

Stuttering Therapy – What They Don't Teach in Grad School

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Abstract

People who stutter often point to the ways their stuttering makes them feel as their most significant concern about the disorder. The client's emotional reactions to their stuttering contribute substantially to the overt severity of the disorder and complicate the treatment process. While approaches to treating the overt speech symptoms of stuttering are plentiful, there are few available tools for clinicians to address the emotional aspects of their clients who stutter.

This workshop develops a model of the affective components of stuttering and discusses treatment strategies, offering specific activities to address many of the affective behaviors associated with stuttering. Building a conceptual framework of the effects emotions have on stuttering provides a structure upon which to approach the dynamics these interactions.

By identifying their emotions, patients can begin to understand the significant their role in their stuttering. Learning how the brain reacts when stimulated by negative emotions and how the body is affected is knowledge that can be used in treatment. Being able to predict these reactions and habituated behavioral patterns lead to modifying them and reacting in new, more productive ways. Thus, clients learn to better manage the affective components of their stuttering, which serves to improve the outcome of stuttering therapy and results in longer lasting change.

Introduction

While there is no evidence that psychosocial factors cause stuttering, this presentation examines the premise that these emotional dimensions are the "driving force" which fuels the development of stuttering severity, adds to the handicapping affects, and creates resistance to therapeutic intervention. As a profession, we have treated stuttering for decades and have seemed to satisfy a relatively limited number of persons who stutter. The overwhelming majority of time in therapy is spent teaching clients to modify stuttering behaviors and learning to speak in different ways to be more fluent. However, we are also cognizant of the psychodynamic aspects of stuttering; the fears, anxiety, and patterned behaviors that exacerbate the overt symptoms, as they become integrated into the client's personality. Yet we spend little time directly addressing these components of the problem.

The need to address both speech behaviors and affective components of stuttering to yield optimal long-term successful outcomes in therapy for patients with chronic stuttering is widely accepted by specialists in the discipline. While much has been written and is commercially available to support clinicians' efforts working on the speech aspects of stuttering, there is little available to support their work on these affective parameters. Clinicians and their clients alike must be knowledgeable of the physical effects the emotions have on cognitive processes and the process of speaking of those who stutter. The intent of this presentation is therefore twofold:



- to develop an understanding of the effects of emotionally-based stimuli on the process of speaking in people who stutter, and
- to cultivate a treatment paradigm to address individual aspects and effects of a speaker's emotions.

Understanding the Effects of Emotionally-Based Stimuli

The affective elements of stuttering are a significant force in precipitating disfluent speech behaviors and often become integrated into the personality of the person who stutters. Emotions are commonly thought of as being "irrational"; however, examining the nature of emotions and emotional reactions at a deeper level, they can usually be seen to follow logical rules and patterned behaviors (Lazarus & Lazarus, 1994). Further, the physical (bodily) behaviors that accompany emotional reactions, while unique to each individual, are most often quite predictable. For the client who stutters, learning to understand the relationship between their emotional reactions and their stuttering can become very useful and empowering information.

Most of the emotions connected with stuttering are based in fear and its intellectual companion, anxiety. Fear arouses the autonomic nervous system. Some of the better-known normal bodily reactions to fear include increased heart rate and blood flow to specific parts of the body, more rapid respiration rate, deeper breaths, dilation of the pupils of the eye, increased perspiration, decreased digestion, diminished use of intellect, and heightened reflexes. These reactions are commonly referred to as the "fight or flight" response, evoked when the person perceives their situation to be threatening.

There are two neurological pathways via which fear's alarm signals are dispatched. One pathway processes the signals faster, but without thoughtful mediation. The other pathway takes more time, but is better at assessing the type and degree of a threat. This is referred to by LeDoux (1994a) as the "emotional reflex". For the person who stutters, learning to deal effectively with these signals is the critically important element.

Emotionally-based stimuli contribute another dimension to information processing, adding sharper, more "punctuating" elements to memories. Emotional memories set the nervous system "on edge", positioning it to enhance the effects of fears and anxiety. This is the root source of many of the body's responses and secondary characteristics associated with stuttering.

Beliefs about Stuttering and the Design of Therapy

The activities the speech pathologist uses in his or her therapy reflect the clinician's beliefs about stuttering and treatment philosophy. An important part of treating a client is educating them about their stuttering and informing them about the design of their therapy. Providing the rationale for what we ask clients to do in therapy promotes their understanding of the therapeutic process, motivates them to participate, and facilitates their success. Choosing a clinician can be a difficult decision for the person who stutters (PWS). Our ability to articulate our beliefs helps clients select a clinician he or she feels can best help them overcome their specific difficulties.

There is not as yet a single, definitive explanation of the cause of stuttering; until that day arrives, it is healthy for us to "share and compare" our beliefs about stuttering and how we treat this multifaceted problem. Toward that end, the following working assumptions about stuttering are offered.



Some Working Assumptions about Stuttering Therapy

Individual Differences. Each person experiences stuttering in a unique way because of their individual life experiences and distinctive set of personal traits. There are few “stuttering rules” that apply to every person who stutters. For each generalization made about stuttering, there is likely a PWS who is an exception. Consequently we need to profile, evaluate, and treat every person who stutters individually, based on their unique needs. The clinician’s ability to discern these individualized features of the client’s stuttering is very important and usually the core element of successful treatment.

Early Stuttering. Early stuttering (without emotional overlay) and chronic stuttering are significantly different and usually require different treatment approaches. Children (early stuttering) often seem to be able to direct themselves to speak more fluently with little or no specific instruction. Thus, there is a window of opportunity in which as many as 80% of children are able to recapture natural fluency. For many children who stutter (even with secondary characteristics), a treatment program which reinforces self-instructed fluent speech production (Lidcombe Program) may be a viable option (Onslow, 1990).

Alternatively, other children may be treated using a child-oriented version of the treatment approach used with adults.

Chronic Stuttering. Chronic stuttering has two components -- speech behaviors and (secondary) behaviors related to stuttering. Both are fueled by feelings and emotions which result from negative experiences directly associated with stuttering. Therefore, emotions and stuttering behaviors are intimately and delicately intertwined.

The feelings and emotions which accompany chronic stuttering serve to distort the client’s perceptions of their difficulty and often result in their reacting to stuttering (or the fear of stuttering) in “non-productive” ways. These reactions significantly interfere with the client’s ability to use speech targets. As a consequence, their stuttering usually makes the PWS feel helpless to do anything about it, thereby becoming its victim.

For chronic stuttering, therapy includes three components: (1) learning to better manage existing stuttering, (2) learning “fluency-embedded” speaking behaviors, and (3) overcoming the effects of feelings, emotions, and beliefs that stem from stuttering. While the PWS (person who stutters) is predisposed to stutter, his or her emotions, feelings, and beliefs precipitate the stuttering disfluencies and drive the related behaviors. An initial ambition of therapy is to reduce behaviors to their barest minimum.

Some PWS appear to have difficulty in other areas which may contribute to their stuttering. These difficulties are often seen as motor skills, language facility, articulation skills, neurological integrity, or psycho-social adjustment. These problems can complicate treatment.

TREATMENT PHILOSOPHY: AN OVERVIEW OF THE DESIGN OF THERAPY

Chronic Stuttering in Adults and Adolescents

When stuttering becomes chronic, the actual “stutter” itself is perhaps the least significant part of the overall problem. The history of a client’s experiences with stuttering results in negative feelings, unfavorable emotions, and strong beliefs about their limited capability



and ineffectiveness as a communicator. These factors serve to fuel the client's reactions to their stuttering and add to the fear of speaking.

Treatment therefore, consists of three components. The client must deal more effectively with his or her existing stuttering and react to it in ways which reduce struggle and secondary characteristics – minimizing stuttering. The client must also learn fluent speaking behaviors which address the specific aberrant speaking patterns which have stemmed from their reactions to their stuttering. Together, these two components are intended to provide speaking “tools” in order to produce controlled fluency. Learning controlled fluency is the foundation upon which the fears can be reduced and confidence built. The third component of treatment consists of modifying the client's reactions to stuttering and speaking – this is the most difficult and time-consuming part of therapy – and also the most important.

While there are many commonalities among people who stutter, each person's experience is unique and individual. The factors that contribute to making speaking difficult are determined through discussions with the client over the course of their therapy. Factors usually include situational, perceptual, environmental, and learned influences. These factors commonly form a hierarchy that can serve to direct the course of therapy. The variety of speaking **task modes** provides an additional dimension for therapeutic activities.

The functional **goal of therapy** is to enable the client to be confident in his or her ability to speak fluently in all activities of daily living.

COMPONENTS OF THERAPY

Management of Stuttering

Most clients have difficulty controlling their stuttering and often actually increase its intensity in their attempts to contain it. Stuttering modification techniques can be useful in learning to minimize blocks and disfluencies, diminishing struggle, and breaking patterns of stuttering (stuttering in new ways). The goal is to teach the client how to minimize their stuttering, reducing it to its minimal form, and eventually begin to control it to terminate disfluencies.

Fluency-Embedded Speaking Behaviors

Out of fear and anxiety, many of the PWS's attempts to speak are drastically changed in such a way as to actually decrease the likelihood that fluent speech will result. A second component of therapy is thus to learn speaking behaviors that are more compatible with fluency, such as slowing rate, articulating deliberately, syllable-stretch, gentle voice onset, and speaking in other ways that enhance fluent production. This sometimes serves to highlight the aberrant speaking patterns inherent in a client's stuttering. Both stuttering management and fluency-embedded speaking behaviors begin to make speaking a “deliberate” process, rather than a “reflexive” motor act. Speaking deliberately serves also to highlight the client's need to take responsibility for speaking fluently.

Feelings, Emotions, and Beliefs

Fear of stuttering, anxieties about speaking, previous negative experiences, beliefs, behavioral rules, and superstitions each impact the process of speaking, to the detriment of fluency. The client's feelings, emotions, and beliefs about stuttering usually heighten the likelihood of stuttering. Often the client's aberrant speaking behaviors represent his or her attempts to ward off or compensate for disfluencies. Ironically, these attempts most often serve to increase, rather than decrease, the frequency and intensity of stuttering.



Changing these affective features of stuttering is particularly difficult and very time consuming, but critically important. The process begins by encouraging the client to talk about his or her feelings and beliefs, and identify and share their emotions about speaking. The speech targets promote controlled fluency to assist the client in beginning to diminish their fears of speaking and stuttering. Therapy offers the client opportunities to test their emerging fluency skills and challenge their beliefs about their stuttering.

The relative proportion of these three therapy components changes as treatment progresses. The table below depicts a strong emphasis on learning to better manage stuttering moments in initial sessions. This contrasts with later sessions in which fluency-embedded speaking behaviors become a stronger focus. Toward the end of therapy, work on feelings and emotions grows to be the primary target.

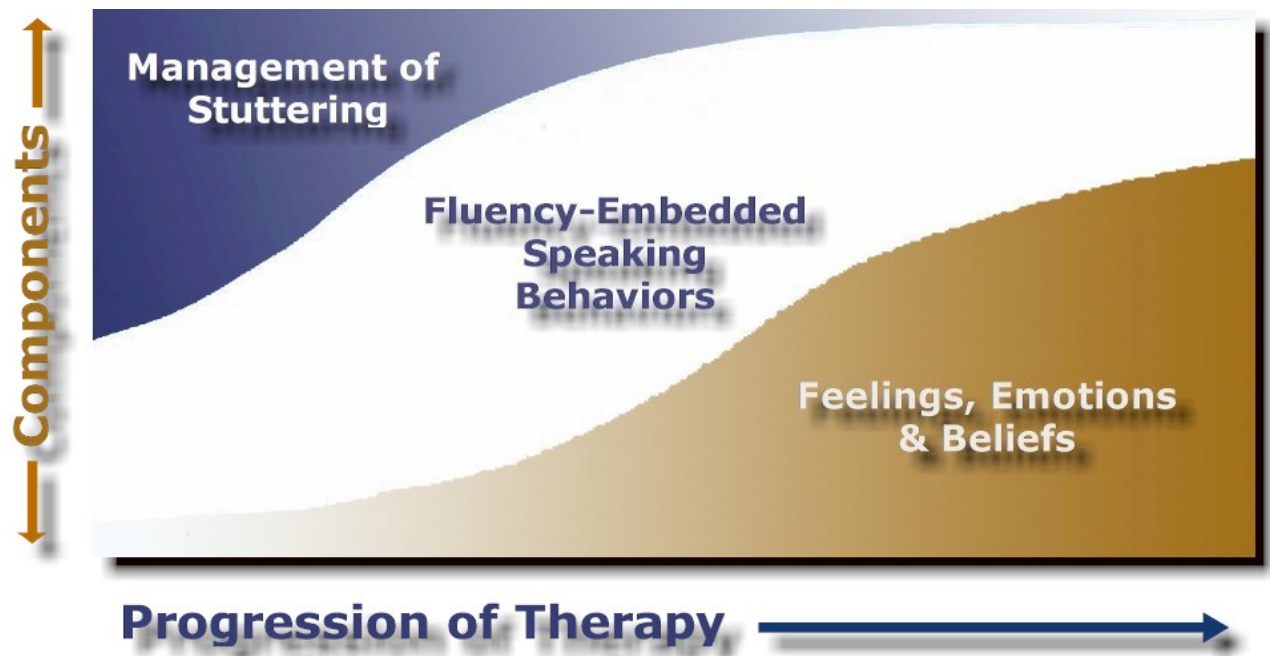


Table 1. Proportion of components utilized in treatment sessions as therapy progresses

The Interaction Effect

The interplay between stuttering and emotions is very powerful and difficult to change. There are many factors that make this relationship so strong. They include

- The way emotionally loaded signals are processed in the brain (the emotional reflex)
 - ❖ A dual pathway of processing that elicits a reflex before fully processed
 - ❖ Signals processed in a poorly differentiated manner
- Learning and anxiety create anticipation which heightens the effect
- Emotionally-based learning serves to “punctuate” and enhance unpleasant memories



Managing Emotionally-Based Behaviors

While emotional responses cannot be inhibited, they can be modified to better manage and minimize their impact (LaDoux, 1994a). This can be accomplished by understanding how and why specific emotions are elicited, identifying the physical responses that result, and predicating (and later modifying) the habituated behaviors which follow. Learning how the brain responds to emotional stimuli promotes a better understanding of other physical responses in situations that have historically resulted in difficulty speaking. This also serves as a meaningful underpinning for the ability to modify and mitigate the responses.

Components of an affective mediation process are enumerated below:

Component One. Identify and label the specific emotions which are elicited by the fearful stimuli (stuttering), discuss the meaning of each emotion, and explore the client's historical speaking experiences to provide a basis for self-understanding.

Component Two. Learn how the brain reacts when aroused by emotions to develop an appreciation of how the client processes the experiences, but perhaps does not understand them. Further, it builds his or her cognitive awareness of circumstances involved in these events.

Component Three. Delineate the client's specific physical, bodily responses when emotionally energized to identify 'target behaviors' to be modified. Associating the emotions that arouse these physical behaviors can be used to predict the bodily responses in the future, diminishing the intensity of their impact and rendering them more available to be modified.

Component Four. Forecasting situational emotional response patterns better positions the client to respond in a different way. This serves to break the habit pattern and enable the client to influence the physical outcomes of the emotions. Modifying the response empowers the client to better manage the physical responses to his or her emotions. This empowerment serves to reduce anxiety and thereby diminishes the intensity of the response and stuttering.

Component Five. The client forms new intra-personal perspectives on their stuttering, which alter the emotions elicited.

Activities that Promote Affective Awareness of Stuttering.

The presentation details numerous direct and indirect practical activities to guide the client in identifying and modifying his or her affective responses to stuttering. These clinical activities require a degree of skill and practice on the part of the clinician and a high degree of trust on the part of the client. Some examples of the activities that will be presented are offered below:

Direct Activities:

- Journaling – making and analyzing daily notes (or emails) about stuttering and speaking situations
- Developing a "Cause of Stuttering" Dialogue – learning how to talk about stuttering objectively and in a proactive way that will educate others
- Mapping "Cause–Effect" Relationships – identifying the physical attributes of the body's response to emotions in various speaking situations



- Analyzing Self-Talk and the origin of other “historical recordings” – recording inner messages the client sends to him/herself relating to disfluent moments currently and in the past
- Developing an “Owner’s Manual” for the client’s brain processes – learning how his or her feelings and emotions trigger physical responses and how to ‘reconfigure’ the circuitry
- Counseling: Building highways through difficult terrain – analyzing the meaning behind emotions, how to heal and change them to confront difficult speaking situations

Indirect Activities:

- Advising Parents of a Child who Stutters – discussing what the client might think is important for the parents of a child who stutters to know about the disorder
- Reading “Emotions” Passages – using passages written by others who stutter to precipitate a discussion of various aspects of stuttering
- Developing a Pamphlet – writing information to help the general public understand stuttering and what they should do when they encounter someone who stutters
- Discussing Video Clips – using videos about stuttering to trigger discussion of the characters portrayed who stutter
- Writing a Brochure – develop an informational brochure about stuttering

These and other activities will be examined in the presentation.

Other Therapeutic Tools

Desensitization. Most clinicians are familiar and trained in behavioral approaches such as *systematic desensitization* techniques in which hierarchies of difficulty are structured. Clients are guided through progressively more challenging situations as they work to maintain fluency in progressively more challenging situations.

Mental Imagery. Some clinicians also use projection techniques, such as *mental imaging*, with patients as a means of developing a new, positive picture of their successful endeavors in challenging speaking situations. But clinicians need additional tools to aid their clients’ quest to overcome their internalized, mental stuttering patterns.

Emotional Awareness Training. The purpose of this approach is to become more open to and comfortable with emotional feelings in general. Greater sensitivity to emotional feelings is aroused by guiding experiences, like viewing a series of abstract art or listening to music (without words). Clients are asked to *scale* their feelings on a continuum of contrasts. Later components include improving the ability to identify and affix labels to emotions that arise in stressful situations. Patients also learn the physiological changes that negative emotions engage. The process helps them learn not to over-react to their emotions, and to proactively manage their feelings in stressful situations. Successful emotional management enables patients to engage their intellect to manage their emotions and their fluency.

Stress Inoculation Training. One form of cognitive therapy teaches cognitive skills that enable people to better cope with stress. In the same way an injection of a live virus is introduced into the body to build immunity against a disease, patients are exposed to milder stresses to build their tolerance to cope with higher level stressors later. Situations that cause stress need to be examined. This enables the attitudes and beliefs that underpin the emotional responses to be uncovered. The focus is on the client’s *self-talk* as they encounter stress. Building new self-talk statements develops rehearsal and coping skills.



Clients then apply these new responses to their real-world situations, guided by the clinician.

Co-Active In-Vivo Experiences. A version of *systematic desensitization*, graduated in-vivo exposure to feared stimuli provides an effective behavioral approach to reducing the physiologic effects of stress. A hierarchy is constructed, through which the client progresses, learning to manage their fear (become relaxed) through each step of the progression. A further refinement of the in-vivo approach is for the therapist and client to participate together in the experiences, with the role of 'primary acting agent' gradually shifting from the therapist to the client. For example, in the experience of giving oral presentations, the client may begin by learning to feel relaxed standing next to the therapist as he or she begins a presentation. In subsequent experiences, the role of the patient increases from contributing one or two words, to giving a very brief statement, to explaining a section of the total presentation, to eventually doing an entire presentation. Such experiences enable the therapist to be an active support and live model of the desired behavior.

Summary

Clinically, empowering a client to better manage his or her emotional response behaviors to stuttering can significantly diminish the frequency and severity of stuttering moments and increase the client's feeling of control and confidence.

Similar to the Identification and Modification components of Van Riper's stuttering modification therapy program, clients who stutter can learn to objectively identify and modify these affective influences. This is accomplished in a variety of ways at different levels; by developing an understanding of how the brain reacts to emotions, learning the unique, individual affective reaction patterns, effecting new behavioral response patterns, and synthesizing this new response pattern to managing fluency for the patient.

Emotional blocks, the invisible pattern of stuttering, diminish a client's progress in therapy, their performance in stressful situations, and contribute to the likelihood of relapse. Clients should learn to manage their emotional blocks concurrent with learning to manage their speech fluency. Clients acquire these management skills by heightening awareness of their emotions, learning the characteristics of their emotional response patterns and proactively responding to emotional triggers by mediating emotional reflex behaviors.

An emotional management program builds sensitivity, discrimination, identification, and awareness of emotions. Patients discover the physiologic changes that their emotions engender and learn to differentiate between their normal and stuttering-related emotions. They identify and label their emotional patterns and learn to manage them by modifying or altering the patterns. Through the process of self-discovery, they become able to anticipate their reactions and effectively manage their emotions proactively.

Discussion

The symbiotic relationship between stuttering and emotions is well known to clinicians and clients alike. A history of negative emotional experiences becomes the internalized part of the stuttering pattern. The client's emotional blocks account for their difficulty managing volitional control of the speech in situations perceived to be stressful and serve to strengthen the 'ritualistic' habit patterns which develop around the stuttering. Emotional



blocks differ and vary in the degree to which they impact clients. Among the more commonly observed effects are the client's

- inability to identify instances of their stuttering
- inability to describe the characteristics of stuttered disfluencies
- failure to access fluency targets in a timely manner
- difficulty modifying individual disfluencies or their stuttering pattern
- difficulty identifying and describing emotions in situations in which they stutter
- denial of any emotional reactions to stuttering

This diminished cognitive functioning hinders the treatment process and diminishes the patient's self-confidence and self-esteem. For some patients, denial may serve as a self-protective mechanism in which they become numbed to the feelings they find painful. The inability to control disfluent speech further heightens the emotions of frustration, pain and feelings of helplessness. As in Van Riper's approach speech therapy for stuttering, *identification* is one of the underpinnings of the process. In dealing with emotions, client awareness and education is also a keystone to the therapeutic progression.

The emotional reactions develop over the course of time, eventually becoming a significant part of the individual's self-concept and identity. The reactions become "*emotional blocks*" which affect cognitive awareness and volitional motor control necessary to change stuttered responses and the habitual patterns associated with stuttering behavior. These emotional blocks not only impede progress in therapy and frustrate the client, but left unaddressed, are the seeds of relapse.

People who stutter struggle in using their emerging fluency skills, at first in the Clinic, and later in more challenging, real-life situations. Attempting new speaking behaviors in the uncertainty of out-of-clinic environments brings with it a flood of emotional reactions that can diminish the client's capabilities. The difficulty initiating fluency targets in stressful situations is one of the biggest obstacles encountered by clients and clinicians.

Many over-react when they experience negative emotions in the same way they react to their disfluencies. Just as it is helpful to become desensitized to one's stuttering, it is valuable to become desensitized to one's emotional reactions. When a client can anticipate their emotions and the tensions they engender, they can become proactive in managing them in the same way that anticipating stuttering can lead to better stuttering management. By developing tools to modify and manage emotions, the patient becomes better able to manage their stuttering or fluency.

Finally, clients who stutter usually present resistances or demonstrate other forms of difficulty with aspects of the stuttering therapy (Rentschler & Tetnowski, 2007). These resistances are most often forms of defense mechanisms, but serve as an indication that the client perceived that the demands of a task are too threatening to participate. Patient resistances can frustrate the clinician and slow the therapeutic process. But understanding the meaning behind these obstacles enables the clinician to respond to them appropriately and effectively in therapy. Viewed as a defense mechanism, patient resistances reveal much about the patient's belief system and internal constructs relating to their stuttering. These are significant components of long-term, successful treatment outcomes. Overcoming resistances helps patients strengthen their psychological interests in new ways and promotes the efficacy of stuttering therapy. Learning to read you patient and understand the foundations of his or her outward behaviors serve to make the clinician more effective and competent in their work.



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Information Resource

www.stuttering.duq.edu



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Lost at Sea

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Instructions. As a group activity, have one person read the scenario (using his or her speech targets). Break up into small groups (2-3 people) and have each group agree on an answer to the scenario. Reassemble as a large group and have each group explain their choices. Finally, the US Coast Guard has the "official answer"; have another person read it to the group.



The Scenario: You are adrift on a private yacht in the South Pacific. As a consequence of a fire of unknown origin, much of the yacht and its contents have been destroyed. The yacht is now slowly sinking. Your location is unclear due to the destruction of critical navigational equipment and because you and the crew were distracted trying to bring the fire under control. Your best estimate is that you are approximately one thousand miles south-southwest of the nearest land.

Below is a list of fifteen items that are intact and undamaged after the fire. In addition to these articles, you have a serviceable rubber raft with oars large enough to carry yourself, the crew, and all the items listed below. The total contents of all survivors' pockets are a package of cigarettes, several books of matches, and five one dollar bills.

Your task is to select six items from the fifteen to take with you on the raft. The six items you select will determine your survival instincts and aptitude.

- Sextant
- Shaving Mirror
- Five-gallon can of water
- Mosquito netting
- One case of U.S. Army C rations
- Maps of the Pacific Ocean
- Seat cushion (flotation device approved by the Coast Guard)
- Two-gallon can of oil-gas mixture
- Small transistor radio
- Shark repellent
- Twenty square feet of opaque plastic
- One quart of 160-proof Puerto Rican rum
- Fifteen feet of nylon rope
- Two boxes of chocolate bars
- Fishing kit

Will You Survive? The answer, explanation, and your score can be found at the following web site: www.pressanykey.com/cgi-bin/survival.cgi