1994

Behavior and Thought Change After a Self-Improvement Program: Studying the Effects of Environmental and Other Factors on the Transfer of Training

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Running Head: Behavior and Thought Change

Abstract

This study tested the attitude-behavior relationship and transfer of training on a specific training program - The Seven Habits of Highly Effective People. It is a self-improvement program designed to improve such things as: interpersonal relationships, time management skills, and concentrating only on what one can change. The subjects were 84 BroMenn Healthcare employees signed up to take the training program. Both groups were given a pre- and post-test consisting of four parts: one's behaviors and thoughts (including questions on locus of control), countertraining, and two parts of the Personal Strain Questionnaire. It was found that a low pre-test countertraining score did not correlate with very little or no change in one's behavior and thoughts survey score as predicted. A high pre-test locus of control score and/or a positive feeling about the usefulness of the course did not correlate with a greater change in one's behavior and thoughts survey score. It was found that a change in one's behavior and thoughts score was highly correlated with a change in their locus of control score. Several reasons for the lack of training transfer are discussed.

Behavior and Thought Change after a Self-Improvement Program: Studying the Effects of Environmental and Other Factors on the Transfer of Training

Ever since Richard LaPiere's work in the early 1930's, the idea that a person's behavior can be predicted by their attitude has been widely studied (Albrecht & Carpenter, 1976). LaPiere criticized the direct relationship between attitude and behavior, saying it was too simple. Because of his beginning study, this area, called social behavior, has been researched by many others.

The area of social behavior was studied in order to determine whether or not what a person learns in a self-improvement course will be expressed in his/her actual behaviors and thoughts. This study also tried to determine the extent of environmental influences and other factors which may affect the transfer of training to the work environment. In addition, it examined the possibility that a change in a person's behaviors and thoughts (towards the material taught in the class) will produce spill-over effects, causing one to experience less vocational and interpersonal strain. This decrease in subjective strain ratings should occur for two possible reasons: first, simply the change in behaviors and cognitions should produce better interpersonal relationships which better one's quality of life, and second, the new thoughts

and behaviors should improve one's work situation such as dealing with things more efficiently (delegating) and time management skills.

Further social behavior research has suggested that behavior is not only a result of attitude, but also multiple other causes, such as: beliefs, motivation, and confounding factors. The most widely known model of this type has been the Fishbein/Ajzen model (1975).

Martin Fishbein and Icek Ajzen developed an integrative model of the predictor variables in the attitude-behavior relationship. There are three parts to the model: 1) attitude about the particular act (affect); 2) beliefs about the particular act (cognition); and 3) motivation to act in accordance to those beliefs (conation). This model states that instead of behavior resulting from one's attitude, behavior is actually a result of one's motivation to act according to their beliefs (those things which one accepts to be true), which is a result of one's attitudes (the general feelings one has about something), which are a reflection of what one believes the consequences of a particular behavior to be (Borden, & Schettino, 1979; Liska, 1984). Fishbein and Ajzen believe that motivation to act (or behavioral intentions) and actual behavior are strongly correlated (Albrecht & Carpenter, 1976; Liska, 1984).

Unfortunately, the Fishbein/Ajzen model (1975) has some problems, one of which is that people do not always do what they intend to do. There are two basic arguments against the Fishbein/Ajzen model. First, studies, such as Ajzen and Fishbein's (1975), show that attitudes must first be transformed into intentions to act in order for a behavioral change to occur, but other studies claim that attitude formation is all that is needed to change behavior (Bagozzi & Yi, 1989). Stan Albrecht and Kerry Carpenter (1976) measured attitude, behavioral intentions, beliefs, and behavior. They found behavioral intentions to predict behavior in certain situations, and attitude to predict behavior in other situations. They suggested that a combination of the two be used in future research.

Second, Richard Bagozzi and Youjae Yi (1989) studied student's attitudes and intentions for reading case follow-ups and then later determined if the students actually did what they said they were going to do. They found that Ajzen and Fishbein's hypothesis, about the relationship between one's behavioral intentions and his/her behavior, is situational. Behavioral intentions appear to act as mediators between attitude and behavior, but only well-formed behavioral intentions have a significant mediating effect. Poorly-formed intentions do not appear to mediate between attitude and

behavior, rather in this case, attitude has a direct effect on behavior. This seems to be because well-formed intentions are held with a high degree of confidence, unlike poorly-formed intentions, so they have a strong influence on behavior.

It appears that none of the proposed models are correct, but that may not be so. Many believe that attitude can reliably predict behavior. The reason for the weak correlation between attitude and behavior, found by LaPiere in 1934, may be due to poor research design, which does not control for confounding factors, such as social norms (the usual behaviors and attitudes people express in a certain situation and expect of others also) (Newhouse, 1990). In order to better understand the attitude-behavior relationship, these other confounding variables needed to be studied also (Albrecht, & Carpenter, 1976). These other situational variables are discussed below.

One strong confounding factor in the attitude-behavior relationship is normative influence. Social norms appear to affect behavior by preventing people from acting given their attitude or as they would like (Newhouse, 1990). For example, I may feel that laying out in the sun in dangerous, but social norms prevent me from trying to block somebody's sun. It was found that, if strong social norms about behavior are absent, attitudes did reliably predict behavior (Ajzen & Fishbein, 1977).

Locus of control appears to be another main confound in the attitude-behavior relationship. Locus of control is where one perceives the responsibility for outcomes to be located. They can either be out of one's control (called an external locus of control) or controlled by one's own actions (called an internal locus of control). People with an internal locus of control have been found not only to tend to focus more on long term goals and, in ill-defined situations, are more achievement oriented (Phares, 1973), but they also tend to explore their needs, develop them, and carry them out more than those with an external locus of control (Thornton, 1978; Noe & Schmitt, 1986). People with an internal locus of control act as if their activities can change situations (Newhouse, 1990).

Several things occur the more one thinks with an internal locus of control: one's expectancies between effort and ability to master what is taught will be higher, their perceived benefits as a result of doing the new task will be greater, and the more positive their career and job attitudes will be (Noe & Schmitt, 1986). Thus, those with an internal locus of control will be more likely to try to use new techniques. Other studies support this belief: it has been shown that those with a positive attitude, an internal locus of control, and a sense of obligation will be more likely to take action (Hines, Hungerford, & Tomera, 1987; Newhouse, 1990).

Disequilibrium in a person's cognition -- meaning that one's behavior is not the same as how one believes -- is another confound in the attitude-behavior relationship. It is believed that people do not like having disequilibrium in their cognitions. So when this exists, there is greater motivational pressure to produce an equilibrium between behavior and attitude (Newhouse,1990). Rokeach (1973) hypothesized that a change in attitude (the general feeling one has about something) will be short-lived unless there is also a change in values (the specific beliefs one has about right/wrong and what is important/what is not important). This is because values are stronger than attitudes and behavior; values guide our lives. If there is only a change in attitude, tension will exist because of the inconsistencies between one's attitude and values (Sawa & Sawa, 1988).

These inconsistencies between one's attitudes and values can produce change. This process is called the value confrontation approach, which states that if a person is made aware of a discrepancy between their values and their attitude, they will be dissatisfied with themselves. This dissatisfaction will lead to a reorganization of their values, and consequently, their attitudes and behaviors (Greenstein, 1976; Rokeach, 1971, 1973; Rokeach & Cochrane, 1972). But for this behavior change to occur, one must be sufficiently dissatisfied with themselves,

the value must be salient enough (Sawa & Sawa, 1988), and they need to know what they can do to change the situation, (Jorden, Hungerford, & Tomera,1986).

Work climate is another variable which can affect the attitude-behavior relationship. A supportive work climate is one where reinforcement and feedback are received from co-workers, which tends to result in better transfer of learning from the training to the working environment because of the support received from others in trying something new and the opportunity to use what was learned (Bahn 1973; Marx, 1982). In the reverse situation, when confronted with constraints or unsupportive superiors and co-workers, employees may feel that they may not be able to use/do the tasks learned (Noe & Schmitt, 1986). Consequently, even though one may want to try a new technique (or even display a certain belief), in an unsupportive environment, his/her behavior may not reflect his/her attitude.

The effect of the work environment on employee training is what Charles Bahn (1973) termed countertraining, which works in opposition to training and eventually cancels out its effects. Countertraining is informal; it is communicated throughout the organization by remarks and even facial expressions and gestures of co-workers. Countertraining is in effect, for example, when an employee is using a new technique learned

and a co-worker comments that the new technique is stupid or will not work.

Elements of countertraining seem to occur for several reasons: first, resistance to change because of the fear of the unknown; second, resistance because the ideas, concepts, and methods came from outside the organization; and third, organizations have their own social inertia built from expectations, roles, social structure, and other pressures to conform (Bahn, 1973). Bahn hypothesized that changes in an individual's behavior may upset the delicately balanced social system of the work group. The effects of these changes can not be worked out in the seminars; they can only be resolved as one reenters work.

Bahn suggested several approaches to help these countertraining problems. First, train all levels of workers and inform those yet to learn the new information or techniques how they will be affected. Second, provide on-site training to aid ease of transition of skills. Third, blend physically the training and working environment. Fourth, the training group should be comprised of those similar to the real work situation, usually with a homogeneous group from similar backgrounds. Fifth, clearly explain how the changes will benefit people (Bahn, 1973).

Environmental Factors Affecting Transfer of Training

Charles Bahn (1973) was the first to address the issue of outside factors affecting training. Since then, more literature has affirmed this fact. It has been estimated that 100 billion is spent each year in the U.S. on training, but that only 10% of the money spent actually produces change in the workplace. Training is said to have worked or transfered if the behavior or skills learned in training are carried over into the work situation (Georgenson, 1982). Transfer of training is formally defined as "the impact of instruction on the trainees' subsequent job performance" (Gorden, 1989).

There are three levels at which transfer of training is affected: organizational, work context, and individual. First, within the organization itself there are different climates, some of which may be more condusive to trying new skills (Ford, Quinones, Sego, & Sorra, 1992). Second, one's work context, such as supervisory attitudes towards the trainee, workgroup support, and pace of work flow in the workgroup may also be more condusive to training (Baldwin & Ford, 1988). Lastly, individual characteristics, such as ability level (Baldwin & Ford, 1988) and self-efficacy (Gist, Schwoerer, & Rosen, 1989) may determine what one can do even under the best of situations.

Supervisor/management involvement is very important in the training process. An employee's immediate manager

affects his/her behavior more than anything else. Every employee tries to determine what is expected of them and then he/she tries to accomplish that (Georgenson, 1982). Likewise, managers try to go by what they think the organization wants. Managers tend to dislike taking time to help the training process, but most do not realize that the extra time put into training will contribute to achieving the organizations and thereby their own goals later. Therefore, it helps to make the managers understand that it will help them and encourage the managers to emphasize the importance of training to their subordinates (Georgenson, 1982).

There are 5 important management actions in the training process: 1) involvement, such as previewing the program and authorizing release time 2) pre-training preparation, like needs assessments 3) support during training, such as handing out completion certificates and taking care of the employee's normal duties 4) job linkage, such as having the trainees use their new skills or work with people who are experienced in the skill and 5) follow-up with reinforcement and plan meetings with the recent trainees to monitor progress (Noe, Sears, & Fullenkamp, 1990).

There are many other factors that determine whether skills are transfered from the training situation to work. One big factor is being given the opportunity to use new skills on the

job (Baldwin & Ford, 1988; Goldstein, 1986; Wexley & Latham, 1991). This is because without the opportunity to use the skills employees are not able to demonstrate what they learned. Thus, the skills never get refined, or they do not receive the proper reinforcement for using the skills. Consequently, trainees become unconfident in changing their behaviors and revert to their old patterns (Noe, et al., 1990).

One way to help the problem of transfer is to make the trainees aware of possible relapse caused by interpersonal relationships and the environment. Noe et al. (1990) found that even a small amount of relapse prevention discussion increased the transfer of training. Those who went through relapse prevention training thought more about skill usage and even tried to get their managers engaged in developing the skills. The increase in transfer due to the discussion could be because it institutes cognitive rehearsal in the training process (Noe, et al., 1990).

Another way to increase the transfer of training is to train intact work groups, because of the importance of peer group support in skills transfer. In general, one is more likely to do it if others are doing it too. If only a few employees are trained at a time, a critical mass (a certain percentage of employees in a workgroup learning a new skill) will never be achieved. Consequently, new skills may not be used and atrophy (Clark,

1986). If training intact work groups is not possible, it may help to show a new trainee's workgroup how to support him/her, in addition to getting the supervisor to provide opportunities for him/her to use the new skills (Ford, Quinones, Sego, & Sorra, 1992).

Soft or interpersonal skills (such as leadership and time management) are harder to transfer to the job than technical skills, especially if no behavioral objectives are given. But even with behavioral objectives, the trainees may only learn some guidelines, but not new skills. To have transfer, one has to have an aquired behavior (Gorden, 1989). When taught soft skills, trainees are often warned that they may feel clumsy when using the new skills, but that the feeling will go away with practice. Since no one wants to be awkward on the job, most employees often stop trying to implement the new skills. For transfer to occur then, skill mastery must happen during training (Georges, 1988).

It is believed that employees need behavioral definitions to help him/her monitor his/her own performance on the job (Goldstein & Sorcher, 1974). Posting performance feedback has been shown to have reinforcing effects (Frederiksen & Johnson, 1981). One suggestion has been to give each trainee a check-off list of behavioral definitions as he/she masters each skill (Kelley, Orgel, & Baer, 1985).

Focus of Study

Some behaviors which are thought to not only increase performance level, but also improve many aspects of a person's life, are taught in the program, The Seven Habits of Highly Effective People. It is a self-improvement program designed by Steven Covey. This program has a global self-improvement goal by attempting to slightly alter the way people think and act to improve their life, not just job performance. The program emphasizes improving interpersonal relationships, concentrating on what one can change, sincere attempts between people to understand one another, time management, and working on the self.

But as we have seen, actual behavior change is the result of various factors. There are many things that may interfere with what is taught in a class being transfered to the work environment. Fortunately, The Seven Habits of Highly Effective People program includes many strategies that tend to overcome the confounding factors and barriers to training transfer discussed earlier.

This program attempts to increase an internal locus of control attitude by focusing on what one can change. It also encourages the promotion of this attitude in others by giving them a say in what will affect them, encouraging decision-

making, and encouraging critical evaluations of other's opinions. If an internal locus of control is embraced, one will be more likely to change his/her behavior, because an internal locus of control has been shown to increase one's motivation to act (Hines, Hungerford, & Tomera, 1987).

At the organization where the study is being conducted, BroMenn Healthcare, the program was implemented to create a uniform work climate. This goal is being accomplished by putting all employees through the program, which should result in a greater understanding between employees of what the program's purpose and importance is. Because everyone will be attempting to implement the strategies learned, the work climate or social norms should lean towards the behaviors and attitudes the program promotes. Thus, what Bahn (1973) termed, countertraining, should be less of a problem.

The program also emphasizes that each individual should evaluate what his/her values are or what's important to him/her and then one's goals should be placed around them. It has been thought that if one's values are in line with how he/she behaves, the changes made in attitude and behavior will be longer lived (Rokeach, 1973).

In the absence of social norms, attitude reliably predicts behavior. It is possible that if the conditions with BroMenn are

right, the response a subject had to whether they felt the class was/will be useful could determine whether they have a change in their behavior and thoughts.

It seems that there should be spill-over effects from behavior to subjective ratings of strain. If a person changes his/her behaviors and cognitions to be in line with what he/she was taught in the class, there should also be a decrease in his/her subjective vocational and interpersonal strain levels. This is because the program tries to make changes which should improve interpersonal relationships and one's work situation by taking the time to really listen, trust in the ability of others, increase efficiency, time management, focusing on what one can change, and taking time for ones-self.

One's feelings about work can be affected by factors outside of the work environment. A negative-spillover effect from partner to work was found, which said that relationship concerns with one's partner appear to heighten the distress associated with poor job-role quality (Barnett & Marshall, 1992). It has been found that this interrole conflict (conflict in trying to complete work and family role demands) affects work by lowering concentration and attention (Barling & MacEwen, 1992). In addition, attention may be taken off of job requirements, which seems to affect job performance because of the added effort needed to cope with work efforts or

intrarole stressors (Barling & MacEwen, 1992). As work and family have been found to be related, a relationship should also be found between the two PSQ measures of strain in those areas (vocational and interpersonal) and a change in one's behaviors and thoughts towards the material in the class.

In this study, a questionnaire, developed by myself, called The Seven Habits Evaluation was used. This survey consisted of several different subparts. It was given to each subject in order to discern whether their behaviors and thoughts changed after the program and whether the change occurred because of a certain factor. The survey was given to the experimental and the control group before The Seven Habits of Highly Effective People course. The experimental group received the same survey again two weeks after they had completed the class (three weeks since completing the survey) and the control group received the post- test three weeks after completing the pre-test, without having gone through the program.

The hypotheses of this study are that: there should be a behavior and thought pattern change, towards the material taught in the class, found by an increase between the subjects post-test behavior and thoughts scores, compared to their pre-test scores, and one's post-test personal strain scores will decrease, compared to their pre-test scores. It was further hypothesized that subjects with low pre-test countertraining

scores (meaning there is a lot of countertraining) will show very little or no change in their behavior and thoughts survey score. Subjects with a high pre-test locus of control score (meaning they have an internal locus of control) and/or felt positive about the usefulness of the course will show greater change in their behavior and thoughts survey score.

Method

Subjects

The subjects in this study consisted of 59 BroMenn Healthcare employees. This sample consisted of a mix of 9 males and 50 females, with an age range from 22 to 66. The subjects were selected as follows. (All employees are required to take the course, so each signs up for the course that best fits their schedule. There are on average 3-4 sessions each month, with each session containing approximately 25 people.) The sign-up process was used to pick the subjects because of convenience. Of course, there were some limitations to this method, which are discussed later. If a subject completed and returned both the pre- and the post-tests, as compensation, they were entered into a prize drawing for a $25 gift certificate to Jumer's Restaurant.

Measures and Scoring

Seven Habits Evaluation. The questionnaire was comprised of 5 separate parts: Behaviors and Thoughts, Countertraining, two sections of the Personal Strain Questionnaire, feelings about BroMenn's evaluation process, and whether he/she thought the program was/will be useful. (These sections will be discussed in detail below.) The survey was created to be able to be given to anyone who has taken/will take The Seven Habits of Highly Effective People class.

It contained a total of 84 questions. The respondents were required to rate themselves based on five response categories: rarely, occassionally, often, usually, and most of the time. The responses were scored from 1 to 5. The score for each response varied depending on the particular question. Each section's total was scored separately. Then each total was divided by the number of questions in the particular section to get a mean subject response for each section. If a subject skipped from one to three questions, their score was calculated by subtracting the number of question's skipped from the total number of questions in that section and dividing their the section's total by that number. Subject's who skipped more than 3 questions, were not used in the study.

Behaviors and Thoughts. This survey was developed using guidelines from the book, Essentials of Marketing Research.

The questionnaire measures how frequently one does a behavior or feels a certain way. It was begun with an initial pool of 69-items, which are self-rating statements on frequency of behavior and thought patterns. Behavior and thought statements comprised 53 questions of the survey. They consisted of many different questions covering a very large area of the material covered in the class and also different wordings of the same question (see Appendix, questions #1-51, 53, 55 in the complete questionnaire). (This section also contained 5 questions dealing with locus of control, which the program discusses. These were considered a sub-part of this section and were added up separately to get a locus of control score in addition to being part of the behavior and thoughts section (see Appendix, questions #2, 4, 6, 8, 10).) If the statement was in line with what the seminar taught, rarely was scored as 1 and most of the time as 5. If it was not what the seminar promoted, rarely was scored as 5 and most of the time as 1. The possible total score range was from 53 to 265.

Countertraining. This section attempted to determine whether or not countertraining was occurring in BroMenn employee's work situations (see Appendix, questions #56-63 in the complete questionnaire). For this section, if the statement indicated an absence of countertraining, most of the time was scored as 5 and rarely as 1. If the statement indicated

countertraining was present, most of the time was scored as 1 and rarely as 5. The possible total score range was 8 to 40.

Personal Strain Questionnaire (PSQ). The PSQ is one of three dimensions used in the Occupational Stress Inventory (Osipow & Spokane, 1981). This part measures 4 areas of strain: vocational, psychological, interpersonal, and physical. This study used only the vocational and interpersonal factors, which were each made of 10 questions. It is a 40-item measure, of which 10 items deal with interpersonal strain (see Appendix, questions #65, 67, 69, 71, 73, 75, 77, 79, 81, and 83) and 10 items deal with vocational strain (see Appendix questions #64, 66, 68, 70, 72, 74, 76, 78, 80, and 82). If the question indicates no strain, a response of rarely is scored as 1 and most of the time as 5. If the question indicates strain, a response of most of the time is scored as 1 and most of the time as 5. The total score range for each part was 10 to 50.

Vocational strain is defined as "the extent to which the individual is having problems in work quality or output. Attitudes toward work are also measured." Vocational strain is observed by one's productivity, attendence, and satisfaction (Osipow & Spokane, 1981). Interpersonal strain is defined as "the extent of disruption in interpersonal relationships." This area measures behaviors such as: withdrawal, anger, isolation, and irritability towards others (Osipow & Spokane, 1981). The

alpha coefficient for the PSQ was .94. The coefficients for the individual scales ranged from .71 to .94. The validity of this study was determined from four sources: factor analyses, correlation studies between the scales to variables of practical and theoretical importance, studies which used the scale in stress reduction treatment, and studies of stress, strain, and coping which compared select criterion groups (Osipow & Spokane, 1981).

Feelings on evaluation method and Usefulness. There were two questions dealing with how the subject felt about the company's current evaluation method (see Appendix, questions #52, and 54). If the response was favorable towards the company's evaluation, most of the time was scored as 5 and rarely as 1. If the response was unfavorable, rarely was scored as 5 and most of the time as 1. The possible range of scores was from 2 to 10. There was one yes or no question which asked whether the subject thought the program was or will be useful (see Appendix, question #84). The responses were recorded simply as yes or no.

Procedure

The experimental group was comprised of people signed up for the earliest three sessions of The Seven Habits of Highly Effective People course, at the beginning of February, 1994.

Each course was facilitated by the same main leader, but had a different co-leader. There were 36 experimental subjects. The control group consisted of 23 subjects, who were signed up to take the course later in the spring of 1994.

Names of all subjects to be included in the testing were obtained from the Human Resources Department's class lists. Each subject was assigned an identification number, which was written on the top of his/her survey before they were received. The experimental group was labeled with an "E" before their identification number and the control group with a "C" to keep them separate. Each experimental subject received a Seven Habits Evaluation survey along with a cover letter at the place where the class was held (which varied), right before the class started. The Seven Habits Evaluation questionnaire was packaged along with a cover letter and sent to each control subject at the same time as the first experimental group took the Seven Habits Evaluation pre-test. The cover letter included: an introduction of ourselves, the purpose of the project, an affirmation of confidentiality, a due date for the surveys, and an announcement of a prize drawing for those who complete and return both surveys. The cover letter suggested that the survey be completed at one time.

Two weeks following each experimental subject's completion of the class, he/she was sent the same survey to complete. All

of the subjects in the control group received the post-test at the same time as the first session of experimental subjects was sent theirs. So that comparisons could be easily made, each subject had the same identification number on top of their surveys as on their pre-test. Follow-up letters containing a new questionnaire were sent to all experimental and control subjects who had filled out a pre-test but had not returned a post-test after the last experimental group had had two weeks to complete the post-test.

Results

Survey return rate from pre-test to post-test was 30% for the control group, before follow-up letters were sent, and 38%, after the follow-up letters. The return rate from pre-test to post-test was 42% for the experimental group, before the follow-up letters were sent, and 52%, after the letters were sent.

Demographics. The mean age and years of schooling were slightly higher for the experimental group (43.4 years old, 14.8 years of school) than for the control group (40 years old, 14.3

Insert Table 1 about here

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years of school) (see Table 1). The number of male subjects was higher for the experimental group than for the control group. The ratio of married people to single people and management to non-management was higher for the experimental group than the control group (see Table 1). All of the subjects who were male and/or in a management position answered that they felt the program was/would be useful. Only four women answered "no" to the question and two women were "not sure". Most of those who did answer "no" to the question had little or no change in their behavior and thoughts score, as hypothesized.

Test Results. A two-way Anova was used to determine if there was a significant change in mean response between pre-test and post-test for the experimental and control group for the behavior and thoughts, locus of control, evaluation methods, personal strain, and vocational strain sections. The results did not show a significant difference between the experimental and the control groups. In fact, the groups were almost always similar in scores (see Table 2). (The experimental group did show a greater change in behavior and thoughts scores, but not a significant change.) Both groups together did show a significant increase between pre- and

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Insert Table 2 about here

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post-test behavior and thoughts scores ($p < .001$, $F=17.86$). The results also approached significance for both groups together from pre- to post-test vocational strain ($p > .05$, $F=3.37$). The evaluation methods scores actually decreased for the control group and moderately increased for the experimental group. Both groups showed slight increases between tests on their locus of control scores (meaning they show a tendency to have an internal locus of control) and vocational strain scores (which means less strain experienced).

Pearson's Correlation Coefficient was used to test whether there was a correlation between the subject's change in behavior and thoughts scores and pre-test countertraining score, pre-test locus of control score, and change in locus of control scores. There was a significant correlation between change in behavior and thoughts scores and change in locus of control scores for both groups. The correlation was .54 for the control group and .53 for the experimental group. The other two factors were not signicant and were actually weak negative correlations. Pre-test countertraining scores had a -.14 correlation with change in behavior and thoughts scores for the

experimental group and -.08 for the control group. Pre-test locus of control scores had a correlation of -.28 with change in behavior and thoughts scores for the experimental group and -.30 for the control group .

Discussion

The main finding of this study was that the employees who went through the training program did not show a significant change from the employees who had not gone through it yet. There were, however, significant changes from pre-test to post-test behavior and thoughts scores when both groups are analyzed together. It appears that there was transfer of training, because the experimental group did improve more than the control group. Both groups also had almost significant increases on their experienced vocational strain (or experienced less strain). It seems that an internal locus of control had no effect on change in scores or countertraining as hypothesized. But, there was a correlation between an increase in behavior and thoughts score and an increase in internal locus of control score for both groups.

These findings could be because of several reasons: the people who have not yet gone through the program were influenced by the changes in the other employees who had, changes within the organization itself causing the changes in

both group's responses, seeing the same survey again resulting in question recognition, to short of a time period between finishing the class and the post-test, not specific enough behavioral objectives given, no opportunity to use the new skills, and/or no management support. It is also possible that the experimental subjects actually did/are use(ing) the new skills, but after taking the class, they understand the behaviors and thoughts that the survey was targeting and thus were more critical on the frequency that they did them.

Although the program did not show any significant effects between groups in the study, it does not imply that the program had no effect. As mentioned briefly earlier, the control subjects may have been influenced by the changes in the people, who had taken the class, around them, resulting in no significant differences between groups. The effect may occur either longer after the program ends, once the trainees have had time to practice or or it may have produced a placebo effect. That is, taking the training course may have made the employees feel better about themselves and the company because of the perceived increase in interest in them from the management or the knowledge that the company has spent money on them to help improve themselves. This effect could be interpreted when looking at the higher evaluation method

ratings of experimental subjects, while the control group showed a decline.

This results of this study show that vocational strain is affected more by this program than interpersonal strain. This may mean that the program helps one's work situation more than it improves interpersonal relationships.

It was also found to be true that if one had a negative attitude towards the program, determined by answering "no" to whether the course was/will be useful, he/she would show less of a change in their behavior and thoughts score. Thus, a pattern between attitude predicting behavior can be seen.

There were several limitations in this study that may have affected learning and knowledge transfer from the class to the work situation. First, the facilitator was not chosen randomly, because of each facilitator's work schedules and availability. The facilitator may have produced effects in the experimental group that would not have been found had a different facilitator been used. Second, the difference in co-leaders (who teach less often and teach less during the program) and locations the class was held may also have had an unknown effect on whether or not one changes due to the program or even if the results from this study are generalizable to other BroMenn employees.

Third, simply the differences in people (their personalities, receptiveness, ambitions, willingness to change) may play a part in whether the new knowledge is acted on, regardless of how the program is taught or other possible confounds. Some people could be interested in really trying to change, while others may find the program interesting, but are satisfied with their life as it is. These individual differences could affect others employees too and the final effects of the program, by influencing the social norm and/or the work climate. If the social norm does not change or if there are even just a few who do not accept the new techniques, others may find it hard to implement the new skills and may relapse into old behaviors and thought patterns.

Fourth, one other potential problem is that all of the measures are self-report. Thus, one can not know if a person answered truthfully. It also was not discernable whether there actually was a change in behaviors and thoughts simply due to a score change. For one reason, when taking the post-test, the experimental subjects could possibly know that they should do a certain behavior or think a certain way and rate themselves as doing it more frequently. This should not be too much of a problem though, because it shows that learning did actually occur.

Fifth, the differences in time that the surveys are sent out and then actually completed may present another factor to look at. Due to time constraints, subjects received the post-tests approximately three weeks after taking the pre-test and were given approximately a week to return it. The optimal time period for the post-test would have been about three months later or perhaps both three weeks after the pre-test and then again three months later.

It is also possible that the self-ratings of one's behaviors and thoughts changed as to when they were filled out. If the questionnaires were filled out immediately after the class was completed, one's behavior and thought scores may have shown improved (higher) ratings, because the information would still be fresh in his/her mind (recognition of what they should be doing). Conversely, the change in behavior and thoughts scores may have been lower than expected because the trainee may not have had enough time to practice using the behaviors and thoughts.

Future studies could examine whether any changes seen in any of the survey subparts remain, increase, or decrease over time. Also, it would be interesting to check earlier employee evaluations (before the program) and later ones to see if changes in behavior or other improvements could be correlated with the course. Future studies may also want to examine

whether there are spillover effects due to this program (such as an increase in efficiency, or satisfaction) or if other types of programs of a similar nature produce the same effects as The Seven Habits of Highly Effective People.

Appendix

Seven Habits Evaluation

Test # _____

Date completed _____

For the following questions, please mark under the response that best applies to you.

	rarely	occas-sionally	often	usually	most of the time
1. I make unkind criticisms to/about others.	____	____	____	____	____
2. When someone responds differently to me than usual, I worry that it must be because of me.	____	____	____	____	____
3. When I make a promise to someone, I keep it no matter what.	____	____	____	____	____
4. If someone treats me rudely, I tend to feel negatively about myself.	____	____	____	____	____
5. I try to show sincere concern for others by asking earnestly how they are.	____	____	____	____	____
6. I accept the responsibility for my actions/ decisions.	____	____	____	____	____
7. When I make a mistake or am unable to keep a promise, I apologize to the person(s).	____	____	____	____	____
8. When something goes wrong, I tend to blame either others or the circumstances for my actions/decisions.	____	____	____	____	____
9. I make it a point to comment on other people's good/strong points.	____	____	____	____	____
10. Whatever circumstance I am put into, I can choose how I want to respond.	____	____	____	____	____
11. All of my actions/decisions are based on certain values I have specified as important in my life (family, working hard, etc.)	____	____	____	____	____

	rarely	occas-sionally	often	usually	most of the time
12. I hear myself often saying, "I can't do _____; I have got to do _____."	____	____	____	____	____
13. Before I begin anything, I form a "mental blueprint" of the end result I want.	____	____	____	____	____
14. I organize and do tasks according to priority level.	____	____	____	____	____
15. I try to focus on long-term solutions, instead of quick fixes.	____	____	____	____	____
16. I make sure to schedule time for those activities that are important but not urgent, such as: planning, and building relationships.	____	____	____	____	____
17. When I begin a project, I spend a long-time planning what I'm going to do before I begin the work.	____	____	____	____	____
18. Delegating work to others is to everyone's advantage.	____	____	____	____	____
19. I feel a clear sense of my direction in life.	____	____	____	____	____
20. I often delegate meaningful tasks to others.	____	____	____	____	____
21. I feel that I have to win in all situations.	____	____	____	____	____
22. When someone attempts to explain something to me, I take the time to really listen.	____	____	____	____	____
23. I believe if someone wins the other person has to lose.	____	____	____	____	____
24. I try to see the situation through the other person's eyes, when my opinion differs from theirs.	____	____	____	____	____

	rarely	occas-sionally	often	usually	most of the time
25. I do not like negotiating - either I get what I want or there is no deal.	____	____	____	____	____
26. I often am so busy thinking of my points that I forget what someone else has said.	____	____	____	____	____
27. I do not like working with others on projects.	____	____	____	____	____
28. When someone comes to me with a problem, I find that I tell them what they should do.	____	____	____	____	____
29. I go into situations thinking we can reach solutions which will make both sides happy.	____	____	____	____	____
30. I notice the non-verbal signals people send. I get the "big picture" of what they mean, not just what they are saying.	____	____	____	____	____
31. I believe that two (or more) open minds can be better than one.	____	____	____	____	____
32. I do something daily to recharge myself.	____	____	____	____	____
33. I realize that disagreements can help to stimulate new ideas.	____	____	____	____	____
34. I watch what I eat and try to make healthy food choices.	____	____	____	____	____
35. I feel like decisions are better when other people's opinions get considered before making a decision.	____	____	____	____	____
36. I exercise routinely.	____	____	____	____	____
37. I like a variety of differing opinions when choosing solutions.	____	____	____	____	____

	rarely	occas-sionally	often	usually	most of the time
38. I try to do different things to continually challenge myself, such as: read, write, or start a new hobby.	____	____	____	____	____
39. I encourage people with differing opinions to speak out.	____	____	____	____	____
40. I find ways to develop and nurture my spiritual needs.	____	____	____	____	____
41. In most situations, I act using my strong values, instead of my feelings at the moment (avoiding "knee-jerk" reactions).	____	____	____	____	____
42. I try to be open-minded when presented with a new situation.	____	____	____	____	____
43. It puts me in a bad mood when things do not go well.	____	____	____	____	____
44. The way I see the world may be limited by my own perceptions of how things work.	____	____	____	____	____
45. After I am given bad news, I try and deal with it but I do not let it get me down.	____	____	____	____	____
46. My view of the world can be changed by new knowledge.	____	____	____	____	____
47. I find myself worrying about things I can't change.	____	____	____	____	____
48. I disregard things beyond my control.	____	____	____	____	____
49. I focus on things I can change.	____	____	____	____	____
50. I find myself saying, "If only. . .", when things are not going my way.	____	____	____	____	____
51. I point out people's weaknesses to others.	____	____	____	____	____

	rarely	occas-sionally	often	usually	most of the time
52. I am happy with the current method of organizational evaluation.	___	___	___	___	___
53. I avoid speaking negatively about others when they are not present.	___	___	___	___	___
54. I feel the organization's current evaluation methods are fair.	___	___	___	___	___
55. I try to avoid saying negative things about people behind their backs.	___	___	___	___	___
56. I stop doing something if my co-workers tell me it's no good.	___	___	___	___	___
57. I do what I feel is best, no matter how my co-workers act towards me.	___	___	___	___	___
58. I feel that most self-improvement programs are brainwashing.	___	___	___	___	___
59. I am interested in making changes in myself in order to improve myself overall.	___	___	___	___	___
60. My co-workers are very supportive of me.	___	___	___	___	___
61. I feel pressure from my boss to act according to what he feels is right.	___	___	___	___	___
62. My boss supports using new ideas and techniques.	___	___	___	___	___
63. My co-workers support using new ideas and techniques.	___	___	___	___	___
64. I don't seem to be able to get much done at work.	___	___	___	___	___

	rarely	occas-sionally	often	usually	most of the time
65. I wish I had more time to spend with close friends.	____	____	____	____	____
66. I dread going to work, lately.	____	____	____	____	____
67. I quarrel with my spouse.	____	____	____	____	____
68. I am bored with my work.	____	____	____	____	____
69. I quarrel with my friends.	____	____	____	____	____
70. I find myself getting behind in my work, lately.	____	____	____	____	____
71. My spouse and I are happy together.	____	____	____	____	____
72. I have accidents on the job of late.	____	____	____	____	____
73. Lately, I do things by myself instead of with other people.	____	____	____	____	____
74. The quality of my work is good.	____	____	____	____	____
75. I quarrel with members of the family.	____	____	____	____	____
76. Recently, I have been absent from work.	____	____	____	____	____
77. Lately, my relationships with people are good.	____	____	____	____	____
78. I find my work interesting and/or exciting.	____	____	____	____	____

	rarely	occas-sionally	often	usually	most of the time
79. I find that I need time to myself to work out my problems.	____	____	____	____	____
80. I can concentrate on the things I need to at work.	____	____	____	____	____
81. I wish I had more time to spend by myself.	____	____	____	____	____
82. I make errors or mistakes in my work.	____	____	____	____	____
83. I have been withdrawing from people lately.	____	____	____	____	____

84. Do you think the content of this course was/will be useful? _____ yes _____no

(over)
---------->>

Please fill in the appropriate answer:

I am _____ male _____ female.

My age is _____.

I have worked for BroMenn for _____(yrs., months, days).

I have completed _____ years of schooling.

I am _____ married _____single.

Are you in a management position? _____yes _____no

Additional comments - please continue on the back if needed: (i.e. comments on the program itself, timing and scheduling, attitude about being here or the program)

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Table 1

Demographic Information for the Experimental and Control Groups

	Percentage		Mean	
Demographics	experimental	control	experimental	control
Sex				
Males	19.4	8.7	----	----
Females	80.6	91.3	----	----
Marital				
Single	13.9	21.7	----	----
Married	86.1	78.3	----	----
Position				
Management	25	34.8	----	----
Non-management	75	65.2	----	----
Age	----	----	43.4	40.0
Years of schooling	----	----	14.8	14.3

Table 2

Anova Results Showing the Changes in Both Groups from Pre-test to Post-test

		Test	
	Group	Pre-	Post-
Behavior and Thoughts	Control	3.81	4.04
	Experimental	3.67	4.03
Locus of Control	Control	4.27	4.27
	Experimental	4.12	4.37
Evaluation Method	Control	3.50	3.20
	Experimental	3.22	3.38
Vocational Strain	Control	4.43	4.56
	Experimental	4.40	4.56
Interpersonal Strain	Control	4.10	4.20
	Experimental	4.03	4.18

Behavior and Thought Change After a Self-Improvement Program: Studying the Effects of Environmental and Other Factors on the Transfer of Training

"Effects of a Self-improvement Seminar"

This study will test a 3-day seminar given at BroMenn Hospital, to all employees, called The Seven Habits of Highly Effective People. The purpose is to find out if the program is beneficial by answering such questions as: Does it increase satisfaction on and/or off the job? Is there increased motivation at work? Do they feel a stronger affiliation to BroMenn? Do certain types of people or certain work areas that benefit more from the program? Is the stress level lower or more manageable?

To accomplish this, I will randomly choose a facilitator who teaches the program at least three times in a two month period. A survey will be handed out to each participant in the seminar on the first day to be completed before it begins. These will be collected and analyzed. This will be done for 4 groups. Then, one month later from each session, each participant will be required to fill out the same questionnaire again. These will be sent to each person individually. The forms will be collected and analyzed. Differences between the two surveys will be noted.

I believe that satisfaction will moderately increase, motivation and loyalty will both increase, and that those in upper level management jobs will benefit more from the seminar.