The effect of instructional-aid films on learning of table tennis techniques

Atousa Ghaseminezhad Dehkordi

Faculty member of Islamic azad university, Ahvaz branch, Iran

Abstract

Objective: The purpose of the present study was to investigate the effect of instructional-aid films on learning of Table Tennis Techniques in Table Tennis courses.

Method: Two groups of students in Table Tennis courses were selected randomly (simple size was 20 participants for each group). Participants instructed 8 weeks, 3 days each week and 120 minutes each day. The first group was instructed using traditional teaching method, but other group instructed using instructional-aid films. Learning of tennis techniques was measured using practical test for both groups.

Results: Two groups were compared using t- student test. The results revealed that there was significant difference between two groups. In other word, those students who were instructed by instructional-aid film had higher performance than those who did not.

Conclusion: In general, using instructional-aid films during teaching recommended.

Keywords: Instructional-aid films, tennis techniques

1. Introduction

Educational technology aims to improve education. Technology should facilitate learning processes and increase performance of the educational system(s) as it regards to effectiveness and/or efficiency. Many types of instructional media and resources, as distinct from equipment for games and sports, are available to aid the physical education teacher. In addition to textbooks, workbooks, and more conventional printed materials, resources include films, filmstrips, videos, laser discs, CD-Rom, and large-screen projections of televised or videotaped images. Physical education teachers should look for ways not only to incorporate a variety of instructional media into their teaching but also to make sure that the media are available and are included in the overall budget for physical education (Dawson, Hunt, Stein, Tempes, & Henderson, 1994).

In addition to helping students remember important information, instructional aides have other advantages. When properly used, they help gain and hold the attention of students. Audio or visual aids can be very useful in supporting a topic, and the combination of both audio and visual stimuli is particularly effective since the two most important senses are involved. Instructors should keep in mind that they often are salesmen of ideas, and many of the best sales techniques that attract the attention of potential clients are well worth considering. One caution-the
Instructional aid should keep student attention on the subject; it should not be a distracting gimmick (U.S. Department of Transportation, 1999).

Research on learning from television encompasses more than formal instruction. This body of research addresses learning in home as well as school environments. Many of the findings are relevant to the instructional technologist; for example, research on formal features yields guidelines for message design. Instructional technologists can both promote students’ learning to regulate and reinforce their own viewing and educate parents and teachers about media utilization. In addition, instructional technologists are also responsible for recommending and supporting policy that affects television utilization. The literature provides support for policy positions related to (a) control of advertising and violence, (b) parent and teacher training, (c) provision of special programming, and (d) media literacy education.

Researchers in instructional technology can determine gaps in the theoretical base by using reviews such as this. In the future, more research that relates variables studied by psychologists to variables studied by educators will be required in order to identify guidelines for interventions (Barbara, Fullerton, Berry, & Horn, 2001). Research from the last phase includes a great many experimental studies. The results of these experimental studies can be grouped in these areas: (a) use of films to teach higher-level cognitive skills, (b) effects of film viewing on individual learning, and (c) effects of film viewing on self-concept. Bowie concluded that the literature reviewed in these three areas suggests that:

- Films are effective in teaching inquiry learning and problem solving.
- Unstructured films are more effective for teaching problem solving.
- Films are effective in teaching observation skills and attention to detail.
- Low-altitude students tend to benefit more from films.
- Films tend to be more effective for field-independent students.
- Films can positively influence self-concept (Barbara, Fullerton, Berry, & Horn, 2001).

This research has studied the role of media in teaching the practical courses of football in the practice of physical education through distance education to promote the educational quality and reduce the attendance hours of students. Research statistical university includes 150 Iranian male students of physical education through distance education in 1998. The samples were randomly chosen homogeneously based on measurable indices such as age, weight, height, and the scores of BA entrance practical exam. The number of students in the sample was .60. They were divided in two 30-student groups namely experimental and control groups. Experimental group was taught the course of football at the first semester of the academic year 2001-02 via educational films. The control group was offered the mentioned course through traditional system. At the end of educational period, the two groups were assessed by the same condition and the same examination items. The evaluation was according to the individual questionnaire to know their physical condition and physical activities and also their final examination scores. As a result, there is a significant difference between the mean scores of the experimental group and that of control group. So the result of this study shows that we can teach the course of football through ancillary materials to reduce the attendance hours for students and without the educational quality shortage (Keshavarz. 2003).

In this area, Reo and his colleagues (2004) demonstrated that videotaped modeling are more effective than a handout alone for achieving performance accuracy of a basic exercise program. Nevertheless, many physical educators still advocate face-to-face teaching to ensure that learning takes place and that motor movements and exercises are performed efficiently, correctly, and safely. Paradoxically, many educators and parents see school physical education and physical activity in competition with the Internet and other visual media for a youth’s precious time to learn (Buschner, 2006). Any new technology must be examined from political, economic, social, and ethical perspectives. Studies on teacher education and use of instructional materials have been carried out and reported by several investigators including those of Lynne (1982) Agun and Okunrotifa (1977), Agun (1986) Akanbi and Imogie (1988), Adeyanju (1986; 1988, 1999). Agun (1986) pointed out the need for development of skills by teachers undergoing their training so that they could be able to use a wide variety of instructional materials sufficiently well. Akinola (1988) on use of Modern Teaching Aids/new technologies to aid teaching. The various
researchers found that teachers, who are trained and untrained, sue some form of materials to teach their lessons. However, the relevance of the choice of instructional material types that were used and the quality of the instructional material types that teachers use have not been investigated. This is what the present survey hopes to investigate. Some investigators claim that whenever they taught with some of the learning aids, their students get more stimulated because the learning aids help them (students) to become more attentive. In addition, students positive attitude generate more interest for the lesson they teach. As a result, students participate better in class activity (Adeyanju, 2010).

The purpose of the present study was to investigate the effect of instructional-aid films on learning of Table Tennis Techniques in Table Tennis courses.

2. Method

2.1. Participants

Two groups of students in Table Tennis courses were selected randomly (simple size was 20 participants for each group). Participants instructed 8 weeks, 3 days each week and 120 minutes each day. The first group was instructed using traditional teaching method, but other group instructed using instructional-aid films.

2.2. Measures

Learning of tennis techniques was measured using practical test for both groups designed by the author. These techniques were those are usual in table tennis sport including Forehand Drive, Backhand Drive, the Block, Forehand Smash, Backhand Smash, and Forehand and Backhand Services.

3. Results

According to the information provided in table 1 and diagram (chart) 1, and by using dependent t-test to compare mean values of post-test results at the level of $\alpha = 0.05$ it was understood that the calculated t, on the condition of the equivalence of variances, is 3.355 and this value of t is meaningful if $P \leq 0.001$.

<table>
<thead>
<tr>
<th>group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tennis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>16.8250</td>
<td>1.89546</td>
</tr>
<tr>
<td>control</td>
<td>20</td>
<td>14.9375</td>
<td>1.65409</td>
</tr>
</tbody>
</table>
According to the information provided in table 2, two groups were compared using t-student test. The results revealed that there was significant difference between two groups. In other word, those students who were instructed by instructional-aid film had higher performance than those who did not.

4. Discussion

The purpose of the present study was to investigate the effect of instructional-aid films versus traditional instruction method on tennis-table performance. The results of this study suggest that traditional teaching is sufficient to improve a beginning Tennis Techniques, but when that instruction is augmented by watching repetitions (Instructional-aid Films) of an expert model there is significant improvement in the performance of the Tennis Techniques.

Gordon (1975) in research “Effects of videotape training inputs on group performance” showed that groups which were exposed to videotape training inputs performed significantly better than did control groups. Specifically, videotape model presentations resulted in significant performance improvement, and the addition of videotape feedback to modelling resulted in a significant but relatively small incremental performance improvement. Videotape feedback alone did not result in significant performance improvement. Farahani, and Keshavarz (2003) in research “The Role of Media in Teaching The Course of Table Tennis For Physical Education in Distance Education” showed a significant difference between the average scores of the experimental group and that of control group.

As the power of communication technology and educational technology grow, the Instructional-aid Films, skill of distance educators and designers will be challenged to provide experiences that use that power to provide an experience for students that improves on classroom instruction with its limits of time and place. In general, using instructional-aid films during teaching recommended.
References


Keshavarz L, The role of Media in Teaching The Course of football For Physical Education in Distance Education, Harakat, Summer 2003; - (16):25-38.


