**GROUP DECISION MAKING: LOST AT SEA**

 **Correct Answers**

Officers of the United States Merchant Marines ranked the fifteen items and provided the correct solution to the task:

1. Shaving mirror. Critical for signaling air‑sea rescue.
2. Two gallon can of oil‑gas mixture. Critical for signaling. The oil‑gas mixture will float on the water and could be ignited with a dollar bill and a match (obviously, outside the raft).
3. Five‑gallon can of water. Necessary to replenish loss by perspiring, etc.
4. One case of U.S. Army C rations. Provides basic food intake.
5. Twenty square feet of opaque plastic. Utilized to collect rain and provide shelter from the elements.
6. Two boxes of chocolate bars. A reserve food supply.
7. A fishing kit. Ranked lower than the candy because "one bird in the hand is worth two in the bus­h." There is no as­surance that you will catch a fish.
8. Fifteen feet of nylon rope. May be used to lash equipment together to prevent it from fall­ing overboard.
9. Flotation seat cushion. If somebody fell ove­rboard it could func­tion as a life prese­rver.
10. Shark repellent.
11. One quart of 160‑proof Puerto Ric­an rum. Contains 80 percent alcohol‑‑enough to use as a potential antiseptic if any injuries incurred. It is of little value otherwise since it will cause dehydration if inges­ted.
12. Small transistor radio. Of little value since there is no transmit­ter close by (unfortunately, you're out of range of your favorite radio station).
13. Maps of the Pacific Ocean. Worthless without additional navigatio­nal equipment. It doesn't really mat­ter where you are, but where the rescuers are.
14. Mosquito netting. There are no mosquit­oes in the mid‑ Pacifi­c.
15. Sextant. Without tables and a chronometer, relativ­ely useless.

**Discussion**

According to the experts, the basic supplies needed when a person is stranded in mid‑ocean are ar­ticles to attract attention and articl­es to aid survival until rescuers arriv­e. Articles for navigation are of little importance. Even if a small life raft were capable of reaching land, it would be impossible to store enough food and water to subsist during the period of time required to sail there. Ther­efore, of primary importance are the shaving mirror and two‑gallon can of oil‑gas mixture. These items could be used for signaling air‑sea rescue. Of secondary importance are items such as water and food, i.e., the case of Army C rations.

The basic rationale for ranking the sig­naling devices above life‑sustaining ite­ms (food and water) is that without sig­naling devices there is almost no chance of being spotted and rescued. Furthermore, most rescues occur during the first thi­rty‑six hours and people can survive without food and water for this long. Therefore, **the key to this exercise lies in setting the right goals.** If the groups set the right goal--rescue--they will come closer to the correct answers than if they set the wrong goal--survival.

First, state all fifteen ranked answers before explaining them. Have participants enter the correct ranking in column three of the scoring sheet. Have participants compute their error score by subtracting their individual rankings from correct rank­ings. (e.g., if their individual ranking for a sextant was three, their error score would be twelve. Note an error score is always stated in absolute value). Have participants compute their individual error score for all fifteen items, adding the individual error score of each of the fifteen items to get their total error score. After this is completed, have one person in each group compute the group error score. Similarly, have one individual from each group compute the average individual error score by adding the individual scores and dividing by however many there are in the group.

After the participants have completed the computations, list the respective scores on the board in the following way (the same way that is set up on page 4 of the workbook). Make sure participants copy the numbers into their workbook so they can take home the evidence:

 Group1 Group2 Group3

Lowest Individual

Error Score \_\_\_\_ \_\_\_ \_\_\_

Average Individual

Error Score \_\_\_ \_\_\_ \_\_\_

Group Error Score \_\_\_ \_\_\_ \_\_\_

Difference Score \_\_\_ \_\_\_ \_\_\_\_\_\_\_

Ask any one of the participants to do an analysis of the above numbers once they have been entered. The results will be obvious that groups make better decisions than individuals. Comparisons of the lowest individual scores and the group scores will allow participants to see that one person had a better answer than the group did and that the group probably listened to the wrong person -- they usually listen to the person with the most power or who has a need for exhibition or recognition or to be aggressive, not necessarily to the person with the best answers. In some cases, the group will be very supportive and cooperative and will listen to the right person; as the facilitator compliment these groups.

After discussing the above issues, facilitate a discussion of questions 1 and 2 on page 4 of the workbook ("What were your goals?," and "What should your goals have been?").

One of the most critical aspects of the exercise was the group deciding on its major goal, which should have been to get rescued and to survive until rescuers arrive instead of to navigate somewhere and to survive while doing so. You may want to make an analogy between this point and how goals affect the allocation of resources during the planning process.

Finally, begin a discussion of the last two questions on page 4 about roles and lead into an extended discussion about group roles in group discussion.

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