

Graham Thomas, a teacher at Estover Community College, Plymouth, first described his AIDS exchange game in *Education and Health* Vol. 8 No. 3, 1990. The game earned him a £400 merit prize in the 1991 Domestos Health Education Awards.

## Graham Thomas

# A national award for the AIDS exchange game

*With a tradition already established for active learning approaches, we were reluctant to use video or other, more didactic, materials.*

*Furthermore, being committed to the view that good health education is founded upon the relationship between knowledge, attitude and behaviour, I wanted something that would actively involve the young people in exploring these elements.*

As the teacher responsible for AIDS/HIV education within Estover College, I wanted to devise a method for communicating important messages about its transmission that fitted in with the college's already established reputation for active learning.

Aided by colleagues, I devised the AIDS Simulation Game, in which a small number of pupils in a freely-circulating group were given cards representing the virus. By monitoring the way the virus spread through the group, the predicted spread of AIDS through an unprotected population was closely modelled.

Since the game has already been described in Vol. 8 No. 3 of this publication, I shall refer here to some recent evaluation and modifications that may be of interest to AIDS educators in general, whether or not they have used the game.

### How AIDS can spread

My colleagues and I were very satisfied with the way the game demonstrated the nature of the spread of the virus through a population. On every occasion we have repeated the game the same shape of curve results, as shown in Graph A, Fig. 1. This curve directly simulates the curve that AIDS researchers produce to show their predictions of the spread of HIV/AIDS.

### Risk and number of partners

On every occasion it has been made clear that those with high exchange values are more likely to become infected and to pass on the infection. Furthermore, some of the quotes from the participants provide anecdotal evidence in support of this.

### Partner's sexual history

The extent to which this objective is met

varies according to how the exchanges take place. However, we generally find that the tagged cohort has a higher infection rate in the first half of the game, when they tend to exchange between themselves. On one occasion a whole cohort remained uninfected, except for one member, because they had exchanged exclusively within their own group.

Thus the simulation reflects how transmission to a wide population is accelerated by movements of individuals to different parts of a country or to different countries.

### Precautions against infection

This effect, simulated by issuing 'condom cards', was clearly shown on most occasions by a levelling-off of the curve as in Graph B, Fig. 1. The fact that it did not show the effect more distinctly is an advantage, because it clearly underlines that the use of a condom only reduces, rather than eliminates, the risk.

We have been more than satisfied with the effectiveness of the simulation in demonstrating real issues.

One worry for some is that the game seems to assume that one sexual contact will always result in the HIV being transmitted. In its simplest form the game does assume this, and some AIDS professionals accept it as being a reasonable assumption. Nevertheless, to overcome any objections, an interesting variation is suggested whereby a chance element is introduced by the shake of a dice when somebody receives the HIV circle.

### An evaluation

The pupils' level of understanding about AIDS was tested, one of the questions asking them to offer sound precautionary advice. The

answers from a group of 42 pupils who had participated in the exchange game ten months previously, and another group of equal size who had not received this particular input, were compared. The question was:

*State up to 4 separate pieces of advice that you might give to someone who is sexually active to reduce the spread of HIV in the population (to stop them from getting it or passing it on). For each give a reason.*

The results were as follows, where Group 1 pupils had taken part in the exchange game, whereas Group 2 had not.

	Number of pieces of 'sound advice'					Total
	0	1	2	3	4	
Group 1 pupils	1	1	21	16	3	42
Group 2 pupils	5	20	9	8	0	42

A  $\chi^2$  test was carried out on a 4-cell contingency table created by combining the totals for the first three columns and the last two columns. The better performance of Group 1 was significant at the  $p < 0.01$  level (i.e., the difference between the scores of the two groups had only a 1 in 100 probability of being due to chance).

## Difficult

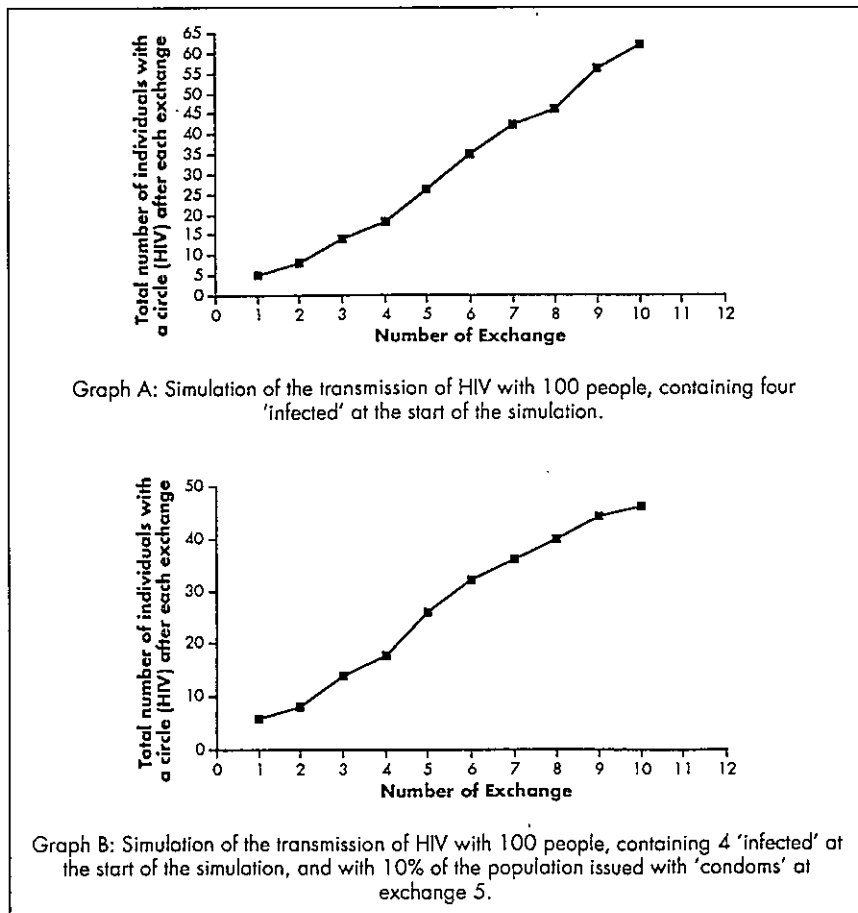
It is notoriously difficult to measure objectively the effectiveness of an educational exercise. I believe that the method employed in this project is valid, and preferable to a pre- and post-test in that it allows for possible decay of memory of the debriefing over ten months.

It could, of course, be argued that the Group 1 students, being a year older than those in Group 2, would naturally have a sounder knowledge base. There is a degree to which this might apply, but I can vouch for the fact that they have not benefited from any formal education on AIDS/HIV since running the game.

The nationwide Health Related Behaviour survey results for 1990 do show an increase in relevant AIDS knowledge from year 10 to year 11, but these figures, of course, contain data from pupils receiving formal education as well as those acquiring incidental knowledge.

If I had the opportunity, I would attempt to test this 'age' variable by conducting the procedure with a comparable group of the same age who had not run the game. If any reader is interested in collecting data for this purpose, I should be pleased to discuss it further.

Fig. 1. Two illustrations from the 'AIDS Exchange Game', showing the transmission of HIV as monitored during performances of the game.



Graham Thomas may be contacted at Estover Community College, Miller Way, Estover, Plymouth PL6 8UN (0752 784316).

The 'AIDS Simulation Game' is one of a collection of resources for HIV/AIDS education contained within the AIDS Education Resource Pack available from Daniels Publishing, Barton, Cambridge CB3 7BB (0223 264880).