

Poster

TITLE

An Evaluation of the Effectiveness of Three Popular Training Programs to Improve Interpersonal Skills

ABSTRACT

Three interpersonal skills training programs were evaluated based on models for measuring, understanding, and applying the social or interpersonal style of oneself and others. A sample of 213 working adults provided evidence of the SOCIAL STYLE's greater effectiveness over the DiSC and the MBTI training programs for improving interpersonal skills.

PRESS PARAGRAPH

The ability to analyze and interpret one's interpersonal style and the style of others may contribute to organizationally-valued outcomes such as job performance. Soft skills training programs aim to develop the knowledge and skills to more accurately identify interpersonal styles in the workplace. This study examined three popular interpersonal style training programs, Inscape's DiSC®, TRACOM's SOCIAL STYLE<sup>sm</sup>, and CPP's Myers-Briggs Type Indicator® (MBTI), with respect to trainees' reactions and perceived utility, participants' knowledge of key concepts covered in training, and participants' skills at applying training knowledge. Further implications and avenues for future research are discussed.

Understanding and responding to the unique social or interpersonal styles of others is an important skill for working professionals. Workplace research has established that interpersonal skills, in addition to cognitive ability and technical knowledge (Goleman, 1998; Goleman, Boyatzis, & McKee, 2006), are strong predictors of professional success. An analysis of job competencies at 286 organizations worldwide found that 18 of 21 competencies distinguishing superior from average performers were interpersonal in nature (Spencer & Spencer, 1993). A recent survey of 726 HR and performance professionals identified management leadership, technical knowledge, and people skills as three valued competencies in organizations (BPM Forum & Success Factors, 2007).

In an effort to develop talent, organizations implement training and development programs that often include interpersonal and/or behavioral assessment. Along with assessment, the training typically includes education regarding the accompanying theoretical model and direction on applying this information to work with others more effectively. A recent survey of HR executives found that at least 60% of their companies' training programs incorporated an interpersonal skills component (Leflein Associates, 2005). Further, soft skills training is expected to generate the largest change in market share over the next few years, overtaking even the IT market in terms of both size and share (Simba Information, 2006). According to Pine & Tingley (1993), the link between operational results within the organization and soft skills training programs needs to be addressed. With so much emphasis on interpersonal skills, as well as substantial revenue invested in training and development programs, it is important to understand the didactic value and overall utility of such programs.

Evaluating and responding to the interpersonal behaviors of others can be a challenging task. Accordingly, this process can be facilitated by training awareness of one's own interpersonal style and assessing and interpreting others' interpersonal styles. Supported by this knowledge, individuals may be able to adapt to others' styles and therefore improve relationship management, teamwork, and productivity (Stevens & Campion, 1994).

Multiple measurement tools are available to assist working professionals with understanding their own styles and those of others. However, understanding one's interpersonal style and, more importantly, knowing how to use that information in interpersonal situations can be difficult without the proper training. Thus, in choosing a behavioral model and assessment program, it is important to consider both the validity of the measurement instrument and the effectiveness of the training.

The current study compares three interpersonal skills training programs for measuring, understanding, and applying one's interpersonal style: the DiSC® model from Inscape Publishing, the SOCIAL STYLE MODEL™ from the TRACOM Group, and the Myers-Briggs Type Indicator® model from CPP, Inc. All three purport to develop interpersonal skills related to greater workplace effectiveness (e.g., communication, teambuilding, and leadership development). A recent survey of HR executives found that 86% of the organizations studied used one of these programs, and at least 60% of their companies' training programs incorporated an interpersonal skills component (Leflein Associates, 2005). When asked how they decided on a program, these professionals stated that they relied on personal experience (71%) and general research (53%). To our knowledge, no previous study has compared the effectiveness of these programs. Thus,

the purpose of the present study is to compare and evaluate the effectiveness of the DiSC®, the SOCIAL STYLE MODEL™, and the Myers-Briggs Type Indicator® training programs.

## METHOD

### *Training Programs*

A national learning solutions consulting company was responsible for the recruitment and scheduling of training participants, as well as the recruitment, orientation, and assignment of training facilitators to training sessions. All training participants were working adults who were recruited through the training or human resource director at their place of employment. Participants completed the profile instrument prior to attending the training program. Profiles were completed using online systems from each publisher.

All facilitators were independent contractors who were certified by the test publishers to deliver a particular training program and assessment tool. The facilitators had past experience delivering similar training programs. Facilitators were informed that they were taking part in a research study, but they were blind to the specific purposes of the evaluation. Publishers of each interpersonal styles program provided training materials that facilitators used when conducting training. The specific interpersonal assessment profiles used were the DiSC Personal Profile System, the SOCIAL STYLE Profile<sup>sm</sup> Multi-Rater, and the MBTI Form Q. Because individual facilitators may sometimes vary in the extent to which they adhere to the planned training material, efforts were made to standardize the training. The training materials for each program were reviewed and used to derive a set of terminal training objectives that facilitators

were to follow when conducting training. Facilitators were instructed to closely adhere to the specific set of training objectives concerning the interpretation and use of scores generated by the instrument. Sample terminal training objectives are displayed in Table 1.

Each training program lasted approximately four hours. Regardless of the measurement instrument, each program had similar elements: 1) an introduction to the instrument and the personality or social/behavioral theory and underlying model; 2) coverage of the major dimensions or types measured by the instrument; 3) distribution of individual feedback reports (based on responses prior to training); 4) information relevant to interpreting participants' reports, and 5) information on using the instrument and underlying theory to interpret and respond to the behavior of others.

Facilitators in all programs used a combination of lecture, facilitated discussion, small group exercises, and role-plays to convey the required information.

#### *Data Collection*

Following completion of the training program, a researcher from a local university distributed evaluation forms for participants to complete (measures are described below). Participants were told that the purpose of the evaluation was to assess the training program, both to recommend improvements for future training and to compare the effectiveness among the training programs. All responses were anonymous. The evaluation took approximately 45 minutes to complete.

#### *Participants*

Data on all evaluation measures were available from 213 participants who completed one of the three training programs (SOCIAL STYLE: 74; DiSC: 73; MBTI:

66). Training participants, all working adults, were a diverse group in terms of gender, organizational level, work experience, and organizational setting. On average, participants were 43.4 years old ( $SD = 10.8$ ). For participants providing information on gender and education, 73 were male and 132 were female; 10 had a high school degree or GED, 67 had a 2-year degree or some college education, 85 had a college degree, and 44 had a post-graduate degree. Participants reported working in 26 different industries, with the most frequently cited being Education or Adult Education ( $N = 55$ ), Government ( $N = 37$ ), and Manufacturing ( $N = 28$ ). Participants reported a wide range of occupations, the most common being Human Resources ( $N = 34$ ), Administration or Clerical ( $N = 29$ ), Information Services/ Technology ( $N = 16$ ), and Customer Service ( $N = 13$ ).

#### *Evaluation Measures*

Training programs can be evaluated on a number of different criteria including participants' satisfaction with training, learning during training, and skills at applying training content (e.g., Kirkpatrick, 1994; Kraiger, 2002). What is most important to the design of training evaluation measures is that the content of the measures be logically linked to the training content (Kraiger, 2002; Kraiger, Ford, & Salas, 1993).

*Participant Reactions.* Participant reactions to training were assessed using a 17-item rating form, which was administered at the end of training. The reaction form was identical across training programs. Items assessed participants' satisfaction with or liking of the training program (six items; sample item: "The training program was enjoyable"), participants' evaluation of the trainer or training program (five items; sample items: "The trainer presented material clearly" and "I had the opportunity to ask questions during training"), and perceived usefulness of the training (six items; sample item: "The training

provided specific methods that I can apply at work”). All items were rated on a five-point Likert-style scale (1 = strongly disagree, 5 = strongly agree).

After all data were collected, the 17 items were submitted to a principal axis exploratory factor analysis to determine the potential subgroupings of the items. Two factors were identified. The first reaction factor was labeled Positive Reactions and combined items written to elicit general training satisfaction and evaluation of the trainer. This factor was comprised of seven items ( $\alpha = .87$ ). The second reaction factor was labeled Perceived Utility and consisted of four items assessing the perceived usefulness of the training ( $\alpha = .81$ ). For evaluation analyses, items were averaged so that both scales had a potential maximum score of 5.0 (indicating high satisfaction or perceived utility).

*Learning Measure.* Learning and behavior forms were customized to the individual training programs, though the number and type of items were identical across programs. To create learning and behavioral measures, the university research team reviewed course manuals and facilitator guides, and developed content closely related to the training material. Efforts were made to ensure content validity (correspondence between evaluation content and training materials) and evaluation fairness (correspondence between test items across programs). Facilitators from each training program reviewed the learning measures to ensure content overlap with the training. Facilitators also provided answer keys for the checklist items (described below).

The resulting learning measure consisted of 16 items that assessed participants' retention of the key information covered across training programs. Items were either multiple-choice (12 items) or checklists (four items) so that they could be objectively

scored. Checklist items presented a specific behavioral style or pattern and asked participants to mark likely behaviors characteristic of that style or pattern.

Multiple-choice questions had a single correct answer, but checklist questions had multiple possible answers. Multiple-choice items were scored as correct or incorrect (worth one point each). For each checklist item, there were four primary answers and two to four secondary or acceptable answers. Trainees were given .2 points for each primary answer checked, and either .1 points (if there were two possible secondary answers) or .05 points (if there were four possible secondary answers) for other answers checked. Thus, each checklist item was worth up to one point, the same as the multiple-choice questions. Scores were totaled over 16 questions, divided by 16, and multiplied by 100 to place learning scores on a 100-point scale.

*Behavior Measure.* To assess participants' capacity to apply their learning to understand and react to the interpersonal styles of others, a behavior measure was administered at the end of training. Participants watched a 14-minute video segment from the movie *12 Angry Men*. The video clip is useful in that it provides an opportunity for participants to demonstrate their ability to analyze and respond to the interpersonal behavior of others. The video shows a panel of jurors debating the evidence used to prosecute someone accused of murder. Each juror displayed distinctive interpersonal styles during the deliberation process. Following the video, participants were presented with pictures and labels (e.g., Juror #8) of five jurors and asked to identify the individual's behavioral style, social style, or type (depending on the training program). The specific jurors whom participants evaluated were invariant across training programs.

Further, prior to providing evaluations, participants were informed of whom they would evaluate.

Facilitators for each training program provided the correct pattern, style, or type for each of the five jurors. Participants received one point for each juror correctly labeled. Thus, the possible range of final scores on the first behavioral measure was 0 to 5.0.

Participants were then shown the pictures and juror numbers of three other jurors seen in the video. They were told each individual's behavioral pattern, social style, or type and asked: "If this person is not contributing to a successful outcome, what are some ways of dealing with this juror to get him to participate in a more appropriate manner?" Participants were instructed to write a short response to address the question. Training facilitators again provided the expert answers to each question. Since the last three questions were open-ended, they were scored subjectively. Two researchers scored each response, with a score for each item ranging from 0 (no overlap with expert answers) to 3 (close approximation of expert answers). There was relatively high agreement between raters across questions and training programs: Inter-rater correlations were .80, .80, and .72 for the Social Styles, DiSC, and MBTI programs, respectively. When disagreements occurred (rarely more than 1 point), ratings were averaged to produce a score for that item. Points were summed over the three items so that the possible range for the second behavioral measure was 0 to 9.0.

## RESULTS

For each outcome measure, separate one-way ANOVAs were performed followed by post hoc comparisons to investigate mean differences across each training program.

The results are organized by participant reactions, learning measures, and behavioral measures.

### *Participant Reactions*

Separate analyses were conducted for the two reaction scales described previously. Scale means and standard deviations are displayed in Table 2. A significant difference was found among the three training programs for the Positive Reactions scale ( $F = 3.95, p < .05, \text{partial } \eta^2 = .04$ ). Bonferroni post hoc comparisons revealed that participants in both the MBTI and the DiSC programs rated their training significantly more positively than did participants in the SOCIAL STYLE program. There were no significant differences between the MBTI and DiSC programs on this scale. There was again a significant difference among the three training programs for the Perceived Utility scale ( $F = 3.14, p < .05, \text{partial } \eta^2 = .03$ ). Bonferroni post hoc comparisons revealed that participants in the DiSC program perceived their training program to be significantly more useful than did participants in the SOCIAL STYLE program. No significant differences between any other combination of groups were found.

### *Learning*

Scale means and standard deviations for the learning measure are displayed in Table 3. There was a significant difference among the three training programs on the learning measure ( $F = 32.01, p < .001, \text{partial } \eta^2 = .23$ ). This was a moderate effect, indicating relatively sizable differences in mean scores across programs. Bonferroni post hoc analyses revealed that the mean score on the learning measure was significantly higher for the SOCIAL STYLE ( $M = 67.62, SD = 13.95$ ) program than for either the DiSC ( $M = 80.09, SD = 15.40$ ) or the MBTI ( $M = 59.86, SD = 16.10$ ) programs.

Additionally, the mean score for the DiSC program was significantly higher than the mean for the MBTI program.

### *Behavior*

Separate analyses were conducted for both behavioral measures. Recall that the Behavior 1 measure was the number of jurors (out of 5) whom participants correctly labeled in terms of style or profile after the presentation of the video. The Behavior 2 measure was the aggregated score of three questions in which participants, given their knowledge of the juror's style, indicated the approach they would adopt to more effectively work with the juror observed in the video. Scale means and standard deviations are displayed in Table 4.

There was a significant difference among the three training programs on the Behavior 1 measure ( $F = 72.12, p < .001, \text{partial } \eta^2 = .41$ ). This was a large effect, indicating sizable differences in mean scores across programs. Post hoc analyses revealed that the mean score on the Behavior 1 measure was significantly higher for the SOCIAL STYLE ( $M = 2.8, SD = 1.2$ ) program than either the DiSC ( $M = 1.9, SD = 0.9$ ) or the MBTI ( $M = 0.74, SD = 0.9$ ) programs. Additionally, mean scores for the DiSC program were significantly higher than mean scores for the MBTI program.

There was also a significant difference among the three training programs on the Behavior 2 measure ( $F = 11.48, p < .001, \text{partial } \eta^2 = .10$ ). Post hoc analyses revealed that the mean score on the Behavior 2 measure was significantly higher for the SOCIAL STYLE ( $M = 2.63, SD = 1.3$ ) program than either the DiSC ( $M = 2.12, SD = 1.2$ ) or the MBTI ( $M = 1.66, SD = 1.1$ ) programs. This was a small to moderate effect, indicating

small but meaningful differences in mean scores across programs. There was no significant difference in mean scores between the DiSC and MBTI programs.

## DISCUSSION

There are multiple measures available to aid in the analysis, interpretation, and use of one's interpersonal style when interacting with others. To be successful, these measures should be supported by training that provides not only information about the measurement instrument, but also knowledge and skills associated with using the instrument effectively to analyze and respond to the behavior of others.

Effective training evaluation requires multiple measures adhering to the objectives established by the training. The purpose of the present study was to conduct a thorough assessment of three training programs that include measurement tools for understanding and working with the interpersonal behaviors or styles of others: Inscape's DiSC®, TRACOM's SOCIAL STYLE<sup>sm</sup>, and CPP's Myers-Briggs Type Indicator® (MBTI). Evaluations were structured in terms of trainees' reactions and perceived utility, participants' knowledge of key concepts covered in training, and participants' skills at applying the training knowledge.

The results demonstrate apparent differences among the three training programs on knowledge and skill-based outcomes. However, participants in all three training programs held positive reactions concerning the training. That is, regardless of the program, nearly all participants were satisfied with the training and perceived it as useful and easily applicable.

In terms of learning, participants in the SOCIAL STYLE training scored significantly higher (80% on average) than did participants in either the DiSC training

(67%) or the MBTI training (60%). Since different facilitators were used for each training type, it could be that some facilitators followed the training objectives more than others or explained material more simplistically. Alternatively, there could be differences among measurement instruments to the extent to which supporting material is easy to comprehend and encode to memory. If so, this suggests a clear advantage for receiving the SOCIAL STYLE training. Typically, participants receiving MBTI training accurately remembered their own profiles but struggled remembering many other key concepts covered in training.

It is important that participants are able to use the knowledge acquired from training to effectively analyze and respond to the interpersonal behaviors of others. Recall that participants in all programs rated their respective program highly in this regard. All participants viewed the same video segment, and their skill at labeling the interpersonal style or profile of characters in the video was measured. Additionally, we analyzed the participants' written answers regarding how they would apply knowledge acquired in training to characters in the video given knowledge of their own styles.

Again, there was a clear advantage on both measures for participants receiving the SOCIAL STYLE training. Participants in this program could identify more characters correctly (on average 2.8 of 5) than could participants in either the DiSC (1.9) or the MBTI (.74) programs. Participants in the SOCIAL STYLE program also responded more accurately than participants in the other two programs when asked their strategies for working with other characters in the video.

Since application of interpersonal styles is a primary objective of all three training programs, it would be difficult to argue that differences between programs were due to

facilitators not emphasizing this skill. Rather, it appears that for a half-day training program, the SOCIAL STYLE program affects immediate skill development more so than the other two programs. It could be argued that applying the skills learned in the DiSC or MBTI programs is more difficult than applying the skills in the SOCIAL STYLE program because the skills required for the DiSC and MBTI programs are more complex and require greater processing time (post-training) before they are employed effectively. In general, however, research on skill acquisition demonstrates that without practice, skills acquired in training are more likely to atrophy than improve (Arthur, Bennett, Stanush, & McNelly, 1998), and that the gap in initial post-training skill differences (e.g., between participants in the SOCIAL STYLE v. DiSC or MBTI programs) are more likely to increase rather than decrease over time. Accordingly, the results of this study suggest that the SOCIAL STYLE training is the most effective for improving interpersonal skills related to analyzing and responding to the behaviors of others.

This study was limited because it could only assess participants' skill at diagnosing and responding to others' personal styles after watching a video clip post-training. Future research should also include measures of actual transfer to the job as well as measures of job performance. Additionally, more research is needed regarding the validity of different scales for assessing interpersonal effectiveness and the credibility of profile reports provided to individuals. Lastly, recall that participants in the DiSC program perceived the training program to have significantly higher utility than participants in the SOCIAL STYLE program. With the substantial emphasis placed on utility of training programs, further investigation should be conducted to identify the role

of perceived utility in transfer of knowledge. The value of investing resources in interpersonal skills training programs can be further instantiated by establishing a stronger theoretical link among interpersonal skills, related constructs (e.g., emotional intelligence), and valued organizational outcomes (e.g., transfer and job performance).

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*Table 1.* Sample terminal training objectives from three training programs

DiSC® Model	SOCIAL STYLE MODEL™	Myers-Briggs Type Indicator® Model
<ul style="list-style-type: none"> <li>• Explain the behavior patterns characteristic of each of the four DiSC® model primary behavior styles;</li> <li>• read, interpret, and explain the learner’s own, personal DiSC® Personal Profile System report;</li> <li>• describe and explain how persons with different DiSC® profiles can best adapt their behavior styles to the styles of others in the workplace;</li> <li>• recognize the indicators of another person’s DiSC Profile in the workplace based upon observations of their behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the behavior patterns characteristic of each of the four SOCIAL STYLE model behavior styles;</li> <li>• read, interpret, and explain the learner’s own, personal multi-rater SOCIAL STYLE Profile report;</li> <li>• explain the meaning of versatility and how it impacts individuals’ ability to earn social endorsements from other in the workplace;</li> <li>• recognize the indicators of another person’s SOCIAL STYLE Profile in the workplace based upon observations of their behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Describe and explain the preferences represented by each of the four MBTI scales;</li> <li>• read, interpret, and explain the learner’s own, personal Myers-Briggs Type Indicator report;</li> <li>• describe and explain how persons with different Myers-Briggs Types can best adapt their preferences and styles to the preferences and styles of others in the workplace;</li> <li>• recognize the indicators of another person’s Myers-Briggs Type in the workplace based upon observations of their behavior</li> </ul>

*Table 2. Mean training reactions by training program*

Reaction Scale	Program	Mean	Std.
Positive Reactions	DiSC	4.39	.43
	SOCIAL STYLE	4.31	.46
	MBTI	4.52	.44
Perceived Utility	DiSC	4.16	.64
	SOCIAL STYLE	3.91	.66
	MBTI	4.06	.52

*Table 3. Mean learning scores by training program*

Learning Scale	Program	Mean	Std.
Learning Test Scores	DiSC	67.62	13.95
	SOCIAL STYLE	80.09	15.40
	MBTI	59.86	16.10

*Table 4. Mean behavior scores by training program*

Behavior Scales	Program	Mean	Std.
Behavior 1	DiSC	1.9	.9
	SOCIAL STYLE	2.8	1.2
	MBTI	.74	.9
Behavior 2	DiSC	2.12	1.2
	SOCIAL STYLE	2.63	1.3
	MBTI	1.66	1.1