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ABSTRACT
                Work process change is a popular approach to performance
improvement in contemporary organizations. Variables that serve as leading
indicators of employee performance when process changes take place include
employee learning, self-efficacy beliefs, learning transfer climate, and goal
commitment. Two critical concerns exist when implementing process change: (1)
developing the expertise of individual workers in order to meet the demands
of change placed on them, and (2) fostering employee commitment to the goals
necessary to achieve the desired state of change. In order to increase the
potential of positive change, more research is needed on the potentially
dynamic relationship between learning initiatives, the role of learning
transfer climates, self-efficacy, and goal commitment in facilitating work
process change. (Contains 42 references.) (KC)

**Workforce Development and
Education Section**

College of Education

Influencing Process Change: Understanding the Role of Learning Transfer Climates, Self-efficacy, and Goal Commitment

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Work process change is a popular approach to performance improvement in contemporary organizations. Rummler and Brache (1995) suggest that the greatest opportunity for performance improvement within organizations lie at the process level. A number of market and organizational factors are contributing to this trend in work process change including emerging new technologies, mergers, acquisitions, corporate restructuring, and an increasing activity around regulation and deregulation to name a few. These drivers have transformed the rules of the workplace, and in many instances, the nature of work itself (for general discussion see Drucker, 1995; Kanter, 1992; Kotter, 1996). Additionally, it has been noted that over one-third of change efforts either do not produce a change in the dependent variable of interest (Porras & Robertson, 1983) or made the situation worse (Beer, Eisenstat, & Spector, 1990). Chief among the strategic intentions of managers is developing the expertise of individual workers in order to meet the demands of change placed on them, and fostering employee commitment to the goals necessary to achieve the desired state of change. This paper presents and discusses variables that serve as leading indicators of employee performance when process changes take place. These variables enable the measurement of the effectiveness of the learning initiatives, the beliefs employees have in their ability to perform tasks after training, the conditions that support the application of learning to the job, and the level of determination employees have to achieve desired state goals while implementing process change.

Process Change and Employee Learning

The pace of change has not only created the need for organizations to attend to the competence level of their employees, but to do so as rapidly as possible. Leigh & Gifford (1999) report that fully 40% of private-sector workers they surveyed stated that, in the space of just one-year, that they were required to learn new job skills to support a change effort. Consequently, workforce training has become a common management response to help employees accept and adapt to organizational change. The pace of change creates the need for continuous learning in the workplace. It is no wonder that employee training continues to be a major expenditure for employers in

the US and globally. In 1999 U.S. employers spent an estimated $62.5 billion on formal training programs by one account (Lakewood Research, 1999) and as high as $200 billion to $400 billion in other estimates (Broad and Newstrom, 1992). There can be no doubt of the popularity and acceptability of employee training as a means to support planned organizational change efforts.

The contemporary management literature confirms the need for organizations to connect the workplace expertise of individuals to organizational change goals (Colella, Cross, & Rieley, 1999; Swanson & Holton, 1998; Jacobs & Jones, 1997; Torraco & Swanson, 1995). The reliance upon training then, is understandable, since most instances of organizational change involve some changes in job goals and requirements. For example, change strategies based on product innovation, restructuring, process change, multi-skilling, the introduction of new technology, and customized service often require either changes in the work or assigning people to perform new work tasks.

In support of the use of training as a way to successfully implement change, the results of recent studies have been examined to determine the value of training in actual dollars and cents (Swanson, 1998). Swanson concluded that human resource development efforts, embedded within a purposeful performance improvement framework, yielded very high returns on investment. Jacobs and Jones (1995) offer a guide to designing, delivering, and evaluating structured on-the-job training in a way that links formal training to the development of training programs for use in the work setting. This idea is based on the notion that on-the-job training is the most cost-effective and cost-efficient way to increase levels of employee expertise. Alternatively, Daloz (1992) and Brookfield (1985) discuss the value of mentoring relationships and self-directed learning as tools to assist individuals in making transitions and developing workplace skills. Indeed, both formal and informal learning opportunities have been shown to be critical elements to facilitate organizational change.

Regardless of its effectiveness, learning opportunities are inherently limited in addressing all the issues related to employee acceptance and adaptation of organizational changes. To be sure, the human resource development literature makes clear that training should be used only when employees lack the knowledge and skills to perform as expected. In addition to employee learning, at least three issues might be considered that affect employee acceptance and adaptation to organizational change. First, employees may lack the self-efficacy to generalize material learned in training to the job or maintain learned material on the job over time. Second, employees may encounter a work environment after training that either does not support, or constrains the application of learned behavior to the job. Finally, employees may lack the motivation and commitment to apply what they have learned in training to the attainment of new work goals. How each of these issues either individually or in combination affects the success of organizational change has not been fully explored in the literature. Yet, these issues have received attention, in part, in both the transfer of training literature (Baldwin & Ford, 1988) and in the organizational change literature (Dent & Goldberg, 1999; Beer, Eisenstat, & Spector, 1990).

Self-efficacy Beliefs

In occupational roles, once people receive training, they have the opportunity to put into practice the knowledge and skill they acquired, and to develop knowledge and skills over time. In his research and theory-building, Bandura (1986) recognized the distinct impact of perceived behavioral constraints on goal-directed motivation. He proposed the notion of self-efficacy as the construct to measure perceived behavioral constraints. Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997). People's belief in their efficacy determines the goals they adopt and the strength of their commitment to them. It has been previously noted that there is a marked difference in whether people possess the sub-skills to perform a task and being able to integrate them into an appropriate course of action and to execute them well under difficult circumstances (Schwartz and Gottman, 1976). Thus different people with similar skills, or the same person under different circumstances, may perform poorly, adequately, or extraordinarily depending on fluctuations in their beliefs of personal efficacy (Bandura, 1992).

A number of diverse studies have been conducted across a variety of settings, examining the relationship between self-efficacy and learning, behavioral intentions related to goals, and performance. A noted strength of the self-efficacy construct is its ability to illustrate differences and similarities in perceived effectiveness of individuals and groups after they have received training. Empirical studies of self-efficacy have found that self-efficacy changes as a result of learning, experience, and feedback (Gist, Schwoerer, & Rosen, 1989; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991; Campbell and Hackett, 1986).

New work practices that result from work process change require employees to abandon secure routines and learn new ways of doing things. The new demands and the prospect of failure, often intimidate those with an insecure sense of efficacy (Bandura, 1997 p.512). Self-efficacy has been found to influence an individual's affective reactions to tasks (Gist, Schwoerer, & Rosen, 1989), which have an impact on the self-regulatory processes that influence subsequent performance (Bandura, 1986). Thus, beliefs about whether one can produce certain actions (perceived self-efficacy) would seem to positively affect employees' ability to apply learning to the achievement of new work process goals.

Learning Transfer Climate

The success of large-scale or "paradigm change" training programs often hinge on work climate factors that support transfer of training. Problems with transfer have become particularly apparent in management programs that attempt "large-scale," "total," or "paradigm" changes in customer orientation (Bennett, Lehman, & Forst, 1999; Reger, Gustafson, Demarie, & Mullane, 1994; Schneider, Brief, & Guzzo, 1996). An employee's beliefs about the organization's identity may constrain understanding and create cognitive opposition to change. In Goldstein's view (1993), unless trainees operate in job situations that have a climate supportive of the use of behaviors learned,

they will not be likely to use their learned skills. One construct that has been proposed as a social determinant of new behaviors on the job is the learning transfer climate.

The work environment can affect the transfer of learning to the job through its learning transfer climate. The transfer of learning climate has been identified as a mediating variable in the relationship between the organizational context and an individuals attitude toward the job and behavior on the job (Bennett, Lehman, & Forst, 1999; Holton, Bates, Seyler, & Carvalho, 1997; Tracy, Tannenbaum, & Kavanagh, 1995; Rouiller & Goldstein, 1993; Mathieu, Tannenbaum, and Salas,1992). Even when learning occurs during training, the learning transfer climate may either support or inhibit the application of learned behavior to the job (Mathieu et. al.,1992). This logic is consistent with findings in the broader human resource management literature regarding the role of the job situation. That is to say, the characteristics of the job situation can either encourage, discourage, or actually prohibit the application of newly learned skills and knowledge on the job (Holton, Bates, Seyler, & Carvalho, 1997; Rouiller & Goldstein, 1993; Noe & Wilk, 1993).

Bandura (1997) suggests that new skills are unlikely to be put to use for long unless they prove useful when put into practice in work situations.   Several studies have established that transfer climate can significantly affect an individual's ability and motivation to transfer learning to the job (Bennett, Lehman, and Forst,1999; Rouiller and Goldstein, 1993; Tracey, Tannenbaum, and Kavanaugh, 1995; Xiao, 1996). In summary, the learning transfer climate should be a strategic consideration when attempting successful process change.

Goal Commitment

Employee commitment has been well recognized as being critical for ensuring successful organizational change. Commitment is a construct that cannot be observed directly, though it is assumed to exist as an antecedent to certain behaviors that have intent to accomplish something. The literature suggests that organizational change is dependent as much on several commitment factors as on the nature of the change itself. Thus, whenever change is being planned, attention should be given to the way the change is perceived by those who will be affected by it. More specifically, attention should be given to workers' intentions to demonstrate behavior consistent with the change goals.

Adopting new organizational arrangements and practices often requires that the goals held by job incumbents be revised. Organizations that undergo change often use goal setting as a way to motivate workers to put forth effort to increase organizational productivity, as work goals provide a sense of direction and purpose to one's work. Goal theory has informed much research on the motivational role of goal setting. Goal theory suggests that an individual's personal goals are the immediate precursors of their work behavior (Locke, Shaw, Saari & Latham, 1981). More specifically, under certain conditions, specific, difficult goals can lead to higher levels of performance relative to vague or easy goals (Locke & Latham, 1990). One of the key conditions necessary for this relationship to hold is commitment to that specific or difficult goal. Goal commitment then, as articulated in goal theory, is a critical construct in

understanding the relationship between the goals of individuals and subsequent task performance (Klein, Wesson, Hollenbeck, and Alge, 1999). Goal commitment has been defined as one's determination to reach a goal (Locke & Latham, 1990).

Goal theorists maintain that commitment greatly affects the persistence of behavior. It has also been argued that if there is no commitment, a goal can have no motivational effect (Locke & Latham, 1990). The relationship between goals and goal related performance has been expressed as an interaction between goal difficulty and goal commitment. Specifically, difficult goals do not lead to high performance when commitment is low, and high commitment to easy goals also fails to generate high performance. When individuals are given the same challenging goal, commitment can be expected to have a main effect on performance (Harrison & Liska, 1994; Klein & Kim, 1998).

Locke, Latham, and Erez (1988) divided the determinants of commitment into three categories: 1. External influences (authority, peer influence, and external rewards), 2. Interactive influences (participation and competition), and 3. Internal factors (expectancy and internal rewards). In their research, they conclude that the role of legitimate authority is a key determinant of goal commitment. Additionally commitment is said to decline as a person's chances of reaching the goal declines. Clearly, current research supports the idea that higher levels of goal commitment are related to higher levels of goal performance. This research demonstrates the need to consider interventions that raise levels of commitment to support the implementation of successful change efforts in the workplace.

Conclusion

Two critical concerns exist when implementing process change: 1) developing the expertise of individual workers in order to meet the demands of change placed on them, and 2) fostering employee commitment to the goals necessary to achieve the desired state of change. Presently the importance and value of learning initiatives, and the conditions that support the application of learning to the job is receiving much attention in the human resource development (HRD) literature. The notion of attending to employees attitudes about change (their beliefs in their ability to perform tasks after training and their level of determination to achieve desired state goals), is all but absent from the HRD literature but is discussed in part the change management literature. Clearly, HRD researchers need to explore and describe the potentially dynamic relationship between learning initiatives, the role of learning transfer climates, self-efficacy, and goal commitment in facilitating work process change.

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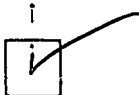| The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
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