

RETHINKING GAMES TEACHING

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FOREWORD

In attempting to influence the way games are taught it has been our practice to think through our own ideas, try them ourselves, give practical demonstrations to teachers, react to their feedback and only then write articles in journals which we hope will reach and influence lecturers, advisors and teachers of Physical Education. Whilst we can see strong links with current work on teaching styles, personal and social development, learning theory, etc., we have attempted to present first articles which focus on the essentials of methodology and content – aiming directly at the teacher.

Several of the original articles are now out of print and in addition we felt that there was a need to produce a publication which presented 'landmark' articles in a way which would allow the reader to build up a picture of the understanding approach. By selecting key articles and presenting them in a certain order linked by explanatory paragraphs we hope that the reader develops a perspective but feels that each article has an integrity of its own.

LANDMARKS ON OUR WAY TO 'TEACHING FOR UNDERSTANDING'

Rod Thorpe and David Bunker

In the early '60s the games staff at Loughborough, particularly Allen Wade, Eric Worthington and Stan Wigmore, asked their students, including both of us, to consider the benefits of small-side games, work in grids, and condition games when teaching youngsters in the P.E. lesson. Perhaps of more importance was their suggestion that games skills should be taught through the principles of play. (At a later date some of these ideas were formalised by Allen Wade in his book "The F.A. Guide to Training and Coaching (1967)"). But the emphasis was towards 'games *skills*'; the small-side games etc. were merely the vehicle for the transmission of skills from teacher to taught. In the latter part of the '60s we were teaching physical education in schools where the skill-based approach was much in evidence. And we were unhappy with the results of our work; so many youngsters seemed to be getting nowhere – very little 'progress' was being made and not surprisingly, interest soon waned. Surely there was something better for the majority in our classes?

In 1968 one of us (Rod Thorpe) joined the Loughborough staff, and there Eric Worthington was saying that tennis equipment should be adapted for the less able child. It was at this time that Rod Thorpe, in developing the work, made his move away from a skills-based lesson and towards a more cognitively based approach; youngsters were introduced to the concept of space, attack and defence bases, angles, etc., in preference to the systematic sequencing of the skills lesson. Padder bats were introduced, the court was cut down to size, balls which were slower in flight were used. A rally, containing a repertoire of shots, could and did take place. Two undergraduates (Graham, 1971; Stephenson, 1972) tested some of the ideas in schools and found that . . .

all children could benefit from an approach such as this; it was quite apparent that teaching a class skills that many of them would never achieve and some had already mastered was not the equal of a modified games approach which allowed 'the *game*' to develop and, what is more, allowed the teacher to assist individuals and small groups with their own technical deficiencies.

Prior to arriving back at Loughborough in 1972, David Bunker had been heavily involved with National Governing Body coaching awards, particularly that of the Football Association. Dissatisfied with teaching games skills and techniques he had begun to confront youngsters in the P.E. lesson with the principles (and problems) of playing games. Not long afterwards, some of the games staff at Loughborough, principally Rex Hazeldine, Stan Wigmore and the two of us, decided to team teach an

undergraduate course which identified the core elements in games and, just as important, those differences which make a game unique. The setting up of this games course was a major landmark in our thinking as it forced us to turn our attention to 'understanding' what games were about.

Another major 'happening' for our work was the arrival at Loughborough of Len Almond. With a keen interest in curriculum development, he recognised the impact that this approach could have on games teaching in schools. He had seen work taking place under the guidance of Terry Williamson, P.E. Advisor for Suffolk at the time, which was questioning the common practice of those teaching games and even the games that were being taught. Quite a bit of our work overlapped and the exchange of ideas which followed was invaluable as the pieces of the jigsaw began to fit together. It took the curriculum developer to see that we were asking teachers to re-appraise their teaching of games involving a major shift in their practice: it could only be tested in the schools. After Terry Williamson and the Loughborough group had introduced the approach to a number of P.E. teachers up and down the country, some of whom tried some of the ideas and reported back information, Len Almond formalised a long-term action research project with a group of teachers working in Coventry, England. Simply, this involved Rod Thorpe in presenting practical sessions over a lengthy period. After time had elapsed for trial and reflection, papers were written, collated and subsequently published – Games: Case studies in Teaching for Understanding (1985), Elm Bank Teachers Centre, Coventry. (An example of the papers has been included in this book.) It does not take a quantum leap to realise that once one steps into an 'understanding' approach, the concept of a Games Education, much more than an arbitrary piecing together of recognised games, must be considered.

In 1984 we presented a paper to the pre-Olympic Conference in Eugene, Oregon, (shortly to be published by Human Kinetics), which takes us to the point we have reached in trying to develop a framework for a "Games Education, from 5-16". For the moment, and only for the moment, we are happy to accept a comment made in the introduction to our article in the South Australian P.E. Bulletin 1984:

"the idea of progressing from tactics to skills, or from why? to how? rather than vice versa, is not new, but its organisation and application has not previously been made coherent".

THE CURRICULUM MODEL'

David Bunker and Rod Thorpe

The model as outlined and explained in this paper, is fundamental to our understanding of what 'teaching for understanding' is about. Not only does it provide a theoretical base from which to work, it also gives guidance for those planning sessions insofar as it places its elements in temporal sequence. When we are asked to present lectures, to lead seminars and to conduct practical sessions, the model represents the starting point for our preparation.

Observation of present games teaching shows at best, a series of highly structured lessons leaning heavily on the teaching of techniques, or at worst lessons which rely on the children themselves to sustain interest in the game. This paper is based on the opinion that these approaches have led to:

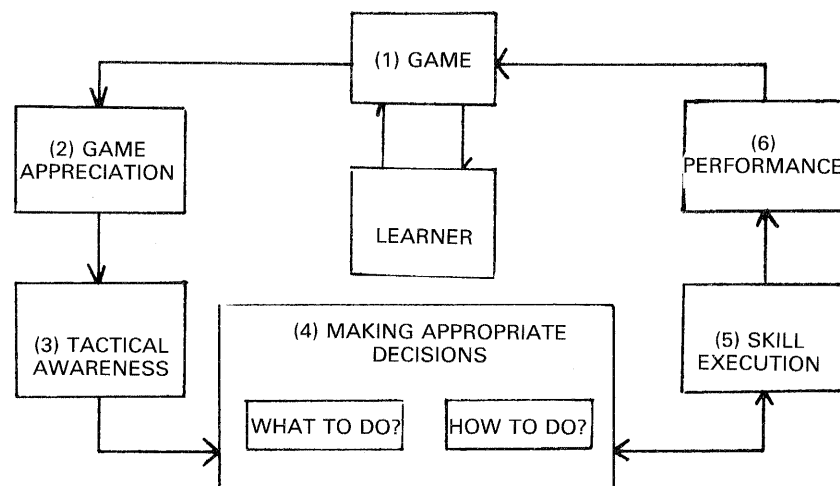
- a) a large percentage of children achieving little success due to the emphasis on performance, i.e. "doing"
- b) the majority of school leavers "knowing" very little about games
- c) the production of supposedly "skilful" players who in fact possess inflexible techniques and poor decision making capacity
- d) the development of teacher/coach dependent performers
- e) the failure to develop "thinking" spectators and "knowing" administrators at a time when games (and sport) are an important form of entertainment in the leisure industry.

As a large amount of time is given over to the teaching of games within the programme of Physical Education, it is surprising that little or no attention has been given to the ways in which they can be taught in schools. It is of particular concern as games, unlike other activities in the Physical Education Curriculum, present problems of "what to do?" and "when to do it?" and not just 'how it is done?'

It could be said that traditional methods have tended to concentrate on specific motor responses (techniques) and have failed to take account of the contextual nature of games. For example, it is usual to teach a very prescribed response, say, the overhead clear in badminton, before the children have grasped the significance of the shot within the game, which in this case is to drive the opponent to the back of the court. The tendency is for teachers to teach "how?" before they teach "why?". It is our belief that if the emphasis is shifted to tactical considerations in a game children will recognise that games can be interesting and enjoyable as they are helped and encouraged to make correct decisions based upon tactical awareness. At this point children should begin to see the need for, and relevance of, particular techniques as they are required in the game situation. Whereas the typical reaction to a lesson based on the teaching of techniques is "when can we play a game?" this new approach should

elicit the response "how can we do it?" – the child is beginning to appreciate the tactical necessity for improving the specific technique required in a particular game situation.

The following model outlines the procedure, step by step, whereby the teacher helps the child to achieve a new level of skilful performance. While absolute levels of performance will vary, each and every child is able to participate in decision making based upon tactical awareness thereby retaining an interest and involvement in the game.



1. **GAME FORM.** While the full adult version of a game presents a long term goal at which to aim and provides guidelines for teachers, it is necessary, in the early years of the secondary school, to introduce children to a variety of game forms in accordance with their age and experience. In doing so it is important to give careful thought to the area of the playing surface, the numbers to be involved and the equipment to be used in the attempt to present children with the problems involved in playing games, fundamentally, creating space to attack a target while being denied space by the opposition. Provided that an appropriate game situation is set up, the pattern of a mini-game played by 11 and 12 year olds can bear a close resemblance to the adult version of the game.
2. **GAME APPRECIATION.** From the outset children should understand the rules of the game to be played, no matter how simple they may be. It is important to remember that the rules give the game its shape. Increasing the height of a net slows the game down and increases the duration of rallies; reducing the number of fielders in a striking game increases the chances of scoring runs; increasing the size of a target in an invasion game makes it more difficult for defenders to protect their goal. Additionally the rules will place constraints of time and space on the game, will state how points (goals) are scored, and more

importantly, will determine the repertory of skills required. It is axiomatic that alterations to the rules of a game will have implications for the tactics to be employed.

3. **TACTICAL AWARENESS.** Given some involvement and an understanding of the rules, it is necessary to consider now the tactics to be used in the game. Ways and means of creating space and denying space must be found to overcome the opposition. The principles of play, common to all games, form the basis for a tactical approach to the game, e.g. achieving more penetration as a result of practising fast-break attacks. Of course game plans do not always work and tactics must be changed to meet the needs of the moment.

It should be added that tactical awareness should lead to early recognition of opposition weaknesses e.g. a poor backhand, a dislike of tackling, a reluctance to catch a hard ball, but this should not be allowed to destroy the game which should be modified to restore the competitive nature of an evenly matched game.

4. **DECISION MAKING.** Proficient games players take only fractions of a second to make decisions and they would see no value in distinguishing between the "what?" and the "how?". In this approach to games there is a difference between decisions based upon "what to do?" and "how to do it?" thus permitting both the learner and teacher to recognise and attribute shortcomings in decision making.
 - a) "What to do?" Whilst it is obvious that tactical awareness is necessary if decisions are to be made, it is in the very nature of games that circumstances continually change. In deciding what to do each situation has to be assessed and thus the ability to recognise cues (involving processes of selective attention, cue redundancy, perception etc.) and predict possible outcomes (involving anticipation of several kinds) is of paramount importance. For example, there is no value in understanding that attacking a space near the goal in an invasion game may be highly desirable but may carry the risk of losing possession, if the cues cannot be recognised in the first place.
 - b) "How to do it?" There still remains the decision as to what is the best way to do it and the selection of an appropriate response is critical. For example, where a large space is available but time is limited a quickly executed response may be appropriate whereas when time is available but accuracy is vital some element of control prior to execution may be necessary. Such situations often arise in the shooting area of invasion games.
5. **SKILL EXECUTION.** In the model skill execution is used to describe the actual production of the required movement as envisaged by the teacher and seen in the context of the learner and recognising the learners limitations. It should be seen as separate from "performance" (see 6 below) and may include some qualitative aspect of both the mechanical efficiency of the movement and its relevance to the particular game situation. For example, a young child may well produce an excellent defensive clear in badminton in that there is efficient racket head speed and a good angle of contact which puts the shuttle behind the opponent. The shuttle may not reach the back of the full size court due to a lack of strength and/or a lack of technical

development but would still be classified as an excellent defensive clear. Skill execution is thus always seen in the context of the learner and the game.

6. **PERFORMANCE.** This is the observed outcome of the previous processes measured against criteria that are independent of the learner. It is that by which we would classify children as good or bad players whether at school or international level and should be a measure of appropriateness of response as well as efficiency of technique.

CONCLUSION. The sequential aspects of the model are critical. Unlike traditional teaching methods this approach starts with a game and its rules which set the scene for the development of tactical awareness and decision making, which, in their turn, always precede the response factors of skill execution and performance. Satisfactory completion of the stages as outlined will necessitate modification of the game leading to a careful re-appraisal of the requirements of the new game. The cycle has begun again. While children may be pre-occupied with any one component of the model at any one time this will always be in the context of an appropriate game with the result that many of them will experience some of the satisfaction of the skilful player.

Bunker, D. and Thorpe, R., *A Model for the Teaching of Games in Secondary Schools* in the Bulletin of Physical Education, Volume 18 No. 1, Spring 1982.

FROM THEORY TO PRACTICE

David Bunker and Rod Thorpe

Often lecturers (and professors) working in Universities and Colleges are seen by many teachers to be out of touch with the real world. They say that theoretical models are published but give little guidance to facilitate their transfer into practice. In an attempt to meet this criticism, we selected two examples, badminton and basketball.

TWO EXAMPLES OF AN 'UNDERSTANDING APPROACH' TO THE TEACHING OF GAMES

A conviction that much of the pleasure involved in games playing lies in making correct decisions in the light of tactical awareness has led to an approach to game understanding. The approach does not accept that tactics must wait for the development of sophisticated enabling skills but takes the point of view that games are about tactics and that rules and equipment must be modified to ensure that all children gain insights into the games that they play. The development of 'mini-games' will clearly help but it is our belief that the way we structure lessons and units of work has produced a 'technique' dominated approach which is seen in the extreme in the development of 'game skills' courses in teacher training institutions. It is felt that the lesson which is divided into discrete sections viz. introductory activity; technique and/or skill; and game, has led to lessons in which the game is a mere appendage to technique teaching. At worst this structure has led to an introductory session unrelated to what is to follow, a technique section which is seen as essential by the teacher but not by the pupils, and a game which is inappropriate to the ability of many of the children. Often the teacher sees the teaching of technique as the critical part of the lesson indeed lists of skills are presented, week by week, to be ticked off and assessed in an evaluation of the children's performance. Of course, there are teachers who have realised that for many children the techniques are of little value and have let children get on with the game only to realise that they seem to enjoy themselves more with less interference from the teacher. If this is so, what then does the teacher teach?

A model for the teaching of games has been developed (Bunker and Thorpe, 1982, this issue) and, in anticipation of the question 'how does it work in practice?' we present two six hour blocks of work, firstly an introductory unit on badminton which, from the beginning, puts children with little or no previous experience into a game and secondly, a basketball unit which shows how the development of understanding continues throughout the learning process by means of increased tactical awareness. The two activities were selected on account of their contrasting form and their suitability for boys and girls of varied ages and abilities.

A. BADMINTON: the first 6 hours

With a traditional approach the teacher may develop a unit of work as a reaction to certain problems, for example, 'what game shall we play at the end of the lesson?' More often than not the doubles game is preferred because more children are active on the courts. 'What rules shall we play to?' Perhaps I should explain the rules in concluding the first two lessons. 'Which techniques do they need to play badminton well at this level? . . . the serve and return, overhead clear, the drop shot and smash.' It is not surprising therefore, that common practice structures lessons according to the following format.

INTRODUCTORY ACTIVITY e.g. warm-up – relays, mobilising, revision of work.

TECHNIQUES AND SKILLS

It is likely that each lesson would focus on a particular technique: e.g.

1. SHORT (and LONG) SERVE
2. RETURN OF SERVE
3. OVERHEAD CLEAR
4. DROP SHOT
5. SMASH

GAME: Invariably doubles game is played in the latter part of each lesson.

A TOURNAMENT usually rounds off a block teaching unit.

The alternative approach suggested starts with a game but it must be simplified to be readily understood, with the minimum of rules necessary to retain the essential elements of the game. As we are interested in the development of understanding, the singles game should be played. We are aware that some children have difficulty with the normal drop and hit serve; if this is the case allow the individual to throw/feed for the service or put the shuttle on the racket and throw it into play. Should the class be poor in ability, work on enabling skills might be necessary but if the teacher feels that this may keep children away from the game for more than a short time, then modification of equipment, e.g. batington, would be desirable.

Throughout the teaching unit children will play singles on courts which are long and thin: whilst court areas spring into mind, do not ignore the space between the courts. While the net at normal height may seem proportionately too high, this will help to slow the game down, and encourage the rally and an overhead contact.

You will need to introduce a service line fairly quickly but not before the children have shown this to be necessary e.g. when they have discovered that standing near to the net and "popping it over" or "hitting right to the back of the court" can produce a winning point . . . and no rally. In this way children understand why the service line is there – it is a necessary rule. While service lines may become necessary in this first unit, the centre line will not. The game should have only those rules that are essential i.e.

- a) the shuttle hits the court after passing over the net . . . win the point
- b) the shuttle lands out of the court after passing over the net . . . win the point

- c) alternate serve (which stops a good service from dominating the game) . . . score every point
- d) service is underarm to land anywhere in the opponents' court.

After a quick explanation of the rules the children can try this game. Check that a) everyone understands the rules and b) that children are evenly matched and can hit well enough to play the game. It is important to note that if children cannot readily grasp the game and appreciate its structure, they will find it difficult to develop sensible tactics for playing the game.

Within the framework of an appropriate game, tactical awareness, decision-making and skill execution can be developed. The order is vital and teachers should ensure that techniques are taught as and when they are necessary; teachers must avoid the temptation to think that techniques provide an objective in their own right.

Our approach requires the teacher to highlight the problems raised by the game and for pupils, using their experience of playing the game, to find solutions to them. To clarify this approach, a teaching of progression is presented as a series of problems set to the children.

"How do we win a point?" By getting the shuttle onto the floor of our opponent's court. "What do we need in order to achieve this?" A space to hit into. Play the game and look carefully to see where the spaces are. "Where are the spaces on a long and narrow court?" At the front and back, not down the sides (the shuttle travels slowly making it very difficult to pass the opponent). Play the game to see if you can hit these spaces. "How can we make more space at the front and back of the court?" Hit the shuttle right to the back of the court or drop it just over the net. "Can you do it?" (The teacher with the perfect technique in mind must be willing to accept some shots which lack sophistication but measure up to the problems as set.) "Where could you hit the shuttle to in order to make it difficult for your opponent to attack you." If the opponent is at the back of the court, it gives more time to see the shuttle as it is returned and it is very difficult for the opponent to hit down onto our side of the court. And of course it is easier for me to place my shot into the space at the front of the court. We would not expect children to come up with all the answers – it will be necessary to set a number of sub-problems i.e. angles of return, with time given to sort them out on court.

"Can you get the opponent to the back of the court with your serve?" "Can you get the opponent to the back of the court with the return of serve?" Our experience tells us that the service is not the limiting factor in this rally – it is much more likely to be 'the overhead clear'. "Why overhead?" Well, you do not have to go so far back into the court, you take the shuttle earlier, it is a powerful shot and you can hit down from the overhead position. The teacher should stand back to see whether the children can use the whole court; if not, why not? Check first that they understand what they are trying to do – if they do, is it the technique that is the limitation. Teach technique as necessary, but do not labour the points. We recognise that 'grooving of bad habits' is undesirable but there is an important need to maintain interest in the game so that children will be encouraged to practise the techniques. Individual development should be emphasised and the technique placed back into the game as soon as possible.

"Your opponent has moved you to the back of the court leaving the front court open: how can you stop him from using the space?" Make time by hitting high to the back of his court and move quickly back to a mid-court base. (Recovery to a good base is a natural outcome of denying space to your opponent, 'understood' by the children, not explained to them by the teacher. It is not too difficult to help children to realise that they should recover to a mid-court base while the shuttle is in the air from their own shot and then react to the opponent's hit.)

Clearly there is now a stalemate: the cycle – clear – recovery to the middle of the court – clear – recover . . . repeats itself. "How can we break the stalemate?" Mix in some short shots – try it. The values of the drop shot e.g. winning the point, moving opponent to the front of the court, making him hit from below the height of the net, can be made apparent using the same approach as before.

The game now involves craft and cunning – a rally may consist of a long shot, another long shot, followed by a short, long and then a dropshot winner. The children will appreciate the physical demands of the game and derive some pleasure from being able to manoeuvre the opponent around the court. The need for a more accurate drop shot will become necessary – step in and teach it.

Where do we go from here? This must depend on the abilities of the children. Less able children may well complete the unit with an appreciation of the value of the attacking clear and drop shot but the more able players may move onto the smash and to build disguise into their shots.

You will note that little attention has been paid to the serve. There is no doubt that a good serve can kill the game but work on the service may be necessary when –

- a) children constantly fail to put the shuttle into court
- b) it is killed by the return i.e. too many two-shot rallies
- c) bad habits e.g. contravening the rules, mechanical inefficiency, are being grooved.

The final point perhaps highlights a major criticism levelled at this approach to games teaching i.e. that children may develop bad habits. Our belief is that teachers will teach technique, in fact this has been stated previously, but they will do so at a stage when the children understand 'the game' that they are playing and appreciate the need to develop their techniques.

BASKETBALL

Preliminary surveys of the secondary school physical education curriculum tell us that approximately 24 hours teaching time is given to basketball in the five year period. It seems reasonable to us to break this down into 4x6 hour teaching units, and in so doing to show how the teaching of basketball is developed by outlining the third block of work while using an understanding approach.

A brief resume of the work covered previously sets the scene for what is to follow.

BLOCK 1 Children will have been confronted with a variety of game situations which will leave them with a) an understanding of how space is created in attack (and denied in defence) b) an appreciation of games as the equipment, the playing areas and targets (goals) are modified to meet the needs of the moment and c) an introduction to the most interesting feature of games – the tactics, e.g. ways of overcoming zone and man for man marking systems.

Throughout the first block of work the no contact rule will have been rigidly enforced and for much of the time children would not be allowed to dribble the ball.

BLOCK 2 The 'no travelling' rule directs much of our teaching now. This is the time to release children from the pass-catch and pivot and to develop an awareness of the importance of the dribble as a means of penetrating the opposition's defence by manoeuvring them out of position and setting up the chance to drive for the basket.

At least 4 hours will be spent on the lay-up shot as children strive to keep within the 'steps' rule and get the ball as close to the basket as they can before releasing it. The skilful teacher will deal with the defender who deliberately obstructs the shooter en route for the basket and the attacker who 'hangs around' under the basket waiting for an opportunity to score by the introduction of appropriate rules to make the contest 'fair'. At this point in time, the rule relating to the 'double dribble' will have been introduced as without it, the defending team will have difficulty in regaining possession of the ball.

In the games to date it is hoped that children will have seen the need for a 'set shot' to overcome the problems posed by defenders zoning round the basket.

Time to practise techniques and skills such as passing, dribbling and shooting must be given but we would remind teachers that this work is subservient to increasing tactical awareness and helping children to make appropriate decisions.

BLOCK 3 If as seems likely, that some time will have passed since the previous teaching unit, it would be advisable to allocate two lessons to revision work. Playing within a limited set of rules, attack versus defence on half-court makes it possible to look at the movement patterns of individuals (and teams), to run a check on the decision making i.e. when to pass, where to pass, and to see whether individuals are making an appropriate response which is commensurate with their ability.

Although we have been concerned primarily with the principles of attacking play, it is likely that the attacking team will need more help to break down a well-ordered defence. And so the remaining time in this teaching unit explores ways of increasing scoring opportunities by getting players to become more aware of their responsibilities in the team.

We might make a start by asking the question: "When are defences at their most vulnerable?" ... and it might be necessary to run through the situations suggested by the children. "Is the moment when possession changes hands likely to present the best chance to catch the defence 'off-guard'?" Always be looking for the fast break. Is it working? If not, why not? The one man fast break might not be enough. "Should we not give more support to the driving player in order to increase the options available to him?" Try it. "What spaces did you find it best to use?" On the flanks? And so time is spent in "filling lanes" in order to gain an understanding of the principles involved.

More often than not the attacking team finds great difficulty in creating space near to the basket. Perhaps we are not working hard enough to break through the defence? As players begin to interchange position and make decoy runs, there will come a time when three players are clustered together. Freeze the play. What advantage(s) can be gained from having players tightly grouped in this way? We can overload the defence and exploit the possibilities offered by having 3 v 2 on one side of the zone and create 1 v 1 situations in more space on the other side – what is happening here is that players are moving into a restricted and sometimes congested space in order to make room for others.

Is the defence still making life difficult for the attacking team? Why? Are they getting close enough to block and/or delay the shooter? Why not try to take up the defender's position? Set a screen to give the shooter some breathing space. Of course, at first, we will need to establish controlled possession to make time to set the screen and moves will have to be rehearsed as players must be able to read situations quickly. While this may be so, an individual does not have to be 'skilful' in the traditional sense, since he is not in possession of the ball – a 'well-rounded' boy may make the best screen.

As soon as screenplay is introduced, an explanation of the rule which prohibits the moving screen will be necessary to restrict the protection that a player can give to one of his teammates.

We should always remember that teaching is a progressive activity and the dictum that "they are not good enough" leads to teaching which is repetitive and means that the interesting and stimulating features of a game are reserved for the good player representing the school team.

A DEMONSTRATION OF A DIFFERENT FOCUS

Rod Thorpe

When you ask teachers to turn tail and stand traditional practice on its head, it is not surprising that they ask for more detailed explanation and, if possible, demonstration of the new method of approach. One of us (Rod Thorpe), for long interested in racket sports, tries to do both of these things in his article on tennis, a game which is tailor made for an understanding approach.

"I think conventional approaches to the teaching of tennis have convinced at least 80% of children they cannot play the game."

Having made this statement to many teachers over recent years I am always concerned that the majority agree. Methods which are appropriate for small numbers of talented and motivated players in the coaching situation are unlikely to be appropriate for the physical education class of thirty children.

Tennis, more than any other game, illustrates the problems of teaching games with a technique based approach. Despite three to four years of hard work, many of the children do not achieve a technical level which enables the 'game' to be played with any sort of tactical appreciation. Of even greater concern is the fact that the techniques the children may produce when carefully 'fed' the ball, disappear as they push and prod the ball back in the game. The relevance of the techniques in this form have to be questioned. Recently these problems have been recognised and the introduction of 'short tennis' (see 1983 Prudential Schemes) is putting the 'game' back into tennis.

Short tennis is fine but there are two problems which remain. Firstly the children who enjoy the success they achieve with the short game, are put off by the failure they experience on transferring to the full game. Secondly short tennis like other mini-games has tactics which have to be developed and so a scheme of work must be designed if the game is to be valuable within the games programme.

Having taught a number of games I have to say that I consider tennis singles one of the easiest games to understand tactically, for a number of reasons. It is 1 v 1, the target for each stroke is defined by the rules and affected by only one other person, the target is usually in front of you, you alternately play the role of striker and receiver etc. It is perhaps because of this simplicity that spectators can identify with what the top players are trying to do. Equally because of the tactical simplicity it is a game that can be introduced to young children. In primary schools most children could be playing throw tennis with a large ball, over a bench into a 5-6 metre square.

The unit of work (assuming children starting tennis at 9-12 years of age)

The first decisions

I am concerned with 'understanding' the game so it must be singles. To set a realistic range of tactical problems a rally must be possible. I know most children will not achieve a rally with the full game, ergo I must modify the equipment and the court size.

The equipment

The ball

To start the ball must be slow and bounce kindly – sponge balls satisfy these requirements but wear badly on a tarmac surface and are much affected by the wind. Manufacturers are developing foam balls with harder outer layers and there are suitable rubberised balls for outdoor use. As more pace is required glow balls provide an intermediate paced ball which may help the transfer from sponge to tennis ball.

The racket

As our aim is to move to full equipment, at least with some of the children, a racket which can be used with both the 'kinder' ball and the tennis ball would seem desirable. The plastic bats do not meet this need. It may be better to play with the normal tennis racket but transfer through the ball types is not easy. The padma bat does work with all the balls but feels heavy and uncomfortable. At the moment it seems that the best solution is to use a sawn-off (short handled) tennis racket, which is being used with considerable success by teachers in North East Derbyshire, or racket-ball rackets, which are being used by a number of tennis coaches. Both of these rackets are easy to handle and yet because they are strung help develop the 'feel' of the strike and can be used with a variety of balls. Whichever easy racket is used the difficulty of 'moving up a racket' can be softened by 'going back to an easier ball'.

With the development of tennis equipment e.g. 'big heads', 'short tennis' etc. it would seem wise for a manufacturer to consider a range of inexpensive, compatible products designed to facilitate transfer from the beginner to the Wimbledon champion.

The court

With modified equipment of this sort the ball does not travel so far, therefore we need to modify the court. On each full size tennis court it is possible to place 3 short tennis courts (Badminton Court size). As most schools with tennis in the programme have 4 courts we now have 12 courts and 24 people can be playing singles at any time.

The net

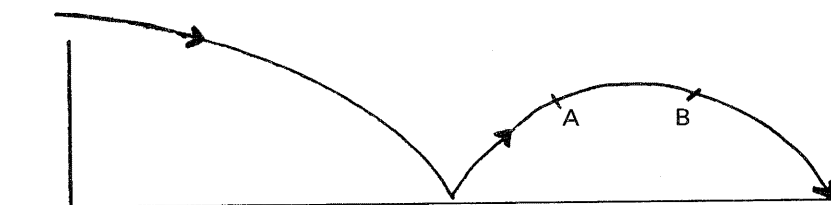
There are often advantages to be gained from altering the net height, therefore badminton net posts or improvised uprights should be considered.

A suggested programme for the first summer unit (8×1½ hours)

To give the flavour of the approach an imagined conversation between teacher and pupils included from time to time. Some of the answers will need more prompting and it is envisaged that children will need a good deal of practice time to come to terms with the problems set by the teacher.

Stage 1: Equipment familiarisation and two simple rules

With the net set at badminton height, a 'kind' ball suitable for your situation, and an appropriate racket allow the children to rally. The two rules are that (i) the ball must bounce once only and (ii) in your opponent's court. The high net gives time, causes the ball to bounce higher and encourages the children to hit up. A few children may find it difficult to hit and so guidance may be given e.g. "Is it easier to hit the ball going up after the bounce (a) or on its way down (b)?"



Because the ball bounces high and travels slowly these points are easy to recognise. In the jargon ball sense and ball application are easier. In other words this simple co-operative game may already be causing technique development.

N.B. If any children have real problems then throw and catch with a large ball can be played on this court. The tactical development will be the same.

Stage 2: A competitive game – how to win

By including the 'ball must bounce once' rule the tactical points of the driving game can be investigated without the complication of the volley and service. The high net-slow ball will ensure that a child who is brought up to the front of the court will have time to recover if his opponent's shot goes to the back of the court.

TEACHER: "We are going to play a game against each other. How can we win a point. Go and see."

Very quickly the children will return with the need for a service rule.

PUPIL: "Sir, if he hits it from near the net on service, he always wins."

Introduce a service rule e.g. underarm service from behind the baseline to anywhere in the court. If this is too difficult the service base can be moved forward into the court. The children know why the rule is there; they 'appreciate' it.

TEACHER: "Now how do we win a point? Remember your ball must land in your opponent's court."

PUPIL: "By hitting the ball away from the other player she cannot reach it or if she does she cannot get it back into my court."

TEACHER: "Great, let's see if we can do this. Does it always work? Go and see."

The aim of this part of the lesson is to help children come to terms with hitting to space to win or sometimes hitting the ball to move a player to one point to open up another space.

TEACHER: "Did any of you find it took you more than five goes to find a big enough space?"

PUPIL: "I never managed it, she always got there."

Assuming the pupils are about the same ability, perhaps the court is too small, the ball too slow, the net too high – but maybe this pupil has not fully grasped how to open up spaces.

TEACHER: "If you hit the ball right to the back right hand corner where is it hardest for her to reach the next shot?"

PUPIL: "On the left near the front."

TEACHER: "Have you tried that one?"

This example is presented for two reasons: (a) to set up the next stage and (b) to allow any teacher trying this approach to watch the actual responses of the class. After a few minutes, it is my experience that many children will play a drop shot. They understand the rules, they see the tactical need, they make a sensible decision and in many cases they produce a technique recognisable as a drop shot. Those that have not learnt by watching the TV will soon learn by watching each other or the teacher. Drop shots at 10 years of age, whatever next?

Stage 3: The competitive game – how not to lose

TEACHER: "Did you win some points with the drop shot?"

PUPIL: "Yes, but if I did not win the point with the drop shot he often won it with his return."

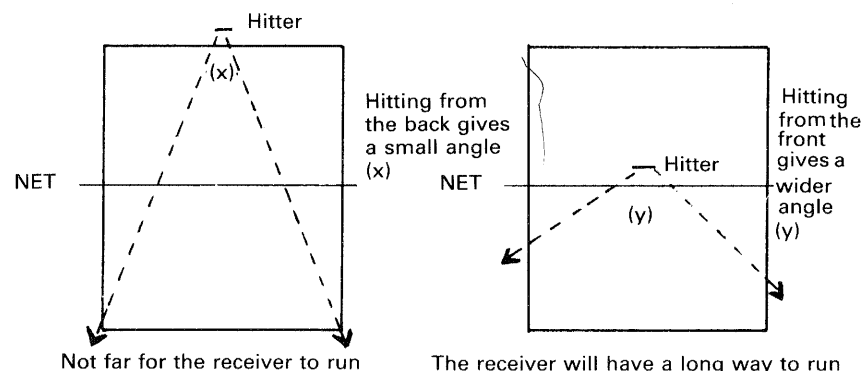
TEACHER: "Why was that?"

PUPIL 1: "He could quickly pop it over the net and I was too far back from the net to reach it."

PUPIL 2: "And if you go to the front to stop him popping it over he whizzes it past you."

PUPIL 3: "He can hit more to the sides." (Wider angle)

The last point is somewhat 'sophisticated', but not difficult to see in practice. A short experimentation with short and long 'fed' balls will soon let them see the point. It may be necessary to go back to throw tennis to illustrate these points more quickly.



TEACHER: "Where do you think it's 'safest' to hit the ball to?"

PUPIL: "To the back."

Already the children can play a game of 13 points (alternate serves) in which they have some ideas about how to win a point but have to decide how much to 'risk'. If a player hits the ball to the back of his opponent's court his opponent is unlikely to beat him but the player may not be able to exploit the spaces and angles on the court.

TEACHER: "At the moment our thoughts are directed to the other side of the net but remember he is trying to attack you. When do you feel most comfortable hitting a ball when the ball bounces near your feet or when it's up around the waist?"

PUPIL: "Near my waist."

TEACHER: "Why?"

PUPIL: "Near my feet if I hit the ball fast it flies out and I seem rushed."

The children can be helped to understand the value of sound ball application and it then follows that there are places to stand that make it easy to move into shots.

TEACHER: "Is it easier to run forward or backward? What happens if you stand in the middle of the court and your opponent hits to the back? Go and see."

By allowing the children to wrestle with the problem it is hoped that they arrive at a sensible answer. With a sponge ball the defensive base will not be '3 ft.' outside the baseline. Their decision is based upon an active thought process not a passive acceptance. One hopes that this sort of process will help the children avoid the errors made by supposedly experienced tennis players who cannot adapt tactically to changing circumstances.

But what of technique?

The teacher of a class of 30 may well be giving technical help on the falling ball to 5 children one minute, suggesting a further turn on the backhand to another 7 the next, improving the dropshot for 2 or 3 the next . . . The children are actively involved in playing the game to answer the problems posed. The teacher is thus able to move into individuals and groups to help solve both tactical and technical problems.

Stage 4: A faster game with width

Whilst the high net slows the game for the beginner it also makes it difficult to exploit width on the courts as defined: either the courts need to be widened or, more in line with tennis the net can be lowered.

The skill of the teacher is knowing the height of net which will encourage the rally and yet allow width to be used.

With the low net the children will realise that the ball can be driven faster and flatter and so they can attack the flanks (it may be that the better players would prefer to use a 'glow ball').

PUPIL: "Sometimes he gets ther and can whizz a shot across the court and beat me."

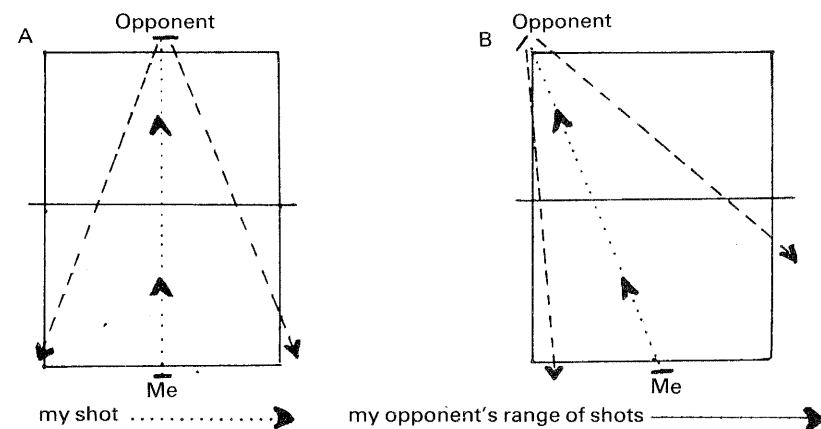
TEACHER: "Did you all find that? Go and see."

TEACHER: "What do you think about hitting to the sides?"

PUPIL: "If I hit to the middle I know where to stand and it's hard for him to make me run but I cannot win either."

The decisions between whether to risk it and go wide or stay safe and hit to the middle depend on the circumstances.

The diagram makes these options clearer to the reader.



The diagram immediately poses another question.

TEACHER: "If you hit to the side (b) do you still stand in the middle of the court?"

PUPIL: "No, I need only 2 steps to reach the shot on the left but 10 steps to reach the shot on the right, this isn't sensible."

Perhaps some readers are feeling that this might be a development too far – the children might be 'swamped' with things to think about but hopefully it illustrates the many 'intriguing' aspects of the game.

If the teacher feels that time will allow for a more complete picture then developing out of the balanced base position arises the tactics of hitting 'back across the diagonal' and 'not breaking the angle'. If some teachers find this difficult to follow they might ask themselves why they have not had the chance to wrestle with the tactics in tennis.

Stage 5: The need for the volley

A low net increases ball speed and a problem may arise when a player moves into court to play his opponent's short ball. Having hit the ball it may be physically impossible for the player to get back to play the ball after the bounce. Previously we had the net high to give time.

TEACHER: "Shall we put the net back up? Is there anything else we could do?"

PUPILS: "Why can't we volley like the real tennis players do?"

TEACHER: "O.K. let's play the same game but we will change one rule. The ball can bounce once on every shot but only has to bounce on the serve. Let's see what happens?"

Because of the earlier games we would expect and encourage the children

to stay back if the ball is hit deep to them but what will they do if their opponent hits a short drive. With the 'kind' ball even the less able should have the confidence to go into the net and so we can begin to develop the front court play. What sort of questions do we ask in this phase?

TEACHER: "Where do you want to hit the ball to if you are going to volley? Go and see."

PUPIL: "If I do not think I can win or force a weak shot by hitting to the side I make sure I hit deep."

TEACHER: "Why?"

PUPIL: "She tries to hit past the side of me but I have time to cover it if she is hitting from well back."

TEACHER: "Try it."

TEACHER: "What will you do then if you are at the back and the volleyer has the net covered?"

PUPIL: "Hit it over the top."

At this point the teacher can confirm that net, ball and racket suit the child to the extent that there is a balanced game with drives, volleys, lobs and passing shots.

The values of being near the net mentioned after the drop shot can be reinforced with the additional point that the volley lets us hit firmly down into the target area.

If the game is working the players can be helped to discover the volleybase. "How far from the net? Always in the middle?" The volleybase they arrive will recognise their height and mobility, the ball speed etc. and because they have decided on it for themselves they will be able to change it as the need arises.

Even at this stage some children may play a predominantly attacking game – coming to the net at very 'suitable' occasion, others may prefer a baseline game. It is in the very nature of tennis that these different styles of play are effective.

Children will be selecting opponents who are friends of like ability. It should not be difficult for the teacher to divide the 30 children into 6 round robin tournaments with 5 like players on each set of 2 courts.

There can be no doubt that such a unit will ensure Game appreciation and Tactical Awareness, and give opportunities for sound Decision making. Technique is not neglected but always arises from the game. Whilst some major points of technique may be appropriate to all the class, e.g. the logic of hitting the falling ball, concentrated practice and guidance will be given in small groups in recognition of differences in ability. If technique becomes too dominant and the children think that the teacher values this too highly then the feelings of failure may soon arise among all but the more able.

It should be remembered that one of the major advantages of this approach is that because the main focus is on tactical awareness and decision making all children irrespective of physical ability can play a full role in the games lesson. Everytime they return to the court to solve a problem they will be hitting many balls and I would suggest as a result they will become more skilful in the true sense of the word.

First published in Thorpe, R., *An "Understanding Approach" to the Teaching of Tennis*, in the Bulletin of Physical Education, vol. 19, no. 1, Spring 1983.

IS THERE A NEED TO REFLECT ON OUR GAMES TEACHING?

David Bunker and Rod Thorpe

If it were to influence teaching behaviour it seemed to us that it was necessary to try and identify those factors which had led to the games teachers adopting their present practice. In many ways this involved uncomfortable introspection in that we had continued to train teachers to teach games in a way that we had rejected for ourselves some years earlier. The paper which follows was presented at the A.I.S.E.P. Conference in Rome (1983). It asks the P.E. world to consider some of the influences on the student-teacher and places 'the model' against a fairly traditional training programme. Examples from invasion and fielding games are included to further illustrate the understanding approach.

This chapter presents an approach to teaching games which is based on the premise that if we can help children to 'understand' games and to reduce the importance attached to the teaching of techniques in strictly controlled situations then the joy and satisfaction of games will be open to children of all abilities. It is our concern that the satisfaction children seem to find in playing games, (sometimes of their own making), can be destroyed when they are taught within the P.E. curriculum.

To understand games the careful development of the strategy, tactics and the principles within a game, and from game to game, would seem to be desirable. Wade (1969) showed that there were identifiable principles that could be used to examine soccer but others were slow to follow his lead. Morris (1976) points out that games can serve a range of educational purposes and Mauldon and Redfern (1981) clearly outline the shortcomings of games as educational experiences if poorly taught. Earlier Mauldon and Redfern (1969) had suggested an approach which presented a more sensitive way to develop skills within the framework of a game. It is perhaps a reflection of the conservatism of the P.E. profession that twelve years later they felt the need to repeat (anew) their statement that:

"... as soon as one begins to review the assumption underlying both the content and manner of most games teaching it becomes obvious that fresh thinking in this field is long over due."

(pg v Mauldon and Redfern, 1981)

In stopping short of making proposals for a "game-centred approach" Mauldon and Redfern failed to stir the large group of P.E. specialists in England (and elsewhere), particularly those in the secondary schools. In recent years the authors have been challenging this group to try a new approach to their teaching of games.

A TRADITIONAL APPROACH

Present games teaching shows a series of highly structured lessons leaning heavily on the teaching of techniques. It is not unusual for teachers, in England at least, to prepare lists of techniques as the basis of their games programme; sometimes, but not always, small side games are included. An example of such a programme, which may be found in the syllabus notebook or on the changing room wall of the P.E. Staff area, is presented in Figure 1.

YEAR 1 – TERM 1 – BOYS (11 yrs)					
	PERIOD 1 Rugby (Intro.)		PERIOD 2 Basketball (Intro.)	PERIOD 3 Gymnastics	
wk 1	Passing (back)	4 v 4	Chest Pass	2 v 1	The third session of the week would probably be used for Gymnastics, Swimming or other non-game activities.
2	Passing (right)	4 v 4	Bounce Pass	2 v 2	
3	1 Man Scrum	4 v 4	Passes Reinf.	4 v 4	
4	Tackling	4 v 4	Benchball	4 v 4	
5	4 Man Scrum	9 v 9	Dribble	4 v 4	
6	Line Out	MINI	Lay Up	5 v 5	
7	Revision	MINI	Set Shot	5 v 5	
8	Tournament	MINI	Tournament		
HALF TERM					

Figure 1. A technique dominated programme for 1 year old boys in the first half term at secondary school.

If we look at games in English Physical Education we may discover why there is such a predilection with technique. The legacy of the 'games afternoon' in which children played one major game throughout the winter terms and another in the summer was absorbed into the P.E. programme. The P.E. specialist recognised the dangers of such a limited range of games but equally held on to the values of 'school teams' which all too often interfered with other aims in the school programme.

Nevertheless the games lesson did become more than a games 'playing' situation as the teacher saw the games lesson as a vehicle in which to develop skills.

It is the contention of the authors that the desire to develop these skills, more aptly called techniques, in that they became non contextual, distracted the teacher from the many other vital elements inherent in games.

But why are teachers so technique oriented?

Perhaps the answer lies in the development of the subject Physical Education and the resulting implications on the way teachers were trained. As the subject moved to degree status in the 60's so courses such as Skill Acquisition and Measurement and Evaluation grew in importance. The problem with Skill Acquisition courses, at least in England, was that the desire for experimental stringency meant that skills studied were rarely in a sport context. Add to this the desire to measure and evaluate

our work objectively and the well recognised fact that isolated techniques are so much easier to quantify than other aspects of games and it is easy to see how the Physical Educator was pulled toward the technical side of games.

In addition during methodology courses the search for a lesson plan which would ensure a clear and easily documented preparation procedure led to a format that divided lessons into Introductory Activity, Skill Phase and Game. In addition by guiding the teacher to identify teaching points a 'command' or 'task' teaching style is encouraged which more readily fits techniques than other elements of games. (See Figure 2.)

Phase and Activity	Objective	Organisation	Teaching Points	Method and Evaluation
Introductory Activity				
Skill Phase				
Game				

Figure 2. The format of the lesson commonly used for games lessons.

There can be little doubt that such an approach ensured that the lecturer/tutor could check the preparation of the student teacher and gain an idea of what was taught in unseen lessons. The major problem was that this rigid structure led to a 'content' based not 'child' based approach. Some teachers, because they had little real idea about how to develop a game, feared that others might see them as not teaching anything important unless they were seen to be concentrating on the skill phase – after all whilst the non-specialist would not be allowed to teach gymnastics, swimming or athletics there has been a tradition that "anyone" can teach games. Thus it was that the skill phase became the vital part of the lesson in the eyes of the teacher, but despite this one of the commonest statements heard from the children in this type of lesson is "When can we play a game?" (perhaps the children do not see skill development in the same way as the teacher?). It is also the authors' contention that as a profession we became preoccupied with the problems of teaching gymnastics, swimming and athletics in curriculum development because games could look after themselves.

Thus the focus of skill acquisition courses and the desire for order in methodology may have reinforced an approach which was already well embedded in student teachers who, as skilled performers, had been through highly technique oriented coaching procedures.

At its extreme this obsession with technique led many to propose that some sports e.g. field hockey could not be played (even at 11 years old)

until extensive practice ensured competence at enabling skills. Hereby lies a problem, some children never achieve the competence so are they to be denied the pleasure of hockey?

It goes without saying that in a class of 'mixed ability' children, more often than not the skill presented was too hard for the less able and too easy for the very able. But the problem seemed to be far greater than this because even with the most sympathetic of teaching the less able rarely achieved the standard necessary to play like their more able peers thus their ineptness was reinforced.

Our own interest in the area grew as we realised that highly skilful students entering an undergraduate course in Physical Education and Sports Science did not understand the games they played. The fly-half in rugby would kick and pass at appropriate times following certain rules as defined by the teacher or coach but the ability to adapt was often missing and yet games are quite clearly that part of the PE curriculum in which adaptability is of paramount importance.

The uniqueness of games is the 'decision-making' process which precedes the technique employed. Simply if children do not 'understand' the game they cannot select appropriate responses and so they must follow prescribed instructions which tell them what to do for a given situation, but if this occurs the interesting elements of games are lost. Our contention is that each game situation poses a problem and that all children whatever their physical ability can enjoy the pleasure of solving the problem using their bodies as skilfully as possible. Of course the teacher can guide the children toward the answer and so we are not talking simply of a 'problem solving' style in the strictest sense. Nevertheless this element of games teaching lies right within the 'cognitive' area of learning. It is interesting that teachers of physical education have spent many years trying to develop a problem solving approach to gymnastics and yet, by their very nature, games present problems to the participants. Our request to teachers is that they ask themselves – 'Why do I teach games?' Is it to learn a flick in hockey, a punt in rugby or a side foot push pass in soccer? 'If so – why?' The answer can only be to play the game better but are we sure the children know what the game is? To be sure we must be confident the children understand the rules of the game and recognise the major problem such as "How can we score a goal, point, run, basket etc?"

If we now focus on the basketball unit in Figure 1 we might ask teachers "Why the chest pass?" and "Why 2 v 1?", we might expect them to say that the chest pass is a vital part of the game of the basketball and that 2 v 1 gives children a realistic situation in which to practise this skill. Let us examine such a statement and the effect it has.

It is our contention that this answer immediately places the technique as the focus – it says to the children – "You must be able to do this well before you can play basketball." The less able child tries and in comparison to his peers does badly – his physical inability is highlighted by the emphasis on the absolute performance of a technique and the teacher has already implied he cannot play basketball unless he can do a chest pass.

It is not the intention of this paper to discuss the effectiveness of skill teaching but the reader may wish to question whether the chest pass as taught in isolation is vital to the game. Equally, recent work on 'schema' would suggest that an approach that facilitated more variable practice might be beneficial. The link between the "understanding approach" and schema theory has been discussed elsewhere (Pigott, 1982).

What is the alternative?

The teacher in the basketball example has perhaps identified an appropriate game 2 v 1, in England called 'pig-in-the-middle'. This game itself is interesting as the 2 v 1 situation arises many times in team invasion games. Let us play the game first with the rule that the 2 ball carriers must keep possession for 1 minute (keep ball). All three children must stop and think of their role but if we focus on the ball carriers it is not unusual to see a player throwing the ball to his partner who is still well marked by the defender. It often elicits considerable laughter as the children realise that the ball carrier can keep the ball by doing nothing. (The 2 v 1 keep ball game is developed as the example in the paper by Lynne Spackman.) Let us change one rule – now the aim is that the ball be passed as many times as possible in one minute, each pass caught is a point but every time 'piggy' touches the ball the passers lose 3 points. What might we expect to see? – let us focus on the defender (piggy). In the last game the defender had to 'pressure' the ball carrier to try to gain possession so perhaps this will recur. Thus we might see a defender dashing backwards and forwards with the ball being 'popped over' his head as he nears the ball carrier, but 'stop'. "What was the piggy trying to do?" – "Stop passes" – "How can we stop the passes or at least slow them down?" Very quickly the children can learn that to stop a player receiving the pass can reduce the score as much as trying to stop the player passing and so we begin to see the player marking a man.

What has happened?

1. The game has been placed back as the focus of the lesson. (The game).
2. The importance of thinking about the rules to ensure the players understand what they are trying to do has been stressed. (Game appreciation).
3. Less able children physically can play the game and have as much input to the lessons as their more physically capable class mates e.g. it may be the less able child who recognises the importance of "denying space" to a receiver (tactical awareness).

Children are introduced to vocabulary, concepts and tactics in simple games which they can understand, rather than first meeting them in more complex situations. Imagine the naive child first meeting the idea of "keeping possession" in an 11 a-side soccer game. How will he even recognise the concept?

4. Children are encouraged to make their own decisions about what to do, when and how to do it and they understand why. (Decision making).
5. Children are allowed to use the skills they bring to the lesson to answer the problems set by the game. They use skills they *can do* and

are helped to develop new skills only when they see the need. (Skill execution).

6. The 'absolute' physical ability of the child is not vital to entering the 'tactical' realm of games (performance).

The order of the points presented is vital as the authors have proposed that these form the basis of a model to guide lesson and unit development (Figure 3).

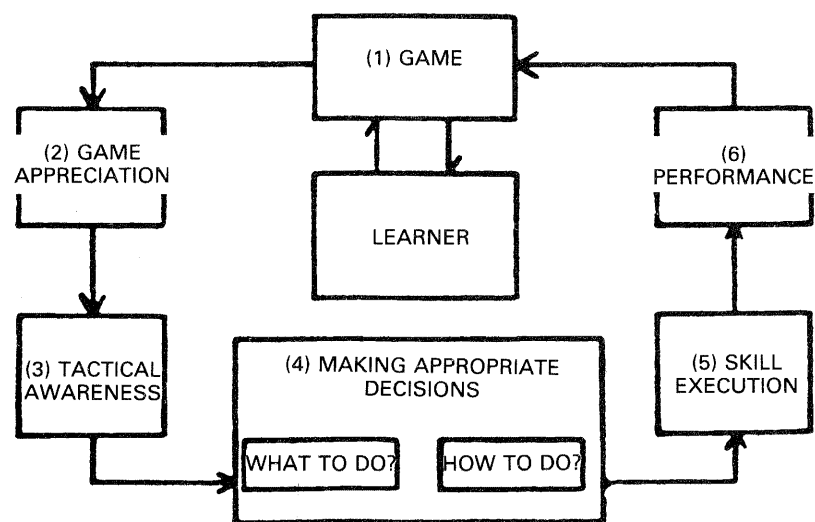
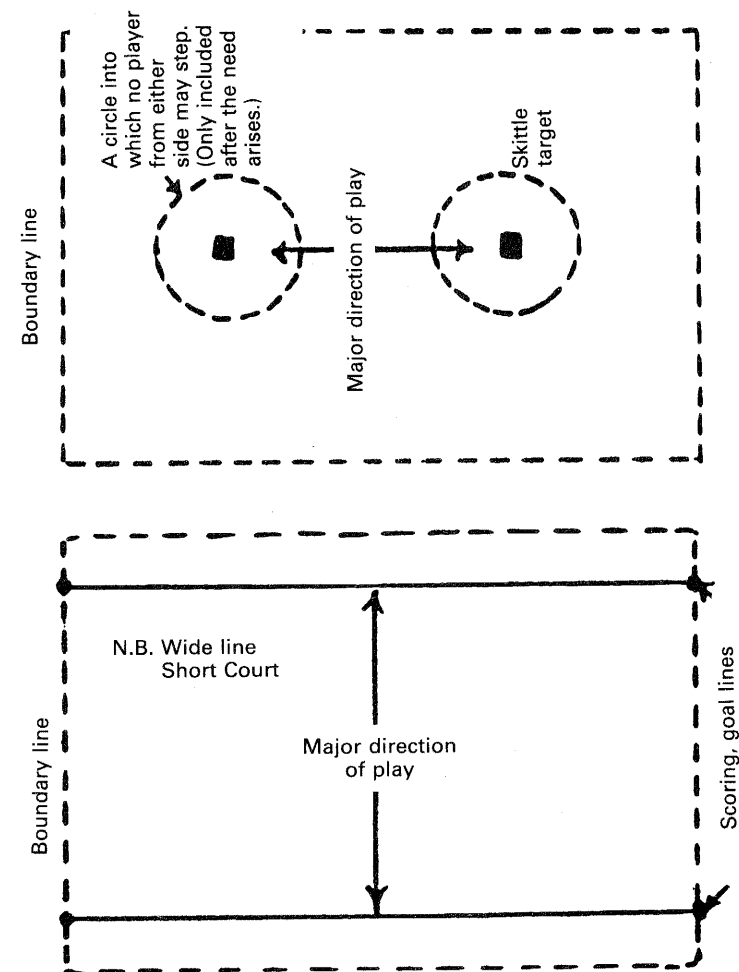


Figure 3. A model for the teaching of games (first published Bunker and Thorpe, 1982)

Just as simple ideas like making and denying space and keeping and regaining possession must be developed carefully (see the paper by Lynne Spackman) more complex concepts must be developed gradually. A few examples are presented below to help the reader recognise the potential of such an approach.

The value of packing a 'zone' defence or marking 'man to man' is not always clear in adult invasion games e.g. soccer, basketball, because many of these games have evolved to allow both possibilities and usually do contain elements of both defensive systems. But games which 'beg' a particular defensive system can be set. An extremely small target like a skittle can be surrounded by 3 small children to make an impenetrable zone (once the children have seen the ease of forming a zone the inclusion of a 1 m radius circle around the skittle into which no player may step means zone players have to move to block shots) but a wide target line as in rugby or American football forces a 'man to man' defence; thus we suggest 4 v 4 skittle ball and 4 v 4 line ball can be used to illustrate these very different approaches (see Figure 4).



Common rules

- Pass using hands
- Defenders pass off from the target area after a score

Other Rules

Skittle Ball

- No running with the ball (usually)
- No contact
- Score by knocking over the skittle

Line Ball

- Running with the ball allowed (usually)
- If touched – stop and pass within 3 secs.
- Score by getting the ball over the line in or into someone's hands.

Figure 4 The courts and minimum rules to play skittle ball and long ball to illustrate 'zone' and 'man-to-man' defences.

The examples used to date have been chosen from invasion games (the authors believe that the individual net games offer the easiest introduction to the understanding approach but lie outside the brief of this conference), but the approach is equally appropriate in 'fielding' games. Few children 'understand' why fielders take up their positions in 11 a side cricket. It is not easy, we have to understand the sort of bowler (pitcher), batsman (striker), the state of the game, the wicket etc. but we can build up understanding if we set simpler problems. Figure 5 shows a simple 2 v 2 cricket game. The bowler throws the ball to help the batsman (they are on the same side) who has to hit the ball between the skittles below head height. If the ball passes the first pair of skittles the batting side get 1 pt, if it passes the second pair of skittles then 3 pts are awarded. Each player in the batting side can have a stated number of hits. The two fielders can stand anywhere behind the fielding line.

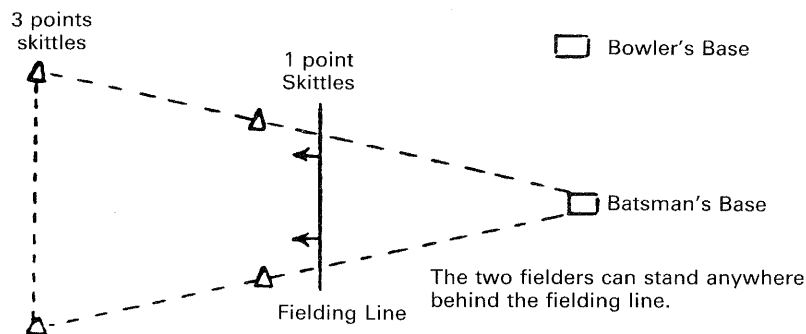


Figure 5 A simple 2 v 2 fielding game

What is asked of the children? The bowler must decide how to feed the ball in a way that will help his batsman and the batsman must decide how to hit to give the best chance of scoring.

But what of the fielders, should they both stand on the fielding line and try to stop one point? What if the batsman can hit firmly? Shall we put one fielder to stop one point and one to stop three? What shall we do if they have only to get 3 pts off the last 3 hits? It is interesting to see how children work out their fielding positions.

Of course the teacher should help the child with the skills of hitting and stopping, but they should very rarely become the important part of the lesson. Skill interjections should be made to individuals or to small groups as the help required by individuals will not be suitable for the class as a whole. Children might ask us for help with a skill . . . even the less able; what a change this will be! Even so, teachers should be reminded that skills are only 'means to an end' and are not the focal point for learning about games. If the tactics form the focus of a games-centred lesson it is likely that there will be more involvement by the child and it is to be hoped

that some of the more important educational aims which surround personal and social development, e.g. the fostering of competition and co-operation between individuals and teams, the inculcation of a sense of fair play, will be more readily attained.

Summary

The paper has presented a 'games-centred' approach to teaching games as an alternative to the 'technique-centred' approach which is still prevalent in England. It must be said that games centred work is not new – it is possible to identify two different approaches:

- i) games are used to develop basic skills e.g. throwing and catching at primary/elementary level and
- ii) 'lead up' games and 'mini' games are used to develop the skills of a specific game e.g. basketball.

For the reasons outlined in the paper we would wish that teachers take one or two steps further than this in recognition of the fact that games are so much more than just a physical performance. Children can be introduced to game forms which are intended to help them understand all games (or at least those within a given classification). A simple fielding game may 'lead' onto cricket, baseball, softball or rounders but it would also be reinforcing concepts which are used in net/barrier and invasion games too. Recognisable games appear, not haphazardly, not because they are traditionally associated with a particular age group, but because the children are ready to appreciate the game from a tactical point of view. Many of the children in the primary schools of this country spend much of the time in P.E. lessons playing soccer (boys) and netball (girls). Why do teachers select games for young children which are tactically easier to deal with? Once teachers set out to help children to understand games then they will have to wrestle with the problems of game modification and game classification which, in turn, will lead them to question the appropriateness of some of the games taught within their programme.

Of course the test of any teaching approach is to see how effective it is in the schools – but how can we find this out? The paper presented by Len Almond may suggest a unique approach. Let us conclude by saying that the most interesting result of asking teachers to rethink their teaching of games is that many of them come to realise how little they 'understand' those games – we wonder why? . . .

1. It is not the intention of this paper to discuss the effectiveness of methods of skill learning but readers are referred to an article by Austin and Pargman (1981) who discuss concepts such as 'natural learning' and 'reduction of cognition' in the light of an inner game approach, and by implication question the value of technique teaching.

REFERENCES

- Almond, L., "Games Making", Bulletin of P.E. Vol. 19, No. 1, Spring 1983.
- Austin, J. S. & Pargman, D., "The Inner-Game Approach to performance and skill acquisition", Motor Skills: Theory into Practice, Vol. 5, No. 1, 3-12, 1981.

- Booth, Karen, "An introduction to netball – an alternative approach". Bulletin of P.E. Vol. 19, No. 1, Spring 1983.
- Bunker, D. J. & Thorpe, R. D., "A model for the teaching of games in Secondary Schools", Bulletin of Physical Education, Vol. 18, No. 1, Spring 1982.
- Bunker, D. J., "Taking an understanding approach to the teaching of cricket – an example of a fielding game." Bulletin of P.E., Vol. 19, No. 1, Spring 1983.
- Kirk, D., "Theoretical guidelines for 'teaching for understanding'", Bulletin of P.E., Vol. 19, No. 1, Spring 1983.
- Mauldon, E. & Redfern, H. B., "Games teaching: A new approach for the Primary School", MacDonald and Evans Ltd., 1969.
- Mauldon, E. & Redfern, H. B., "Games teaching: an approach for the Primary School", MacDonald and Evans Ltd., 1981.
- Morris, G. S. D., "How to change the games children play", Burgess Publishing Co., 1976.
- Pigott, R. E., "A psychological basis for new trends in games teaching", Bulletin of P.E., Vol. 18, No. 1, Spring 1982.
- Thorpe, R. D. & Bunker, D. J., "From theory to practice: two examples of an understanding approach to the teaching of games", Bulletin of P.E., Vol. 18, No. 1, Spring 1982.
- Thorpe, R. D. & Bunker, D. J., "Issues that arise when preparing to teach for understanding," Bulletin of P.E., Vol. 19, No. 1, Spring 1983.
- Thorpe, R. D., "An understanding approach to the teaching of tennis, Bulletin of P.E., Vol. 19, No. 1, Spring 1983.
- Williamson, T., Jackson, S. and Jones D., "It's a different ball game", Bulletin of Physical Education, Vol. 18, No. 1, Spring 1982.
- Wade, A., The F.A. Guide to training and coaching, Heinemann, London, 1967.

ASKING TEACHERS TO RESEARCH

Len Almond

It should be said that a major reason for writing the articles was to ensure that the teacher was shaken out of a complacency about games teaching. Gymnastics, dance, outdoor education, etc., has been scrutinised over the last 20 years, but somehow teachers seemed to think that 'Games' could look after themselves. As a result of the many practical demonstrations, lectures and articles we discovered that teachers were responsive to the ideas we suggested – but did they change their teaching as a result? What was needed was a method of helping teachers to reflect in their teaching. This chapter explains a particular approach to this.

At the same time that the work on 'teaching for understanding in games' was underway I was concerned that there was a lack of teacher involvement in educational research and particularly in physical education. The late Lawrence Stenhouse (1975) had introduced the idea of the teacher as researcher and the notion of 'the self-monitoring teacher' in the Ford Teaching Project had influenced my thinking about teacher involvement in the development of ideas. Thus, as the teachers began to express interest in trying out ideas in their games teaching I encouraged them to monitor their own practice and I monitored their engagement in this work.

This work was attempted in a number of local education authorities supported ably by the Physical Education Advisor whose encouragement was invaluable. In order to find out what happens when teachers engage in their own research the support for teachers was minimal, except for the following:

1. induction course on 'teaching for understanding'
2. documentation on games teaching
3. a short manual on how to monitor one's practice
4. meetings arranged by the local advisor.

In addition to this work all involvements with teachers on courses, discussions, and practical demonstrations were recorded on video and audio tape and case notes were written up by at least two people. This enabled us to build up a picture of teachers' involvement in research based teaching and also their reactions to teaching for understanding as an innovation.

AN ACTION RESEARCH PERSPECTIVE

As an alternative to monitoring the teachers' practice by outsiders, an action research perspective was selected because it involves the teachers in systematic reflection and critical scrutiny of their own actions. As no two classrooms are alike, the only person who is able to express an idea in practice with students is the teacher. Thus, if teachers are to be intelligent

Intelligent Behaviour

in what they are doing they need to submit their practices to systematic observation and careful scrutiny. In this way the teacher is adopting a research stance with a view to improving the quality of the action within it, which is concerned with strengthening and informing the professional judgments of the teacher. This should enable the teacher to establish greater control over translating ideas into practice and help to achieve greater understanding of the variables involved in teaching and encouraging learning. Thus, research by teachers into their own practice provides the potential and capability for the development of practices, because it is grounded in a systematic and critical appraisal of the consequences of actions and the decisions which are made in teaching. It enables teachers to act intelligently because they can take steps to overcome the barriers that create unconscious behaviour patterns and perpetuate untested assumptions. By taking steps to overcome the arbitrariness, impressionistic or whimsical way in which practical decisions and judgments are made, one is attempting to develop a sensitive and self-critical subjective perspective on one's teaching.

However, there is a limit to individual reflection upon practice and the opportunity to develop it. Adopting a research stance to one's teaching needs a support structure in which teachers can communicate with one another and report their investigations. This reporting involves rendering an account of one's investigations and deliberations – in written, spoken, or visual form – for the purpose of discussion and critique. This makes the work of teachers a democratic process because it makes the basis of one's practical judgments open to public scrutiny in order that contrary and alternative perspectives can be considered.

DISCUSSION OF RESULTS

First Order Research by teachers

Even though the games project emphasised the tactical aspects of games, teachers had difficulty in breaking out of the entrenched position which places the technical requirements of games as the central focus for learning a game. The domination of the lesson plan which moves from:

- 1) introductory activity
- 2) technique practice
- 3) small-sided game
- 4) full game

was difficult to break and teachers experienced some difficulty in considering alternatives. This was particularly the case in invasion games which proved to be more complex for teachers to think of ways of representing game forms or devising enabling games to illustrate certain principles. For the teachers, net games, e.g. badminton, appeared to be easier to work with. This may be because they are more simple and straightforward tactically but it could be also that the teachers received more support in conceptualising this game during the induction courses. However, all the teachers consistently reported difficulty with invasion games and this group of games does appear to be the most difficult to teach. During the project, no teachers undertook any case studies of fielding games, e.g. softball or cricket, therefore no feedback has been obtained.

A further problem with the technical requirements of a game arises because teachers can acquire the impression that 'teaching for understanding' is not concerned with the teaching of techniques. As Thorpe and Bunker (1983) rightly point out this is not the case, but teachers need to be reassured. In 'teaching for understanding' the principal focus is on those features which make a game a 'game'; these are essentially tactical and decision-making: however, if a game consistently breaks down, one of the causes may lie in the lack of technical ability and intervention may be required.

After about seven lessons, the teachers reported problems in knowing what kind of game forms were appropriate to develop their work. They had exhausted ideas which they had learned during the induction courses and from resource documents. At this point they felt isolated and unsure of what lay ahead. Teachers who are working alone are likely to stop and seek more help: if it is not readily available they will not proceed any further. Where teachers work in a group, this stage can be overcome because ideas can be generated by sharing and discussing possibilities. However, teachers with little experience or knowledge of games will not make further progress, they will simply revert back to traditional practices where the emphasis is on technique. This problem clearly reveals one of the shortcomings of the innovation – the lack of support. There is a shortage of resource documents which identify game forms and enabling games to illustrate the tactical features of games. At present only net games have been documented in detail.

The previous points illustrate also a critical element within the teaching profession. This project reveals some evidence that teachers of physical education feel more confident when they are repeating or copying ideas presented to them rather than developing ideas which can be translated into practical suggestions in their teaching. Whether this is due to the lack of a support structure to encourage teachers to work together to develop practical ideas, or that their training has encouraged them to be passive recipients of ideas and not creators of ideas is difficult to determine. This point also relates to the need for teachers to be more thoroughly knowledgeable about games and have had practical experience of what games have to offer.

During the project the teachers explored the idea of allowing pupils to devise their own games, and this proved to be very successful. All the teachers reported that they had not tried this approach before, but they were very pleased with the results and surprised how well the pupils were able to devise their own games. The teachers reported also that technically less able pupils responded better to this approach than their more able peers. This result is most interesting and deserves a great deal more investigation because it was impossible to determine why this was the case.

A number of issues arose during meetings where teachers discussed freely their teaching of games. Some teachers expressed the view that young children in primary schools and in the early years of secondary school are convinced that they are incompetent at games because they have not been chosen to represent the school team against other schools.

The teachers in the project believe that this barrier is created by the emphasis in English schools of playing competitive inter-school fixtures from an early age. For some teachers, coaching the élite may be more important than teaching *all* young children to play games. The main emphasis in inter-school fixtures is 'winning', whereas in games taught in curriculum time the main emphasis is 'learning a game' (or 'understanding' what games have to offer). This distinction can often be forgotten by teachers and the philosophy of inter-school games may encroach into games taught during curriculum time.

From the observation of practical induction courses where teachers explored game problems and in discussions about games, it became obvious that the teachers in the project displayed a wide range of knowledge about what games can offer. Some teachers did not understand or appreciate the tactical and strategic features of the games they played. It is little wonder, therefore, that for some teachers, a list of techniques to be taught offers a strong framework for thinking about games teaching.

During games where specific problems have been posed, some teachers play without thinking and do not attempt to examine how the problems can be resolved – they play to win. Some technically able teachers also play without thinking about the problems posed, but, because they have been drilled in the tactical aspects of games, they are able to resolve the problems. When the teachers discuss the tactical aspects of games, they have some difficulty in grasping their significance and the role they play in making a game a 'game'. This observation surprised the project team and requires more detailed study because it may explain why teachers have difficulty in representing games after they have exhausted their store of 'received' ideas. There is a further implication for those involved in teacher training, because if teachers have difficulty in understanding games, there is a need to reappraise the form in which prospective teachers are trained, or more appropriately the way they are initiated into a games education.

Presentation of an Innovation

During induction courses and meetings with the teachers it was apparent that a new terminology was emerging. Teachers who came to the project without any prior reading requested guidance about the use of certain words. From their inquiries and field notes of meetings the following phrases are considered to be part of a new terminology:

- invasion games
- net/wall games
- fielding/run scoring games
- game form
- enabling games
- principles of play
- games making/creating games
- representing games.

The idea of a common shared language is important for teachers, but new terminology may create a barrier that separates those involved in the

project and other interested teachers. In this project, the new terminology was not part of a common shared language and it created an unnecessary barrier that was hard to remove.

Besides misunderstandings, teachers also misinterpret the messages that come from practical induction courses. A number of teachers see 'teaching for understanding' in terms of small-sided games and mini-games and then they argue that they are doing this work already. These teachers see only games with small sides or mini-games and fail to recognise that the focus has shifted from practising techniques within a game to game forms which represent certain principles of play and have been designed with these in mind. This misinterpretation means that a number of teachers will switch off their thinking and not explore the implications of the changing focus. As a result, they go away and the substance of what they are teaching does not change, yet they will still claim that they are 'teaching for understanding'.

The teachers' reactions to an innovation are interesting because the needs of teachers as perceived by the project team and the actual needs of the teachers differ in a very significant way. The teachers want ideas they can go away with and teach, consequently they compare the practical induction courses with their own classes and they question whether they will be able to teach in exactly the same way as the tutor taking the course. The tutors in the project see the needs of teachers in terms of 'what is this idea all about', and as a result the induction courses attempt to illustrate this.

The teachers want class organisation tips to deal with small-group teaching and situations where different equipment may be used by different groups. They ask also for proof that this new approach they are considering is better than the existing form. In the project, we attempted to answer these questions by proposing that ideas need to be disciplined by the problems of practice, consequently the only way to answer their queries was for them to attempt to teach using this approach and monitor their own understandings. While this idea was central to the whole project, the project team were still not satisfying the perceived needs of the teachers and not addressing themselves to the issues that the teachers saw as important. These considerations have been identified, and now induction courses attempt to remedy these issues.

Second Order Research

In previous studies (Boyall, 1983), teachers had experienced difficulty in using monitoring procedures in their teaching, consequently access to a booklet which outlined a range of techniques to monitor one's teaching proved to be an important asset. Nevertheless, teachers did report difficulty in using some techniques. They found that writing field notes or any kind of report was difficult to fit into a teaching day – finding time was a problem. However, the teachers expressed the view that writing notes after their teaching is more complex than they imagined and it took time to acquire both the habit and the facility. After a while the exercise became easier with practice, but finding time to sit and reflect proved to be a major barrier.

Short questionnaires for pupils were found to be more suitable than other techniques for monitoring progress and some of the teachers explored using questionnaires in a variety of ways. Interviews proved to be difficult and the teachers felt uncomfortable in using them. Using tape recorders and video equipment created a number of problems. Unless one used sophisticated equipment, which was often unavailable, the teachers had difficulty in recording dialogue in small groups on playing fields. The results were often spoiled by interference and difficult in distinguishing who was speaking with all the background noise. Making video recordings outside on playing fields was also difficult. Unless there is very strong support from some outside agency, like a University or College, the use of sophisticated audio-visual techniques may be inappropriate for teachers investigating their own practice. The use of a contract with a colleague to observe a lesson was found to be more acceptable and easier to handle, and for many of the teachers this was a new experience. However, the teachers did express the view that this procedure had potential and should be developed further.

There was considerable anxiety with the analysis of the data the teachers collected. Many of them collected too much data and found it difficult to handle. At times isolating what was really relevant proved to be a problem. Too much data was simply confusing and the teachers did not know which way to proceed with their investigations. In the booklet outlining research techniques for use in monitoring teaching, the analysis of data was omitted because it was felt that the research project team and the co-ordinators would provide assistance. This was found to be more complex than we had anticipated: it was simply too big a task to provide the necessary support. Consequently, this lack of support showed us quite clearly how important it is to provide detailed training in research procedures to monitor teaching. It is obvious from the teachers in the project that their training in University or College did not provide them with the expertise or knowledge to monitor their own teaching.

Before the project, the teachers did not appear to experience problems in their teaching; at least they did report any and they did not perceive the teaching of games as problematic. Even though observers may suggest that problems do exist, teachers are reluctant to admit that there are problems in teaching. Of course they recognise practical problems like poor facilities, lack of sufficient equipment or poor motivation of pupils, but they are centred outside the teacher and are seen as beyond their control. It is the exceptional teacher who believes that teaching is problematic or that how one works with young people to foster learning and an interest in an activity is open to many interpretations.

By asking teachers to reflect critically on their practice they became more conscious to their teaching, and all the teachers expressed the view that monitoring their practice enabled them to learn more about teaching, their pupils, and games. This is a very important finding and represents a very strong claim for encouraging all teachers to engage in monitoring their practice, even if for only a short period of time.

Finding time to engage in monitoring proved to be the most difficult task. It was difficult to find time during the day to sit and reflect because

morning and lunch-time breaks were often busy times for teachers of physical education. The bustle and constant pressure of things to do made it difficult to create periods of time for reflection, to write field notes, or interview pupils. In addition, at certain times during the school year there were simply too many tasks to be accomplished in addition to curriculum commitments. For this reason, the autumn term has been chosen to undertake an investigation because earlier research (Almond, 1982) has shown that this is a suitable period to fit in a small-scale research project. Nevertheless, the teachers found the project time consuming and expressed concern at how difficult it was to find the time. This is understandable because in the author's experience the teachers need an opportunity to learn how to fit monitoring into their teaching routines. This was clearly borne out in this project and the teachers found that their second attempt during the school year was much easier – they were beginning to learn. Besides finding the time to fit monitoring into one's teaching routines, the analysis of data requires additional time and many teachers did not realise how much time would be required.

REFLECTIONS AND SPECULATIONS

Innovation of an Idea

During the course of developing 'teaching for understanding' a detailed review of literature was conducted on innovations in physical education, but it proved difficult to find any reference which provided an historical perspective to an innovation. The sad truth appears to be that innovations in physical education are not documented in a form which makes them accessible to research or in a form which provided guidelines on how ideas can be developed in practice. However, if one reads the literature on the teaching of physical education there are numerous examples of new innovations emerging in schools. This would suggest that as a research area there is indeed scope for future development.

In this project the use of case studies may provide a medium in which research about innovation can be conducted. If we are systematic in the process of carefully documenting an innovation, it may be possible to provide archive material accessible to teachers and researchers which would help us to learn about the nature of innovations in teaching. The documentation of an innovation is important, and it was interesting to note that in 'teaching for understanding' in games, the rationale for this focus only emerged after it had been introduced to teachers – a period of about five years. In the early stages, there was only a small input of ideas being generated and tried out in schools, but this increased as more teachers became involved. With increased involvement came a demand for justification and explanation, and at this point the need for a rationale emerged.

The construction of a rationale and a critical debate within the project helped to clarify the thinking of the group and as a result an important step was taken.

Because the idea of 'teaching for understanding' is seen as an innovation, the presentation of the idea is crucial. During the course of the project and in subsequent courses with teachers it became apparent that the

presentation of an idea challenged a teacher's existing framework for conceptualising games. Consequently, there is a need to demonstrate why a different focus is necessary and to show that problems exist within the current view of how games should be taught. Teachers will have to abandon their existing frame of reference if they take on a new idea, but they will only do this if the new framework is seen to be practically feasible. We found that in order to help teachers reconstruct a new framework it was necessary to present ideas in a medium they understood and were familiar with. As a result, we believe that new ideas should be experienced in a practical form and seen through the framework of the teachers' existing ideas. Thus, in the induction courses, the game of badminton was used to illustrate what the game was all about and what the key features of the game were, tactically.

The adequacy of the new framework needs to be tested in the teacher's own setting and opportunity for further practical work and discussion needs to be available. When you take part in a practical session for the second and third time, you see new things, and existing ideas are re-inforced or made clear.

However, teachers need practical guidelines about:

1. exactly what is involved in the new idea
2. a copy of the practical session they participated in with a clear identification of the key ideas
3. alternative ways of developing the work further.

This creates a paradox because teachers appear to need clear guidelines and yet they want to feel that they can be involved in developing further guidelines.

Support Structures

Teachers appear to want quite explicit help in what to teach and how it should be organised. They appear to be collectors of ideas, or want tips about what to do, and they copy what they have experienced and read. However, when this is exhausted, some teachers are clearly out of their depth; they are unable to develop ideas further. This observation suggests that their initiation into teaching has not provided them with the facility for developing ideas on their own. It may be that initial training encourages teachers to be passive recipients of ideas and not active constructors and developers of ideas. This point ought to be investigated because it has implications for the professional development of teachers. A counter point to this, however, could be that the constraints of teaching and daily pressure of constantly performing and projecting inhibits a teacher's facility for developing ideas.

A further point arises in the training of teachers, because the teachers in this project were not familiar with research techniques for monitoring teaching and their own practice. They had not been given the opportunity to explore such techniques in their training which had included courses on research design and techniques. Their previous experience and knowledge with research procedures had been inappropriate for use in practical teaching situations, though it may have been appropriate for certain types of research relevant to situations other than classrooms. The question

needs to be asked whether existing research courses are relevant for practising teachers to examine their own practice. The lack of research literature concerned with classroom research by teachers would tend to support this point of view.

Group Meetings

Teachers see group meetings as important social events because they provide an opportunity to share ideas, to listen to problems that other teachers are facing as well as themselves, and to learn about monitoring techniques and games. They provide an important support structure. However, I doubt if in their present form they can be regarded as real learning opportunities. This is important because the teachers only made real progress when they explained their work with someone from the project team.

Group meetings are essential if we are to provide a forum for critical reflection on teachers' work, but at present they are seen only as a social event, although important. This concerns me, and I can only speculate that involvement in the games project was the first stage for learning how to use a group meeting as a learning medium. With further experience and more detailed study of how teachers use meetings, it may be possible to create a forum of emancipatory action research (Kemmis, 1980) where teachers can accept responsibility for investigating their own practice and engage in a critique of teachers' practical constructs. At the present moment this is impossible and represents an ideal worth working towards.

Collaborative Research

The previous point raises questions about the role of professional educators in Institutes of Higher Education. If teachers are to be supported and encouraged in their endeavours to monitor practice, then Institutes of Higher Education could play a critical role. One of the spin-offs from this project has been the development in England of a number of Curriculum Development Centres in different parts of the country which are providing a support service for teachers. These Centres form a network which will attempt to make accessible the case studies of teachers monitoring their practice, and a framework in which ideas can be incorporated into a teacher's practice in schools. Their potential as a support agency for encouraging research-based teaching is just beginning to be realised.

Research-Based Teaching

Teachers who examine their practice critically and engage in research-based teaching all claim that it enables them to learn more about their pupils, their teaching, and games. This is significant because it clearly demonstrates the value of this approach in developing a better understanding of one's practice. However, it is time-consuming and we need further information about how teachers can incorporate research-based teaching into their teaching routines and the school calendar. This project has shown also that we are only in the early stages of understanding its potential and its limitations. Teachers who volunteer for

a project are atypical. Does research-based teaching provide the average teacher, who may only have a small amount of time to give or who may lack the will and motivation to question their practice, with the facility to understand, to develop, and to change untested assumptions and habitual teaching behaviour? I do not know.

Games Teaching

The project team have organised over 36 courses with teachers and many of the education authorities have initiated their own small-scale projects to re-examine games teaching. Two editions of the *Bulletin of Physical Education* have been devoted to Games Teaching and have been in great demand. A collection of articles on 'teaching for understanding' has been edited by Lynne Spackman at Cheltenham.

Debate about 'teaching for understanding' has generated a notion of 'intelligent performance' which claims to subsume the idea of skill which has dominated our thinking in physical education for so long (Kirk, 1983). A number of Governing Bodies of Sport in England have endorsed this focus on games teaching and incorporated it into their publications.

This changing focus within games teaching started as a reaction to problems with the way games were being taught and the lack of understanding that young people appear to have. It has started to grow and has captured the imagination of teachers who are prepared to invest time and energy in trying it out. But, how is an innovation transformed and absorbed into the culture of teaching? This project has only been a beginning.

REFERENCES

- Almond, L. (1982), 'Containable Time', in Open University Course E364 Curriculum Evaluation and Assessment in Educational Institutions, Milton Keynes: Open University Press.
- Boyall, J. (1983), 'Towards an Analysis of the Teacher as Researcher', unpublished M.Phil. dissertation, University of Technology, Loughborough.
- Brackenridge, C. (1979), 'Games: Classification and Analysis', Paper presented to the Kirklees District Teachers Course, May 2 1979.
- Kemmis, S. (1980), 'Action Research in Retrospect and Prospect', Paper presented at the Annual Meeting of the Australian Association for Research in Education, Sydney, November 6-9.
- Kirk, D. (1983), 'Understanding: A Focus for our Conceptualisations of Physical Performance in Games', Paper presented to the Philosophic Society for the Study of Sport, Annual Conference, King's College, London, July.
- Thorpe, R. and Bunker, D. (1982), 'A model for the Teaching of Games in Secondary Schools', *Bulletin of Physical Education*, Vol. 18, 1, 5-9.
- Thorpe, R. and Bunker, D. (1983), 'Issues that Arise when Preparing to "Teach for Understanding"', *Bulletin of Physical Education*, Vol. 19, 1, 9-12.
- Williamson, T. (1982), 'It's a Different Ball Game', *Bulletin of Physical Education*, Vol. 18, 1, 23-31.

A TEACHER'S REACTIONS

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We have always tried to encourage teachers to record their reactions and the article which follows is taken from the booklet produced by Coventry teachers at the termination of the Action Research project based on 'understanding Games'. We have selected this particular article because it is concise and the recording time would not be beyond the busiest of teachers.

THE TEACHING OF BADMINTON

Introduction

Following the course on 'Teaching for Understanding' at Loughborough University, I decided to undertake a project on Racquet games. The aim was to teach from an understanding point of view with 'technique' falling into the background in the early stages.

The major objective was an appreciation of the 'space' on the court. The group was divided into pairs. Each pair was given a specific area on the court, i.e. half a court or gap between two courts. This gave them a long narrow space. The task set was to get the shuttle on the floor on their opponent's side of the net.

Organisation

We deliberately created two small groups from a 3rd Year class – one group playing Badminton on two courts in the Hall – the other playing volleyball in the Gym.

This is somewhat of an ideal situation for the teaching of Badminton. Normally it is taught in groups of 20-25 on two courts, whereas for this project I only had 12 pupils. Obviously, this must have a positive effect on the pupil's progress.

I was impressed by the progress made. I felt that the concept of exploiting the space was clearly understood. There was much more activity on the courts the whole time. The beginnings of shots emerged without specific teaching of technique in their effort to get the shuttle into the spaces.

I was especially pleased with their ability to clear to the back of the court. This was much more successful than when taught and practised as the skill of an 'overhead clear'. They had the incentive of beating their partner and consequently hit the shuttle much harder.

The group progressed very rapidly to rallies with varied shots – continually moving their partner about the court to the point where I felt they were ready to understand the need to disguise shots to fool their opponents.

Whilst I realise the small numbers contributed to the progress made, the different approach definitely led to more activity on the court – an understanding of the game – and plenty of enjoyment (see results of Questionnaire).

Several pupils have expressed interest in playing after school etc. Two have already joined a scheme at the Racquet Centre.

Lesson 1 – Beginners

Organisation – ½ court singles

Teaching points:

1. Space available – area of court available in which to try to put the shuttle.

Rules of the game:

- a) bring in service line.
- b) alternate serving.
- c) under-arm serve.
- d) lands on floor in court – win a point.
- e) lands out of court/in net – point to opponent.

How many points are you going to play to?

N.B. Need pupils evenly matched if possible.

2. Tactical awareness.

- a) *How* do we win a point?
- b) *What* do we need to achieve this?
- c) *Look* at the *shape* of the court – where are the spaces? i.e. need to use back and front of court.

Observations

1. A pupil who was not able to participate in the lesson was used to make observations and to bring out some of the points I was trying to get over to those participating. This was extremely useful.
2. I was pleasantly surprised by the rapid progress of the group. They were an average group of pupils with varying ability in games skills. There were no obvious difficulties with partners of uneven ability.

They very quickly grasped the idea of aiming for space on the court. This early introduction of a competitive element also encouraged the girls to move about the court more readily. When I have taught Badminton previously, the problem of the pupil being too static has always arisen.

The idea of manoeuvring the opponent forwards and backwards was very easy to see – the girls were determined to hit the shuttle harder and the drop shot began to come naturally in order to get the shuttle in the space.

Lesson 2

Revision of work done in first lesson – i.e. use of space, manoeuvring opponent to create space on the court and then aim into that space.

Teaching points:

1. **ATTACK** – Where can you hit the shuttle to make it difficult for your opponent to attack you?

To the back of the court – why?

Looking for:

- a) shuttle has a long way to travel.
- b) difficult for opponent to hit down from the back of the court.
- c) you can then aim for the front of the court.

GAME – still alternate serve:

- a) serve to the back.
- b) return to the back – then continue rally as before looking for spaces.

Play a short game – first to nine points – award yourself a bonus point if you clear the shuttle over your opponent's head.

2. **RECOVERY** – Where do you go after you have hit the shuttle?

Observations

Confirmed the work of the first lesson. I was pleased with the ability of the pupils to serve and clear – i.e. most of them could get the shuttle to the back of the court. One couple in particular have established a very good clear-drop game and are beginning to try to outwit each other.

The extra incentive of bonus points for reaching the back of the court was very successful.

Very pleased with the ability of the pupils to hit the shuttle hard. Again this had developed more quickly than by teaching 'over-head clear' conventionally.

We then went back to the original game situation – need to mix up the shots otherwise the partner will just stand at the back in anticipation.

Therefore, where is the best place to stand to receive the shuttle?

Pupils are beginning to develop an awareness of a mid-court recovery.

Lesson 3

Revision of high service and clear game leaving space at the front of the court. Reminder of recovery to mid-point and drop-shot.

Teaching point:

1. Need to disguise drop-shot – Why? How?

Try to mix up shots so that opponent does not know whether it is a clear or drop-shot.

2. Serving:

Where else might you serve? Why?

Short serve – what do you need?

Falling shuttle close to the line so that opponent has to lift shuttle over the net, i.e. object is always to try to make the opponent have to lift the shuttle and be on the defence.

Now back to game situations have a choice of serve also now.

Observations

1. Drop shots improving – beginning to disguise them and vary with clears. Naturally aggression and determination to aim for spaces is developing. Much more mobility with the game. Pleased with the amount of exertion and enjoyment from the pupils. Obviously there is a variable standard but the idea of aiming for spaces is clearly established.
2. The girls could see the spaces they needed to try to aim for in a short serve – but they needed time to practice the skill of keeping the shuttle close to the net.

Having practiced the short service, we then went back to the game. With another shot to add variety to the game.

At the end of the lesson the Questionnaire was given out. (The results and copies of the Questionnaire are included.)

Lesson 4

1. Revision of work covered so far – emphasis on two types of serve.
2. Emphasis on trying to build up a series of shots to try to manoeuvre your partner out of position so that you can win the rally.
 - a) How do you 'attack' the shuttle?
The object is to try to hit the shuttle down – so that the opponent is 'defending', i.e. having to 'lift' the shuttle.
 - b) How do you turn 'defence' into 'attack'?
Use a 'clear' to back of the court to give you time to regain your mid-point position.

Observations

Short games continued with their regular partners.

Demonstration by one couple who were closely matched and could hold quite long rallies. The idea of trying to manoeuvre each other out of position was clear. Both of them worked very hard and were obviously thinking about where to hit the shuttle.

Emphasis on 'attacking' the shuttle especially at 'service' rapidly produced an improvement in the short service.

At this stage we changed opponents after every game to give them a fresh 'face' as I felt the original pairs knew each other so well.

This had some benefit especially for the weaker players – by playing with a stronger player the rallies were extended.

Lesson 5

Explanation of full game – i.e. correct method of scoring:

- for singles
- for doubles – if time allows.

Observations

As the course was to be concluded, I decided to try to explain the correct method of scoring, etc.

This was not successful – The singles game was reasonable though more static than normal.

The doubles game was much more difficult. Several of them were very confused by the scoring and changing over in Service. Consequently all the movement on court and enjoyment of the past four weeks seemed to disappear.

Obviously, I had done too much at once.

I need to consider the transition to full game more carefully. Although with more time – once the scoring became clear to them – presumably the experiences of the past five weeks would have meant a mobile doubles game.

Not all of them were ready to cope with a proper game.

At this stage a Questionnaire to get some feed-back on the pupils' attitude to the course was given. I did not allow enough time at the end of the lesson – consequently they are rather 'sketchy'.

Conclusion

I was very pleased with the progress of the group. I found that an understanding and appreciation of 'what' they were trying to do in the game gave them a desire to want to know 'how' to achieve that aim. Consequently, the pupils tried very hard to get the various techniques into their games. The amount of movement on the court was considerably better than I have seen teaching Badminton purely by technique.

The results of the Questionnaire were most encouraging – (it was given out within the last 10 minutes of the lesson – so they were done rather quickly). It shows quite clearly that:

- a) the pupils enjoyed the lessons
- b) that they understood what was asked of them
- c) that the pace and guidance from me was well balanced.

Obviously, much of this was due to the fact that I was very conscious of the way I presented these lessons. The group was a delight to take, in that whatever their physical ability, they all worked very hard.

However, I now use this approach in all my Badminton lessons. The emphasis on use of space immediately stimulates movement on the court. The emergence of different shots are also obvious in the pupils efforts to reach the spaces on the court.

Results

WHITLEY ABBEY COMPREHENSIVE SCHOOL PUPIL FEEDBACK FROM A GAMES LESSON

ACTIVITY.....BADMINTON.....
 AREA.....HALL.....
 EQUIPMENT USED.....
 NUMBER IN CLASS.....11.....
 NAME..... FORM.....
 DATE.....LESSON 3.....

Read the questionnaire and think carefully about the games lesson you have just had. Answer the questions as truthfully as possible. There are no right or wrong answers. Please write clearly.

Underline the answer which best tells how you feel about the lesson.

1. I spent most of my time in the lesson:

Bored	
Confused	
Cold	
Excited	4
Involved	5
Interested	7

 Several pupils under-lined 2 words)
2. I spent most of my time:

Learning new skills	1
Learning new skills that fitted into the game	9
Repeat skills already learnt	
Playing a game	4
Listening to the teacher	
Watching others play	
In the changing rooms	

 (Several pupils under-lined 2 choices)
3. The teacher was talking to the whole class:

Too much	
A lot	
A little	
Sometimes	1
When necessary	11
Never	
4. The teacher spoke to me:

Too much	
A lot	
A little	1
Sometimes	2
When necessary	8
Never	
5. When the teacher spoke to me it was:

About my work	11
About my work and my behaviour	
Only about my behaviour	

6. How often did you feel you wanted help from the teacher?

A lot of the time	1
Several times	
Once or twice	6
Not at all	4

 What kind of help did you want?
 Examples: a) How to serve when doing other skills.
 b) To see if I was doing anything wrong.
 c) How to get the shuttle to where I wanted it to go.
 d) When going wrong, how to improve hits.
 e) Show me how to make the shot look the same (mentioned disguising of shots).
7. How often did you see other pupils getting help from the teacher?

A lot	2
Several times	6
A few times	4
Never	
8. How worthwhile was it taking part in the lesson?

Very worthwhile	5
Worthwhile	4
Part of the lesson was worth doing	
A waste of time	
9. Was there any part of the lesson that you did not understand and that you would like to be repeated next week?
 11 said no.

REFLECTING ON AN INNOVATION

Sarah Doolittle

It is always useful to have a 'scmewhat' independent observer when introducing ideas to a new audience – they can merge with the crowd and react to the feedback. Sarah Doolittle was present at the outset of the Coventry project and recorded her thoughts.

During the past six months I have had the opportunity to observe a number of in-service courses on the teaching of games. Physical Education teachers have come together to share their experiences, aspirations and problems. In addition they have been prepared to listen to a different way of teaching games. My own scepticism as a secondary school teacher has been shaken by some of the responses. Instead of rejecting ideas as too theoretical and unworkable in their situation, some teachers are taking on board a curriculum innovation and asking for more. What is happening?

In several local education authorities, teachers have started to think, discuss and experiment with an approach to games called 'teaching for understanding'. Not all of the teachers have found this approach attractive and though it might be interesting to analyse their reactions, I shall confine my observations to those teachers who have involved themselves in this innovation on the teaching of games. What is particularly interesting to me is to find out what it is that is exciting these teachers and motivating them to seek more contact with this approach.

I have chosen to report on one course which captures the essence of the practical sessions, meetings and discussions I have attended. The teachers' first introduction to 'teaching for understanding' was through active participation in net/racket and invasion type games which allowed them to experience the theory in action. This practical approach to introducing an idea seems crucial and the impact would be considerably reduced if the teachers' first introduction was a lecture type approach. The practical session was followed by group discussion where the teachers posed a variety of questions about their concerns and reactions to the practical. Some teachers went away with the intention of trying out these ideas, though they had some reservations about how well they might work with their pupils. They felt quite confident that they had little to lose and possibly something to gain by trying a new approach with their classes. Typically, the reservations sounded like this: "You could never do rugby that way", "it will never work with the groups I have", "my pupils aren't bright enough for this", "my equipment and facilities aren't adequate", or "I haven't enough time to teach that way".

On the follow-up workshops 8 weeks later the reactions sounded very different "my kids loved it", "my after school groups are growing", or "this was great for my first years, where do I go from here?". It seems that

a little unexpected enthusiasm from pupils goes a long way to encourage teachers.

Four teachers who had gone through a 'teaching for understanding' workshop were asked to monitor their experiences using this approach in their lessons. They kept records of their teaching, their pupils' responses, their own thinking as they taught, and made them available in a case study. These teachers met to share their experiences and learn from their combined observations. Though they found the record keeping tedious and time-consuming, the resulting documentation provided some concrete evidence to share (it should be noted, especially by those who want teachers to document their work, that the time necessary to collect written evidence may be the reason why teachers are put off recording their innovations). Nevertheless, each of the teachers seemed pleased and often surprised at the results of the effort.

The teachers found that pupils like being consulted, "they were very supportive of me", and "they were far more perceptive than I expected", were two common statements. They found also that pupils were very dependent on traditional direct teaching, yet when the pupils were asked to take some responsibility in their lessons, by creating a game, or responding to some problem solving activity, they showed real involvement and enthusiasm for lessons. More than one teacher reported that 'low ability' pupils showed a superior grasp of 'game sense' when traditional teaching was replaced by an approach which involved the pupils in their own learning. These four experienced teachers were discovering some unexpected abilities in all their pupils which they had never seen before.

At the same time, the teachers found themselves learning more about games that they have played and taught for years. Planning lessons from a tactical – rather than a technique-based approach – taught them to see games differently. It is possible to learn something new about hockey, badminton, or volleyball just by teaching a different way? Yes! Each teacher expressed surprise at the new understanding they have gained by re-thinking the same old games. Maybe there is something in the idea that technically incompetent pupils can still enjoy playing games, when games are taught in a different way and with a different emphasis.

By monitoring their experimental block of lessons, these teachers took a bold step. Carefully examining your own teaching can be frightening. Asking a colleague to observe and comment about a lesson is a breach of the comfortable isolationist tradition of 'teacher as master in his own classroom'. When you submit your teaching to scrutiny and compare your aims for a lesson with what actually happens, you risk exposure to practices you would rather ignore. Though some fears were confirmed, the teachers appeared to benefit from the positive criticism they received from both colleagues and pupils. Asking for feedback created a climate of sharing and pupils responded in a most constructive manner. It takes courage to systematically examine your own practice, and an experimental teaching situation is a good opportunity to initiate that process. The four teachers I met were on their way to becoming more informed about their teaching and expressed renewed interest in their work.

What were the drawbacks of trying out a new teaching approach? First, there was a sense of disrupting the routine of teaching and the work of the department. Any change can be seen as a threat. Second, there is a need for time – to think, to plan, to question, and to collect and record the effort. Both problems relate to a commitment to improve one's professional standard despite resistance from outside. Third, finding a critical friend or supportive head of department is crucial for starting such a venture. Fourth, teachers need access to ideas which can help them in planning lessons and looking ahead. Sharing ideas with other interested teachers seems much more practical than reading books written by international coaches who don't teach normal school children. There is a lack of published materials which can survive the test of practical application in classes.

As more teachers adopt a willingness to broaden their perspectives and explore their own teaching, ideas like 'teaching for understanding' in games move out of the theoretical and into the real world of day-to-day Physical Education. The ideas seem sound enough to try. Pupils and school standards will undoubtedly benefit if teachers can regain an interest in the lessons they teach, rather than slogging through the day in order to coach the technically able after school.

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Mr L. Almond, Department of Physical Education, Loughborough University of Technology.

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Doolittle, S., *Reflecting on an Innovation* in the Bulletin of Physical Education, vol. 19, no. 1, Spring 1983.

ISSUES THAT ARISE WHEN PREPARING TO 'TEACH FOR UNDERSTANDING'

David Bunker and Rod Thorpe

The 'Coventry Project' is the result of a concerted attempt by a group of teachers from a number of schools to wrestle with the understanding approach (this is but one of several which are on-going at present). Their regular meetings have paved the way for the production of a document which will enable a wider audience to share their experiences. As part of their discussion certain issues were raised, the same issues which seem to crop up wherever we go . . .

QUESTIONS AND ANSWERS

Over the past several years we have been giving practical demonstrations to show how a teaching approach, based in the cognitive realm of psychology, can be used in the physical education lesson. We find it encouraging that teachers are 'critical' in the true sense of the word; questions are asked and issues are raised – we are pleased to be given an opportunity to reply.

Teachers: The less able cannot cope with a game due to poor technique.

Our Reply: We have to stop pretending that we can change less able children to a degree that allows them to fit into the game played by the majority of the class. They never will.

Most children enter the secondary school with some techniques: they can hit a ball, it is just that you ask them to hit fast moving balls, you provide them with heavy and lengthy implements which have small striking areas and you direct them to hit in particular ways. We recognise their limitations in co-ordinating movements, and their limitations in basic skills and set off by modifying our equipment and giving much thought to the size of playing areas.

Teachers: You need to teach techniques in order to teach games . . .

Our Reply: This is not necessarily so. Children can play soccer without being taught; they have learned by observation and by practice in conducive circumstances. Nevertheless we will teach techniques but they are rarely the central aim of the lesson. Even so, a badminton lesson in which the theme is to develop an awareness of the space on a long and narrow

court will prompt children to ask how they can produce a better shot to the back of the court. We know that in any one class there will be children who find difficulty in making a contact with the shuttlecock – a teaching point may be given to ‘look up through the strings’. Many of them might be able to profit from ‘turn the shoulders to get sideways on’; the best players might be helped to disguise the long shot by concentrating on a ‘late snap at the wrist’. It is important to add that techniques are related to the individual and the game that is being played.

Teachers: Top class games players are accused of being drilled in tactics and having poorly developed skills. Surely this suggests that we should do more work on techniques and skills?

Our Reply: First of all we are not concerned with coaching ‘top class’ players in the physical education lesson (we try to cater for their needs in extra-curricular clubs etc.) although we would suggest that our approach will lead to better decision making capacity and probably more skilful performance. You can tell a child to stand 6-8 feet away from the net to volley – you can explain why – and then you can drill him to hit and recover to the volleying position: this does not in any way ensure understanding. Not only can ‘drilling’ have a detrimental effect on performance in that a distance of 6-8 feet is often inappropriate e.g. – for players of short stature, but can also lead to the player not thinking about his game. Our whole approach leans toward ‘cognitions’ and away from ‘drills’. As to the top class player lacking skill . . . we might well agree, but this will not be rectified by teaching lessons based on techniques as they are pitched at the majority of the class and as such fail to stretch the gifted player. It is much more likely that the gifted player will be practising techniques and skills which are appropriate to his needs if an understanding approach is being taken.

Teachers: We have used mini-games and small side games for many years . . .

Our Reply: Mini-games (and small side games) are excellent in that they present a game form which is more suitable for the age of the children. As such there is a much better chance for the development of game appreciation, tactical awareness and decision making. In themselves, mini-games are not progressive: we build up to them, pass through them and go beyond them.

In the past small side games have been used as a means to develop techniques and skills, with the techniques and skills taught as the ‘meat’ of the lesson. We do not do this: small side games are the lesson, we leave them occasionally to look at the technique of an individual or a group within the class.

Teachers: Is it possible to deal with large numbers using this approach?

Our Reply: Our approach lends itself more than most to handling large numbers. Later articles explain how four games of cricket can be organised to involve up to forty children in an indoor space and how twelve singles games of singles can be played on four tennis courts.

Teachers: We do not possess the modified equipment . . .

Our Reply: We suggest that teachers take an understanding approach to develop one game unit at a time and consider the implications for the purchase (and construction) of modified equipment, much of which is less expensive than traditional items of equipment. It should be noted that badminton, regarded by us as an excellent indoor activity for children, requires next to no ‘special’ equipment (ref. Bulletin of P.E., Spring 1982).

Teachers: Does this approach lend itself to ‘foundation’ type courses for 1st year children in the Secondary School?

Our Reply: There is no doubt that common statements are made which can apply to badminton, volleyball and tennis or cricket, rounders and baseball, and some teachers find the idea of a foundation course to be attractive. The foundation course is not essential however, and if planned, is but a means to an end as the same approach spills over into sport specific activities.

Teachers: We must confess that many of us do not understand games . . .

Our Reply: Perhaps this is the fault of people like ourselves who are responsible for the preparation of physical education teachers!

We have seen three types of teacher playing games which are new to them: the first quietly assesses the game, works out how to play it using sound tactics; the second gets very involved, use inappropriate strategies transferred from other games, but comes up with the answer when set a particular problem; the third lacks any sort of framework to think things through and needs a good deal of guidance.

If you don’t understand about understanding, then don’t worry; the first problem is to recognise that there is a *need* to understand.

MAKING AND SHAPING GAMES

Margaret Ellis

With so much importance being attached to game modification and to the shaping of a game by its rules, it is no surprise that attention should be given to the notion of games making. In their papers Margaret Ellis and Len Almond map out suitable routes for you to take when teaching your children in the primary (elementary) school or pre or post adolescent youngsters in the secondary (high) school. (We would draw your attention to the last paragraph of their presentations which takes us into the minefield of measuring understanding in games.)

While games, whether specifically designed for children, modifications of known games or original versions devised by the teacher, have a place to play in the games program of the Primary School, it is of vital importance that the children be given considerable opportunities to develop games for themselves. Through the experiences encountered in which they are encouraged to modify and shape their games to suit the abilities and interests of the participating players they gain joy and satisfaction through success in participation, develop understanding of the nature of games and increase in tactical awareness and playing ability.

In the early stages of game-making it is thought necessary to provide certain restrictions that guide the thinking and decision making of the children. The amount of pre-game structure that is provided will be determined by the teacher's purpose for the experience and the specific learning outcomes to be achieved, and by the age, experience and ability of the players involved.

Younger children can be given a very brief simple structure with which to start play commensurate with their limited view of games. This view is due to:

- lack of variety in skills
- undeveloped technical ability
- limited understanding of tactical play
- inability to "see" the need for rules that have no apparent meaning.

Their ability to "see" the need for restricting their play or the play of others comes with experience in the game situation where the recognition of the need to change a situation that appears to be "unfair" or one that ensures that the game being played does meet certain criteria – the game they envisage.

To assist older, more experienced children, a larger structure must be provided at the outset of the game-making experience. They are more aware of the aspects that need to be controlled through their experiences in other structured games and usually want more of the rules laid down before play starts.

The first rules elected will be those required to meet specific learning or playing objectives, those that provide the character of the game to be played and those that ensure a safe playing environment.

In structuring the game experience the teacher may consider the following steps:

1. The teacher will select an objective or purpose for the learning experience e.g. (i) for the children to develop ability to keep the ball under control in a retaining situation *or* (iii) for the players to understand the concepts of "creating" and "filling" space.
2. The objective of the game will be established e.g. (i) using the feet, keep the ball away from your opponent for one minute, *or* (ii) for the players to make the ball land on the floor on the other side of the space and to gain the most points.
3. Rules will be selected by the teacher and the children to meet both of the above objectives. This can be achieved in the following three ways:

a) Rules provided by the teacher.

These rules will be selected to ensure that particular behaviours take place. The elements they control should be vital to the learning outcomes with those most often controlled being:

- number of players
- type of equipment
- area of play
- ways of scoring and the scoring system
- restrictions on body management and equipment handling skills.

- e.g. i) - 1 vs 1
- a large ball
 - use feet to kick and stop the ball
 - no bodily contact with opponent
 - score points if you keep control for one minute and if you intercept the ball and gain possession.

- ii) - 1 vs 1
- a long thin court with "no-mans land"
 - a ball which is to be thrown and caught
 - alternate "starts"
 - count a point everytime the ball hits the floor in the opponents space.

- b) A choice of rules provided by the teacher from which the players choose. These rules are used to give guidance to players in the process of decision making. They provide choice yet ensure that the elements that are essential to the learning outcome are evident.

- e.g. i) - hard *or* soft ball
- score two *or* three points if you maintain possession for one minute
 - score one *or* two points if you intercept

- e.g. ii) large *or* medium sized ball
- alternate after one *or* both underarm and overarm
 - play a total of 7 or 11 points
- c) Conditions are set by the teacher for which the players must develop rules. These conditions are used to guide the children's thinking about the game.

- e.g. i) - decide on the area of play
- decide who starts with the ball
 - what happens if there is body contact?
- e.g. ii) - decide on the exact area of play
- decide where you "start" from
 - do you get more than one chance to put the ball into play? (serve)
 - what happens if it touches the net?

When structuring the game all the rules can be set by one of the above methods or a mixture of methods can be used.

4. Suggestions for tactical procedures may also be provided to guide their play.

- e.g. i) - decide how to position the body to keep the ball away from opponent
- think about the best time to intercept the ball

- e.g. ii) - look for the open spaces
- how can you make spaces into which to throw?
 - where will you stand so that you can "cover" all the space?
 - what will you do if you are pulled out of your "covering" position?

For convenience and to cut down on "teacher-telling" time it is advisable to provide game task cards on which the necessary information is written. Obviously the amount of information provided should be appropriate for the playing and reading ability of the participants. It is also possible to add to the information in future lessons, especially through questions that need to be asked regarding the developing game.

Having provided the structure within which the children are deriving their own games the teacher's role is one of observing the outcome, assessing the situations that arise and the players' solutions, and then posing questions that simulate answers or challenge further thought and development. These questions may concern the objective of the game, the selection and execution of particular tactics or techniques, and can be asked on an individual or a team level. What are you trying to do? What are the alternatives? How could you best achieve it? How can other team member help? How will you adjust to the opponents play? etc. The structure presented will lead to certain types of games developing and these questions can be posed that focus on these aspects as well as on those aspects that develop because of the children's choice of rules and playing procedure.

The shaping of their games will occur, not only as the children select the rules under which they start play, but also, as the game breaks down and

problems are encountered which need a change of rules. The situations that arise will need to be assessed and new rules introduced to bring the game gradually to a form that is acceptable to the participating players.

The shaping process:

1. Having selected the game structure play starts.
2. Due to unforeseen circumstances playing brings about a problem in the form of an unfair situation or one that is counter to the game envisaged by the children – the games break down due to his “unequal opportunity for success”.
3. A solution needs to be found that once again puts the game back on an “even keel”. Often there are several alternatives suggested by the children, each affecting the game in different ways.
4. The children need to select the alternative most appropriate to their game. The teacher can help the children decide which they will choose by suggesting that they try out each idea in turn before deciding which one to use or that they discuss the effects each will have on the game before making their selection.
5. Put the new rule changes into operation. The children will find that as they play the game and their understanding and skill improve there are more tactical procedures available to them and some of these, if used, may need to be restricted by a change of rules if the “equal opportunity for success” is upset.

All games originating from the same basic structure will develop differently, depending on the amount of structure that is determined by the children and the extent of their games knowledge and ability. Some games may take a long time to develop yet maintain the interest of the participants, while others breakdown early and cannot be resolved without considerable intervention by the teacher. These games may need to be dissolved and the children assisted in starting again with a fresh structure.

The rules will shape the game by permitting or restricting certain tactical or technical behaviours and it is the relationship between these three components that must be drawn out through discovery, guiding and questioning processes. For the teacher to assist in this shaping process yet not influence the game through the imposition of pre-planned suggestions for change there must be an attitude of “biding one’s time” and waiting for the appropriate moment to intervene. Intervention must be seen to be necessary by the children and not just at the whim of the teacher.

Intervention can be in the form of questions to clarify what is happening and how they are developing their game and to assist in the decision making process. In order to ask appropriate questions the teacher must be a good observer and must have a good understanding of the nature of games and the way in which the components of rules, tactics and skills interact in game play. Also it is imperative that the questions must be phrased carefully to focus the players’ attention on the problems they are encountering and the ways in which they are tackling the problems and thinking about their game. Interventions and suggestions for change must be to assist the players in becoming independent, competent people capable of taking responsibility for their own learning.

With provision of more opportunity for the children to devise increasingly more of the rule structure a final stage, but one for which teachers should be striving, would be one that allows the children the freedom to create, shape and develop their own games with no direct input from the teacher.

One way of increasing the learning outcomes attained from the game-making experience is to provide opportunities for the children to articulate to others how their game is played, to teach it to others and to write it down in a form that can be read and understood by others wishing to play it.

The process of making and shaping games should be a shared experience with the teacher gradually relinquishing control to allow the children the opportunity to direct their own learning. This is vital if the children are to gain satisfaction through participation, and are to understand what they are doing and why they are doing it.

GAMES MAKING

Len Almond

At a recent D.E.S. Regional course on Physical Education the participants were introduced to the idea of creating games. Course members were placed in a situation where they had to work together and create a game. Many of the teachers went back to schools and tried out a similar approach. In the evaluation of the course the teachers indicated that this experiment was a tremendous success because it was well received by pupils and the teachers were enthusiastic about its potential.

Whenever this idea has been presented to other groups of teachers and they have gone back to school and tried it out a number of times it has opened up the potential of games as a real educational experience. Many authors, particularly writing for the Primary school teacher, have proposed the idea of creating games in the P.E. curriculum, however, it does not seem to be normal practice in secondary schools and it is new to many teachers. In this paper I shall present some of the ideas that teachers have been working on.

Our preoccupation with major team games has constrained our thinking in such away that we have given our pupils little opportunity to devise and develop their own games. This is a pity because the educational opportunities of games making is enormous. It can provide us potential with a medium in which pupils can:

1. construct a game that is theirs, something that they have made and created.
2. find out for themselves why rules are important and what purpose they serve.
3. be involved in their own learning.
4. share their ideas and work cooperatively.
5. communicate and explain how their game developed.
6. teach others including the teacher.

If one accepts that these are acceptable reasons and reasonable aspirations and believes the pupils are capable of devising their own games, how does one start and where should games making be included in a games curriculum?

How does one start?

It would be easy to say that you allow pupils free choice of equipment, the area to play in, and number of participants in a group. However, this does not work with pupils who are new to this kind of work. They use too much equipment, devise games with very complicated rules, or construct a game that is really just a fun game. These games are not capable of being developed or of sustaining interest for very long; they can be fun and enjoyable at a particular moment in time but they are limited.

In the early stages of involving pupils in 'games making', it is better:

1. to limit the number of choices to be made and provide the pupils with:
 - a) playing area
 - b) number of pupils on each side
 - c) limited choice of equipment
 e.g. Here are four examples
1.
 - a) Provide a long narrow playing area with walls at each end.
 - b) Make the targets a large circle at each end on the wall.
 - c) Provide the following equipment
 - i) padder bats
 - ii) choice of large or small foam ball, tennis ball, or airflow ball.
 - d. A group of 6, 3 v 3.
2.
 - a) Provide a large square area.
 - b) Give each team TWO target areas (hoop) to defend and attack.
 - c) Provide a large or small bouncy ball.
 - d) Make the group 6 v 6. A large group is necessary to defend two target areas.
3.
 - a) Provide a square area bounded on two sides by walls.
 - b) Provide a variety of foam balls or tennis ball.
 - c) Provide the following equipment:
 - i) a variety of different size foam balls or tennis ball
 - ii) a variety of different striking implements, e.g. padder bat, plastic racket or let them use their hands
 - iii) a net if they require one.
 - d) Limit the numbers of players to two.
4.
 - a) Provide a large triangle shaped area;
 - b) Provide the following equipment:
 - i) a variety of striking implements
 - ii) a variety of balls from hard to soft
 - c) Make two sides 6 v 2. You may wish to suggest also that the side with two pupils has a cooperative feeder, but this may not be necessary.

If the group size is small, it allows for more exchange of ideas and less opportunity for dispute to get out of hand. However, small groups meant that the teacher will have to move round groups and make more interventions. In the early stages of 'games making' this can be a problem, though with more experience and when pupils have learned that they can develop their own ideas, solve problems on their own, settle disputes, use the teacher as a resource rather than the person who tells them what to do, and realise that the teacher is genuinely interested in their own ideas, it is much easier to handle. In some cases teachers have reported that the class organises themselves. It takes time and experience for pupils to feel that they are capable of devising and developing games on their own.

The selection of group size is important for another reason. Pupils working in twos and fours tend to devise a racket/wall or target game. Groups of five and above with equal sides will select an invasion type game. If you make groups uneven, e.g. 6 v 2 a fielding type game emerges.

These four examples are merely possibilities there are endless variations and suggestions possible.

2. Outline the task – which is to devise a game in the context of a specific

playing area using certain equipment – and explain that the game produced will be theirs and a unique game.

Explain that the pupils will have to teach their game to the rest of the pupils in the class. It is wise to provide each group with a set of guidelines which suggest:

- a) each member of the group should think of a possible game
- b) try out a few games
- c) choose one game and refine it.

Some pupils may wish to write down their ideas on paper therefore it may be necessary to provide writing materials.

The teacher may decide to remind the class that games have:

- a) a set of rules
- b) a scoring system
- c) re-starts (ball out of play/infringements)
- d) specific techniques
- e) specific roles e.g. goalkeeper
- f) tactics

On the other hand you may wish these points to arise during the construction of the game, and any intervention on the part of the teacher should help the pupils articulate the problem and identify potential solutions. It is essential for the teacher to recognise that an intervention must not lead to the group following a solution devised by the teacher. The teacher's role is a crucial one, he must allow the group to accept responsibility for making decisions and providing solutions on their own. This is important because if pupils are going to find out for themselves and genuinely construct a game that is theirs, the teacher must refrain from interventions that impose his authority on possible solutions. However, the teacher must intervene directly when the safety of the group is at risk.

There will come a point when the game seems to 'flag' – the rules are almost complete and particular techniques isolated. The teachers may have to pose the question, how can the game be developed? At this point the only possible answer is the tactical capability of the game, and this is what makes the game come alive. Observers of 'games making' sessions always identify this point.

Once a game has been developed, each group should be given the opportunity of explaining it to others in the class, demonstrating it, and allowing other groups to try it out, and evaluate it. It is important to ask pupils to document their game and write it up in some form, e.g. as a class book of games, so that others can play it, and also to provide a record for future use. Games can easily be forgotten and writing them up makes a game important for their creators.

Where should 'games making' appear in a games curriculum?

I believe that 'games making' can stand in its own right as one aspect of a games curriculum, because it provides opportunities for pupils to be creative and make something that is theirs. It can be used with younger pupils where they learn the relevance and value of rules in the context of having to create a rule to solve a problem that arises in developing a

game. They recognise the need for a particular rule and see its significance in the game. With older students, particularly in their last years at secondary school it can be simply an absorbing and stimulating experience.

When it is appropriate to introduce games making is difficult to decide because we have so little information available to analyse. Some teachers use it for two or three weeks as a little break from the normal games periods; others use it at the end of a block of invasion games so that the pupils have ideas to work with, but it is rare for anyone to use it for a long period of time. A short block of time does seem to be most appropriate. As pupils gain more experience of being given the opportunity of devising and developing their own games, they may request more time. Informal teaching approaches lead easily into games making sessions and pupils do have difficulty moving from a very direct and more formal approach to a situation where the responsibility for learning is theirs – this has to be learnt.

If teachers believe that pupils should be given the opportunity of being more involved in their own learning and that they are capable of developing their own ideas, then games making offers a medium for this kind of learning. It has potential for those who believe in it but it is not an easy option. The context in which you put pupils needs careful thought, the teacher must learn how to intervene to support pupils doing things for themselves, and using games as a problem solving experience requires a detailed knowledge of games. Pupils can learn to be responsible.

At The College of St Paul and St Mary, Lynne Bailey has used 'games making' as a procedure for finding out if students understand the tactical and decision-making features of games after they have taken a course which emphasises these features. Constructing a game, devising appropriate rules, and finding out how a game takes shape can tell us a great deal about an individual's understanding. This procedure has many implications for teachers and particularly those who use a 'teaching for understanding approach', because 'games making' could demonstrate how much pupils understand.

Almond, L., *Games Making* in the Bulletin of Physical Education, vol. 19, no. 1, Spring 1983.

REFLECTING ON THEMES: A GAMES CLASSIFICATION

Len Almond

Work of this nature will continue to make reference to game modification, the essential rules and classification.

Both Margaret Ellis and Len Almond have attempted, sometimes jointly and sometimes alone, to focus in detail on specific elements within the work. We have included their observations under one heading, Reflecting on Themes.

Reflecting on Themes

(A series of short papers on elements arising when teaching for understanding.)

In 1983 a number of seminars were organised to discuss the theoretical basis of 'teaching for understanding'. During one of these seminars the need for a classification of games arose and a number of different approaches were considered. The value of such a classification emerged from discussions about WHICH games we should teach young people. Instead of a curriculum dominated by certain types of games it was felt that young people should be exposed to a range of games which SAMPLED the whole spectrum and provided a BALANCE. It was these factors which inspired the search for a classification system which is presented below:

INVASION

- | | | |
|--|--|---|
| 1. Handball
Basketball
Netball
Team Handball
Korkball
Tchouk-ball
Ultimate frisbee
Waterpolo | Football
Soccer
Rugby (Union/League)
Gaelic
Australian
American/Canadian
Speedball
Touchball (Finnish rugby) | Stick-ball
Hockey
Lacrosse (Men/Women)
Shinty
Hurling/Camogie
Ice hockey
Roller hockey
Cycle polo |
|--|--|---|
2. Games which have a) focused target
b) open end target

NET/WALL

- | | | |
|--|------------------------------------|---|
| 1(a) Net/racquet
Badminton
Tennis
Table tennis
Paddle tennis
Platform tennis | 1(b) Net/hand
Volleyball | 2. Wall
Squash
Handball (court)
Rugby fives
Paddle ball
Racquet ball
Jai Alai (Pelota) |
|--|------------------------------------|---|

FIELDING/RUN SCORING

Baseball
Softball
Rounders
Cricket
Kick ball (football cricket)

TARGET GAMES

Golf	Bowls	Ten (5 or 9) Pin	Billiards
Croquet	Curling	Duckpin	Snooker
	Boules	Pub skittles	Pool

FIG. 1 – GAMES CLASSIFICATION

At the same time that the debate on a classification system was underway Margaret Ellis at the University of Alberta in Canada presented a paper at the A.I.E.S.E.P. International Conference on Team Games in Rome 1983 outlining a games classification system which she had devised. The development of this classification system had begun much earlier than the debate in Loughborough and preceded by a number of years the classification presented above. Margaret Ellis's paper is a seminal contribution to our understanding of the similarities and differences of games because if schools are to teach young people:

what games are all about
what games have to offer

then it is the similarities and differences which need to be highlighted and demonstrated. An outline of Ellis's classification is presented to:

TERRITORY		TARGET	
Goal	Line	Opposed	Unopposed
Basketball	Flag Football	Bocce	Bowling
Box Lacrosse	Football	Croquet	Golf
Field Hockey	Rugby	Curling	
Field Lacrosse	Speedball	Horseshoes	
Ice Hockey		Lawn Bowls	
Netball		Shuffleboard	
Ringette			
Soccer			
Team Handball			
Water Polo			

COURT		FIELD	
Divided	Shared	Fan Shaped	Oval Shaped
Badminton	Handball	Baseball	Cricket
Deck Tennis	Jai-Alai	Rounders	Stoolball
Table Tennis	Paddleball	Softball	
Tennis Valleyball	Racquetball		
	Squash		

(Ellis, 1983)

FIG. 2 – GAMES CATEGORIES. (The games named here may exist in various forms as determined by organisations and governing bodies at local, national and international levels).

PRIMARY AND SECONDARY RULES IN GAMES

Len Almond

Games and sports are based on problems which to some extent appear arbitrary. The means to solving the problems are not always the most effective or efficient, thus in golf the problems presented by the game could be solved more effectively if different means were adopted, e.g. we could roll (with the hand) the ball into the hole on the green. However, the essence of what brings joy and satisfaction would be missing for many people. In the same way it would be easier to score in soccer if we could throw the ball in the net, but this would not be soccer – someone called this game Handball. The point that I am attempting to make is that games encapsulate arbitrary problems and the solving of these problems arouses feelings of satisfaction which people find exhilarating and pleasurable. Rules have been established in order to provide a structure that allows the game and the associated feelings to be repeated and passed on to others.

Games have evolved over many years but the main features are clearly identifiable. They are all concerned with solving PROBLEMS in which one party (individual or group) attempts to prove ASCENDANCY over another. All the games are characterised by having a set of RULES which provide a STRUCTURE that defines the problem (e.g. playing area, equipment, number of players, time allowed). In order to solve the problem STRATEGIES are employed which require TECHNIQUES (set shot in basketball) to implement them. Thus, it is possible to offer a definition of a game:

“A struggle for territorial dominance within a set of rules (structural parameters) which includes significant strategic (cognition) and technical (action) aspects and in which coincidence anticipation is paramount. The struggle for territorial dominance is decided by a system of scoring which symbolises the extent of victory. The code of rules identifies the problem and ensures that both teams or individuals meet on an equal basis.”

(Brackenridge, 1979).

The key feature of this analysis by Brackenridge centres on the RULES which provide a structure for the game since they state clearly the nature of the game problem and closely constrain the means available to the player(s) for solving the problem. In order to develop this analysis further I would like to draw on the work of Suits (1979) and Brackenridge (1979) by proposing an analysis which identifies the key features of rules.

First, in order to identify a game we speak of PRIMARY RULES which ensure that the game problem always remains the same. Thus, in PRIMARY RULES:

1. we identify HOW the game is played
2. and HOW winning can be achieved.

Primary rules do not define the purpose of the game (i.e. the end) they are concerned with the means to that end. It could be said that to achieve the end by other means is not playing the game. Thus, primary rules, because they describe means supply the game with its essential character: primary rules are what makes hockey 'hockey' and not soccer.

In addition to Primary rules there are Secondary rules which arise out of experience of playing the games and which are capable of being changed without altering the 'essential character' of the game. Secondary rules can be open to some degree of interpretation by both player and official, e.g. the offside rule in soccer or the tie-break in tennis.

Thus, Primary Rules enable us to distinguish between games and the technical requirements of the game rise out of HOW the game is defined and HOW it is to be played, but they will be specific to each game.

On the other hand STRATEGIC components of games arise because the winning of the game requires the solving of problems through cognition. This provides the opportunity to classify games by analysing primary and secondary rules and identifying similarities and differences. Thus, games could be analysed through their strategic components as well as through their technical requirements which raises interesting questions about the representation of games to young people. As the strategic components are central to all games it may be this feature which stimulates the joys and satisfactions of games.

ACKNOWLEDGEMENTS

Celia Brackenridge's article and Bernard Suit's book "The Grasshopper; Games, Life and Utopia" have influenced the writing of this paper. However, they are not responsible for any inadequate interpretations that I may have made.

REFERENCES

Brackenridge, C. (1979), Games: Classification and Analysis. Paper presented to Kirklees Teachers on May 2nd 1979.
Suits, B. (1979), The Grasshopper: Games, Life, Utopia. Toronto: University of Toronto Press, 1979.

MODIFICATION OF GAMES*

Margaret Ellis

Many people have recommended the use of modification in developing games playing ability. For some this takes the form of Mini-Games (Sleep), for others it is a means of making the official game more appropriate for the participants (Morris, Lenel) while for others (Thorpe & Bunker) is a means of providing a structure within which awareness of the playing procedures and tactics are learned and understood. However, there are many teachers who use them who do not recognise the full potential of such a procedure, and, of course, there are many who use few forms of modification in their games teaching. These teachers may find it useful to peruse the list below.

Following are some examples of modifications that can be made. The list is not exhaustive but will, it is hoped, stimulate the reader to think about other possibilities.

MODIFICATIONS FOR INEXPERIENCED PLAYERS THAT HELP TO PROMOTE, EXAGGERATE, CONTROL OR ELIMINATE CERTAIN BEHAVIOURS

1. Provide more appropriate equipment for younger, smaller players.
 - select lighter, softer objects
 - use smaller objects where they are normally large, e.g. basketball.
 - use larger objects where they are normally small, e.g. field hockey.
 - provide shorter lighter implements, e.g. tennis rackets.
 - provide larger striking surfaces on implements.
2. Provide more appropriate playing, and target areas.
 - shorten aiming distances
 - reduce the area of play
 - reduce the specific markings on the area of play
 - lower high goals, e.g. basketball
 - make small goals larger, e.g. netball
 - raise nets to slow the game
 - lower nets to encourage spiking and smashing
3. Provide a safe learning and playing environment.
 - eliminate body contact
 - reduce or eliminate equipment checking
 - use larger safety zones for goalkeepers
 - limit the type of hit, throw etc. e.g. no lifting of sticks in hockey
 - use lighter, softer objects.
4. Provide maximum opportunity to practice the technical elements of the game.

*Based on notes made by Margaret Ellis whilst on study leave at Loughborough.

- reduce the number of players per team especially in territory and field games
 - use unequal groupings, e.g. 2 vs 7 softball
 - reorganise the role of the players e.g. bowler on the batsman's team
 - eliminate body and equipment checking to allow time to perform the techniques
 - increase the number of changes to achieve objective e.g. 2 serves in badminton, 3 balls in bowling
 - increase amount of passing in Territory games
 - don't put player out for hitting a hard, high ball that is caught in cricket
 - limit the method of hitting, shooting or scoring
5. Aid development of playing ability through tactical awareness.
 - reduce body contact and equipment checking to provide time for decision-making
 - condition the game to make use of selected tactics mandatory e.g. score defence or "up and back" formation
 - change rules to reduce the complexity of the situation
 - highlight the tactics by providing a differential scoring system, e.g. get two points for selected behaviours one for others
 - limit the playing space for better positional play
 - give points for maintaining possession at appropriate times
 - create situations that focus on decision making in solving the problems encountered in the play of the game, e.g. long thin court in badminton requires more consideration of creating the denying the space available.
 6. Increase the opportunity for cooperation and team work.
 - reduce the numbers of players who have to work together
 - require more passing among players in territory games
 - involve more players in set plays
 - provide time for players to plan their plays or positioning during breaks in the game
 7. Provide more opportunities for success and recognition of achievement.
 - provide more opportunities to score
 - use differential scoring systems
 - award points for defensive moves as well as attacking moves, e.g. stopping a goal in territory games, catching a ball in field games
 - players who win rallies in court games count the points (not just when serving)
 - adopt a "handicap" system to help the less able
 - remove goalies in territory games
 - making aiming distances more appropriate.
 8. Make the game less strenuous.
 - provide smaller playing areas
 - have shorter playing time
 - restrict access to areas in territory games
 - use a slower moving object in tennis
 - use higher nets to slow down the game
 9. Speed up the game.
 - players get and place the ball for restarts in territory games

- restrict time between turns in target games
 - restart territory games from the goal area after a goal
 - change serving procedure for court games
 - batsman stay in for a given number of overs in cricket
 - use less players in target games and field games
 - avoid "equal opportunity" starts in territory games – use one team has possession
10. Reduce the domination of a game by a player's ability or physique.
 - make all players receive a pass in territory games
 - require all to score goals for a win in territory games
 - allow no passing above head in netball
 - rotate playing positions and roles
 - provide "handicaps", e.g. the good player in tennis has one serve or give the less able player four points in squash.
 11. Reduce the domination of a game by a specific aspect.
 - limit the type or number of serves
 - put bowler on the batsman's team
 - start court games with a throwing action rather than a striking action
 - limit the type of shot allowed on goal.
 12. Ensure greater understanding of the total game.
 - encourage all players to play all roles or positions
 - devise simpler structures that require certain tactical manoeuvres, e.g. a long, thin court in badminton to focus on creating space at the front or the back into which to send the shuttle
 - start with a simplified structure and shape the game by gradually adding rules that will control their tactical and technical behaviour.

The ability and desire to modify depend on the skill of teachers in knowing where they are going – there must be a clear direction to their work, and their knowledge of games. Without these essentials there cannot be a commitment to teaching children about games and what they have to offer.

WHERE ARE WE NOW? A GAMES EDUCATION

Rod Thorpe and David Bunker

A crucial paper, presented to the pre-Olympic Scientific Congress at Eugene, Oregon (Thorpe, Bunker and Almond, 1984) identified four fundamentals to guide the practice of planning the games curriculum:

- a) sampling
- b) modification – representation
- c) modification – exaggeration
- d) tactical complexity

In presenting games to primary/elementary teachers we ask them to select activities which are low in tactical complexity, e.g. throw tennis, or to modify games by exaggerating key components, e.g. 2 v 2 throw volleyball on a short wide court. These 'games' satisfy the need for a variety of basic movement experiences, e.g. throwing, catching and striking at the same time introducing games which pose different tactical and strategic problems. Whilst this ideal development from simple to complex is highly desirable, it must be recognised that some games have deep cultural roots which children like to play. This interest is difficult to deflect despite the fact that the game is not suitable for children to play, e.g. 11-a-side soccer. The careful selection of a mini-game, recognising the child's developmental stage, but 'representing' the adult game, should be made. It has to be said that the less experienced primary/elementary teacher will be more confident working with a mini-game than wrestling with the gradual progression of modifications designed to exaggerate particular tactical principles.

Until recently there has been little of a dialogue between teachers in the Primary and Secondary Schools (this might be the case in other countries too), but there are signs that the situation is changing for the better. We have worked more with the Secondary School P.E. specialist, but now that the primary teacher has been brought into the fold we would hope that our aim for a "Games Education: from 5-16" can be realised.

Note: readers are advised to refer to "A change in the focus of teaching" Human Kinetics, 1985.

CONCLUSION

When all this is said and done, we are left with one very important question to answer: "does it work?". First soundings from teachers are very encouraging, but there remains a real need to undertake a study which will involve questionnaire design, attitude measurement and the collection of performance data backed by appropriate sampling techniques if we are to find out. Would anybody like to join us?

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