Does the Improvement of Nonverbal Skill Flow on to Changes in Personality Dimensions?


Hans G. Klinzing
(University of Tuebingen and Stuttgart, Germany)

Bernadette Gerada Aloisio
(Department of Curriculum Management, Education Division, Malta)

Abstract

Six experimental investigations were conducted to test the effectiveness of a training program on the improvement of nonverbal skill. Furthermore, although the training focuses on manifest abilities, it was assumed that their successful training may serve as a foundation from which positive changes can flow on consequentially to influence global personality dimensions. Thus, for the studies reported here, it was hypothesized that an improvement of nonverbal decoding and encoding abilities would flow on to changes in convergent correlates of nonverbal skill. The training improved statistically significant not only decoding and encoding competence but also various personality dimensions: significant increases of “Charisma”, Extraversion, three scales of Locus-of-Control-Orientation and Self-Efficacy were obtained.

Keywords: nonverbal communication; personality dimensions; Charisma; Extraversion; self-efficacy.

Introduction

One of the major attractions of communication-training in experimental laboratory settings is - unlike the complexity inherent in real situations - the provision of a favourable climate for precise research. Thus, experimental laboratory settings designed to improve aspects of communication and teaching are well suited to be a tool of experimental examination since they inherently provide control and manipulation of variables. Usually in Laboratory Training, like Microteaching, the immense complexity is simplified, the large number of students in typical classrooms, the length of time devoted to classroom sessions, and the complex nature of variables inherent in any classroom situation are reduced (Allen, & Ryan, 1969, 110).

These settings are often applied to investigate experimental hypotheses that contribute to the scientific base from which laboratory training methods were developed. Not only are they applied to investigate optimal training procedures (e.g., Klinzing, 2002; Klinzing, & Gerada Aloisio, 2005; 2006) but also to enrich the research from which the development of the training contents and objectives are derived (Allen & Ryan, 1969, 8).

Purpose of Studies

Although the training approaches referred to focus on manifest abilities (in the training programs used for the present studies: nonverbal sensitivity and nonverbal expressiveness), it
was assumed (Klinzing, & Jackson, 1987) that their successful training may serve as a foundation from which positive changes can flow on consequentially to influence more global personality dimensions. Thus, beyond testing the effectiveness and evaluation of a program (Klinzing & Gerada Aloisio, 2004a; Klinzing, 2004), experimental hypotheses were investigated, aiming at confirming, or clarifying inconsistencies of earlier findings. The present studies aim at the understanding of the link between nonverbal skill (decoding and encoding abilities) and dispositions/personality dimensions considered as important for social life and teaching, like “charisma”, extraversion, (non-)directiveness, locus-of-control-orientation, and self efficacy.

In short, we tried to investigate experimentally the **nature of relationships** between communication competence (nonverbal skill) and personality dimensions.

Research offers findings of some relationships between psychosocial and personality dimensions and their social interactional counterparts in terms of nonverbal sensitivity and expressiveness from studies predominately conducted in the USA. All these studies are correlational. What is the condition and effect? Do, for example, extraverts become more nonverbally sensitive and expressive, do nonverbal sensitive and expressive persons become more extraverted, or do the two concepts develop from the same underlying forces? The present studies question the common simplistic assumption that characteristics of communicators affect the nature of messages produced. Improvements of communicative abilities may also affect related personality dimensions probably via feedback-loops. The question to be answered was, “How do improvements of nonverbal competence affect related personality dimensions?”

Strictly speaking, the evidence from the studies reported here is not experimental since the antecedents (= training) of an important aspect of communication were manipulated, rather than this aspect itself. “But surely evidence collected under these conditions is stronger than evidence generated from nonmanipulative field surveys.” (Dunkin & Biddle, 1974, 446).

Rationale/Review of Research

Success or failure of many interactional situations depends on the ability of the interactants to accurately decode and bring out the full meaning of their thoughts, intents, and affects through appropriate nonverbal expressions.

**Accuracy of Decoding Nonverbal Cues.** Understanding of socially agreed meanings for nonverbal cues is one of the key competencies for effective communication. For example, research on relationships between nonverbal judgment ability, clinical ability, or teaching excellence (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), and the satisfaction and appointment-keeping records of actual patients (see in Knapp & Hall, 2002) suggest the desirability of nonverbal sensitivity among professionals.

**Expressiveness and Unambiguousness in Nonverbal Encoding.** From the rich body of research it can be concluded that nonverbal encoding skills play a crucial role in face-to-face communication and teaching. Two aspects of nonverbal encoding are of particular importance: expressiveness (frequency, intensity and variety) and unambiguousness of sending.

The expressive use of nonverbal cues is often investigated and discussed as an ingredient
of more general, sometimes elusive terms like: buoyancy, enthusiasm, or charisma. Research reviews of Barr (1948), Rosenshine (1970), Klinzing (1984), Klinzing & Gerada Aloisio (2004b) concluded that high-inference measures of those variables as well as frequencies of low-inference variables such as movement, gesture, eye contact, and variations in voice are related to measures of desired student/audience behaviors, attitudes and achievement.

Overlapping and complementary with expressive nonverbal encoding is the degree of accurateness/unambiguousness of nonverbal sending. The potential to send more than one message at a time through nonverbal and verbal modes of communication in varying degrees of consistency with one another can, when judiciously used, contribute to the subtlety, and unambiguousness of communication. For example, interestingness, attentiveness and participation of groups were improved and dysfunctional behavior was reduced through the use of more than one message at a time (Woolfolk & Brooks, 1983). Also, adequacy of nonverbal communication was related to marital happiness and patients’ satisfaction. When, however, multiple simultaneous messages are misused or overused they can lead to inconsistencies and, therefore, undesired and even harmful effects (Knapp & Hall, 2002).

**Acquisition of Nonverbal Skill.** Research suggests that merely experience in observing and using nonverbal cues in daily living or on-the-job-training is not sufficient to improve the communicator’s ability to interpret accurately and/or to convey nonverbal messages effectively (Jecker, Maccoby; Breitrose, & Rose, 1964; Rosenthal et al., 1979; Klinzing, 2004). Training is needed.

Thus, since the 1920s techniques and programs related to the improvement of these important aspects of social competence were developed and studied for their effectiveness. Klinzing & Tisher (1986) and Klinzing & Gerada Aloisio (2004) concluded from these programs and their research that systematic training can have a positive impact on the sensitivity to and the expressiveness and unambiguousness of sending nonverbal cues.

**Psychosocial and Personality Correlates of Nonverbal Decoding and Encoding Ability:**

Research on the relationships of nonverbal skill with psychosocial or personality dimensions not only refer to the importance of this nonverbal aspect of communication but also contribute to the understanding of psychosocial constructs and their interactions. Most of this research focuses on effects of global communicators’ characteristics in dependent relation to more concrete abilities and behaviors (Giles & Street, 1985).

Skilled *decoders* of nonverbal signs and signals are shown to possess the following characteristics: they have been found to be “better adjusted, less hostile and manipulating, more interpersonally democratic and encouraging, more extraverted, less shy, less socially anxious, more warm, more empathic, more cognitively complex and flexible.” (Knapp & Hall, 2002, 85). In keeping with possession of these desirable characteristics, skilled nonverbal decoders are more *self-monitoring*, are considered more *popular and sensitive* to the needs of others, and report higher levels of *warmth and satisfaction* in their own personal relationships (Hall, 1998; Knapp & Hall, 2002). Mental patients scored considerable lower than a norm group on the Profile of Nonverbal Sensitivity (PONS, Rosenthal et al., 1979; see Knapp & Hall, 2002).

Studies, investigating relationships between *encoding abilities* and psychosocial correlates using the *Affective Communication Test* (ACT, Friedman et al., 1980) to measure encoding abilities like spirit or “charisma” containing nonverbal expressiveness), documented that
people who were more charismatic, were perceived as more likable while meeting new people, were able to influence others’ mood, had lectured to groups of people, had been an elected official of an organization, had theatrical experience, had opted or were selected for employment that involved working with and influencing people, or had worked as a sales person (Friedman et al., 1980).

There is some evidence that nonverbal expressiveness is related to unambiguousness in encoding. Accurate senders make the impression of greater expressiveness, confidence, and likability and, among males, used more fluent speech, more fluent body movements, and more smiles (Riggio & Friedman, 1986). Training studies in which the successful enhancement of nonverbal expressiveness was achieved, an improvement of clarity of presentation could be observed at the same time (Klinzing, Fitner, & Klinzing-Eurich, 1983; Klinzing, Kunkel, Schiefer & Steiger, 1984; Klinzing, 1988a; 1988b).

Besides these social-psychological variables, also personality dimensions are closely tied to expressiveness/charisma. Research on the relationship of personality dimensions and the ability to enact affects revealed significant relationships to characteristics considered as important for social life like affiliation, extraversion, self-esteem, internal locus of control (internality), and self-monitoring. They were also related to achievement orientation, exhibition (being colourful, spellbinding, noticeable, expressive, dramatic, & showy), playfulness, dominance and social desirability. Individuals with schizophrenia tended to show reduced facial expressivity and more negative than positive expressions. (Friedman et al., 1980a; Friedman, Riggio, & Segall, 1980; Friedman & Riggio, 1981; Friedman, Riggio, & Casella, 1988).

Unambiguousness of communication is related to confidence, likeability, and, regarding personality dimensions, to dominance and exhibitionism (Friedman, Riggio, & Segall, 1980); again, individuals with schizophrenia tended to show less congruence between verbal and facial messages, and were less accurate in facial and vocal expressions of affect (Knapp & Hall, 2002, 91).

Thus, nonverbal behavior is a social interactional counterpart of certain psychosocial and personality dimensions which are assumed to be important for professions involving intensive human interaction, like teaching.

The Studies

The Program/Treatments of the Six Experimental Studies

According to the recommendations derived from the research reviews, Klinzing & Gerada Aloisio (2004a) designed a training program to improve Nonverbal Sensitivity, Nonverbal Expressiveness, and Unambiguousness of Communication. To achieve these ambitious objectives a laboratory approach integrating components of laboratory training with their different functions (Cruickshank & Metcalf, 1990; Metcalf, 1995; Klinzing & Tisher, 1993) was chosen. The framework of “Interacting/Teaching as Experimentation” (Klinzing & Floden, 1990, 177) was used to develop a 32 hour four day training program. It combines different educational techniques aimed at the improvement of the following interrelated and overlapping knowledge and abilities: acquisition of theoretical knowledge, hypothesis-generation/ decision-making, skillful carrying out of actions, and reflection on the execution of behaviors (Klinzing & Floden, 1990).
The Contents of this Program were organized into sub-tasks to be acquired stepwise: cognitive functions of nonverbal cues in kinesics (para-semantic and para-syntactic) represented Part 1 of the program, affective functions in kinesics (expression of emotions, interpersonal attitudes), and regulation functions represented Part 2. Part 3 was devoted to the improvement of nonverbal vocalizations. These functions were again decomposed into sub-components by relating them to communication modes (e.g., facial expression) and then described in terms of their low inference constituents (Gage, 1972).

Results from seven experimental studies to test the effectiveness of this program (including the six studies reported here) revealed that the objectives of the program could be consistently achieved. Considerable and statistical significant improvements for nonverbal decoding abilities and for several important aspects of nonverbal encoding, namely expressiveness and unambiguosity of communication were found (Klinzing, 2004; Klinzing & Gerada Aloisio, 2004a; Klinzing et al. 2004).

The Experimental Conditions. The training components of the experimental groups consisted of theoretical knowledge, skill acquisition exercises (e.g., perceptual modeling), practice in experimental settings with intensive feedback, and reflective discussions. The control groups had no training at the time of the posttests in Study 1, 2, 5, and 6. Studies 3 and 4 originally were carried out to investigate the contribution of focused practical laboratory experiences to the improvement of nonverbal decoding and encoding abilities (Klinzing & Gerada Aloisio, 2005; 2006). These investigations were based on the same program for the improvement of nonverbal skills described above. It consists of presentation of theoretical knowledge on nonverbal communication, skill acquisition exercises, decision-making exercises. The participants of the comparison group of Study 3 worked on written materials expanding their knowledge on nonverbal behavior instead of having the practical laboratory experiences. The participants of the comparison group of Study 4 had no compensatory treatment; therefore their treatment was five hours shorter before the posttest.

Hypotheses

As mentioned above, this program was used as the base for experimental studies investigating the nature of relationships (condition - effect) between nonverbal skill and personality dimensions.

1.1 There will be no significant (p< .05) differences between treatment conditions (nonverbal behavior training versus no training) at the time of the posttest on “Charisma/Spirit” (Study 3, 4, 5, and 6);

1.2 There will be no significant (p< .05) differences between treatment conditions at the time of the posttest on Directiveness (rigid, imposing attitudes; Study 3, 4, 5, and 6);

1.3 There will be no significant (p< .05) differences between treatment conditions at the time of the posttest on Extraversion;

1.4 There will be no significant (p< .05) differences between treatment conditions at the time of the posttest on locus-of-control-orientations (Study 5 and 6);
1.5 There will be no significant (p< .05) differences between treatment conditions at the time of the posttest on self-efficacy (Study 6).

Methods and Data Source

Subjects. Altogether 306 undergraduate student teachers and students studying pedagogy as a major in a large German University signed up to participate in the six experimental studies. Figure 1 gives a profile of the participants of all studies based on age, gender, number of semesters completed, and majors studied at the university.

Figure 1: Characteristics of the Participants of Study 1 - 6: Gender, Age, and Majors

<table>
<thead>
<tr>
<th>Study</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>age: M</td>
<td>N</td>
</tr>
<tr>
<td>19</td>
<td>25.3 (9f; 10m)</td>
<td>19</td>
</tr>
<tr>
<td>10 Diploma/MA; 9 student teachers</td>
<td>8 Diploma/MA</td>
<td>11 student teachers</td>
</tr>
<tr>
<td>2</td>
<td>26.5 (14f; 5m)</td>
<td>15</td>
</tr>
<tr>
<td>6 Diploma/MA; 13 student teachers</td>
<td>3 Diploma/MA</td>
<td>12 student teachers</td>
</tr>
<tr>
<td>32</td>
<td>23.5 (21f; 11m)</td>
<td>29</td>
</tr>
<tr>
<td>6 Diploma/MA; 13 student teachers</td>
<td>8 Diploma/MA</td>
<td>21 student teachers</td>
</tr>
<tr>
<td>15</td>
<td>23.5 (9f; 6m)</td>
<td>14</td>
</tr>
<tr>
<td>8 Diploma/MA; 6 student teachers</td>
<td>6 Diploma/MA</td>
<td>8 student teachers</td>
</tr>
<tr>
<td>36</td>
<td>25.2 (28f; 8m)</td>
<td>36</td>
</tr>
<tr>
<td>13 Diploma/MA; 23 student teachers</td>
<td>4 Diploma/MA</td>
<td>32 student teachers</td>
</tr>
<tr>
<td>36</td>
<td>23.2 (29f; 7m)</td>
<td>36</td>
</tr>
<tr>
<td>28 Diploma/MA; 6 student teachers</td>
<td>9 Diploma/MA</td>
<td>25 student teachers</td>
</tr>
</tbody>
</table>

Design of the Studies. The experimental relationships between nonverbal skill and personality dimensions were investigated using a posttest-only-control-group-design, with random assignments to the experimental conditions (Campbell & Stanley, 1963). As mentioned above in Study 1, 2, 5, and 6 the program was tested against a control group not having training at the time of the posttest. In Studies 3 and 4 the full program was tested against a comparison group having the training program without practical laboratory experiences.
**Data Source.** To assess the *effectiveness of the program* two criterion measures were employed. These measures were derived from two principal sources, the first being a test on *nonverbal sensitivity* the second being a *laboratory performance test* which provided estimates of trainees’ behavior from self- and alter competence ratings (Klinzing & Gerada, 2004).

To assess the *nature of relationships* between nonverbal skill and personality dimensions paper and pencil tests on “charisma”/expressiveness, directiveness, extraversion, locus-of-control orientation, and self-efficacy were administered at the time of the posttests.

1. **The Affective Communication Test (ACT)** was administered at the time of the posttests in both experimental conditions in *Study 3, 4, 5* and *6*. This paper-and-pencil self-report developed and carefully tested by Friedman et al., (1980) consists of 13 items. For each item subjects indicate on a nine-point scale from -4 to +4 the extent to which the statement is true or false as it applies to her or him. Test-retest reliability and internal consistency ranged from .77 to .91 (Friedman et al., 1980). Studies to validate this test are promising.

2/3. The **Questionnaire of Directiveness** (“Fragebogen zur direktiven Einstellung”, F-D-E, Bastine, 1971) contains 16 items (six-point scales) to determine extraversion (derived from Brengelmann & Brengelmann, 1960) and 16 items to determine directiveness. Reliabilities in terms of internal consistency in different samples ranged from 0.80 to 0.89, in terms of test-retest reliability from 0.80 to 0.95 for both scales (Bastine, 1971). Indications for validity of this test are promising; these and norms are given by Bastine (1971). Indications for treatment validity (Popham, 1975) can be derived from studies reported by Klinzing & Rupp (1999). This test was administered in *Study 1, 2 and 4* as posttests.

4. To assess **Control- and Competence Orientations** the **Fragebogen zu Kompetenz- und Kontrollüberzeugungen, FKK**, (Questionnaire of Competence- and Control Beliefs, 32 items, six-point-scales, Krampen, 1991) was administered as posttests in *Study 5* and *6*. This test consists of four primary scales (with eight items each), two secondary (with 16 items each), and one tertiary (with all 32 items) (see tables). Reliabilities in terms of internal consistency and test-retest reliability in different samples ranged from 0.70 to 0.90, across all scales. Indications for validity of this test in terms of content, discriminant and convergent validity, and treatment validity are promising (Krampen, 1991).

5 The **Perceived Self-Efficacy Scale, FEW** (Schwarzer, Mueller, & Greenglass, 1999; 10 items, four-point-scales) was administered in *Study 6* to measure the generalized sense of self-efficacy. It was developed on the base of Bandura’s concept of self-efficacy (Bandura, 1997). The scale is reliable (alpha = .75 and .90); it has also shown as valid in terms of convergent and discriminant validity.

**Results**

1 **Results for Spirit/”Charisma”**. The results for spirit/”charisma” (ACT) are summarized in *Table 1* for *Study 3, 4, 5*, and *6*.

| Table 1: Results for “Spirit/”Charisma” (ACT). Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES) for Study 3, 4, 5, and 6. | 277 |
### Study 3

<table>
<thead>
<tr>
<th>EG (N=32)</th>
<th>CG (N=29)*</th>
<th>EG vs. CG</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (s)</td>
<td>M (s)</td>
<td>t (p**)</td>
</tr>
<tr>
<td>81.94 (13.90)</td>
<td>74.72 (12.34)</td>
<td>2.13 (p = 0.002)</td>
</tr>
</tbody>
</table>

* Two participants did not make their data available

** For two participants the data of the ACT are not available. **One-tailed tests; EG: Experimental Group; CG: Control Group; ****The smaller improvement of the Experimental group might be due to the fact that, due to organizational reasons, this group got the ACT before the laboratory performance test, thus they lacked one practical experience.

The results as summarized in Table 1 show significant differences between the treatment conditions favouring the experimental group for “Charisma”/”Spirit” (ACT).

2/3 Results for (vs. Non-)Directiveness and Extraversion. The results of these analyses are summarized in Table 2 for Study 1, 2, and 4.

Table 2: Results for Directiveness (Rigid, Imposing Attitudes). Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES) for Study 1, 2, and 4 (University Students).
The results in Table 2 reveal no statistically significant differences between the experimental and control/comparison groups for directiveness (rigid, imposing attitudes).

Table 3: Results for Extraversion. Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES) for Study 1, 2, and 4 (University Students).

<table>
<thead>
<tr>
<th>Study 1</th>
<th>EG (N=19)</th>
<th>CG (N=19)</th>
<th>EG vs. CG</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (s)</td>
<td>M (s)</td>
<td>t* (p)</td>
<td>Cohen’s D</td>
</tr>
<tr>
<td>Directiveness</td>
<td>-8.37 (11.16)</td>
<td>-12.16 (8.62)</td>
<td>1.17 (p = 0.12)</td>
<td>0.44 0.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 2</th>
<th>EG (N=19)</th>
<th>CG (N=15**)</th>
<th>EG vs. CG</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (s)</td>
<td>M (s)</td>
<td>t (p)</td>
<td>Cohen’s D</td>
</tr>
<tr>
<td>Directiveness</td>
<td>-4.16 (14.52)</td>
<td>-8.54 (14.88)</td>
<td>0.86 (p = 0.20)</td>
<td>0.30 0.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 4</th>
<th>EG (N=15)</th>
<th>CG (N=14)</th>
<th>EG vs. CG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (s)</td>
<td>M (s)</td>
<td>t (p*)</td>
</tr>
<tr>
<td>Directiveness</td>
<td>-8.40 (9.06)</td>
<td>-12.93 (11.06)</td>
<td>1.21 (p = 0.12)</td>
</tr>
</tbody>
</table>

*One-tailed tests; ** for two participants data were not available.
### Study 2

<table>
<thead>
<tr>
<th></th>
<th>EG (N=19)</th>
<th>CG (N=15**)</th>
<th>EG vs. CG</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (s)</td>
<td>28.26 (11.77)</td>
<td>19.60 (14.17)</td>
<td>1.95 (p = 0.03)</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.67</td>
<td></td>
</tr>
</tbody>
</table>

### Study 4

<table>
<thead>
<tr>
<th></th>
<th>EG (N=15)</th>
<th>CG (N=14)</th>
<th>EG vs. CG</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (s)</td>
<td>26.73 (9.42)</td>
<td>12.36 (12.07)</td>
<td>3.59 (p = 0.0007)</td>
<td>1.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.33</td>
<td></td>
</tr>
</tbody>
</table>

*One-tailed tests; **for two participants data were not available.

The results in Table 3 reveal a significant increase of Extraversion in the three studies.

#### 4 Results for Control and Competence Orientation/Beliefs (FKK)

The results of these analyses are summarized in Table 4.1 for Study 5, and in Table 4.2 for Study 6 (University Students).

**Table 4.1: Results for Competence and Control Beliefs (FKK). Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES) for Study 5.**

<table>
<thead>
<tr>
<th></th>
<th>EG (N=36)</th>
<th>CG (N=34*)</th>
<th>EG vs. CG</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (s)</td>
<td>31.47 (7.64)</td>
<td>31.44 (6.94)</td>
<td>0.49** (0.02)</td>
<td>0.004</td>
</tr>
<tr>
<td>Internalism (I)</td>
<td>34.64 (4.26)</td>
<td>30.15 (5.54)</td>
<td>0.0002** (3.79)</td>
<td>0.81</td>
</tr>
<tr>
<td>Social Externalism (P)</td>
<td>25.61 (5.92)</td>
<td>24.76 (6.41)</td>
<td>0.28** (0.58)</td>
<td>0.13</td>
</tr>
<tr>
<td>Fatalistic Externalism (C)</td>
<td>22.28 (4.83)</td>
<td>23.65 (6.28)</td>
<td>0.15** (-1.03)</td>
<td>-0.21</td>
</tr>
</tbody>
</table>
Self Efficacy (SKI)  
(FKK: Combined Score of SK and I)  
66.11 (10.88) 61.29 (11.28) 0.04** 0.43  

Externalism (P+C)  
47.81 (9.37) 49.00 (10.25) 0.31** 0.12  

Internalism vs. Externalism (SKI – PC)  
18.14 (17.62) 11.85 (18.71) 0.08** 0.31  

*The unequal number of participants is due to the fact that two of the members of the control group did not appear. **one-tail tests.

Table 4.2: Results for Control and Competence Beliefs (FKK). Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES): Study 6.

<table>
<thead>
<tr>
<th>Study 6 (2/2006)</th>
<th>Experimental Group EG (N=36)</th>
<th>Control Group CG (N=36)</th>
<th>EG vs. CG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>M</td>
<td>p, ES</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>(s)</td>
<td>(s)</td>
<td>(t) Cohen’s D</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Self Concept of Own Competencies(SK)</td>
<td>33.17 (5.94)</td>
<td>32.08 (5.69)</td>
<td>0.22** 0.19</td>
</tr>
<tr>
<td>Internalism (I)</td>
<td>36.34 (4.39)</td>
<td>32.08 (4.12)</td>
<td>0.00003** 1.03</td>
</tr>
<tr>
<td>Social Externalism (P)</td>
<td>24.45 (5.78)</td>
<td>24.81 (5.56)</td>
<td>0.39** -0.06</td>
</tr>
<tr>
<td>Fatalistic Externalism (C)</td>
<td>22.92 (7.15)</td>
<td>22.31 (5.19)</td>
<td>0.34** -0.12</td>
</tr>
<tr>
<td>Self Efficacy (SK+I)</td>
<td>69.50 (8.76)</td>
<td>64.17 (8.81)</td>
<td>0.006** 0.60</td>
</tr>
<tr>
<td>Externalism (P+C)</td>
<td>47.08 (12.68)</td>
<td>47.02 (8.39)</td>
<td>0.50** -0.007</td>
</tr>
<tr>
<td>Internalism minus Externalism (SKI – PC)</td>
<td>22.42 (19.64)</td>
<td>17.08 (14.87)</td>
<td>0.09** 0.36</td>
</tr>
</tbody>
</table>

** one-tail tests.

The results as summarized in Table 4.1 and 4.2 reveal consistently significant differences...
between the experimental conditions in Internalism (I) and in combined scores: Self-efficacy (SE); the results for the overall score of the competence and control beliefs became nearly significant (p=0.08; 0.09).

5 Results for Self-Efficacy. The results of these analyses are summarized in Table 5 for Study 6.

Table 5: Results for Self-Efficacy (FEW). Means (M), Standard Deviations (s), t-Tests, and Effect Sizes (ES) for Study 6.

<table>
<thead>
<tr>
<th>Study 6</th>
<th>Experimental Group EG (N=36)</th>
<th>Control Group CG (N=36)</th>
<th>EG vs. CG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (s)</td>
<td>M (s)</td>
<td>p, (t)**</td>
</tr>
<tr>
<td>Perceived Self Efficacy (FEW)</td>
<td>30.67 (3.66)</td>
<td>28.33 (3.97)</td>
<td>0.006</td>
</tr>
</tbody>
</table>

**one-tail test.

The results as summarized in Table 5 revealed significant differences between the experimental conditions in Self-efficacy.

Summary and Discussion

Findings from the experimental studies to test the effectiveness of the program revealed considerable and statistical significant improvements for nonverbal decoding and encoding skills (except for “other-orientation”) in all of the six studies (see Klinzing & Gerada Aloisio, 2004a; 2006; Klinzing et al. 2005). These results support conclusions from international research (Klinzing & Tisher, 1986; Klinzing & Gerada Aloisio, 2004a; 2004b). Thus, the conditions for assumed enhancements of personality dimensions are fulfilled.

The relationship of personality dimensions related to nonverbal skill revealed significant enhancements. Significant differences between the experimental and control groups were found for “charisma”/“spirit”, extraversion, internal locus-of-control orientation, and the combined score: self-efficacy. Nearly significant results were found for overall competence- and control beliefs. Also the results for Self Efficacy, assessed with the FEW became statistically significant.

The common assumption that characteristics of communicators affect the nature of behaviors produced is questioned. An opposite and more complex, interactional relationship may exist which has to be considered in the development of educational techniques and empowering situations which may interactively produce improvements in perceptiveness, behaviors, and personality dimensions.

The research and developments in the project reported here intended to overcome deficiencies of preparing professionals in the widely neglected area of nonverbal communication. At the same time, this research provides further rational for understanding of
personality dimensions as related to their perceptual and behavioral counterparts. Findings from correlational studies are not only supported and enriched but also the findings achieved under experimental conditions clarify how personality dimensions can be influenced by improvements of nonverbal communication (via feedback-loops).

Footnotes

(1) All participants of the studies were asked to conduct a performance test to determine if they were able to apply the behaviors taught. It consisted of a three-to-four-minute introductory lecture and a six-to-eight-minute moderation of a discussion on topics trainees were to select from one of their subject matter areas which had to be, however, sufficiently general so as to not interact with the trainees’ area of study. The participants were given 45 minutes to prepare the lectures/discussions to be conducted in (randomly assigned) groups of four to seven peers. The laboratory performances were videotaped for feedback purposes and for further analysis.

(2) Students rated themselves and others using the Self Rated Competence and the Rating of Alter Competence. For the assessment the Self-Rated-Competence (SRC: 27 items, with five point-scales) and the Rating of Alter Competence (RAC: 27 items with five-point scales) were used, both developed and tested by Spitzberg (1988). Cupach & Spitzberg (1981). Spitzberg & Cupach, 1983; 1985). This test was also used in studies by Klinzing & Rupp (1999), Klinzing et al. (2002a; 2002b).

References


Klinzing, H.G. & Gerada Aloisio, B. (2005). The contribution of practical laboratory experiences to the improvement of nonverbal decoding abilities. Two Experimental Investigations on the Relative Effectiveness of Two Variations of a Program–One with Practical Laboratory Experiences and One Lacking these Experiences. Paper presented at the 30th Annual Conference of the Association for Teacher Education in Europe (ATEE) Amsterdam, NL, 22 -26 October 2005


