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## ABSTRACT

This paper focuses on the use of emotional memory skills to reduce communication apprehension, pioneered as a new cognitive intervention treatment called "The Imaging System for Public Speaking" (Keaten et al, 1994). The paper briefly explains other cognitive intervention strategies commonly used, including rational-emotive therapy, visualization, alternative or performance visualization, and cognitive restructuring, noting that the new technique uses methodology similar to the latter, which offers speakers a tangible skill to use while performing their speeches. The paper states that this new emotional memory technique incorporates the use of individuals' significant memories to enhance their speeches and redirects speakers away from irrational thoughts by focusing on appropriate mental images. The paper outlines the components of a 2-day workshop in which the technique was taught at the University of Northern Colorado in 1994, including the three phases: the image preparation process; the image recall procedure; and the speech application process. The paper discusses a small scale qualitative investigation undertaken by offering the workshop to undergraduate students, and gives the results in three case studies. The paper concludes that the technique appeared to reduce communication apprehension and improve delivery of public speeches and suggests that further quantitative testing is necessary to verify the effectiveness of the technique. (Contains 24 references.) (CR)

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The Effects of Emotional Memory Skills  
on Public Speaking Anxiety: A First Look  
*Paper presented at 1994 National SCA Convention*

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## Abstract

The use of emotional memory skills to reduce communication apprehension has been pioneered as a new cognitive intervention treatment. Previous intervention techniques have not combined cognitive re-direction and applicable delivery skills in one combined treatment method. A qualitative research endeavor investigates the varied reasons for communication apprehension and the existing treatment methods; additionally, an innovative technique is proposed that can potentially reduce communication apprehension and improve delivery of public speeches. After a brief review of the pertinent literature, an explanation of the new technique *The Imaging System for Public Speaking* is summarized. A qualitative investigation of students enrolled in a basic public speaking course reveals some possibilities for the use of this new cognitive intervention device. Promising results of the qualitative research infer the potential usefulness of the technique. Additional quantitative testing is necessary to verify the effectiveness of the technique; suggestions for future research are offered.

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Many individuals suffer from communication apprehension in the public speaking arena. Abundant research presents a strong case that this communication difficulty affects a large population (Richmond & McCroskey, 1992). This problem necessitates a variety of techniques to deal with the affliction of communication apprehension. Ayres and Hopf's text, Coping with Speech Anxiety, is a culmination of pertinent research associated with treatment models designed to reduce the fear of public speaking (1993). Three major perspectives on the origination and remedies for speech anxiety are prevalent in the body of literature dealing with communication apprehension. These speech anxiety explanations include the affective domain, the behavioral domain, and the cognitive domain (Ayres & Hopf, 1993).

The affective perspective of communication difficulties emphasizes conditioned anxiety and the physiological manifestations that compound a nervous speaker's presentation. Affective techniques attempt to

reduce the physical symptoms of fear such as increased heart rate, dryness of mouth, increased perspiration, shaking, and other delivery impairing ailments.

Affective techniques include Systematic Desensitization (Friedrich & Goss, 1984), and Flooding (Chaplin & Levine, 1981).

The behavioral perspective of communication avoidance explains anxiety as a result of skill deficits found with inexperienced public speakers. The techniques of the behavioral domain assist individuals in developing the adequate tools necessary to become competent speakers. These performance based techniques include Rhetoritherapy (Phillips & Metzger, 1973; Phillips, 1977; Kelly, Phillips, & Keaten, 1995), and Skills Training (Fremouw & Zitter, 1978; Fawcett & Miller, 1975).

The cognitive perspective of communication apprehension focuses on irrational thoughts or fears experienced by public speakers which impair performance. Communication apprehension literature identifies four major cognitive intervention treatments: Rational-Emotive Therapy, Cognitive Restructuring, Visualization, and Alternative Visualization (Ayres & Hopf, 1993). As the new technique described in this paper is cognitive

in nature, a brief review of existing cognitive strategies is helpful to understand the paradigm in which the new technique operates. The review will also illuminate the differences of the Emotional Memory technique from the previously mentioned cognitive approaches.

Rational-Emotive Therapy intervention strategies are designed to alter and replace a public speaker's irrational thoughts. Irrational beliefs are replaced with logical beliefs so that a speaker is less fearful. If speakers concentrate on irrational beliefs while attempting to deliver a public address, they will be cognitively distracted and unable to focus on a solid delivery. Researchers have documented the effectiveness of treating individuals with the Rational-Emotive Therapy technique by observing the associated reduction of communication apprehension (Trexler & Karst, 1972; Watson & Dodd, 1984).

Cognitive Restructuring, also a cognitive technique, is similar to Rational-Emotive Therapy; however, rather than redesigning irrational thoughts, Cognitive Restructuring offers speakers coping statements. Coping statements are designed to allow the speaker to concentrate on positive thoughts; by using

coping statements, a speaker's irrational fears may be replaced or repressed. Coping statements are actively brought to the speaker's mind while delivering a speech. Cognitive Restructuring exemplifies the notion that a speaker can be directed away from his or her communication apprehension with active concentration, a concept that is pivotal to the new technique later explained in this document. Research shows that Cognitive Restructuring has proven to be effective in combating communication apprehension, and little time is needed for implementing this intervention strategy (Meichenbaum, Gilmore & Fedoravicius, 1971; Fremouw & Zitter, 1978).

Visualization and Alternative Visualization train speakers to see themselves successfully performing a speech prior to the actual delivery. Visualization is a cognitive intervention technique that teaches speakers to imagine their own immaculate presentations. Similar to athletes picturing themselves performing at a physical peak just before competition, Visualization mentally prepares a speaker prior to the delivery of a speech. This cognitive strategy has been shown to be effective in reducing the anxiety of speakers (Ayres & Hopf, 1985, 1987, 1989, 1990a, 1990b). Alternative

Visualization (or Performance Visualization) differs from Visualization in that speakers are instructed to visualize themselves using specific delivery skills as emulated by exceptional public speakers (rather than only visualizing a positive speaking performance). Speakers picture themselves mimicking these exceptional delivery components prior to the actual delivery. This intervention technique has been shown to be effective in the reduction of communication anxiety (Ayres & Hopf, 1991).

All four cognitive intervention strategies are based on the concept that negative thoughts or negative mental images of oneself can have a detrimental effect on public speaking performance. It is important to note, however, that only one of these four interventions offers speakers the option of countering their fear *during* the performance of their speech. The coping statements associated with Cognitive Restructuring are designed to occupy the speakers' thoughts and to direct them away from anxious thoughts while presenting. The new technique detailed in this paper uses a similar methodology of offering speakers a tangible skill to use *while performing* their speeches.



It is widely known in the psychological field that performance of tasks suffer when coupled with high levels of anxiety (Leon & Revelle, 1985). While the relationship between stress and performance is usually described as curvilinear (Hebb, 1955), all four of the cognitive interventions attempt to deal with anxiety levels that are high enough to impair performance.

Cognitive intervention strategies generally minimize the time that a speaker has to dwell on negative thoughts due to the replacement of these thoughts (as with Cognitive Restructuring and Rational-Emotive Therapy) or by positive visualization. There is a complex relationship existing between mental processing speed, speech rate, and memory, which dictates the amount of time speakers will actually have to focus their thoughts (positive or negative, rational or irrational) while delivering a speech (Kail, 1992). Each of the four cognitive intervention strategies are a complex form of either re-direction or replacement; they do not allow a speaker the time or the option to dwell on anxious thoughts which can devastate the speech performance. By actively concentrating on thoughts that are not negative, speakers can reduce their public speaking anxiety.

Barring Performance Visualization, the existing cognitive intervention techniques do not offer speakers tangible skills which will improve their delivery (like those associated with behavioral interventions); rather, they predominately focus on the reduction of communication apprehension by occupying the mind of the speaker with positive thoughts. This is a possible weakness (the lack of delivery enhancing skills *while performing*) associated with existing cognitive intervention strategies.

While Performance Visualization does effectively offer a delivery skill (modeling the performance of exceptional speakers), the intervention is completed prior to the actual delivery of the speech (Ayres & Hopf, 1991). Unlike Cognitive Restructuring, Performance Visualization is not designed to function by active concentration during the presentation of a speech. No existing cognitive technique offers afflicted speakers a tangible delivery skill which functions by a process of active concentration during their speeches.

This presumed deficit has led to the creation of a new cognitive intervention strategy which is addressed by this paper. It is logical to assume that if a new

technique can both diminish speech anxiety and offer a delivery improving skill that operates while performing a speech, it would be a valuable addition to the existing cognitive intervention treatments.

The use of emotional memory as the basis of a new cognitive technique appears to be sound as both a possible means of apprehension reduction, and a delivery boosting skill. Like other cognitive treatments, if an emotional memory technique was designed to focus speakers on specific, meaningful memories during a speech, it would direct the speaker's attention away from or replace negative thoughts. Additionally, psychologists have noted many ways in which the mental review of positive memories can have a soothing effect on anxious subjects (Hanley & Chinn, 1989). It seems likely that a well designed emotional memory device could be effective in reducing public speaking anxiety.

The use of emotional memory can also be defended as having a possible delivery enhancing skill. Speeches that are delivered extemporaneously in informal settings (telling a story to a friend, reflecting with family members on holidays, telling a funny joke to a co-worker) tend to be very animated and energetic. It is likely that these presentations are more dynamic (than

typical public speaking class speeches) due to the speakers' reliving of emotional memories while they speak. These emotional memories are often absent in basic public speeches. Nervous speakers who read from their notes, speak softly, provide minimal eye contact, speak monotone, or rush hurriedly through their speeches are uninviting to listen to or watch; emotional presentations where the speaker is obviously enthused or emotionally touched by the topic of their presentation tend to come across as more effective and sincere (Verderber, 1994)

The concept for new a cognitive technique that not only reduces negative thoughts, but also enhances delivery, originated from the Speech/Communication Department of the University of Northern Colorado. This new emotional memory device, *The Imaging System for Public Speaking*, incorporates the use of individuals' significant memories to enhance their speeches; the technique also re-directs speakers away from irrational thoughts by focusing on appropriate mental images, functioning in a way that is similar to Cognitive Restructuring (Keaten, Holtz & Reynolds, 1994). The following is a description of the workshop that was designed to teach speakers the new cognitive technique,

*The Imaging System for Public Speaking Workshop.* A brief history of the device precedes the content of the workshop.

*The Imaging System for Public Speaking Workshop* is the final revised artifact created by Dr. James Keaten and several University of Northern Colorado graduate teaching assistants (Keaten, Holtz & Reynolds, 1994). The technique was put through several revisions and was pilot tested on roughly twenty graduate students who were enrolled in a communication apprehension course offered during the U.N.C. 1994 summer session. The final device is divided into two workshop sessions (roughly one hour each) of training and application on the use of emotional memories. The device was created to reduce speech anxiety to manageable levels and to improve a speaker's delivery by focusing thoughts on specific, meaningful memories, not on anxious or irrational thoughts.

To understand the two day workshop it, is best to break down each component step. In the first day of the two hour workshop, three phases are included; these phases give the subjects direction and provide the basic tools for the effective use of the technique. These three phases include *The Image Preparation Process*, *The*

*Image Recall Procedure, and The Speech Application Process.*

*The Image Preparation Process* is the first phase of the workshop. This phase allows and encourages participants to select a moment from their past that captures an emotion that they wish to project to an audience. To complete *The Image Preparation Process*, individuals taking the workshop must learn and practice three steps.

The first step, *Image Selection*, encourages the subjects to pick an important memory from their own life that holds deep emotion for them. Individuals taking the workshop are informed that they will never need to reveal their specific memories, but they are asked to remember their memories as vividly as possible.

This leads them to step two of *The Image Preparation Process, Image Reliving*. Subjects are requested to relive the entire memory over in their head several times. Participants are asked to metaphorically view their minds as VCRs rewinding to a special moment, and then relive that entire moment, allowing individuals to establish the memories' deeper details. After this reliving, they are asked to remember and to capture the feeling or emotion that remained with them after the

reliving. This emotion represents a possible image they might use and recall during a speech. Recalling an entire vivid memory while performing a speech would be near to impossible; the next step of the process solves this dilemma.

The final step of *The Image Preparation Process*, has the subjects capture an *Image Snapshot* that condenses and envelopes the emotional memory that they wish to portray to their audience. This snapshot is more easily recalled than an entire vivid memory. For the snapshot to be effective, individuals at the workshop must continue on to the second phase of the workshop.

The second phase of the workshop, *Image Recall Procedure*, focuses mainly on achieving a high level of retention of the *Image Snapshots*. By re-directing the subjects, and then having them focus back to the snapshot, speakers are prepared to be able to easily concentrate on snapshots while speaking. This phase consists of two steps, *Initial Recollection* and *Repetitive Recollection*.

In the first step, *Initial Recollection*, subjects are given a worksheet that consists of five reflective statements. These reflective statements make the

subject critically think about the surroundings and emotions of the *Image Snapshot*. The statements rely on the participant's memory to develop thoughts such as what people were present, what senses were involved, as well as the emotion that is felt by the participant. By being very specific on the worksheet, individuals are able to decide if their snapshot is vivid enough for the purposes of the workshop, or if they need to select a new image to work with during the remainder of the workshop. Once they determine the vividness of their images, step two is introduced into the workshop.

Step two, *Repetitive Recollection*, clears the subjects' minds and then has them focus on the image snapshots generated earlier. This step closely parallels aspects of Systematic Desensitization and Visualization as participants are encouraged to clear their minds through simple relaxation techniques. The significant portion of this step is to direct the participants away from their images so that they can practice the recall method when instructed to do so by the facilitator. By repeating the step several times during the workshop, the participants' images should come to mind almost instantly or within a few seconds. The vividness of the snapshots allows this step to



become almost second nature for participants and lets the image float easily and quickly into the mind instead of forcing memories.

The final phase of the workshop, *The Speech Application Process*, involves the snapshot (now fully developed, and easily recalled) to be placed into the actual development and delivery of a speech. This phase consists of three major steps: *Multiple Image Selection*, *Speech and Image Combined Practice* and *Speech Performance*.

The first step, *Multiple Image Selection*, instructs participants to think of an emotional memory for each main point of their speech. A different image is needed for each main point of a speech. In addition, the participants are instructed to select an image for their introduction and their conclusion.

After this selection, the second phase, *Speech and Image Combined Practice*, has the speakers recall each image during the practice of their speech. By recalling each selected and practiced image in conjunction with each main point, the speakers' emotion parallels or compliments the topic of each main point of the speech. To assist the speakers in their preparation of performing the speech, they are given several reflective

worksheets to develop each image used. The workshop participants are told to practice their speech and practice recalling their memory at least five times out loud. The participants are specifically instructed to recall the image snapshot, give enough time to emotionally react to that image, and then to deliver each main point accordingly. By projecting images to create a speaker's reaction, a well rehearsed and motivated speech should result.

The final step of this phase, *Speech Performance*, is the actual delivery of the practiced speech to the appropriate audience. The subjects are asked to remember the images they have practiced once they are in front of an audience. They are instructed to stop and recall the topical image (which by now should take virtually no time at all) at any point in their speech if they become anxious or lost in thought. The workshop concludes by leaving students with a small speech assignment to use the technique in the next portion of the workshop which is scheduled several days later.

On the final day of the workshop, participants return to deliver a brief presentation on an image that they have selected. This part of the workshop breaks down into two major components, *Relaxation* and *Delivery*.

When the participants return to the workshop, a short relaxation period helps the subjects ease their mind before delivery. The final portion of the workshop gives the participants a chance to see that the images they design can truly work during their speech. The delivered speeches consists of only one main point (no introduction or conclusion) and only one image. Each brief speech is roughly 30 seconds in length. Despite this abbreviated performance, the technique can be effectively used so that the participants see how the images are successful in reducing anxiety and enhancing delivery. The speech presentations and a few summarizing remarks conclude the workshop.

The possible use of this technique leads to two important research questions. RQ1: Does the use of the *ISPS* technique result in a reduction of communication apprehension? RQ2: Does the use of the *ISPS* technique improve speech delivery skills? A small scale qualitative investigation of both research questions was completed to test of the general effectiveness of this workshop and to see if the technique merits further study.

The subjects selected for the small scale qualitative investigation came from a pool of roughly

four hundred undergraduates students enrolled in a basic public speaking course at the University of Northern Colorado.

The *ISPS WORKSHOP* was offered, without charge, to any students wishing to reduce feelings of communication apprehension. The workshops were offered on two separate occasions (at early evening times) before students were required to deliver a significant speech in their basic public speaking course.

Of the students attending, three subjects representing different levels of communication apprehension (as measured by the McCroskey's PRCA) were selected for additional interview procedures. Each of these participants were asked the same questions (a mixture of open ended and close ended qualitative questions) from an interview guide designed to spot the effectiveness of the technique in reducing fear of public speaking and improving public speech delivery. The three case studies selected included an individual with extremely high communication apprehension, one individual with moderate communication apprehension, and one individual with minimal communication apprehension. Following are the abbreviated qualitative results of the

individual case studies. A brief synopsis of the three case studies is also included.

Case study #1: The first participant suffered from severe speech anxiety (a pre-workshop PRCA score of 108,  $z = 3.2$ ). The individual openly admitted to highly disliking public speaking. The participant felt that the workshop was extremely informative and offered viable solutions to presentational difficulties. The subject noted that a combined one day workshop, or a condensed version of the technique, might have helped the assimilation of the workshop data. The individual used a somewhat abbreviated version of the prescribed technique (omitting some of the paper work), but despite the incomplete usage of the technique, a reduction of fear and an improvement of delivery was expressed. The participant's post workshop PRCA score, while still high, had dropped to 85 (a reduction of 1.53 standard deviations).

Case study #2: The second subject suffered from a moderate degree of speech anxiety (a pre-workshop PRCA score of 74,  $z = .93$ ). This individual had some minimal speech performance experience at the high school level, but still expressed a fair amount of concern regarding presentations at the collegiate level. This subject

felt very strongly that a condensed version of the workshop would have been preferred. The participant felt that using aspects of the technique were very applicable to public speaking, but the tedium of paperwork was distracting for the subject, resulting in incomplete usage of the technique. The subject felt that the used aspects of the technique helped greatly in delivery (prevention of losing place in a speech). The student expressed the prospect of giving another speech with greater confidence after attending the workshop. The participant's post workshop PRCA score dropped to 58 (a reduction of 1.06 standard deviations).

Case study #3: The third subject experienced virtually no speech anxiety (a pre-workshop PRCA score of 54,  $z = -.667$ ). This student had a fair degree of previous public speaking experience. The subject did note the minor presence of communication apprehension due to the factor of graded evaluation. The individual mentioned several cognitive distracters ("Am I meeting the criteria?" and "How am I being evaluated?") which affected the level of confidence while speaking. The subject described the information covered in the workshop as valuable, but too extensive. The participant varied the usage of the technique by

omitting the demanding practice routines. Despite the incomplete usage of the *ISPS* technique the participant reported the greatest level of satisfaction with delivery in speeches when using the emotional memory images. Though delivery seemed improved, no visible reduction of communication apprehension was evident in this subject (a post workshop PRCA score of 53).

A review of the content of the three case study interviews reveals some interesting common themes. First, it seems obvious that the technique is presented in a lengthy fashion. A revised version of the *ISPS* technique should be considered for future studies. A revised version seems necessary as none of the case study participants used the technique in the fully prescribed manner. The technique appears to be effective in reducing communication apprehension for those individuals who suffer from higher degrees of fear. Though this claim cannot be quantitatively substantiated by this study, the case studies reviews indicate greater success with highly anxious subjects, though this reduction of anxiety may be nothing more than a product of statistical regression.

The technique seems to have positively influenced the delivery of all case study members. Each subject

reported (though in different capacities) ways in which the technique appeared to enhance the way they presented their speeches.

In answering both research questions posed by this paper, the general response seems to be yes, the *ISPS WORKSHOP* appears to reduce communication apprehension and it appears to improve delivery of speeches; to what extent this can be attributed to the intervention is what remains undiscovered.

A final discussion of this research process points to some promising possibilities. The *ISPS* technique appears to reduce communication apprehension and improve delivery of public speeches. If these indicators are true, then this device may be considered valuable enough to add to the list of existing cognitive intervention strategies. It would be premature, however, to assume that a research study of this limited scope could identify the effectiveness of the new intervention technique. As the title of the paper indicates, this paper is merely a "first look" at the possible usefulness of the *ISPS WORKSHOP*. Far too many confounding variables (e.g. performing additional speeches, non-random selection, convenience sample, and



many others) could easily be responsible for the results found in this small scale qualitative effort.

This paper is not an attempt to prove anything, but rather provides a suggestion for a course of action based on positive inferences. To truly test the effectiveness of this new intervention strategy, a large scale quantitative study with proper controls is necessary. The usefulness of this intervention technique needs to be compared to the quantitative benchmarks set by other cognitive intervention research endeavors. If a statistically significant reduction in communication apprehension is associated with this new intervention, its wide spread use would be worthwhile. While the initial indicators of the *ISPS Workshop* seem promising, a more thorough investigation of its effect on apprehension and delivery must be completed if it is to be added to the list of effective cognitive intervention strategies.

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