approach to training is recommended. Experiential learning builds self-efficacy. Group-based intervention respondents, in particular, suggested that cases and more examples would have enhanced their training experience.



Respondents enjoy and benefit from learning from one another and case-based training increases the opportunities for this to occur.

Policy Recommendations

Creation of a Web-based Service Passport

Displaced workers will, quite naturally, seek any and all resources that they believe may assist them in successfully gaining employment. Consequently, they often confuse and conflate the services they have accessed into one package. They do not distinguish between who provides what type of service. This can mean that they can potentially receive the same or almost identical training on a number of occasions or that they totally miss one or more types of crucial training. For example, we found that a number of participants would benefit from basic computer training. In another case, the training content benefits were discounted by one participant who had more advanced computer knowledge. Unifying service access through the use of a web-based “passport” approach could streamline and individualize service provision and remove potential sources of demotivation.

The purpose of the passport would not be to deny anyone access to service but rather to ensure that displaced workers have access to all the services and information that will assist them in making career and training decisions and finding employment. A passport could speed up the receipt of services, limit duplica-

tion, reduce costs, and tailor programming to the specific needs of the unemployed individual. The process would begin with a knowledge, skills, and abilities assessment. A service plan would be developed from this information. There would be a clear understanding of what is needed for success in the prevailing labour market, what the worker needs to do, and in what order things need to be done.

From the perspective of the worker, the passport could also serve to document their progress and success – key aspects in building self-efficacy and motivation. Displaced workers would be confident in having all the tools required to successfully execute a job search or plan their career. An online version of the passport could potentially become a searchable data base to link service providers and employers to clients and to identify service gaps in the community. The use of the “passport” can be an effective means for feedback and follow-up. Service providers could participate with clients in establishing specific, meaningful, and challenging goals in relation to certain job or career decision activities. This would contribute to increased motivation and enhanced both the competence and confidence aspects of self-efficacy. It could trigger autonomous learning. Care should be taken to use a mix of virtual and face to face formats to ensure effective autonomous learning and competence are present and that needs for relatedness are addressed (Guay et al. 2006). A “hybrid” training platform” is recommended. There is still a

place for face to face interaction in this world of computer facilitated employment and training service provision.

Greater Engagement of Employers – Maintenance of Skills and Contribution Inventories

The professionalization of human resources departments has meant that employers are better able to maintain data base information that details the knowledge, skills, abilities and strategic contributions of individual and groups of employees. This information should be shared with employees. Feedback on “what I can do” and “how what I do contributes to the goals and objectives of the company” is very useful in building an empowered, focused workforce with high levels of self-efficacy. Once compiled, in the event of a reduction of force, employees would benefit from having this information to structure their approach to the job search and career decision-making processes. These data could be uploaded to the service passport site.

Emphasis on Group Counselling

Our research results suggest that participants benefit from group counselling. In this format, trainees’ relatedness needs were addressed and psycho-social support was offered. Both of these benefits are closely associated with more favourable perceptions of competence and confidence. Therefore, well-run group based LMI training offers



critical components for building self-efficacy and self determination (Guay et al. 2006). Trainers must ensure that they develop and maintain the appropriate training environment to make group sessions productive, informative, and rewarding for participants. In the case of training similar to that delivered in this research, it is essential to ensure that all participants in the group have equivalent knowledge and comfort levels with computer technology. Further, group size should be kept relatively small (Loeb, Penrod & Hupcey, 2006; Helde, Brodtkorb, Brathen & Bovin, 2003; Lohman & Finkelstein, 2000; Gladding, 1994; Hwang & Guynes, 1994).

Increase Availability of Computer Literacy Training

This recommendation may be most relevant for training those in the older age demographic. The job search process has changed dramatically and is highly dependent on relatively advanced computer knowledge and skills. Because of the algorithms used on job application platforms, prospective applicants need to be aware of and careful with the terms they use to describe their knowledge, skills and abilities, and work experience. This knowledge is not widespread and, particularly for those who have not faced the “new job market,” application procedures can be very frustrating and a source of anxiety. It could very well lead to worker discouragement, reduced self-efficacy, and demotivation.

Limitations of the Research

The small sample size in the research limits the reliability of the findings. While all effort was made to broaden recruitment, the fact remains that participation was relatively low. Caution must be taken when making conclusions about the population of displaced autoworkers or of displaced workers, in general, based on these research findings.

Attrition rates need to be considered when assessing these research findings. Due to attrition, interviewees may have particular characteristics that lead to the findings on self-efficacy described here. For example, willingness to stay in the research project and to be interviewed may indicate relatively high self-efficacy and a motivation to report to the researchers on how well the respondent was performing.

The sample population and the interview respondents had very specific demographic characteristics – they were primarily male, had been continuously employed in the automotive sector for a relatively long period of time, were relatively old (46-55 years), and were mostly union members. Each of these characteristics could independently or in combination impact the results. For example, much previous research has reported gender differences in confidence. Males report greater confidence and have a greater tendency to ascribe success to personal factors (Deaves, Luders & Guo, 2009). The geographic location of this research has implications for

findings. More than most areas in Canada, the labour market in Southwestern Ontario was severely impacted by recent global economic shocks. These uncontrollable economic barriers may negatively impact self-efficacy measures, as well as job search intensity, as participants view, quite legitimately, that re-employment prospects are rather dismal. It may be that treatment effects are dampened due to prevailing economic conditions beyond the control of the researchers.

The researchers had no control over participants' access to and use of alternative sources of LMI, counselling, and support services. It could be that self-efficacy, particularly competence-related self-efficacy, is related to these other services and sources of information and not to the specific LMI used in this research. Indeed, because participants actively search out multiple sources and appear to continue to search until they achieve either a successful labour outcome or become discouraged, they often conflate the services they have accessed into one total package. They do not distinguish between who provides what type of service. This makes isolating the impact of the LMI delivered in this research challenging. This may suggest that unifying services is called for as a potential solution.

This research is qualitative. The results of interviews are reported. While the researchers are trained in qualitative research methods, the techniques for these data may be open to alternate interpretations.



Future Research

Clearly, exploration of job-related self-efficacy and the psycho-social aspects of career and job search decision-making present a rich and worthwhile area for future scientific investigation. More research needs to be performed to define and distinguish the individual effects of the competency and confidence aspects of self-efficacy and to specify the importance of competence and confidence in labour market outcomes. Other research has shown links between confidence and career decision-making among students (Paulsen & Betz, 2004). In this study, we have applied these ideas to displaced workers. The current research could be expanded to larger samples, using alternate populations of displaced workers (outside the automotive sector). Future research should also focus more directly on the impact of ambient job announcements (public statements about new employers locating or expanding operations in a community) on job seeker behaviour and self-efficacy – particularly as it relates to job search intensity. This research could answer questions as to whether there is an ideal time at which to offer employer job fairs, for example, in order to ensure that the best qualified and most motivated job seekers are in attendance. Additionally, the issue of the timing of an LMI intervention bears additional research, to see if an optimal time frame can be established.

Research should be pursued on the nature of and relationship between social support

and the competency and confidence aspects of self-efficacy. As well, the idea of formal and informal group support, virtual versus face to face group support could also benefit from further study.

The efficacy of the policy recommendation to include skills and contribution information with other severance materials should be examined to discern the impact of this information on job search intensity, CDMSE, JSSE and labour market outcomes. More research needs to be done on older workers – identifying their job search strategies, the unique barriers they face, and how government and employers can work together to ensure that this talent pool is not underutilized, given the projected labour market shortages Canada will experience in the coming decades.

The role of the trainer in building self-efficacy needs further exploration. The nature and timing of feedback to directly improve competence and confidence warrants investigation. Related to the role of the trainer, the most effective platform for delivering training and feedback to increase and sustain high levels of self-efficacy should also be explored (virtual versus face to face to hybrid).

Summary

Job-Related Self-Efficacy is multidimensional. It includes perceptions of both competence and confidence. Intervention strategies to enhance the labour market outcomes of displaced workers must be designed to account for and enhance both these

component parts. In designing training, service providers must account for individual differences. They must build course content and delivery strategies keeping in mind the three component of self determination – autonomy, competence, and relatedness. Keeping these principles in mind, training can have a positive impact on Job Related Self-Efficacy.

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