



Gold~Dust Island

Teacher's Guide

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Aim

Gold-Dust Island is a social science simulation. The aim is to provide an opportunity for students working in small groups to discover that, to promote achievement in problem-solving tasks, a cooperative structure may be more desirable than a competitive one. Students are given an opportunity to discover that success in achieving a goal need not depend on winning over others, just as failing to achieve a goal need not mean losing to others.

Objectives

The objectives of *Gold-Dust Island* are as follows:

to promote cooperative behaviour;

to encourage effective communication;

to encourage group productivity, coordination of effort and division of labour; and

to provide an enjoyable problem-solving activity.

Curriculum relevance

Gold-Dust Island focuses on instructional objectives that are quite different from specialized subject knowledge, drill and practice routines, individualized learning, or mastery learning. Instead, it leads students towards problem-solving effectiveness, group productivity, competence in cooperation, communication effectiveness, positive attitudes towards others, and positive self-attitudes. It also places an implicit emphasis on sharing ideas and resources, and giving help to others. Therefore, *Gold-Dust Island* is directly related to the major curriculum concerns of social science courses, and can be used effectively in any curriculum area where an emphasis is being placed on human interaction: social studies, language, citizenship, leadership, and development of problem-solving skills related to any situation where the members of a group need to work together to achieve a goal.

Suggested level of use

No particular prerequisite knowledge is needed, except that students must be able to recognize and take into account the perspective and strategy of other individuals. They must be able to realize that the outcome of a situation depends on their behaviour and on that of other individuals. Therefore, the program is most appropriate for secondary school students, although it is also relevant for upper primary school students.

How *Gold-Dust Island* attempts to promote cooperative problem-solving

1. There are a number of problems to be solved, the major concern for each player being to save himself or herself from an impending cyclone, while at the same time having something to show (gold) for time spent on the island. In addition, there are problems related to an ever-diminishing water supply, obtaining the right tools for the job, the need to build a boat to a predetermined level of completion (depending on how many passengers it is to carry), and the fact that, should a rescue ship arrive, boat-building time will have been wasted effort.

Selfish motivation may result in refusal to trade tools, share water resources and build the boat past a certain level — with a high probability of “mortal” consequences!

If players cooperate, they can build a boat, dig for gold, share resources equally and stay alive. If they cooperate, the problems can be easily solved. If they don't, the problems are intensified, and in many cases the failure of one member to cooperate will be to the disadvantage of the entire group.

2. Players in *Gold-Dust Island* are randomly assigned tools (skills) at the beginning of the game. These tools have certain values, depending on whether they are more useful for gold digging or for boat building. As each player receives different tools, players cannot perform identical tasks with the same measure of success. Therefore, players are

automatically assigned a particular personal status according to their capability to perform any specified task.

Just as in reality we rely on persons with specialized knowledge and skills to perform tasks beyond our own resources, in return for which we pay them or reward them in some recognizable manner, so it is possible to equip players in *Gold-Dust Island* with particular “skills” so that they are better able to perform specialized roles, such as boat building, gold digging or water carrying, in return for mutually agreed “payment”.

It is possible to trade (exchange, give or receive) tools, boat-building points, gold and water; therefore players can cooperate by trading amongst themselves. Judicious trading will enable players to become competent at performing mutually desired tasks and receiving mutually agreed rewards, thereby increasing the players’ chance of success. The trading process leads easily to the teaching of respect for and the value of individual differences.

3. *Gold-Dust Island* allows for setting up a cooperative water-sharing venture that has obvious benefit for all those who subscribe to the scheme. Maintaining water resources is the major problem that players encounter. Water continually “runs out”, confounding players’ efforts to stay actively involved in a task. If it runs out altogether, they will “die”. Since water sharing entails a certain amount of cooperation, trust and the belief that other players will not take advantage, it is not an activity in which overly competitive players choose to become involved. However, failing to utilize the water-sharing arrangement by filling the small wells in the boat-building and gold-digging areas places heavy demands on all players if they are to maintain their personal supply of water.
4. *Gold-Dust Island* requires that players communicate. They need to discuss water resources, roles, trading arrangements, strategies, reward procedures, and movement about the island. In any case, it is difficult for players to keep their intentions secret.

A player who attempts to take advantage of others (for example, by failing to honour a trading arrangement) will

undoubtedly cause a breakdown of communication in the group, resulting in non-cooperative behaviour from others.

Students should be permitted to discuss their actions cooperatively and work out a mutually agreed strategy for spending their time on the island. Therefore, this program is not appropriate for use in a classroom where silence is expected of all members.

Suggestions for classroom use

Prior to using Gold-Dust Island

1. It is necessary that both the teacher and the students be fully aware of all aspects of operating and playing *Gold-Dust Island*. Therefore, students should have read the Student's Guide and the Operating Manual before they use *Gold-Dust Island*, and the teacher should be fully cognizant of the information in both the Operating Manual and the Student's Guide and be able to explain this to the students. Attempts to play *Gold-Dust Island* with limited understanding of the possibilities for action may result in an unsatisfactory experience.
2. It may be helpful for the teacher to run through a trial session to demonstrate the possibilities to the students. For example, students would benefit from knowing what happens if warnings about depleted water are ignored.
Of course, giving students too thorough a preliminary exposure may tend to ruin their enjoyment in discovering how to manipulate events to their advantage.
3. *Gold-Dust Island* will be most effective if it is played in the context of a social science or social studies programme of study.

Using Gold-Dust Island in the classroom

1. A minimum of two players is needed, but *Gold-Dust Island* probably is used to best advantage with a small group (no more than five) within the classroom where the teacher may observe their behaviour and give assistance if necessary, without actually making any decisions for them.

2. Because of the level of interpersonal communication that is required, *Gold-Dust Island* should only be used by those playing, rather than with the whole class at once.
3. The program cannot be concluded prematurely unless all the players “die”. If all players “die”, the final results will be displayed on the screen.
4. Depending on the number of players and their skills (both in using a computer and in coping with the activity generated by the program), time required to complete the game may range from twenty minutes for students who work quickly to as much as forty-five minutes or more for five students who have not played before. Familiarity with procedures obviously speeds up response rates.

Follow-up activities

1. A post-*Gold-Dust Island* discussion would be useful in order to analyse types of behaviour exhibited during the game. Aspects that could be discussed include sharing resources (skills), developing cooperatives, buying, selling and trading, the need to trust others, planning a more effective strategy, and winners and losers. The Student's Guide lists questions formulated to generate discussion of some of these topics.
2. Students should be encouraged to try *Gold-Dust Island* more than once — in fact it is highly unlikely that students will achieve a high degree of success at the first attempt. In any case, a re-play will enable them to capitalize on previous experience and use this to plan a more cohesive group strategy for success.

Basic concepts that can be explored in *Gold-Dust Island*

The group — a collection of individuals among whom there is an established pattern of relationship (for example, in *Gold-Dust Island*, relationships such as those between gold diggers, boat builders, water carriers and possibly traders).

Functions of the group — the purpose and objectives that meet certain needs (for example, the need to save group

members from disaster, the need to keep group members alive, the desire to make group members wealthier).

Locality — geographical area that exercises significant influence on the social relationships within it (for example, *Gold-Dust Island* has a definite geographical influence over the possibilities for activities, depending on where respective players are).

Role — the fact that the same person behaves differently in different situations (for example, a player who has timber and a hammer cannot contribute as significantly when digging for gold as when he or she is building the boat).

Class and status — class refers to economic inequality (for example, those who have not dug or traded for gold are economically worse off if a rescue ship comes). Status refers to a wider range of social distinctions (for example, a player who is saved and is wealthy has achieved a higher status).

Power — the authority of one person over another in the simplest sense. (For example, in *Gold-Dust Island* a certain amount of power can be exerted over others by those who can build the boat. If two people hold all the boat-building tools and build the boat to carry two only, although there are five players, then the boat builders can exert influence on the others.)