

Effectiveness of Social Skills Training Experiential Method to Strengthening Social Self Efficacy of University students

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ABSTRACT

Interpersonal difficulties significantly diminish quality of life and psychological well-being among university students, so that possession of an appropriate repertoire of social skills is crucial for personal and professional development. In this sense, we highlight the importance of formal training devices designed to promote social behavior development in the university population as well as systematic studies to assess the efficacy and clinical utility of such interventions. In the present study, we examine the impact of two types of training, one instructional and another experiential, on social self-efficacy beliefs, which constitute a key antecedent to behavior change and the main promoter of competent social behavior. The results suggest that the experiential training further strengthen the social self efficacy beliefs of university students. We concluded that the greater effectiveness of experiential training comes from the utilization of experiences of achievement based on the actual implementation of social behaviors, while allowing the approach of personal, behavioral and environmental conditions in the same activity.

Key words: social skills training, experiential method, social self efficacy, university students.

Novelty and Significance

What is already known about the topic?

- Poor social skills negatively affect quality of life and psychological well-being among university students.
- Several studies have showed that Social Skills Training is effective for the improvement of interpersonal and communicational skills.

What this paper adds?

- We examine the impact of both an instructional and experiential training methods on social self-efficacy beliefs.
- The experiential training method increases in a better manner self-efficacy beliefs because this models emphasizes behavioral executions and achievement experiences, which is considered the most powerful self-efficacy source.

As it has been documented, the stimulus equivalence (SE) procedure has been widely used. The acquisition of social behaviors involves a lifelong learning process: new groups and new contexts bring along changes in social goals, as well as demands for a wider repertoire of interpersonal behaviors. According to Del Prette, Del Prette, and Mendes Barreto (1999), most demands show up in adolescence, since both parents and teachers expect more complex behaviors.

Adolescence is a critical phase in development, of great vulnerability, which culminates when the person leaves the nuclear family for adult society. Changes of

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vital importance take place at the age in which the individual begins college (generally around 18 or 19 years old), such as leaving the family home, searching for a partner and, occasionally, looking for a job, due to which an appropriate repertoire of social skills (SS) will have a protective effect on the difficulties that the individual will have to face to enter the adult world. Nevertheless, the classic research by Argyle, Bryant and Trower (1974) on social performance between university students already showed that this population had many deficits in social competences.

In Latin America, Abarca, and Hidalgo (1989) observed that 37.3% of Chilean students showed interpersonal difficulties, while in Brazil, Z. Del Prette and Del Prette (1983) found deficits among Psychology students in the following skills: rejecting requests, disagreeing, counter-arguing and defending their own ideas. On the other hand, local research has shown high percentages of Psychology University Students with SS deficits and a very low percentage of students with an appropriate repertoire of these skills (Herrera Lestussi, Freytes, López, & Olaz, in press), which could directly affect their psychological well-being, as well as their professional performance.

SS deficits have a direct impact on the university adolescents' life quality, since they are directly related to problems typical of this developmental stage, such as shyness, social anxiety, difficulty to solve problems, and substance abuse. It has also been reported an association between deficits in social competences and academic failure (Heather & Betz, 2000), Attention Deficit Disorder (Canu & Carlson, 2003), and depression (Gable & Shean, 2000). Additionally, the results of different researches have shown that an appropriate repertoire of SS may operate as a protective factor against certain psychosocial pathologies typical of this developmental period.

Jensen-Campbell et al. (2002) found that socially competent adolescents tend to be less vulnerable to victimization by their peers while Deniz, Hamarta, and Ariz (2005) found significant differences in SS and feelings of loneliness between university students who found a partner and those who did not. Those students who had a partner showed a more developed SS repertoire and less feelings of loneliness. Taking into account that an ex post facto study was carried on, the results could also be interpreted as if an appropriate SS repertoire could make access to a partner easier, with a direct impact on the feelings of loneliness in young people.

Finally, Karagözoğlu, Kahve, Koc, & Adamişoğlu (2008) and León Camargo, Rodríguez Angarita, Ferrel Ortega, & Ceballos Ospino (2009) showed that university students with higher assertiveness also had higher scores in self-esteem tests.

Also, different authors have pointed out the importance of an appropriate SS repertoire for the professional development of a young person. The complexity of social demands in working environments requires improving these competences from the beginning of a university career. Teenagers that begin a university career will face new and varied social situations, and their performance in these situations will be directly determined by their SS. Zea, Tyler, & Franco (1991) identified differences in professional success according to the students' interpersonal competence. This authors also identified differences between university students' social competences according to their academic area, aside from moderate correlations between the interpersonal competence level and several indexes of academic achievement.

Nevertheless, Del Prette and Del Prette (2003) point out that, in general, the importance of SS for an appropriate professional development has been underestimated in comparison to technical knowledge in university education. It can be therefore understood that, in different researches, a high prevalence of SS deficits has been observed among this population.

There is an evident need for formal training devices in these competences, and for a systematic study of the effectiveness of those interventions currently active for the education of university students. In this sense, and from a therapeutic point of view, SS may be trained by professionals through Social Skills Training (SST) programs, with the purpose of improving people's quality of life in all contexts of social interaction.

A key aspect of the cognitive-behavioral approach is the need to support the usefulness of the methods employed in interventions. For this, the evaluation of the efficacy of the interventions used is a key task for the psychologist. In the case of Social Skills Training (SST), seven meta-analysis studies regarding the efficacy of SST in children and teenagers support the usefulness of this kind of interventions (Gresham, 2009). In six of these seven studies, an $r = .29$ mean of the effect size could be observed (with a .19-.40 interval), suggesting that approximately 65% of the participants from the SST groups showed positive changes in comparison to only a 35% of the control group, using a binomial interpretation (Binomial Effect Size Display or BESD, Rosenthal & Rosno, 1991, in Gresham 2009).

Despite the clear evidence supporting the efficacy of SST, there are still important researches to be carried out in relation to active components of psychological therapy (Bados López, García Grau, & Fusté Escolano, 2002).

The first formulations of cognitive models in psychotherapy already considered that behavioral change and remission of symptoms depends directly on the modification of the structure of meanings. Among cognitive variables linked to therapeutic change, the concept of Self-Efficacy (Bandura, 1987) has achieved particular importance in recent years.

The first researches on the field of self-efficacy were carried on by Bandura and their colleagues in therapeutic contexts, training individuals to cope with feared situations. In these researches, it was shown that certain experimental treatments affect the individuals' self-efficacy to carry out different behaviors and the predictive usefulness of self-efficacy was assessed for future coping behaviors. In this way, the important role of self-efficacy as the effect of particular interventions and as a predecessor of behavioral change was verified.

Some subsequent studies generalized these results to non-clinical contexts, highlighting the importance of self-efficacy as an explanatory and predictive construction for human behavior (Schunk, 1989). The results of these studies have shown the explanatory generality of the construction, due to which self-efficacy is considered one of the most influential factors in human behavior (Bandura, 1987; 1997; Moe & Zeiss, 1982; Pajares 1997; Schunk, 1989; Valiante, 2000; Zeldin, 2000).

Some researches have shown that psychological interventions in general, and SST programs in particular, have an impact on social self-efficacy (SSE), defined as the beliefs that a person has about his/her ability to answer in an appropriate way to

specific interpersonal demands (Bandura, 1987). In a classic study carried on in the 1980's, Hammen, Jacobs, Mayol and Cochran (1980) found that SS training considerably improved the strength of social-efficacy perceptions in the participants.

Although no current researches have been found that deal with the effect of SST programs on social self-efficacy, some researchers have included social self-efficacy measurements in cognitive-behavioral therapeutic programs, observing a change in these beliefs after the intervention (Washington, 1999).

Despite the proven impact of SST and the scientific and practical relevance of the SS area, no researches have been found in our country on the efficacy of SST in university students, neither have studies been found that may allow to determine the impact of these trainings in the strength of the participants' social self-efficacy beliefs. Taking this into consideration, we added the objective to assess whether there was a difference in the efficacy of the two SST modalities, one instructional (instructions and discussion group) and the other experience-based, based on the use of group techniques with recreational features, in relation to the strength of the participants' social self-efficacy beliefs.

The concept of experiences has been defined as structured situations carried on in analogous or symbolic contexts (Del Prette & Del Prette, 2008) that make emotional, cognitive and behavioral activation easier within a motivational context, providing SST with a flexible and supportive character for the participants to be able to cope with their interpersonal deficits, acquire adaptive behaviors and restructure dysfunctional cognitions. In addition to this, the use of symbolic and recreational environments makes it easy to elaborate meta-cognitions, generative conceptions or behavioral rules that can be generalized to several interpersonal contexts.

The research on the sources of self-efficacy has shown that control experiences are important factors for the development of a solid sense of self-efficacy, due to which it can be inferred that the use of techniques based in behavioral implementation is key within the therapeutic context and SST programs. In this sense, a difference is made from the Social Cognitive Theory (SCT) between acquisition of knowledge (learning) and observable performance based on such knowledge (behavior). Therefore, even when a person may have learned a new behavioral pattern or a specific knowledge, he/she may not put these learnings into practice due to several factors, such as negative expectations on results or the presence of a non-reinforcing or punitive environment for such behaviors. This is to say, even when knowledge has been acquired, it is probable that it does not become evident until the situation provides the necessary incentives to put it into practice (Bandura, 1987). Along with this, from the triadic model defended by the SCT, it is expected that the efficacy of a SST is linked to the proportion in which it articulates behavioral (verbal and non-verbal), cognitive-affective and physiological dimensions, by means of specific techniques.

From the aforesaid, significant differences in social self-efficacy levels were expected to be found in this research in favor of the participants in the experienced-based group, in relation to the instructional group and a control group with no contact, while significant differences were expected in favor of both experimental groups in relation to the control group.

METHOD

Participants

The study was carried on in 28 Psychology students from the Siglo 21 Business University (55.8% women) between 18 and 28 years old ($M= 21, 18, SD= 3,1$). Twenty students were randomly assigned to two experimental groups ($n1= 10, n2=10$) while the participants assigned to the control group without contact ($n3= 8$) were incidentally chosen from a last year subject.

Instruments

Social Self-Efficacy Scale for University Students (SSES-U): self-report instrument completely developed within our environment and with studies on the university students population from Córdoba, Argentina. Evaluates students' beliefs on their interpersonal skills. The version used in this study was made of 48 items in which the person must estimate the trust he/she has to properly carry out each activity ("Asking an attractive person you met for a drink", for instance). In each item, the individual uses a 10-point Likert-type answer scale that ranges from 1 (I can't do it) to 10 (Completely sure of being able to do it). The psychometric studies carried on with the instrument show that it is useful and appropriate for this research. The items are grouped in a Social Self-Efficacy structure of five dimensions, obtained by means of exploratory factorial analysis (Maximum Probability Extraction Method, Promax Rotation) (Olaz, 2010). Each of these factors is a sub-scale of the instrument; therefore, the evaluated person obtains five scores from the addition of the items from each sub-scale that represent the strength of their self-efficacy beliefs in each dimension.

Self-efficacy for getting dates: it refers to the perceived ability to contact and initiate relations with persons of the opposite sex or persons that arise some kind of sexual or erotic interest. The internal consistency studies carried out in the original study obtained a $\alpha= .94$.

Conversational self-efficacy: this scale evaluates the perceived ability to initiate and keep informal conversations with others without experimenting too much anxiety. The internal consistency studies values from the original study obtained an $\alpha= .88$.

Academic Social Self-Efficacy: evaluates the perceived efficacy to carry out interpersonal behaviors necessary for an appropriate academic performance, such as making questions and talking in public within a formal educative environment. In the original study, an $\alpha= .88$ was achieved.

Assertive Opposition Self-Efficacy: it refers to the ability perceived by the individual to oppose or reject unacceptable behavior or comments from an antagonist and to achieve a more acceptable behavior in the future. Studies carried on by Olaz (2010) show an $\alpha= .79$.

Assertive Acceptance Self-Efficacy: it refers to the efficacy perceived by the person to communicate warmth and express compliments, praise, esteem, personal feelings and opinions to others when their positive behavior justify it. The original internal consistency studies revealed an $\alpha= .79$.

Procedure

First, a training program for trainers was carried out in each SST group. As part of this stage, a pilot study was carried out with a 10-student group, with the purpose of evaluating the performance of coaches and choosing the actual coaches for the programs. Afterwards, a three-month-length second pilot study was carried out, with the purpose of evaluating the coaches' performance and determine the clinical efficiency of the instructional program.

Once this stage was finished, a pre-test and post-test quasi-experimental design was carried out with three groups, two experimental groups randomly assigned and a non-random control group without contact. The 20 students assigned to the experimental groups were chosen by means of incidental sampling and were randomly assigned to experimental groups G1 and G2, trying to keep an equivalent representation by sex. The participants assigned to the control group without contact were chosen incidentally from a last-year subject. It must be pointed out that such group was included with the purpose of controlling the effect of the participants' reactivity, since in some occasions, knowing that one is part of a research may affect the results obtained (Kazdin, 2001).

In both experimental groups, an SST group modality was used, taking into account the advantages pointed out by different authors, such as the participant's ability to think on interpersonal problem-solving strategies alternative to those proposed or modeled by the therapist, the ability to count with different mastering and coping models, and to put into practice skills learned with different people, the ability to count with different feedback and reinforcement sources, and economy of time (Caballo, 2000; Del Prette & Del Prette, 2002; Kelly, 2002), as well as more feasibility for the application of techniques that require the cooperation of auxiliary personnel, such as molding and behavioral rehearsal (Del Prette & Del Prette, 1997).

Both for the *Instructional Experimental Group* and for the *Experience-based Experimental Group*, 16 sessions were agreed, distributed in 2 weekly sessions of one-and-a-half hour, taken at the same hours and in similar spaces. Each group was guided by a male therapist and a female co-therapist, with the purpose of keeping constant the administration conditions for the programs.

The Instructional Experimental Group was centered mainly on presenting conceptual aspects of the social skills area, procedures regarding evaluation and promotion of this repertoire as well as questions related to its applicability. Each meeting was divided in two instances, a first informative theoretical moment, followed by a second part with activities tending to the joint discussion of the subjects dealt with, following the analysis of audiovisual material, cartoons and the triggers chosen by the coaches. Finally, the participants had to carry out tasks consisting in applying some of the skills discussed during the session. In the following session, the participant discussed the result of the task and the group gave feedback on it.

Also, the Experienced-based Experimental Group's work was based mainly on using experiences and behavioral rehearsal. However, at the beginning of each training session, or when it was necessary to provide specific information on any skill, the experience-based method was complemented with instructional procedures based on

Table 1. Techniques used by instructional and experience-based experimental groups.

Techniques	Description	Experience-based	Instructional
<i>Instruction and Psycho-education</i>	Consists in descriptions, questions and/on verbal explanations on the behaviors that are the objective of the training. They were used at the beginning of each meeting with the purpose of introducing the participants to the skill that is going to be worked on and providing an explanation on its importance. Discussion and group debates are also used as auxiliary techniques.	X	X
<i>Symbolic modeling with no implementation</i>	The group observed the complete sequence of behaviors that form a certain skill in a symbolic model, cartoons or movies.	X	X
<i>Feedback and Reinforcement</i>	Feedback consists in providing the participants with information on their behavioral performance, with the purpose of letting them know which components they have carried on appropriately and which they will need to improve. Reinforcement consists in doing or saying something pleasant or nice to the participants after the correct performance of the behavior being taught.	X	X
<i>Cognitive restructuring</i>	This technique allows the participants to reconsider a problem from another point of view. Cognitive restructuring allows for making dysfunctional cognitive schemes more flexible (for instance, "I always fail when I want to meet someone" or "I am shy and that will never change").	X	
<i>Behavioral Modeling and Behavioral Rehearsal</i>	Procedure by which desired behavioral answers are practiced under the coach's supervision. Previously modeled behaviors are practiced or rehearsed using role-playing or dramatization, until the necessary and right skills to properly cope with problematic social situations are achieved.	X	
<i>Experiences</i>	Consists in the representation of structured situations in similar or symbolic contexts. This technique makes the emotional, cognitive and behavioral activation easier within a motivational context, providing the training with a flexible and supportive character for the participants to be able to improve their interpersonal competences.	X	
<i>Homework</i>	The group is given brief tasks to be carried on at home, with the purpose of having the participants practice in real-life situations of daily life the behaviors or skills trained in each meeting. Homework allows for the generalization of the behaviors trained, transferring what was learned in the meetings to the outside world.	X	X

analyzing cartoons and symbolic modeling. Table 1 shows some of the techniques used in both experimental groups.

For preparing the program and for the application of experiences, the recommendations provided by Del Prette and Del Prette (2008) were followed. In this way, experiences were chosen from previously set objectives, on the basis of difficulties identified in this population by previous studies carried on by Herrera Lestussi, Freytes, López, and Olaz (2012) and in accordance to the specific difficulties identified in the participants, trying to adequate the complexity level of the experiences to the group members.

Also, both programs were prepared taking into account the growing complexity of each kind of skill in accordance to the classification proposed by Del Prette and Del Prette (2008). The sequence considered is shown in figure 1, although it is important to highlight that it was flexible and was progressively adapted to the group needs.

As a pre-test measure, the SSES-U was applied during the same week to the three groups, before beginning the training program. By the end of the program, the scale was applied again, in the same week, to the different groups. In all cases, the participants' consent was obtained, who were informed on the purposes of the research, except in the

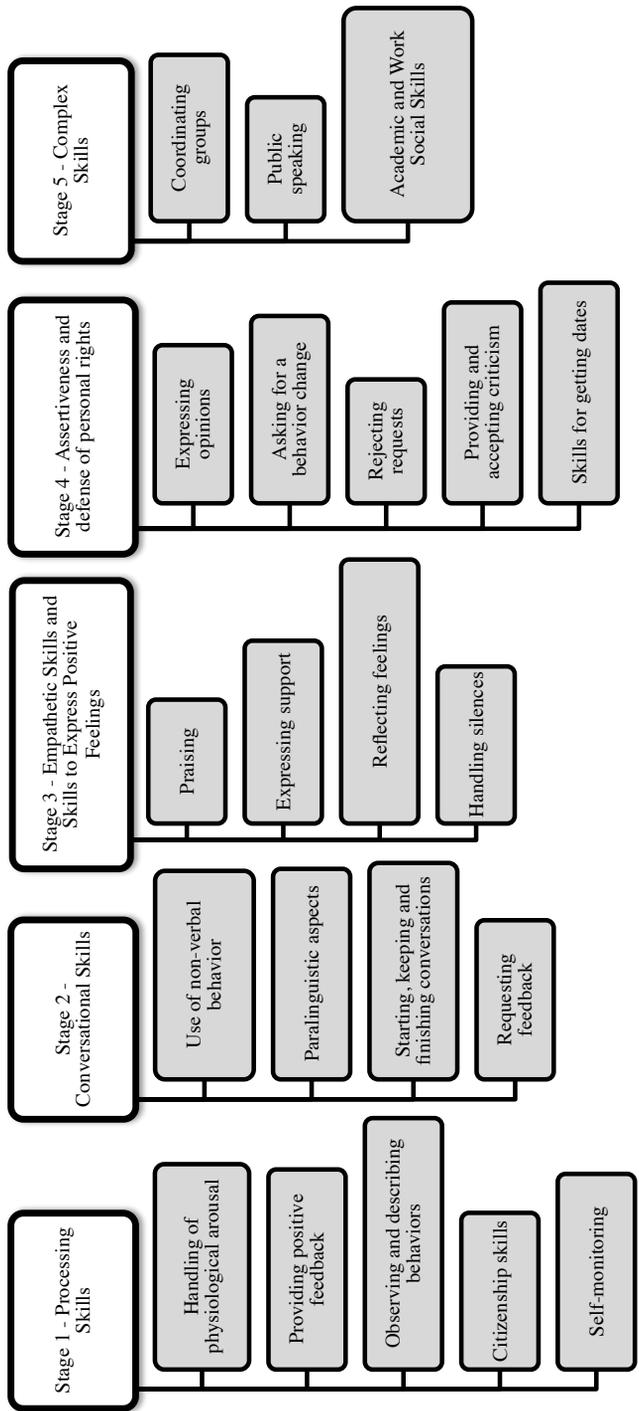


Figure 1. SST programs sequence.

case of the control group without contact, whose members were only informed that they made part of a research on social self-efficacy. In relation to the experimental groups, the participants were not informed on the research hypothesis.

In relation to the data analysis, first an initial exploratory analysis of the database was carried out with the purpose of examining the database quality, the amount and pattern of missing values, the existence of univariate and multivariate atypical cases, and the required assumptions for the selected statistical test. For the analysis of intergroup differences, an ANCOVA (Covariance Analysis) was used, with the purpose of controlling the effect of the age and pre-test variables in the post-tests scores for each scale. The control of the pre-test effect is key to a self-efficacy scale, since the self-efficacy evaluation could operate as an intervention itself, by providing specific information to the person on how capable he/she considers himself/herself in certain behavioral fields.

Although the amount of variables make it recommendable to use MANCOVA, the sample size did not allow it (Hair, Anderson, Tatham, & Black, 1999). In the case of ANCOVA, on the other hand, if the groups are relatively equal in size and there are no atypical cases observed, it is assumed that the test is strong enough after the 20 degrees of freedom (df) for error variance. In this study, the error df's were higher than this value ($N-k-c=23$), due to which, this procedure was chosen.

For the intra-group analysis, the t-test for difference between means was used for related groups, using Bonferroni-Holm correction, which is recommended for being less conservative and stronger than the Bonferroni adjust (Aickin & Gensler, 1996). Also Cohens' *d* typified difference between means was calculated as a measure of the size effect, using the pre-test standard deviation as ratio denominator. All the statistical analysis were carried on using the PASW Statistics 18 package.

RESULTS

No missing or atypical cases (univariate and multivariate) were detected for each of the variables, measured in pre- and post-test (Tabachnick & Fidell, 2001). To prove the sample normality assumptions, asymmetry and kurtosis analysis were carried on for each preliminary item, as well as a graphic inspection of the score distribution (normal curve histograms). In all cases, a similar-to-normal distribution was observed.

For ANCOVA, the scores obtained by each group in post-test evaluation were taken as the dependent variable, using the pre-test measures and age as co-variables. Prior to the analysis, it was verified that the basic conditions for ANCOVA were met. In the first place, the Levene test was carried on with the purpose to determine that the homoscedasticity condition was met. The results showed that the variance homogeneity condition was met for all variables (*p* values lower than .05).

In second place, the homogeneity condition was evaluated in the regression for each co-variable. According to this condition, within each level of the independent variable, there is a regression relation between the covariate and the dependent variable that, if the condition is met, must be independent between them, in such a way as that their slopes are homogeneous (Camacho Rosales, 2000). If the condition is not met, the

ANCOVA results may be affected since, in order to adjust the dependent variable to the covariates, the average of each group's slopes is used. The results revealed that the condition was not met for the Conversational Self-Efficacy variable. Therefore, in this scale, the ANCOVA was carried out using a customized model with separate estimations for each regression slope.

When carrying out the ANCOVA, significant differences were observed in the scales Self-Efficacy for Getting Dates and Assertive Acceptance Self-Efficacy. The effect sizes point out that 43% of factor 1 post-test variance and 30% of factor 4 is ascribable to the effects of the intervention. The results are shown on Table 2.

Table 2. Differences observed in the SSES post-test scores between the three experimental conditions (one-way ANCOVA), taking age and pre-test as covariates.

Factor	df	<i>F</i>	partial η^2
1. Self-efficacy for Getting Dates	2	8.638**	.43
2. Conversational Self-Efficacy	2	1.746	.19
3. Academic Social Self-Efficacy	2	.762	.06
4. Assertive Opposition Self-Efficacy	2	5.011*	.30
5. Assertive Acceptance Self-Efficacy	2	1.285	.10

Notes: * $p \leq .05$; ** $p \leq .01$.

As it can be observed on the table, the ANCOVA results in the scale where the condition of equal slopes was not met (Conversational Self-Efficacy), did not show significant differences. However, the post hoc contrast results (Fisher DMS) in this scale showed significant differences both in the experience-based group as in the instructional group, in relation to the control group. It is important to add that, in this scale, the power observed was low, which could explain non-significant results for ANCOVA. Considering that for all other scales where no significant differences were observed (Academic Social Self-Efficacy and Assertive Acceptance Self-Efficacy), the power was also low, it would be recommendable to replicate this study with a higher amount of cases.

In the Self-Efficacy for Getting Dates scale, post-hoc comparisons (Fisher DMS) revealed that the participants from the experienced-based experimental group got significantly higher scores in the post-test, in relation to the instructional group and to the control group without contact, and that the instructional group showed significantly higher scores in this scale in relation to the control group. Finally, it was observed that the experienced-based group showed higher scores in Assertive Opposition Self-Efficacy in relation to the control group without contact.

In the intra-group evaluations, no differences were observed in the pre-test and post-test measurements in none of the SSES-U sub-scales in the control group. Also, the group trained in instructional modality showed significant changes, but the statistical significance of these changes disappeared when applying the Bonferroni-Holm correction. On the contrary, significant differences were observed in the experienced-based group. The

Table 3. Differences observed in SSES scores in pre- and post-test measurements for experimental condition #1 (experienced-based group).

Factor	Experimental Group #1				df	t	d
	T1		T2				
	M	SD	M	SD			
1	101.4	20.98	117.10	19.25	9	-4.77*	.75
2	94.70	15.49	104	17.80	9	-2.03	.60
3	36.10	9.50	43.40	7.26	9	-3.20*	.77
4	43	10.26	50.50	8.11	9	-3.39*	.73
5	51.30	14.13	58.50	8.74	9	-1.93*	.51

Notes: $n=10$; *corrected $p \leq .05$ with Bonferroni-Holm correction, (unilateral significance); 1- Self-Efficacy for Getting Dates; 2- Conversational Self-Efficacy; 3- Academic Social Self-Efficacy; 4- Assertive Opposition Self-Efficacy; 5- Assertive Acceptance Self-Efficacy; M= Mean; SD= Standard Deviation; $t= t$ value; $d=$ Cohen's d .

Table 4. Differences observed in SSES scores in pre- and post-test measurements for experimental condition #2 (instructional group)

Factor	Experimental Group #2				df	t	d
	T1		T2				
	M	SD	M	SD			
1	101	36.86	105.60	38.03	9	-.91	.12
2	100.60	15.79	104.90	22.97	9	-1.23	.27
3	43.30	5.75	47.30	4.99	9	-2.65	.70
4	46.30	5.81	49.50	4.57	9	-2.22	.55
5	54.70	9.46	59.30	7.79	9	-2.26	.49

Notes: $n=10$; *corrected $p \leq .05$ with Bonferroni-Holm correction, (unilateral significance); 1- Self-Efficacy for Getting Dates; 2- Conversational Self-Efficacy; 3- Academic Social Self-Efficacy; 4- Assertive Opposition Self-Efficacy; 5- Assertive Acceptance Self-Efficacy; M= Mean; SD= Standard Deviation; $t= t$ value; $d=$ Cohen's d .

results of the contrasts between the pre-test and post-test means for each experimental group are presented below (Tables 3 and 4).

As it can be observed, the group trained in the experienced-based modality showed significant differences in all dimensions evaluated by the SSES-U. Effect sizes were high in all cases, except in the Assertive Acceptance Self-Efficacy scale, where a medium effect size was observed. Also, higher effect size are observed in experience-based modality, which evidences this modality's higher efficacy.

T -tests were carried out in order to evaluate possible differences between pre-test and post-test variance for each group in each SSES-U sub-scale. No significant differences were observed in the experienced-based group, which would indicate that most of the participants experienced similar changes. On the other hand, significant differences were observed in the instructional group in the Conversational Self-Efficacy and in the control group in the Assertive Acceptance scale ($p \leq .05$). This can be seen in Figure 2, which shows dispersion diagrams for pre-test and post-test measurements for each SSES sub-scale, for each group. Cases above the regression line experienced post-test changes, those on the line are the participants who did not experienced changes; while those below the line are those cases that experienced post-test negative changes. The spots more distant from the line are those in which the post-test change was more important.

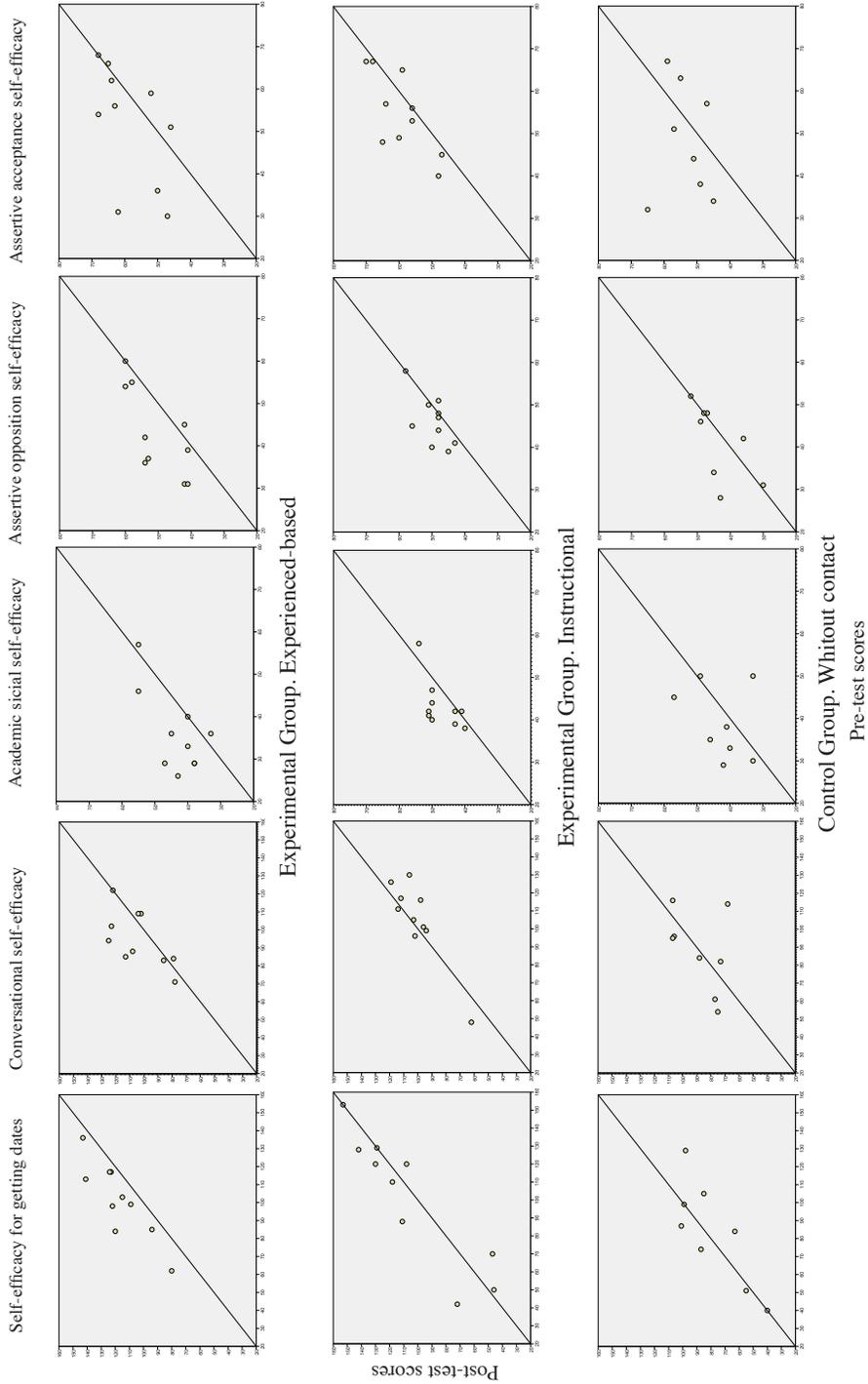


Figura 2. Dispersion diagrams that represent the changes between pre-test and post-test scores in each SSES sub-scale for each group.

DISCUSSION

Research on efficacy and effectiveness of interventions directed to promote psychological changes has been a central subject in the last years (Hamilton & Dobson, 2001) and has given place to many publications and discussions at an international level. In the United States, continuous research on the most efficient treatments for each disorder from APA (American Psychological Association) Division 12 (Society of Clinical Psychology) and the workshops organized by this association (APA Presidential Task force on Evidence-Based Practice, 2006) has reflected the interest on establishing consensual criteria and basic guidelines for determining the usefulness of psychological treatments.

The efficacy of an intervention implies that it counts with empirical evidence supporting its pretended ability to promote changes in the patient and is directly related to the experimental control used, in a way such as to be able to determine that the observed effect depends on the treatment and not on other factors.

This work had the purpose to evaluate the efficacy of two training modalities, one instructional and the other based on experiences, on social self-efficacy beliefs, which are a key precedent for behavioral change and the main promoter of a competent social behavior. From the SCT, SST can be thought of as an integral set of techniques oriented towards both the modification of dysfunctional self-beliefs, emotions and thinking habits, as well as to the acquisition of cognitive abilities (personal factors), improvement and acquisition of behavioral competences (behavior) and the modification of those factors from the environment that may be an obstacle for the person's functional behavior (environmental factors). In this sense, the different techniques that make part of the SST will have the purpose to strengthen the social self-efficacy beliefs that will work as factors of promotion for a better social competence.

As it was previously pointed out, the SCT makes a difference between acquiring knowledge and the observable performance based on that knowledge. The research on self-efficacy sources has shown that control experiences are important factors for the development of a strong sense of personal efficacy. For these reasons, it is considered that experienced-based modalities provide the participants with achievement experiences based on actually carrying out social behaviors, which will result in the strengthening of social self-efficacy beliefs.

Although there is a certain consensus in specialized literature regarding the different techniques used in an SST, their separate use sometimes causes a training session to turn into a mechanical methodology, lacking of ecological properties. Also, many times, training in specific situations makes it difficult to generalize to other contexts, due to the environmental specificity of the trained skills. This is why experiences are a useful resource in training programs, since they allow for SS training within the framework of a recreational and supportive context, for the participants to cope with their interpersonal deficits. From a social-cognitive point of view, experiences are an excellent resource, since they allow for dealing with personal, behavioral and environmental factors in the same activity, making it easier to modify the client's behavior, coping with his/her problems in their whole complexity.

The results obtained are consistent with the hypothesis stated at the beginning of the work. In fact, significant intra-group changes were observed in all the dimensions analyzed by the SSES-U (with the exception of the conversational self-efficacy dimension), as well as significant differences in the Getting-Dates and Assertive Opposition dimensions in regard to the instructional modality and the control group without contact. Also, and as it had been stated in the hypothesis, no significant changes are observed within the control group without contact. Although no significant changes are observed in the instructional control group, it must be pointed out that high effect size measures were observed (particularly in the Academic Social Self-Efficacy), probably the amount of cases affected the statistical power of the test. As a whole, the results obtained show the higher efficacy of experience-based training modality in strengthening the social self-efficacy beliefs in university students.

The higher efficacy of experienced-based modalities in training programs may be theoretically ascribed to the fact that performance achievements are the most important self-efficacy information source, since they are based on actual control experiences (Bandura, 1987). As a matter of fact, the experience-based training modality was mainly based on behavioral implementation techniques, while the instructional modality was solely focused on verbal information sources.

Additional evidence is necessary in order to demonstrate that change in social efficacy beliefs implies the expected behavioral change. When people are not sure about the specific nature of a task, their self-efficacy judgments may be affected, since underestimation of the task's demands may lead to excessive self-assurance, while overestimation of the demands may lead to the individual perceiving himself/herself less competent than what he/ she actually is.

In order to appropriately regulate efforts, the person must have clear performance goals and a certain idea of what the task demands. When the desired performance level is clear, self-efficacy acts as an important regulator and as a deciding factor for performance. Nevertheless, in new social situations, there is many times a certain ambiguity in the expected performance level, due to which self-efficacy may not be a good performance predictor (Pajares & Olaz, 2008). This is why it is necessary to develop new researches tending to assess in which measure the changes observed in social self-efficacy lead to behavioral changes, as well as keeping and generalizing these changes in front of new interpersonal demands. In this way, more information can be provided regarding the efficacy and efficiency of this kind of interventions for promoting cognitive and behavioral change in this population, contributing in this way to evidence-based clinical practice.

At this point, the existence of methodological limits must be pointed out, which must be considered when interpreting the results obtained. In the first place, the small amount of participants must be taken into account, a factor not only contrary to generalizing the results but that also affects the statistical power of the tests used. In this sense, it would be recommendable to replicate this study with a higher amount of cases. Nevertheless, the difficulty to carry out SST with a high amount of participants must be taken into account.

Other aspects to be considered are the possibility of spreading the treatment and possible effects due to its novelty. As it was previously mentioned, the participants were university students of the same career, due to which, it may be assumed that students from different training modalities interacted between them outside the sessions. This may have caused the techniques and information provided (in the experienced-based condition, for instance) to be accidentally spread also to other conditions (instructional and control, for instance). This may cause different training conditions to become more similar, lowering differences between groups. Also, it must be considered that SST are an original approach in our context, due to which it may be possible that part of the effects observed may be ascribed to the novelty of the interventions (Kazdin, 2001). Taking this into account, it would be recommendable to replicate the study with the purpose of determining changes in the effects of interventions after that the population being studied has become more familiar with the existence of these trainings.

It must also be highlighted that the structuring of sessions may have affected the SST efficacy. It must be considered that the sequence and use of the techniques were applied in an orderly and standardized fashion, with the purpose of controlling possible factors that may affect the comparison between groups, and therefore the internal validity of the study. However, it must be considered that this fact can have an impact on the efficacy of the intervention. In this sense, some authors highlight the existence of a difference between efficacy studies and usual clinical practice. It is particularly observed sometimes that methodological strategies used in efficacy studies threaten the validity of the study and the treatment's effectiveness or clinical usefulness (Echeburúa & del Corral, 2001; Medrano, 2009). As a matter of fact, in recent years, the usefulness of the concept of efficacy has begun to be discussed, due to the excessive emphasis in the internal validity of the study, leaving aside effectiveness, and due to the ambiguity implied within the concept of "good methodological quality".

In this way, controlled researches within artificial contexts that evaluate efficacy show problems with external validity, since they omit many of the typical elements in actual clinical practice. For instance, 1) they use pre-fixed duration treatments; 2) interventions are applied in a standard manner, without adapting them to the patients' characteristics or without correcting them according to the evolution of the case; 3) patients are selected in order to get samples with "pure" disorders or with the lower possible comorbidity; 4) clients are assigned randomly to groups, and they cannot decide upon the intervention they will follow or the therapist they will work with; 5) studies are often centered more in reducing symptoms than in improving general functioning; 6) therapists have a strong motivation and, in many cases, little professional experience.

Taking these factors into consideration, as well as other factors pointed out by Bados López, García Grau, & Fusté Escolano (2002), it is considered that the treatments used in efficacy studies are hardly similar to those applied "in real life". In this sense, treatments as applied in clinical contexts are not under the rigorous control typical of experimental research. However, clinical research allows for studying large samples of patients, using several evaluation moments (pre, during, post, follow-ups) and different measurements (interviews, questionnaires, therapist judgments, third-party reports). For all these reasons, it is important to carry out studies both in controlled artificial conditions

and in actual clinical practice, with the purpose of overcoming the current situation of little communication between controlled research and clinical practice (Bados López, García Grau, & Fusté Escolano, 2002), complementing the concept of efficacy with the one of effectiveness or clinical usefulness.

An alternative to the use of methodological designs based on experimental control is the use of strategies based on statistical control. There are statistical methods such as regression, co-variance analysis or structural equations that allow for analyzing, at a probabilistic level, in which measure the effects observed are due to the treatment or to other variables (Batista Foguet & Coendes Gallart, 2000). Although these resources are not a sufficient condition for establishing a causal relation, they allow for compensating, at least partially, the limits that may arise in clinical research, maximizing the effectiveness of interventions.

The concept of clinical effectiveness or usefulness of interventions implies three aspects: a) generalization of the results of studies carried out in artificial conditions to actual clinical contexts, which implies verifying that the results obtained with “experimental” subjects and therapists, and with work methods used in artificial concepts can be replicated in actual clinical practice; b) feasibility of the intervention: acceptability by clients (cost, discomfort, duration, secondary effects, etc.), achievement likelihood, how easily it spreads among professionals; c) efficiency: cost/benefit relation for the client and society. That a treatment is efficacious does not necessarily mean that it is also effective or clinically useful, i.e., feasible, generalizable to actual clinical contexts and with a good cost/benefit relation (efficiency).

Evidence-Based Psychological Practice (EBPP) must integrate the evidence obtained from research (by means of different types of methods that include qualitative research) along with expert clinical judgment and the consideration of the patient’s values and characteristics with the purpose of choosing the most useful treatment. In this sense, this evidence must combine both being “clinically relevant” and “internally valid” at the same time.

Although additional studies are required tending to overcome some of the methodological limits in this study, in general terms, the results obtained suggest that experience-based training is an efficacious technique for strengthening social self-efficacy beliefs. Nevertheless, it would be beneficial to integrate the obtained results with the judgment of clinical psychologists experts in the SST field.

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