The use of appropriate teaching styles



Introduction:

The use of appropriate teaching styles makes an important contribution to children's learning in physical education. Different teaching styles affect many aspects of teaching and learning, including the learning environment and the teacher's ability to meet individual needs. As physical education has a wide spectrum of objectives according to Macfayden & Bailey (2002) teachers should use a wide variety of teaching styles to ensure that pupils achieve the wide variety of techniques and skills that physical education has to offer. This study will consider the various definitions associated with the topic and pay specific attention to the spectrum of teaching styles proposed by Mosston & Ashworth (1986). The study will then specifically focus on use of the productive and reproductive styles by analysing my own experience against findings from literature.

The framework for teaching styles and behaviours came from work by Mosston (1966). The ideas that Mosston proposed have changed and adapted since the first publication of the framework. The interaction between teacher and student has been developed since his initial publication (Mosston & Ashworth, 1986) and have provided a framework where the decisions are the main element and the relationship between the teacher and the learner has in making those decisions. So influential was it that the work by Nixon & Locke (1973) described it as "the most significant advance in the theory of physical education pedagogy in recent history".

A teaching style is concerned with how an activity is delivered, rather than what is delivered, (Macfadyen & Bailey, 2002). Research conducted by

Siendentop (1991) has also suggested that " a teaching style is typified by the instructional and managerial climate that exists during the lesson which can be observed in the main that the teacher interacts with the pupils and in some cases if there is an interaction at all". The Spectrum incorporates ten landmark styles based on the degree to which the teacher or the student assumes responsibility for what happens in a lesson. This describes a continuum, where at one extreme is the direct, teacher-led approach and at the other lies a much more open-ended and student-centred style where the teacher acts only in a facilitator role.

Reproductive Teaching Styles:

The reproductive or direct cluster includes the command, practice, reciprocal, self check and inclusion teaching styles (Mosston & Ashworth, 2002). Direct styles of teaching require the learner to reproduce known material or knowledge by replicating a specific model. This often involves subject matter relating to concrete facts, rules or specific skills/movements (Rink, 2002). In order for pupils to recreate specific skills Derri & Pachta (2007) identified that "learners must first be provided with a correct technical model to emulate, sufficient time to practice the model and effective feedback related to the original model", with the correct technical model often being shown by the teacher. Research conducted by Pieron (1998) supports the use of the command teaching style as the author argues that copying the most efficient style (that of the teachers demonstration) is highly profitable. It is seen as more profitable because it saves time as the teacher has the overall responsibility for correcting faults and it ensures that pupils receive accurate feedback. The research conducted by Salvara et al

(2006) highlighted that "the direct teaching styles specifically the command style has been shown to have a positive impact on class control and motor performance". Within my teaching I have found that using this style of teaching to be the most effective for class control especially when the class has a large number of pupils and when the class requires a lot of behaviour management strategies used to control to the class. However Pellett & Blakemore (1997) conducted a study of task presentation and content performance of four teachers who all had difference levels of experience and found that students taught by an experienced teacher were more effective at performing the skills when compared to being taught by a teacher of little experience.

My experience whilst on teacher training has also supported these findings as I was able to present the tasks more clearly to pupils when I had more experience in that particular activity. I was also able to differentiate the task to a higher level with activities that I was familiar with as I had more ideas and experience to draw upon, whereas with activities I had little experience of I found it more challenging to be creative and progress the pupils.

This has resulted in me taking actions towards trying to improve subject knowledge in areas of the curriculum where my experience is lacking or insufficient. Research conducted by Griffey (1983) has found that when practicing skills students of lower ability benefited more from the command style of teaching as they had little previous experience to draw from. This is something that I have also noticed, when teaching lower ability groups it is more beneficial to give the instruction or demonstration of task to save time and when working with higher ability pupils allowing the more able pupils to

demonstrate the skill to increase pupil motivation. These findings have not been supported by Goldberger & Gerney (1990) who found that under circuit training conditions the lower ability pupils seemed to benefit more from the opportunity to make decisions about time spent practicing at each station. However within this study the practice style of teaching has also been examined.

According to Byra (2000) " in the practice style of teaching the learners work at their own pace and complete teacher designed tasks in the order they choose, the class is organised around stations and the teacher provides individual feedback to the learners". The most effective type of practice style of teaching I have used whilst on teaching experience was the use of circuit training as I chose the activities/skills/tasks to be practiced at each station and the pupils chose the intensity to which they performed as each station. In a study by Beckett (1991) on college age students the practice style has proved to be very effective in promoting motor skill changes. From my experience of using this style I discovered that it was not particularly useful at promoting learning when there was limited time or large groups as different ability pupils will progress at different times and take longer with certain skills. However the ages of pupils should be taken into consideration as my experience is from working with pupils aged 11-16 who because they are more susceptible to development in motor skills than college aged students. This may explain why Beckett did not notice any changes in motor skills as the subject in his study may have already fully developed. My experience has also been identified and supported by Goldberger & Gerney (1986) & Goldberger et al (1982).

However I did find this style of teaching useful during a health and fitness unit of work where the amount of skill learning was minimal and the main focus on the lesson was for pupils to be active using circuit training and the learning was aimed at pupils being introduced to new knowledge or gaining a further understanding of current knowledge on different types of exercises rather than developing skills.

The reciprocal style has also been examined by Goldberger & Gerney (1986) & Goldberger et al (1982). These researchers identified that in this style the learners work in pairs to achieve the outcomes. The teacher's ability to give effective instruction/information is important when using this style as when one learner performs the other observes and gives feedback to the performer specific to the instruction that the teacher gives at the start of the task and when the performer completes the task the learners switch roles. From my experience the most effective ways of giving instruction are in the form of a demonstration or a criteria sheet, I also found that demonstrations are very effective when demonstrating skills that I can show high levels of competence. In addition to improved skill performance Goldberger (1992) also found that "learners in the reciprocal style provided more feedback, expressed more empathy, offered more praise and encouragement and requested more feedback from each other when compared to a control group". However from my experience of this style the pairing of pupils is important as if you pair pupils of different levels the feedback would either be to complex or too simple thus affecting the amount of learning and skill performance. Also when working with pupils/groups where behaviour management is an issue it is more beneficial for the teacher to pair the

pupils according to ability rather than letting pupils pick their partner as this tends to lead to the pupils picking friends and being distracted and going off task. I have also found that the way in which you give the instruction also can have an effect on the lesson as task sheets often don't work with groups where behaviour management is an issue as they do not respond well to the resource and see it as something to mess about with rather than an educational tool.

Byra & Marks (1993) conducted a study which focuses on the reciprocal style and the effects that different pairings had on pupils engagement. This study highlighted pupils who were identified as friends gave more effective and specific feedback due to their comfort levels being higher as they were working with a friend.

The authors also found that grouping by ability had no effect on the amount of feedback given or the comfort level which is in agreement with my own personal experiences. This studies findings suggests that pupil working with friends is beneficial however this study does not take into account the behaviour of the group which I have experienced can be a major contributing fact when pairing pupils. I have experienced when allowing pupils to work in friendship pairs can sometimes be detrimental when they feel the task is not rewarding or beneficial as they distract each other and sometimes don't complete the task. I have found that to pair pupils with friends is beneficial only when you have built a rapport with the pupils and are aware of how they react working with friends. My experience of this style is that it is also beneficial to use when assessing pupils providing they are aware of the grading criteria they can receive more feedback thus improving performance

when compared to other direct teaching styles. In support of this Cox (1986) found that when comparing the reciprocal style against the command and practice styles that the amount of skill movements was very similar which was surprising as the reciprocal style involves a lot more feedback. It was also found that three times the number of feedback statements were offered to performers using the reciprocal style resulting in higher skills and knowledge gains along with the development of social relationship skills.

According to Byra & Jenkins (1998) within the inclusion style of teaching learners choose the level of difficulty within a task and assess their own skill performance. With this in mind the benefits of the inclusion style are that it provides pupils with the opportunity to engage in activity that is to their appropriate skill/knowledge level potentially increasing inclusion and engagement. My experience of using this style of teaching is that I have attempted to include it in all of my lessons as ensuring all pupils are included is essential to any lesson. However when allowing pupils to decided which skill level they work at often resulted in pupils choosing a level that is not appropriate whether that be to simple or too complex. This goes against the spectrum theory which suggests that "the condition provided by the inclusion style should promote success for all learners" (Mosston & Ashworth, 1994).

The findings of Goldberger & Gerney (1986) & Goldberger et al (1982) has supported my experience and observed that the majority of learners made inappropriate and ineffective decisions for their skill level by choosing levels that were too complex for them to reach success or the objectives even when encouraged or prompted by the teacher. From this I have learned to

set boundaries for those pupils that make the task to difficult so for example when throwing and catching setting a maximum or minimum distance they can throw the ball. My experience has also taught me that this style is most effective when used with older pupils as they have a better self concept of their own ability and are less susceptible to peer pressure this was also observed by Beckett (1991). In study of college aged students Beckett (1991) found that the inclusion style to be as effective as the practice style for learner skill performance when learning motor skills. These finding do not support the conclusions of Goldberger & Gerney (1986) & Goldberger et al (1982) and it was suggested that the difference in students ages as a contributing factor which supports my experience. My experience of the Inclusion style has also highlighted the importance of planning and assessment for the lesson as I have already identified that pupils sometimes don't make the correct decisions. Therefore as a result of this I found it beneficial to assess the pupils who set boundaries and goals that may be above or below their level and pupils who do not work well together and then plan a strategy into the next lesson to ensure that those pupils remain focused and on task.

Productive Teaching Styles:

When compared to the reproductive teaching style the productive cluster of Mosston & Ashworth (1994) spectrum of teaching styles has little background research. The productive cluster requires the learner to produce new knowledge, from my experience the teacher needs a high level of understanding and creativity to create or design scenarios. According to Byra (2000) "within the productive styles of teaching pupils should engage in

cognitive operations like problem solving, creative thinking, inventing and critical thinking to discover new movements". It is the responsibility of the teacher to provide time for cognitive processing therefore there needs to be a class climate focused on searching and examining and feedback for producing different solutions rather than the same generic response (Mosston & Ashworth, 2002).

According to Mosston & Ashworth (1986) " six teaching styles have been identified in the productive cluster they are guided discovery and convergent discovery which both require convergent thinking from the learners and divergent production, individual program learner design, learner initiated and self teaching which require divergent thinking from learners". The majority of the research in this area has studied the effects of the divergent discovery, convergent discovery and guided discovery. In a study by Cleland & Gallahue (1993) divergent movement patterns were observed to establish baseline information and to examine the different factors that contribute to a child's production of divergent movement. The findings highlighted that learners could modify, adopt and combine fundamental movement patterns to produce divergent movement. In a further study Cleland (1994) compared the divergent discovery style against the command style and a no instruction control group to examine the learners ability to produce divergent movement. The findings of this study were that students generated a greater number of divergent movements under the divergent discovery condition. The researcher concluded that employing critical thinking in the form of the divergent discovery style positively effects learners ability to generate a higher quantity of divergent movement patterns. My experience of using this

teaching style is that the pupils age/maturity and experience levels are major contributing factors as learners with low levels of experience have limited subject knowledge to draw from thus affecting their ability to modify current skills/movement my experience has also been supported by the findings of Cleland & Gallahue (1993).

As the previous research suggests a pupils ability to think critically is important within the productive cluster of teaching styles, wish this in mind Cleland & Pearse (1995) conducted a study which examined the methods that physical education teachers use to ensure that pupils use critical thinking. Critical thinking has been defined by McBride (1992) as " reflective thinking is used to make reasonable decisions about movement tasks or challenges" (page 115). This studies conclusion match with my experience which was that this style was most effective when employing the practice style of teaching to give instruction/deliver the subject knowledge then adopting guided discovery and convergent discovery to allow the pupils to think critically. The study also highlighted that " the more experienced teachers were able to create a more effective environment for the pupils to use creative thinking skills" McBride (1992).

From my experience I have also been able to agree with these findings as I felt more comfortable creating an environment that was conducive to creative thinking when teaching a subject I had more experience in as I was able to give more effective feedback.

The research presented to this point has seemed to favour the use of the productive teaching styles especially when creating cognitive learning

however there is conflicting research presented by Salter & Graham (1985). Salter & Graham (1985) examined the effects of the command style, guided discovery style and no instruction on learners skill learning, cognitive learning and skill attempts. The results showed that although their was evidence that learning occurred using all three styles the pupils in the guided discovery and command style recorded significantly better cognitive learning compared to no instruction. For skill attempts however learners in the no instruction style made significantly more attempts at the task than learners in the other styles. The researchers went onto recommend that a longer practice time than 20 minutes may have resulted in the guided discovery having more skill learning, cognitive learning and skill attempts as this style requires longer practice time for the full benefits to be witnessed. From my own experience this is something which I have also observed as pupils respond better when they have longer periods of time to experiment different skill movements. My experience has also taught me that to increase the practice time requires effective instruction delivery which has also been identified by Cleland & Pearse (1995).

Conclusion:

In conclusion several research questions have been answered about the reproductive styles of teaching; what the effects of the reproductive styles have on learning, how learners of different ability level are influenced by different styles, what effect pairings have on pupils ability to give effective feedback, what factors influence learners decision making and what effect the different styles have on learners ability to learn new knowledge.

The findings from the productive style are; can learners employ critical thinking, what is the effect of productive styles on learners ability to produce divergent movement and how can teachers promote critical thinking. The amount of research that is available for the productive styles of teaching in limited when compared to the breadth of research studies on the reproductive teaching styles. However, a study by Cothran et al. (2000) has identify that teachers reported using a variety of style in their lessons yet only one productive style was in the top five styles used.

Although it is encouraging that teachers report using a variety these results must be interpreted as it suggests that teachers over estimate the variety of teaching styles used thus affecting the amount of research there is available in relation to the productive styles of teaching. Research conducted by Goldberger (1992) has identified that the reason that may remain unconvinced or unsure of the styles use is because of the lack of confirmatory research on those styles. Therefore further research is needed into the productive styles of teaching to provide teachers with a knowledge base on how these styles can be effective at promoting learning.

Recommendations:

These findings have provided an initial insight into the use of teaching styles across a theoretically linked spectrum. One noticeable exception was that there is conflict within the research findings and not all researchers reported the same findings which identifies that there are a significant amount of variables related to spectrum research and that the variable that is being focused on should be properly investigated by using the correct research method. Spectrum research needs to continue as not all findings regarding

assumptions associated to the spectrum have not been supported. However, some assumptions have been confirmed within this study for example the reciprocal style does in fact facilitate the provision of feedback, more so than any another style and having learners chose their partners based on friendships helps improve social skills (Byra & Marks, 1993). Other assumptions like, the self check and inclusion styles are the most effective at promoting cognitive development and the inclusion style is most effective at improving participation of low, medium and high ability learners still needs to be examined. Replication studies also need to be conducted in different environments as the research findings and my experience would suggest that the reciprocal style is an effective style at promoting feedback.

However, would it be as effective at facilitating learning with different aged pupils in different schools where behaviour management has a far greater emphasis in lessons.

After reviewing the appropriate relevant literature and reflecting on my own personal experiences I feel that the use of appropriate teaching styles makes an important contribution to pupils' learning in Physical Education and should not be left to chance. Physical Education can provide pupils with the opportunity to think critically, problem solve and to improve own learning. Pupils will be able to think about what they are doing and make decisions independently and know when to use principles such as choreography, games strategies and problem solving. If pupils are to access the full National Curriculum for Physical Education (NCPE) (DfEE/QCA, 1999) and to achieve the outcomes of high quality Physical Education (QCA/DfES, 2005), teachers must employ a variety of appropriate teaching styles to facilitate

the opportunities that Physical Education offers. It is because of this that both reproductive and productive teaching styles should be used to enhance learning and motivation.