

Employee Perceptions of Intended and Unintended Work Experience Outcomes in the On-the-Job Development of Work Expertise

Richard W. Herling
Indiana State University

This study surveyed the perceived differences in the learning potential of different work experiences, and sought to determine if these differences were reflected primarily in the type of experience, the nature of the experience, or the type of outcome associated with the experience. Research has shown that employees acquire the largest portion of their work knowledge and skills through their work experiences, suggesting that work experiences should be utilized as a primary learning tool.

Keywords: Employee Development, Expertise, Learning

Almost twenty years ago McCall, Lombardo, and Morrison (1988) authored a comprehensive strategy for developing executive talent based key events in the careers of executives and the lessons they had learned from these experiences. Their research was motivated in part by their recognition of a discrepancy that existed between where future executives were acquiring their managerial knowledge and skills, and where organizations were concentrating their development efforts and monies. They noted that “while classroom activities as developmental interventions are more tangible than on-the-job experiences” (p. 2), the bulk of an executive’s managerial knowledge and skills was being developed outside of the classroom, from on-the-job assignments.

Problem Statement

Comparisons between the published research on human expertise in professional journals, and the reporting of business trends and training practices in trade magazines, shows little has changed in twenty years. Through the research it has been established that the bulk of employee work knowledge and skills are developed from work experiences (Wick, 1989; Zemke, 1985). However, despite a recognition that classroom training may be the least critical component of employee development programs (Hernez-Broome & Hughes, 2004), and acknowledgement that employee development is shaped by the diverse ways that individuals elect to engage or participate in workplace activities (Olesen, 2007), industry reports clearly indicate that formal, classroom training continues to be the most popular course of action taken by most organizations for developing employee expertise (Dolezalek, 2004). When viewed as a difference between a desired state (a development strategy based on learning from work experiences - the major source of employees’ work knowledge and skills) and the current state (a development strategy based on learning in the classroom), this represents a significant problem for professionals engaged in the field and practice of HRD (Human Resource Development).

These contradictory perspectives between research and practice demonstrate that within the field of HRD there is a need for a greater understanding of how work experiences can be utilized as the foundational base of a development strategy. An associated need, fundamental to developing this understanding, is a current lack of knowledge about the perceptions employees have regarding learning from their work experiences, and the learning value of different experiences – specifically those experiences with unintended outcomes.

Theoretical Framework

The objectives of this study centered on establishing whether or not employees perceive differences in the learning potential of various work experiences, and if these differences can be attributed to the type of experience (new/unique verses similar/repetitive), the nature of the experience (positive verses negative), and/or the type of outcome associated with the experience (intended verses unintended).

The Problem with the Current Approach to Developing Work Expertise.

Research conducted between 1979 and 1985 (the Honeywell Studies), focused on how managers learned to manage, concluded that job-related knowledge and skills are acquired from three primary sources: job experiences and assignments, the working relationships individuals have with others in the organization, and formal training.

Copyright © 2008 Richard W. Herling

Initially the researchers estimated that these three sources of learning contributed 80%, 10%, and 10% respectively to the development of the manager's expertise, however, following the analysis of additional data this ratio was revised to 50%, 30%, and 20% respectively (Zemke, 1985).

Experience and the Development of Expertise.

Much of what is currently known about how people acquire and develop knowledge and skills from their experiences was derived from research on human expertise. Based on the work of Ericsson and Charness (1994), it was concluded that human expertise is developed through extensive and intensive levels of both training and practice. It is through practice (either that of a formal, structured learning experience or an informal, unstructured learning experience) that the individual develops, refines, and gains mastery of the trained skills and knowledge.

Other researchers, also studying the differences between experts and non-experts, postulated that to become an expert required approximately 20,000 hours (10 years) of combined education, training, and experience (Bereiter & Scardamalia, 1993; Posner, 1988). Experience in this case was primarily identified as being informal, unstructured, ongoing, real-time application of the learned skills and knowledge.

The Role of Experience in the Development of Work Expertise.

From a related perspective of expertise, the research of Schmidt, Hunter, and Outerbridge (1986), in the area of work performance, demonstrated that in jobs of medium-complexity both job knowledge (reflected in test scores) and performance capabilities (reflected in the quality and quantity of work samples) increased linearly with experience during the first 60 months on the job and then leveled off. Their findings not only suggest that the levels of expertise required in the workplace are developed in less than the postulated ten years, but that work expertise is developed and acquired in the manner generalized by the earlier mentioned Honeywell study (Zemke, 1985), through daily work experiences, and not extensive formal training.

Recognition of Different Types of Experiences.

There is a universal belief that people learn from their experiences. However, when viewed from the perspective of informal learning in the workplace, Marsick and Watkins (1990) have observed that people do not always learn from their experiences. This view is supported by research that examined the nature of learning in small business environments. This research concluded that "learning occurred when experience was transformed into new knowledge, skills, or attitudes that led to changed behavior" (Ziegler, 1999, p. 58), implying that many experiences are non-learning experiences (experiences without learning) because they do not elicit such a transformation.

Further support to differences in the learning potential of different experiences is provided by Garvin (2000), who, in observing that managers learn best from hands-on experiences, noted that "to be effective, those experiences must be diverse" (p. 93). He postulated that repeated experiences by themselves rarely produce superior managers. Gavin added that exposure to a unique or novel experience "ensures that a new set of talents is developed" (p. 93).

The combined research thus provides evidence that some experiences clearly contribute to the development of work expertise, some do not, and that work experiences can be separated into three groups: the novel or unique experience, which by its very nature leads to the acquisition of new knowledge and skills; the repetitive experience, which reinforces things already learned, and which is essential for the mastery of newly acquired knowledge and skills; and the non-learning experience, which does not directly or indirectly contribute to work expertise.

Recognition of Different Types of Experience Outcomes.

Marsick, Volpe, and Watkins (1999) noted that people will learn from their experiences when they are faced with a new challenge or problem. In the process of solving new problems people often experience a series of failures (unintended outcomes) before experiencing success, the intended outcome. Cannon (1999) noted that although the experiences of failure and success are very different in nature both can generate long-lasting emotion-based memories that are readily recalled. This process of learning (the result of a combination of multiple experiences) brings into question the possibility that a specific type of experience – the experience of failure versus the experience of success – may have a greater affect in the development of an employee's work expertise.

Making mistakes as a primary learning experience gains support from Schank (1982), who noted that when individuals encounter similar experiences in which the past outcome of their selected actions failed to achieve the desired goal, they will develop a new knowledge structure, one that generates an appropriate outcome matching their expectation. There is, however, an equally accepted general belief that mistakes have a tendency to be repeated. This belief attributes to the strong perception that people, and organizations, do not learn from the results of their own actions or from the actions of others (Feldman, 1986). Marsick et al. (1999) seem to support this premise suggesting that, instead of learning from their mistakes, people will tend to repeat their mistakes because they do not examine the reasons, causes, or decisions that led to failure.

In light of these various beliefs (and the associated research) related to learning from experience, it appears that problem-based, novel experiences in which the initial set of actions and decisions would result in an unexpected, unintended outcome (either success or failure) may represent the greatest opportunity for developing work expertise.

Attitudes and Learning From Experience.

Although the evidence seems to support that some experiences may be better sources of learning than others, this assumption does not consider the possibility that learning from experience may be a matter of personal choice. It has been observed that, even though several individuals may face the exact same work experiences, they will not all learn exactly the same from them. This phenomenon, attributed to differences in the individuals' attitudes towards learning their job (Bunker, 1989), is supported by the research of Bereiter and Scardamalia (1993), who concluded that accumulated experience does not necessarily directly equate to the acquisition of, or the extended development of, expertise. They reported that accumulated experience only "distinguishes old-timers from beginners, but does not distinguish experts from experienced non-experts" (p. 81).

Self-perception and Learning From Experience.

Holton (1996) proposed a model for the evaluation of training that identifies the three primary influences on learning as 1) trainee reactions, 2) motivation to learn, and 3) ability. Of these three influences, motivation to learn and ability are factors that can be addressed by the design of the training program as demonstrated by Campbell and Campbell (1990). However, following their review of research related to individual differences in motivation, Campbell and Campbell repeatedly noted the significance of the role self-perception played.

Self-perception theory maintains that people decide on their own attitudes and feelings in essentially the same way they understand the attitudes and feelings of others, from external and internal cues and inferences created from past experiences (Albarracín & Wyer, 2000; Silvia & Gendolla, 2001). Trainee reactions (considered to be a primary influence on learning and the one influence that cannot be effectively addressed by training program design) are the manifestations of the trainee's self-perceptions; expressions of the beliefs and feelings held by trainee. In the context of trainee reactions, self-perception has the potential for being a critical factor in learning from experience.

Albarracín and Wyer (2000) concluded from their research that "on the basis of self-perception theory "people who become aware of a past behavior are likely to infer their attitude from their behavior and that this attitude would then mediate their decision to repeat the behavior later" (p. 20). It can be inferred that if an individual acknowledges having previously learned from an experience he or she will be more receptive to learning from a future experiences.

Research Questions

The previously cited research established two things: first, those experiences with unexpected outcomes stimulate and intensify learning, and second, employee perceptions play a key role in the learning from experiences. The former supports the premise that employee development can be structured around specifically selected work experiences, the latter identifies a need for increased understanding of the level of importance employees attribute to learning from their work experiences, and specifically to the types of experiences they perceive to be learning experiences.

Primary Research Question.

Based on the stated need to increase HRD's understanding of the role work experiences play in the development of employee expertise, the primary objective of this exploratory study was to answer the following research question: *What is the employees' perception of the contribution of intended and unintended outcome experiences to the development of their work knowledge and skills?*

The research question identifies *learning from experiences* as a dependent variable in a relationship where *employee perceptions* are recognized as the independent variable. Different *types of experiences* and different *types of outcomes* are secondary independent variables, with the type of experience influencing the type of outcome.

McDaniel, Schmidt, and Hunter (1988) suggested that two potential moderators of demonstrated job mastery (or job performance) are length of experience in the job, and job complexity. Therefore *length of experience* and *job complexity* are seen as tertiary, independent variables.

The two remaining independent variables of importance to this study were *employee's perceptions*, seen as the primary influence on learning from experience, and the *nature of the experience*, a secondary influence. Unlike the type of experience and the type of outcome, which can be used to objectively qualify an experience, the nature of an experience – whether it is positive or negative, good or bad, enjoyable or un-enjoyable – is subjective. The nature of an experience is believed to be a strong influence on the employee's perceptions.

Figure 1 illustrates the theorized relationships of all the variables assumed to be key to this study. The relationships depicted by solid lines have been based on previous research, they can be objectively assessed and have substance. The relationships associated with perceptions (depicted with dashed lines) also exist but they have not been closely examined by researchers, are to a large degree subjective, and thus somewhat nebulous. This visualization (Fig. 1) is only intended to depict the theorized influence of one variable on another; not to imply causality, or suggest varying degrees of influence.

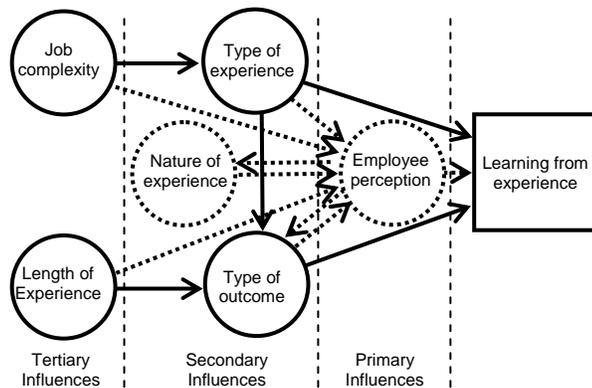


Figure 1. Theorized relationships of the study's key variables.

Secondary Research Questions.

To gain a better understanding of the role employees' perceptions play in learning from work experiences, this study utilized five secondary research questions.

1. Do employees have a perception that they have acquired work knowledge and skills from their work experiences?
2. Do employees have a perception that new/unique work experiences contribute more to their development of work knowledge and skills than similar/repetitive work experiences?
3. Do employees have a perception that personal work experiences contribute more to their development of work knowledge and skills than the work experiences of others that they have either seen or heard?
4. Do employees have a perception that 'negative' work experiences contribute more to their development of work knowledge and skills than 'positive' work experiences?
5. Do employees have a perception that work experiences culminating in unintended outcomes contribute more to their development of work knowledge and skills than work experiences culminating in intended outcomes?

Research Design and Limitations

This study was conducted as an exploratory examination of employees' perceptions. It utilized a survey tool to gather self-reported perceptions of learning from work experiences. The different means of knowing – experiencing, perceiving, and believing – represent three interrelated levels of cognition. Experience, the most tangible level of cognition, provides a base from which a perception may be formed and can become the underpinning of a belief, the least tangible level of cognition. The design of the research instrument incorporated this belief-perception-experience relationship to validate the collected data and ensure internal consistency. To assure both reliability and validity of the research instrument, the data collection tool was pre-tested using a review by an experienced researcher, a pre-pilot test with a selected group of peers, and a pilot test with a representative group of subjects.

Data collection procedure and instrument. Data was collected by means of a written survey tool distributed in the form of a questionnaire to the attendees of regional training programs and meetings held over a three month period. These events provided an effective and efficient way to collect the data. The topical focus of these events varied, and were unrelated to the survey questions. The data collection tool was designed to be self-explanatory and included instructions on how to interpret and properly respond to each question. The questionnaire was constructed in three parts. The first part was designed to collect key demographic data related to job complexity and level of work experience. The second part was designed to collect data identifying the subjects' general beliefs and personal perceptions relating to learning from experience. The third part asked subjects to recall and describe a personal work experience from which the subject had learned.

Population and Sampling Procedure

For the purposes of this study a non-probability sample of convenience was used because a time limitation, imposed by the sponsoring organization, for collecting data. In addition, a probability sample was not considered practical due to the geographical disparity of the sponsor's subject population.

Data was collected from a survey sample of 481 full-time employees of one organization, working in 200 different locations, in 17 central and mid-west states. These employees were engaged in retailing and distribution, primarily in the roles of outside sales and store management (sales = 280, management = 165, other = 36).

Data Analysis

Due to the nature of the study, the analysis of the collected data focused primarily on the detection of patterns and/or trends in the responses to each of the survey questions. Response frequencies and distributions for each 'belief' question were tabulated. For each 'perception' question the response frequencies and distributions were tabulated and charted. For each question that asked subjects to make a selection between two choices, the chi-square statistical test was used to determine the likelihood that differences could have occurred by chance. The chi-square procedure was also used to test the hypotheses proposed by the research sub-questions.

Limitations of the Study and Its Findings

There were several limitations that were recognized as having a potential impact on the utility of the study's findings. The first, and most significant, was associated with the external validity of the study. By design, this study elected to use a sample of convenience. Despite the fact that it is believed that the use of a very large sample offsets the major concerns associated with the use of a sample of convenience, it was recognized that the use of such a sample clearly limited the ability to generalize a study's findings.

A second limitation to the study was the potential for introduced bias typically associated with the use of a sample of convenience. Although the subjects participating in the study were geographically dispersed all were employees of a single organization, and as such, their perceptions may have been influenced by the organization's culture in respect to its philosophy and practices of employee development.

A third limitation of the study was attributed to the nature of an exploratory study. Because exploratory research attempts to understand problems in a preliminary way, the findings of such studies need to be treated as preliminary.

Results and Findings

This study examined employees' beliefs and perceptions related to learning from work experiences as an initial step towards an increased understanding of 1) how employees develop their work expertise from their work experiences and 2) which work experiences contribute more to the development of job knowledge and skills.

Both popular belief and research supports the premises that most of an employee's job knowledge and skills are acquired through the act of doing the job (from work experience), that people learn more from unique experiences, that people learn more from negative experiences, and that people learn more from experiences with unintended and unexpected outcomes. The information collected from the individuals taking part in this study substantiated the claim that employees do acquire most of their job specific knowledge and skills directly from their work experiences, although perhaps not to the extent earlier studies have suggested. The collected data, however, did not support, at least from the view point of the employee, the generalizations that people learn more from unique experiences, or from negative work experiences.

Employee Perceptions of the Sources of Learning

To identify what employees generally perceive as their primary source of learning, subjects were asked to estimate what percentage of their total job-specific knowledge and skills had come from 1) formal training, 2) self-directed learning efforts, 3) coaching and/or mentoring, and 4) from their work experiences (from actually having to do their job). The data collected from this study shows that employees have the perception that 24% of their total job knowledge and skills are the result of the formal training they have received, 23% can be attributed to their own self-directed learning efforts, 19% is derived from either formal or informal coaching and/or mentoring interactions with co-workers and/or supervisors, and 34% is directly acquired from actually doing the job. In other words, as a group, employees perceive that roughly three-fourths of their total, current job knowledge and skills were acquired from activities directly and/or indirectly associated with doing their job, and not from formal training.

Employee Perceptions of the Level of Learning Attributed to Work Experiences

The study's first sub-question asked if employees had the perception that they acquired work knowledge and skills from their work experiences. All subjects responding to this question (480 of 481 respondents - 99.8%) indicated that they believed people learn from everyday experiences. Almost 97% of the survey respondents estimated that at least half of their work experiences had also been learning experiences. Surprisingly, 60% indicated that they perceived more than 80% of their work experiences had been learning experiences. It is interesting to note that while 97% of the subjects reported that they considered more than half of their work experiences to have been learning experiences, only 70% (339 of 481 respondents) actually named a specific experience they had learned from.

Employee Perceptions of the Level of Learning Attributed to New/Unique Work Experiences

The study's second sub-question asked if employees had the perception that new/unique experiences contributed more than similar/repetitive work experiences to the acquisition and development of their work knowledge and skills. Surprisingly, only 40% of the subjects agreed with the general belief that people are more likely to learn from new and/or unique experiences.

The subjects were also asked to estimate what percentage of their learning-work experiences they considered to have been new, unique experiences. Almost 50% of the respondents estimated that less than one-third of their learning-work experiences had been new and/or unique work experiences. While a greater number of respondents favored similar/repetitive experiences, the results of the Chi-Square test indicated that there was no statistical difference in the perceived learning potential of different types of experiences.

Of the respondents who recalled and described a personal learning-work experience, 56% identified the experience as a unique experience, and 44% classified it as a similar experience. Although this finding runs contrary to that of the respondents' belief and perception of the learning potential of unique experiences, the Chi-Square test again indicated that the variance between the two groups was statistically insignificant.

Employee Perceptions of the Level of Learning Attributed to the Work Experiences of Others.

The third sub-question asked if employees had the perception that things they personally experience on the job contribute more to the acquisition and development of their work knowledge and skills than the work experiences of others that they have either seen or heard. The collected data strongly indicated that employees do have the perception that they have learned more (considerably more) from their personal, lived experiences than they have learned from observing or hearing about the experiences of others, and of the respondents who named a specific work experience they had learned from, only 32 individuals (9.44%) recalled an experience belonging to another, in other words an experience that they had only seen or heard.

Employee Perceptions of the Level of Learning Attributed to Negative Work Experiences.

The study's fourth sub-question asked if employees had the perception that 'negative' work experiences contribute more to the development of work knowledge and skills than 'positive' work experiences. To establish a basis for the reported perceptions, subjects were asked several questions relating to their beliefs associated with learning from negative experiences. Less than 16% of the respondents held the beliefs that people 1) learn *faster* from negative (un-enjoyable) experiences and/or 2) learn *more* from negative (un-enjoyable) experiences. The majority of the respondents (83.96%) believed that people learn more from enjoyable experiences.

Interestingly, even those respondents who indicated they had learned more from the stories or observations of others believed they learned more from hearing of other people's successes, as opposed to hearing of failures (76.78%), and learned more from seeing examples of when things go right as opposed to when things go wrong (76.99%). The respondents' strong belief in positive learning-work experiences was supported by the descriptions of actual recalled learning experiences, with 79.29% of the respondents identifying their learning-work experience as a positive one and 20.79% identifying it as a negative experience.

Employee Perceptions of the Level of Learning Attributed to Work Experiences with Unintended Outcomes.

The purpose of the fifth sub-question was to establish if there is a perceived difference in the learning potential of work experiences based on how closely the resulting outcomes match the employee's intentions and expectations.

Once again this study found that the employees' perception of the phenomena did not align with previously observed behaviors. If one considers that any outcome that does not exactly match what was expected is an unintentional outcome, then, based on the group averages, respondents perceived that two-thirds (66%) of their experienced-based learning resulted from unintended outcome experiences. However, when unintentional or unexpected are defined as meaning worse or completely different (in other words given a negative connotation) then the respondents estimated that close to two-thirds (59%) of their learning came from work experiences with outcomes that were the same or better than what they had expected (as opposed to worse or completely different). When each of the different outcomes were examined separately, respondents perceived 34% of their learning-work experiences had outcomes that matched their expectations, 25% turned out better than they expected, 21% were experiences with outcomes worse than expected, and 20% of the experiences had outcomes completely different from what had been expected. Not only did respondents perceive they learned more from experiences that matched or exceeded their expectations, but more than 70% of their actual recalled learning-work experiences were identified as having outcomes that were either the same or better than expected (23% of the recalled experiences had worse than expected outcomes, 6% had completely unexpected outcomes).

Summary of Findings Related to the Primary Research Question.

In review of the combined findings of this study it is evident that while unique experiences and unintended outcome experiences are acknowledged by employees to be learning experiences, employees do not perceive the contribution made by unique experiences to be any different than that made by similar experiences. Nor do employees perceive the contribution made by experiences with unintended outcomes to be significantly greater than the contribution made by experiences that turn out as expected. Regarding the latter point, employees tend to perceive a greater contribution to learning from work experiences with results that match their intended outcomes.

In contrast, employees appear to place a greater perceived importance on the nature of the experience (positive verses negative) than they do on the type of experience or the kind of outcome. Employees clearly perceive a

significant contribution to their acquisition and development of job knowledge and skills from experiences which are positive in nature. Finally, based on the employees' recalled experiences (which can be viewed as manifested examples of employee perceptions), positive experiences with outcomes that were better than expected are clearly perceived to be the primary source of experienced-based learning in the workplace.

Conclusions and Recommendations

Previous research has established that in practice, human learning and conditioning are more strongly affected by experiences associated with negative events, anticipated negative outcomes, and by experiences with unexpected outcomes (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Previous research has also established that individual perceptions and beliefs (and the extensions of one's perceptions and beliefs as expectations and self-efficacy) are recognized as factors in both the motivation to learn and to transfer learning (Holton, 1996). Previous research has not, however, established what the employee's perceptions and beliefs are in regards to learning from work experiences in general, or to learning from specific types of experiences and/or outcomes. From the data collected in this study it appears that employees clearly do believe they learn from their work experiences, and specifically from positive experiences with outcomes that are better than what they had intended.

The findings of this study, which examined employee perceptions of learning from work experiences for the purpose of identifying the nature of work experiences with the greatest learning potential, suggest several actions that could be taken for creating a development strategy that would potentially reduce the amount of time required for an employee to achieve job mastery. First, development plans should be primarily structured around and comprised of work experiences. Utilizing work experiences as the key element in a structured development plan 1) negates the problem of learning transfer from the classroom to the workroom; 2) requires and assures that the developing employee acquire, develop, and master only the knowledge, skills, and problem solving heuristics required to perform the job; and 3) because employees already perceive they learn more from their work experiences than from all other sources of learning (including training), further enhances the developing employee's motivation to transfer.

Second, the findings of this study show that employees have a perception that they learn more from experiences that are positive in nature and/or that result in outcomes that match what the employees had intended and expected. This suggests that, third, when utilized as part of the development plan, work experiences should be matched to the employee's present level of expertise to ensure the learning-work experience is positive in its nature and outcome. Because the study's findings indicated that employees perceive their greatest learning comes from experiences with better-than-expected outcomes, this also suggests that new/unique experiences should be matched to challenge, but not exceed, the employee's present level of expertise, and that the employee should be prepared in advance, by the HRD professional or a coach/mentor, as to what to expect.

The fourth suggestion apparent from this study is derived from the identification of distinct differences between employees based on their openness to learning from work experiences. Coupled with the fact that the knowledge embedded in an experience tends to be implicit, therefore requiring a process of critical reflection to make it explicit, the differences in an openness to learn from work experiences suggests a need for pre- and post-experience instruction/consultation with developing employees to raise their awareness of the learning potential of the experience, highlight what they should be attentive to, and to initially coach them through the reflection process.

How This Research Contributes to New Knowledge in HRD

This study has shown that employees have a strong perception of the important contribution work experiences make in the development of their work expertise, and the kind of work experiences that contribute most to their learning. To HRD this is an opportunity to improve individual (and consequently work team and organizational) performance while simultaneously reducing the costs currently required to develop employee job knowledge and skills. However, as the recommendations from these findings suggest, the potential to accelerate employee development will require, to some degree, a change in current training beliefs and practices.

The findings of this study offer HRD some potentially interesting avenues for pursuing future research and new learning. The study has shown that there is reason to believe that using a work experience based approach to employee development would be of greater benefit than a development strategy primary based on formal training. The study has also indicated that self-directed learning and coaching/mentoring contribute almost as much to the perceived development of an employee's job expertise as formal training. However, the findings of this study have not provided any indication of how much more effective or efficient such an approach would be. Perhaps the most intriguing of all the research possibilities is the apparent disconnect between the employees' perceptions of the learning potential of different work experiences and the findings of prior research. Previous research has shown

negative experiences and unexpected outcomes encourage and intensify learning, and yet this study has shown that employees perceive that most of their experience-based learning has been derived from positive experiences and experiences where the results either match or exceed what the employees had intended and expected.

Although this was an exploratory study of limited scope, it is believed that the reported findings and resulting recommendations, even in consideration of the identified limitations of this study, can assist the HRD professional in improving employee development strategies and efforts.

References

- Albarracin, D. & Wyer, R. S. Jr., (2000). The cognitive impact of past behavior : Influences on beliefs, attitudes, and future behavioral decisions. *Journal of Personality and Social Psychology*, 79(1), 5-22.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5(4). 323-370.
- Bereiter, C., & Scardamalia, M. (1993). *Surpassing ourselves: An inquiry into the nature and implications of expertise*. Chicago: Open Court.
- Bunker, K. (1989) Leaders and the dark chasm of learning. *Issues & Observations*, 9(3), 5-6.
- Campbell, J. P., Campbell, R. J., & Associates. (1990). *Productivity in organizations: New perspectives from industrial and organizational psychology*. San Francisco: Jossey-Bass Inc.
- Dolezalek, H. (2004, October). 2004 industry report: Training magazine's 23rd annual comprehensive analysis of employer-sponsored training in the United States. *Training*, 41(10). 20-36.
- Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, 49. 725-747.
- Feldman, J. (1986) On the difficulty of learning from experience. In H. P. Sims, Jr., D. A. Gioia, & Associates (eds.). *The thinking organization: Dynamics of organizational social cognition* (pp. 263-292). San Francisco: Jossey-Bass Inc.
- Garvin, D. A. (2000). *Learning in action: A guide to putting the learning organization to work*. Boston: Harvard Business School Press.
- Hernez-Broome, G. & Hughes, R. L. (2004). Leadership development: Past, present, and future. *Human Resource Planning*, 24(1), 24-32.
- Holton, E.F. III (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly*, 7(1), 5-21.
- Marsick, V. J., Volpe, M., & Watkins, K. E. (1999) Theory and practice of informal learning in the knowledge era. In V. J. Marsick and M. Volpe (Eds.) *Informal learning on the job. Advances in developing human resources*, 1(3), 80-95.
- Marsick, V. J., & Watkins, K. E. (1990). *Informal and incidental learning in the workplace*. London: Routledge.
- McCall, M. W. Jr., Lombardo, M. M., & Morrison, A. M. (1988). *The lessons of experience: How successful executives develop on the job*. Lexington, MA: Lexington Books.
- McDaniel, M. A., Schmidt, F. L., & Hunter, J. E. (1988). Job experience correlates of job performance. *Journal of Applied Psychology*, 73(2). 327-330.
- Olesen, H. S. (2007) Learning and experience. In S. Billett, T. J. Fenwick, & M. Somerville (Eds.), *Work, subjectivity and learning: Understanding learning through working life* (pp. 53-68). New York: Springer-Verlag.
- Posner, M. I. (1988). Introduction: What is it like to be an expert. In M. T. H. Chi, R. Glaser, & M. J. Farr (Eds.), *The Nature of Expertise* (pp. xxix - xxxvi). Hillsdale, NJ: Lawrence Erlbaum.
- Schank, R. C. (1982). A methodology for enhancing crew resource management training. *Human Factors*, 41(1), 161-170.
- Schmidt, F. L., Hunter, J. E., & Outerbridge, A. N. (1986). Impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings on performance. *Journal of Applied Psychology*, 71(3). 432-439.
- Silvia, P. J. & Gendolla, G. H. E. (2001). On introspection and self-perception: Does self-focused attention enable accurate self-knowledge? *Review of General Psychology*, 5(3), 241-269.
- Wick, C. W. (1989). How people develop: An in-depth look. *HR Report*, 6. 1-3.
- Zemke, R. (1985, August). The Honeywell studies: How managers learn to manage. *Training*, 22(8), 46-51.
- Ziegler, M. (1999). Awakening: Developing learning capacity in a small family business. In V. J. Marsick and M. Volpe (Eds.) *Informal learning on the job. Advances in developing human resources* (Number 3, pp. 52-65). San Francisco: Berrett-Koehler Communications.