

## GTIP Think Piece –Using games in geography (Celia Tidmarsh)

*Mention the playing of games in lessons and many PGCE students will assume that computers are involved. But of course there are many games, including simulations and role plays, that pre-date the widespread availability of ICT and which are still being used to provide children with valuable and engaging experiences in the geography classroom. Celia Tidmarsh (University of Bristol) considers what these games can offer and how they can be used effectively to enrich present day geographical education.*

### Menu

- ) Introduction: what do we mean by 'games'? P1
- ) The background context of using games in the classroom, p2
- ) Why use games in the geography classroom of today? P3
- ) How do we get the best out of games in the geography classroom? P5
- ) Suggested activities for a PGCE session, p6
- ) References and links, p6

### Introduction: what do we mean by

When introducing the use of games into the geography classroom the first thoughts of PGCE students may well be that a computer is an essential requirement, and of course there are a great many games easily available on the web and in various ICT applications that provide interesting and worthwhile activities. There are, however, other types of games that pre-date the spread of new technology and that offer a great range of benefits, in many ways going beyond the experience of playing a game on a computer.

In the context of this Think Piece the term 'game' will be used as a generic description of a type of classroom activity that provides students with opportunities to learn 'through experience (and through subsequent reflection on experience) rather than by the processing of information through more didactic means... to grapple with ideas based on their own experience and on discussion with their peers, rather than being told about the ideas' (Walford, 1987, p. 79). The games to be discussed here are ones without substantial use of ICT (though some of the games mentioned or referenced may include a supporting role for ICT as part of the overall strategy, they will not have this as the main focus).

Under this generic heading of games we can identify different categories depending on particular elements that make up the activity. Within the literature on the use of games there are variations in this categorisation, for example Walford, who has written a great deal on the subject specifically for geography teachers, suggests five different categories that, in practice, have degrees of overlap (Walford, 1996) whereas Jones (1985), writing for a more general audience, argues for a very strong distinction to be made between three categories. Although there are obvious commonalities within these different approaches, the variations in detail can confuse the unwary. For this article the following categories, adapted from Fien (1990) will be used: simulations, role plays, educational games and simulation games, but these categories do come with the warning that it is not always easy to fit a particular gaming activity neatly into one of them. Whichever of the categories are utilised it is advisable to have a sense of the particular nature of a gaming activity because each type has strengths and weaknesses and these need to be considered when selecting which game to use in relation to the learning objectives to be achieved, and how and when a game may be used most effectively (explored in a later section).

### *Simulation*

A simulation is based on the reflection of part(s) of reality, with 'some degree of replication of real-life situations' (Walford, 2007, p.11). Therefore when students are involved in a simulation 'they are manipulating a model or playing roles *which assist them to develop an understanding of, and a feeling for, the reality being presented*' (Fien 1990, p.114, italics in original). This was further developed by Grenyer who argued that a simulation involves 'a testing of a model against reality in an attempt to predict how a pattern will develop or to analyse the reasons for the development of that pattern' (Grenyer, 1985, p. 25). Since this was written it is obvious that many examples of this type of activity have been computerised, e.g. in the city planning simulation game *SimCity*. Although these offer very valuable opportunities for students to explore geographical patterns they will not be discussed in this article. There are, however, many examples of actual models, such as wave tanks and blancmange glaciers (Inman, 2006), that can be used to great effect in the classroom.

### *Role plays*

These are generally recognised as being a type of simulation in that they 'require pupils to take on the role of another person and take part in a simulated meeting or enquiry of some kind where negotiations take place and decisions have to be made' (Lambert & Balderstone 2000, p??). The end result should not be pre-determined although the information provided to the participants may well suggest a restricted number of possible outcomes.

### *Educational games*

These have a set of rules and a pre-determined structure that shape what the participants are doing. There is often an element of competition, either between the players or against themselves and the games leader. There is usually no attempt to produce an accurate reflection of reality, as is the case with the other three categories, although they may demonstrate certain elements, e.g. population jelly babies (Atkins, R. & Dimberline, A., 2004). These types of games can be particularly useful as starters or plenaries, e.g. Taboo (Nichols, A. 2001). Many of them have much in common with the games that require a computer, and for some there is an ICT based variation now available.

### *Simulation games*

These are activities that combine different elements from the other categories e.g. Timber! (from Just Business), The Trading Game (from Christian Aid). There is usually a set of simple rule or procedures to be followed but there are also roles, which relate to 'real-life' scenarios, within which players have the freedom to act as they consider appropriate. A significant attribute of these activities is that collaboration between players is likely to replace, or at least to become as important as, competition.

## **The background context of using games in the classroom**

A strong tradition of using games in geography classrooms developed from the early 1960s when they 'were very much in the spirit of the times, being one of the more liberalising pedagogic influences to counter the didacticism which was falling out of favour' (Walford, 2007, p. 8). Rex Walford was, and continues to be, a key figure in promoting the use of games in school geography. Not only did he recognise the potential of this technique that was being used in other spheres (1969) but he also created many games of his own, e.g. Metrummy (Walford, 1991).

Walford's latest publication, *Using Games in School Geography*, includes an interesting overview of the changing fortunes of game-playing in geography, identifying the 1960s as the start of what he describes as 'the honeymoon period' of their use and which came to an end in the late 1980s when various developments in education (e.g. the introduction of the National Curriculum and league tables) led to a situation where there was 'a greater reliance on 'safety-first' teaching' as 'teachers

sought to grapple with the specifications of the new National Curriculum documents'. (Walford, 2007, p. 10). As a result of this situation the use of games was diminished, perhaps being considered too risky a strategy or too time-consuming for a content-heavy curriculum.

At the same time as these curricular pressures were being experienced this was also the time when ICT began to develop in schools, allowing increasing access to a wealth of new resources including computer-based games that seem to provide similar opportunities to these earlier type of games. Classroom practice, however, has shown that this cannot be assumed. Indeed in certain respects the experiences offered by many of these relatively recent computerised gaming activities may be 'reduced to rather arid and solitary exercises' (Walford, 2007, p. 4). So is there a place for these games into today's geography classroom? As author of this piece my answer will of course be a resounding yes. The reasons for this are discussed in the next section.

Within the context of the current concerns about the health of school geography it is essential that, alongside other initiatives for re-vitalising the subject, geography educators focus on what is happening in the classroom. When considering what games, as part of the varied range of techniques and approaches to learning that are available today, can offer to students there are still many reasons in favour of their use and these are identified below. However it is essential to preface the discussion of these benefits with a warning: the use of a gaming activity is not always appropriate so various questions must be asked before a game is selected for use plus a number of issues need to be considered when planning to use it. Discussion of these questions and issues are to be found in the next section.

## **Why use games in the geography classroom of today?**

### **1. Relevance of geography to the 'real-world'**

Much of geography involves the consideration of issues and problems that 'may be encountered on TV, in newspapers and on the radio thus they are very real to the students in your classroom and as such lend themselves well to simulations' (Hewlett, 2006, p.124). Games that emphasise simulation offer participants what Jones (1985) refers to as the 'reality of function' where 'there is a job to do and a problem to be solved, rather than a play to be acted or a game to be played. The motive is not to 'play' or 'win' or 'score' or 'have fun' or 'act', it is the normal motivation of real life – in which people try to do the best they can in the situation they find themselves – discussing, arguing, negotiating, explaining, analysing, questioning, asserting, reporting'. (Jones, 1985, p. 3). Role plays in particular can make the connections between what is being studied and what is happening 'out there' very clear – however, it is equally important also to highlight in the debrief where the differences lie, for example the fact that many decisions about planning issues are not settled at meetings where everyone has an equal say.

### **2. Student talk and collaboration**

All types of gaming activities discussed in this Think Piece offer the potential to encourage and support social interaction between participants. They can provide clear frameworks for purposeful discussions and negotiations that help to develop students' social and communication skills. Depending on the nature of the activity students are either expected to express their own opinions or, as in a role play, take on those of someone else. Some may prefer this latter option, finding that it liberates them to take a more active part in discussions as they are not having to reveal their personal beliefs. Many simulation games and role plays require students to co-operate and collaborate with each other, which is widely recognised as a valuable process of learning offering both academic and social benefits (Leat, 1998; Freeman & Hare, 2006). It must also be recognised that student talk does not end with the game itself but is an essential component of the debrief. Although this is likely to be teacher led it is essential that the debrief is dialogic, providing 'teachers

with opportunities to learn what students have made of their learning encounters and experiences' (Lambert, D. 2009, p.5).

### **3. Empathy, moral reasoning and critical thinking**

Another significant attribute of games that involve some degree of simulation is that they have the potential to facilitate the development of empathy and, alongside this, the skills of moral reasoning. There are opportunities for students to become aware of alternative viewpoints of an issue, either by taking on a role themselves or from listening to others, taking account of what has been said and then formulating a reasoned judgement. A dimension of empathy involves people's feelings and this is a powerful element in many simulation games such as The Trading Game, which needs to be managed very carefully both whilst the game is being played and in the debrief. Perhaps one of the most powerful reasons for using games to develop these skills is that, if the game to be used is selected carefully and thoughtfully, involvement in it will provide students with something worthwhile and useful to think critically about.

### **4. Inclusive geography**

Games may be used very effectively to provide a learning activity for all to participate in. There can be varying degrees of complexity in the procedures and in the supporting materials, and how they are to be used, and there is scope for different but equally valid outcomes. With appropriate planning these can be achieved through the same gaming activity being used with a mixed ability class and without the differences being obvious to the players.

### **5. Opportunities for assessment for learning**

Games of the nature under discussion here provide excellent opportunities for formative assessment and are perhaps less suitable for the purposes of summative assessment. Once a game is underway the teacher is free to move around the classroom to observe and monitor, and record if required, how individuals are dealing with the challenges of the activity. These observations can be used as a form of assessment in themselves but they can also provide the basis for involving students in self and peer assessment in the debriefing of the game. A detailed debrief is absolutely essential to enable students to make sense of what they have experienced and to evaluate their own learning outcomes. In order to facilitate this, the teacher needs to lead a debrief which 'should include some element of action-replay (to recognise key moments and interventions in retrospect), consideration of the views of participants when they are out of role and a highlighting and summary of the general concepts and ideas which are illuminated through the experience' (Walford, 1996, p.143).

### **6. Interdisciplinary dimension**

This particular attribute links back to that of relevance to the 'real world' because very few issues fall neatly into the domain of a single discipline. Games have been seen as a very effective way to make links with other subjects from the early days of their use (Bale, 1987, p. 125). With the most recent curricular changes the significance of this interdisciplinary dimension becomes even more promising, opening up possibilities of 'collapsed days', cross-faculty events, etc. with a simulation game such as Timber! being used as the stimulus activity for geography, citizenship and science.

### **7. Flexibility of use**

In addition to the variety of different gaming activities available to choose from there is also scope for variations in how a particular game is run. It is possible to fit a game to nearly every set of circumstances that you as a geography teacher would be facing: e.g. regarding scale (whole class or small groups), time (taking a lesson or just a part of it), stage of learning (to introduce a topic or to draw it to a conclusion), topic (physical, human, environmental, or all of them), complexity (simple and with few rules or resources, through to more complicated activities, or even allowing students to develop their own rules).

## 8. Motivation

Last but certainly not least is the fact that the vast majority of students really enjoy these gaming activities! There are many reasons for this, some of them relating to the benefits outlined above.

Two notes of caution are needed however:

- ) the enjoyment may come from the fact that games are unusual and so may lose their appeal if done too often, and
- ) games need very careful management if they are to be successful – the final section of this Think Piece identifies some of the key considerations that need to be taken into account at the planning stages.

### How do we get the best out of games in the geography classroom?

One of the key factors in the success of any game is to ensure that it is embedded in the Scheme of Work and is not used as an isolated activity. This entails careful planning to ensure that the game selected for use is appropriate for the overall purpose and learning objectives of the lesson, or series of lessons, in which it is to be integrated. This may involve questions such as whether factual knowledge needs to be covered beforehand or if it is better used as an introductory activity.

Once a game has been selected another set of decisions need to be considered related to the degree of support and structure that are to be provided. This may vary within the class but an overall aim must be to enable all students to take part in the activity which may mean some differentiation of resources and procedures. A general framework to help develop purposeful discussion is often required, particularly if either teacher or class or both are new to gaming activities – the relative freedom that a game can present can be daunting to all concerned. Advice given by seasoned users of games (Walford, Fien et al) recommend that teachers new to the approach, and particularly those new to the profession as well, should start off with small-scale gaming activities in order to gain confidence and skills in the management of this different style of activity.

A second key factor in the successful running of a gaming activity is the recognition of the importance of debriefing and ensuring that certain elements of it are planned for. An effective debrief requires both structure, often in the form of a series of questions to be considered, and input from the teacher, with at least some of this being drawn from observations made whilst the game is in progress. Enough time must be allowed for this to be done thoroughly. Another function of the debrief may be to provide a chance for students to deal with negative emotions that have arisen from the activity (and which may have required intervention from the teacher whilst the game was still running). It is not fair on either students or colleagues to send individuals on to their next lesson with feelings still running high. This probably sounds somewhat daunting to new teachers but the high degree of student engagement obviously has very positive effects too! Again the advice is to start with less contentious issues as the focus for the first gaming activities to be run.

Observing what is happening whilst the game is in progress is clearly vital to the debrief as outlined above but monitoring actions as the game is happening is essential for other reasons. Observations inform decisions about how and when to intervene, or indeed whether to intervene at all. It is often a delicate judgement on what is required to maximise opportunities for learning, for example whether to interrupt the flow of action to give more factual input or guidance for discussions. The process of observation undertaken by the teacher has been described as 'one of the most demanding aspects of managing games and simulations' (Lambert & Balderstone, 2000, p. 273). In relation to class management the teacher also needs to be aware of whether all students are engaged in the action or whether any are opting out or not coping with the cognitive and affective demands or the relative freedom that the activity offers.

### Suggested activities for a PGCE session

It is perhaps obvious to say that the best way for PGCE students to develop an understanding about the use of games is to play them themselves. Some require very little time or preparation to set up and actually play, but time must also be allowed for discussion of when it could be used and how it should be followed up.

It may be tempting to sample only the shorter and simpler games but there is a lot to be gained from running a full-blown simulation game, or, as in the focus of the half day session suggested here, going for two in succession. This provides a comparative element that really helps to bring out differing characteristics of the activities so helping PGCE students to select the most appropriate game for their purpose. Of course, if time is short, the final suggested activity can be carried out based on the experience of playing just one simulation game.

Download the PGCE session in [Word](#) format.

### References

- Atkins, R. & Dimberline, A. (2004) 'Population jelly babies', *Teaching Geography*, 29, 1, pp. 27-28.
- Bale, J. (1987) *Geography in the Primary School*, London: Routledge and Kegan Paul.
- Fien, J., Herschell, R. & Hodgkinson, J. (1989) 'Using games and simulations in the geography classroom', in Fien, J., Gerber, R. & Wilson, P. *The Geography Teacher's Guide to the Classroom*. Melbourne: MacMillan.
- Freeman, D. and Hare, C. (2006) 'Collaboration, collaboration, collaboration', in Balderstone, D. (Ed.) [Secondary Geography Handbook](#), Sheffield: Geographical Association.
- Jones, K. (1985) *Designing your own Simulations*, Methuen.
- Grenyer, N. (1985) *Geography for Gifted Pupils*, London: School Curriculum Development Committee.
- Hewlett, N. (2006) 'Using literacy productively', in Balderstone, D. (Ed.) [Secondary Geography Handbook](#). Sheffield: Geographical Association.
- Inman, T. (2006) 'Let's get physical' in Balderstone, D. (Ed.) [Secondary Geography Handbook](#), Sheffield: Geographical Association.
- Lambert, D. & Balderstone, D. (2000) *Learning to teach geography in the secondary school*, London: Routledge Falmer.
- Lambert, D. (2009) 'Introduction – part 1: What is living geography?', in Mitchell, D. (Ed.) *Living Geography*, Cambridge: Chris Kington Publishing.
- Leat, D. (1998) *Thinking Through Geography*, Cambridge: Chris Kington Publishing.
- Nichols, A. & Kinninment, D. (2001) *More Thinking Through Geography*, Cambridge: Chris Kington Publishing.
- Taylor, L. (2008) 'Key concepts and medium term planning', [Teaching Geography](#), 33, 2, pp. 50-54.
- Walford, R. (1969) *Games in Geography*, London: Longman.
- Walford, R. (1987) 'Games and simulations', in Balderstone, D. (Ed.) [Secondary Geography Handbook](#), Sheffield: Geographical Association.
- Walford, R. (1996) 'The simplicity of simulation', in Bailey, P. & Fox, P. (Eds.) *Geography Teachers' Handbook*, Sheffield: the Geographical Association
- Walford, R. (2007) *Using Games in School Geography*, Cambridge: Chris Kington Publishing.

### Links

- [Christian Aid](#) - good selection of simulation games on global issues
- [Oxfam Education](#) - more games based on real life issues