Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The technology should contribute to social development of a nation. Technology brings about changes in attributes, values and lifestyles of people. Technology has been used more and more for material gain, acquisition, consumption and consumerism. It promotes scientific, social and economic development of a nation. Modern research has broadened scientific knowledge and revealed the interdisciplinary nature of the sciences. For today’s students, this advance translates to learning a more diverse range of concepts, usually in less time, and without supporting resources. Students can benefit from technology enhanced learning supplements that unify concepts and are delivered on demand over the internet. Such supplements, like imaging informatics databases, serve as innovative references for sports information, but could improve their interaction interfaces to support learning. With information from these digital datasets, multimedia learning tools can be designed to transform learning into an active process where students can visualize relationships over time, interact with dynamic content, and immediately test their knowledge.
In recent years, numerous computers assisted learning programmes based on new teaching methods like the principles of cognitive apprenticeship and problem based learning, have euphorically been developed for various fields. However, many of these programmes failed due to low acceptance, economic inefficiency, or most seriously, problems with the implementation and evaluation in curricula.

Computers are changing the way of doing our day to day activities, from paying our bills to programming our home entertainment systems. Obviously computer technology is revolutionizing instruction in ways that promise to improve the quality and efficiency of physical education. It is providing a challenging learning opportunity for physical educators as well. Since much of physical education involves the visual transfer of both concepts and procedures from the instructor to the student, it makes sense that using computer technology to enhance conventional teaching techniques with materials that include clear, informative images and real-time demonstrations melding sound and animation to deliver to the student in the classroom material which compliments textbooks, 35 mm slides, and the lecture format.

The use of multimedia software is becoming more popular with the improvement in computer technology. But should it be used because it is popular or because it meets the instructional objectives? There is debate
going on about the effectiveness of multimedia computer-assisted instruction (MCAI) versus the traditional instruction (TI) approach or teacher-led approach. The literature reports a considerable amount of research on the use of multimedia by educators and on their effectiveness in the learning process.

Keeping the above concept in view, the researcher made an attempt to find out the effect of multimedia computer assisted instruction, traditional instruction and combined instruction on learning the skills of tennis.

To achieve the purpose of the study, 36 male students were selected randomly from The St. Johns College of Physical Education, Veeravanallur, Tirunelveli district, Tamil Nadu, India. All the subjects were studying B.P.E., (Bachelor of Physical Education). They have the subject tennis as theory and practical papers. The age of the subjects ranged from 17 to 25 years. The selected subjects were randomly divided into three different experimental groups: Multimedia Computer Assisted Instruction Group (MCAIG) (n=12), Traditional Instruction Group (TIG) (n=12) and Combined Instruction Group (CIG) (n=12). The Computer Assisted Instruction group received teaching methods through computer programmes such as video shows, clippings, and so forth for tennis for 30 minutes duration followed by one hour self practice in the play ground.
Traditional Instruction group received a 30 minutes lecture/demonstration covering the same instructional content followed by one hour self practice in the playground and the Combined Instruction group received both instructions 15 minutes each followed by self practice for one hour duration with the assistance of the investigator.

The duration of the experiment lasted for eight weeks duration and the number of sessions per week was confined to three alternative days, in addition to the regular academic programme as per the curriculum. The following criterion variables were selected as dependent variables such as forehand drive, backhand drive, service and rallying ability. The pre and post test data were collected from the subjects before and after the experimentation respectively on the selected dependent variables such as forehand drive, backhand drive, service and rallying ability. The obtained data from the experimental groups before and after experimental period were statistically analyzed with dependent “t” test and Analysis of Co-Variance (ANCOVA). In all the cases .05 level was fixed as level of confidence to test the hypotheses.

**Conclusions**

The following conclusions were drawn from the present study.

1. There was a significant improvement on forehand drive, backhand drive, service and rallying ability of students due to the effect
of multimedia computer assisted instruction programme.

2. There was a significant improvement on forehand drive, backhand drive, service and rallying ability of students due to the effect of traditional instruction programme.

3. There was a significant improvement on forehand drive, backhand drive, service and rallying ability of students due to the effect of combined instruction programme.

4. There was a significant difference on improving forehand drive, backhand drive, service and rallying ability of students among the three groups such as multimedia computer assisted instruction, traditional instruction and combined instruction programmes.

5. Combined Instruction Group (CIG) had significant difference when compared with Computer Assisted Instruction Group and Traditional Instruction Group on the development forehand drive, backhand drive, service and rallying ability of the subjects.

**Recommendations**

Based on the results of the study, the following recommendations were drawn.

1. The same study may be conducted in other games like football, basketball, volleyball, hockey, kabaddi and so forth.

2. The same study may be conducted in other subjects like Human
Anatomy, Human physiology, Sports Biomechanics, Kinesiology and so forth.

3. A parallel study may be conducted to find out the effectiveness of combined instruction method of teaching at the high school and higher secondary level.

4. A comparative study may be conducted in rural and urban areas students as subjects.

5. The same study may be conducted for other sports.

6. More studies should be conducted to investigate the effect of CAI in different ages and for various sport activities. Also, it is critical to continue researching into how students learn in different technological environments, since the researchers have only begun to explore the uses and practicality of CAI.

7. Further study is needed to identify variables that may influence learning and retention.

8. The present study did not use the retention method. So, future research can have such kind of study.

9. Although this study could not find any significant results about the effects of CAI on skill analysis; there is still need for skill analysis research in CAI because this is such an important part of teaching quality
in PETE. Future studies should focus on different application and assessment strategies for skill analysis in CAI.