CHAPTER 6

FINDINGS, RECOMMENDATIONS & SUGGESTIONS OF THE STUDY
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INTRODUCTION:

The aim of this chapter is to give a summary of findings, recommendations and opinion for further research.

MAJOR FINDINGS AND CONCLUSIONS OF THE STUDY

1. From the analysis of the null hypothesis: 1, it is found that the ‘F’ value is not significant. Hence, the null hypothesis is accepted and the hypothesis is rejected. It is concluded that there is no significant difference among different instructional strategies viz. TM, TF and TFG in terms of their effectiveness in realising the instructional objectives in Yoga Education at International Level.

2. From the analysis of the null hypothesis: 2, it is found that the ‘F’ values are not significant at Knowledge and Application levels but there is significant difference at 0.01 level at Understanding level. Hence, the null hypothesis is partially accepted. It is concluded that there is no significant difference among different instructional strategies viz. TM, TF and TFG of Web-based Yoga Education in terms of their effectiveness in realising the instructional strategies at Knowledge and Application levels of cognition but there is significant difference only at Understanding level. Also, it is find out that the relative effectiveness among the different web-based instructional strategies in terms of their effectiveness in realising the instructional objectives at different cognition in Yoga Education. From the Duncan test, it is concluded that the Strategy – II (TF) is the most effective strategy at understanding level in Web-based Yoga Education. But, at the same time, the Strategy I (TM) is the least Effective one. However, Strategy III comes between the Strategy I and Strategy II. Hence, it is evident that Strategy II is the most effective one while the Strategy I is the least effective one in term of their effectiveness in developing the cognitive skills at Understanding level.

3. From the analysis of the null hypothesis: 3, it is found that the content areas related to Asanas curing Diabetics viz. Yogamudra, Padahasthasana, Janusirasana, and Vajrasana are considered to be at low difficulty level whereas the content areas related to Asanas curing Asthma viz. Ustrasana, Bhujangasana, Dhanurasana and Baskrikasana are considered to be at high difficulty level. However, the content areas related to Asanas curing Heart Diseases viz. Matsyasana, Trikonasana, Vrikshasana and Simhasana are identified to be having medium
difficulty level in learning the Web-based Yoga Education. From the ‘F’ values, it is concluded that there is significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of their effectiveness in realising the instructional objectives in Web-based Yoga Education in the context of the content with varying difficulty levels. Also, it is found that the content areas ranked as most difficult by the learners is least effective while that ranked as least difficult is the most effective in realising the instructional objectives at Knowledge and Application levels. But, at the same time, the content areas ranked as medium in difficulty level comes between the other two in realising the instructional objectives at Knowledge level. However, the content areas ranked as most difficult and medium difficult are equally effective in realising the instructional objectives at Understanding level while that ranked as least difficult is found to be least effective in this regard. Again, the content areas ranked as least difficulty and medium difficulty are equally effective in realising the instructional objectives as a whole. But, at the same time, the content are ranked as most difficult is least effective with regard to the same.

4. From the analysis of the null hypothesis: 4, it is found that the ‘t’ values are not significant at the levels of Knowledge, Understanding, Application and Total Mark in TF and TFG. However, the ‘t’ values are found to be significant at 0.01 level at Knowledge and Total Mark in TM. But there is no significant difference at Understanding and Application levels in the same mode. Hence, the null hypothesis is partially accepted. It is concluded that Nationality as a variable does not influence the effectiveness of different web-based learning strategies at a large extent.

5. The following conclusions were drawn from the analysis of the null hypothesis: 5.
   a. From the Analysis of Variance among different groups of learners based on their age in Web-based Yoga Education as measured by the posttest, it is found that the ‘F’ values are not significant at different levels of cognition with regard to the scores in Web-based Yoga Education but there is significant difference at 0.01 level on total marks. Hence, the null hypothesis is partially accepted. It is concluded that there is no significant difference among different instructional strategies viz. TM, TF and TFG in terms of realising the instructional objectives based on the age of the
learners in Web-based Yoga Education. Also find out the relative effectiveness among the different instructional strategies in terms of realising the instructional objectives in Web-based Yoga Education using Duncan Test. It is found that the age groups between 41-50 secured less total mark in Web-based Yoga Education. But, the same time, the age groups between 51-60 secured higher total marks. Hence, it is evident that the age group between 51-60 is the best among the different age groups in terms of availing the Web-based Yoga Education.

b. From the 't' tests analysis between the participants of male and female on the scores was measured by the posttest in Web-based Yoga Education, it is concluded that there is no significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of sex of the learners in realising the instructional objectives in Web-based Yoga Education.

c. From the Analysis of Variance among different groups of learners based on varied Educational Qualifications of the participants viz. Below Higher Secondary School, Under Graduate, Post Graduate, Professional and others on the scores as measured by the posttest, it is found that the 'F' values are not significance. Hence, It is concluded that there is not significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of the Educational Qualifications of the participants in realising the instructional objectives in Web-based Yoga Education.

d. From the 't' tests analysis among the different groups of learners based on their occupations viz. Academic and Non-academic in realising the instructional objectives in Web-based Yoga Education as measured by the posttest, it is concluded that there is no significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of the occupation of the participants in realising the instructional objectives in Web-based Yoga Education.

e. From the 't' tests analysis among different groups of learners based on having or not having pre-knowledge on e-Learning in Web-based Yoga Education on the scores as measured by the posttest, it is concluded that
there is no significant difference among different web-based instructional strategies viz. TM, TF and TFG based on their pre-knowledge on e-Learning in realising the instructional objectives in Web-based Yoga Education. However, they differ among themselves at Application Level in TM. Hence, the pre-knowledge on e-Learning is helpful to secure higher marks at Application Level of TM in Web-based Yoga Education.

6. The following conclusions were drawn from the analysis of null hypothesis 6:

a. From the Analysis of Variance among the experimental groups with regard to the time taken by the learners to complete all the Yogasanas curing Diabetics in Web-based Yoga Education, it is found that the ‘F’ values are significant at 0.01 level. Hence, the null hypothesis is rejected and the hypothesis is accepted. It is concluded that there is significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of the time taken to complete the Yogasanas curing Diabetics in Web-based Yoga Education. Further, from the ‘t’ tests analysis, it is concluded that the Strategy II (TF) takes least time to complete the Yoga Education. But, at the same time, the Strategy I (TM) takes most time to do so. However, the Strategy III (TFG) comes between Strategy I and Strategy II. Hence, it is evident that Strategy II is the most effective while the Strategy I is the least effective in terms of time taken to complete the Yoga Education curing Diabetic in Web-based Yoga Education.

b. From the Analysis of Variance among the experimental groups with regard to the time taken by the learners to complete all the Yogasanas curing Heart Diseases in Web-based Yoga Education, it is found that the ‘F’ values are significant at 0.01 level. It is concluded that there is significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of the time taken to complete the Yogasanas curing Heart Diseases in Web-based Yoga Education. Further, from the Duncan test, it is concluded that the Strategy II (TF) takes least time to complete the Yoga Education related to the Yogasanas curing heart diseases. But, at the same time, the Strategy I (TM) takes most time to do so. However, the Strategy III (TFG) comes between Strategy I and Strategy II. Hence, it is evident that Strategy II is the most effective one while the Strategy I is the
least effective in terms of time taken to complete the Yoga Education related to the Yogasanas curing Heart Diseases.

c. From the Analysis of Variance among the experimental groups with regard to the time taken by the learners to complete the Yogasanas curing Asthma in Web-based Yoga Education, it is found that the ‘F’ values are significant at 0.01 level. It is concluded that there is significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of the time taken to complete the Yogasanas curing Asthma in Web-based Yoga Education. Further, from the Duncan test, it is concluded that the Strategy II (TF) takes the least time to complete the Yoga Education related to the Yogasana curing Asthma. But, at the same time, the Strategy I (TM) takes most time to do so. However, the Strategy III (TFG) comes between Strategy I and Strategy II. Hence, it is evident that Strategy II is the most effective one while the Strategy I is the least effective one in terms of time taken to complete the Yoga Education related to Yogasanas curing Asthma in Web-based Yoga Education.

7. From the analysis of the null hypothesis: 7, it is found that the ‘F’ value is significant at 0.01 level. It is concluded that there is significant difference among different web-based instructional strategies viz. TM, TF and TFG in terms of time taken for the completion of Web-based Yoga Education. Further, from the Duncan test, it is concluded that the Strategy II (TF) takes least time to complete the web-based Yoga Education. But, at the same time, the Strategy I (TM) takes most time to do so. However, the strategy III (TFG) comes between Strategy I and Strategy II. Hence, it is concluded that Strategy II is the most effective one while the Strategy I is the least effective one in terms of the time taken by the learners to complete the Web-based Yoga Education.
INTERPRETATION OF THE STUDY

There is no significant difference among the different web-based instructional strategies viz. Training Mode (TM), Training and Feedback (TF) & Training Feedback & Guidance (TFG) in terms of their effectiveness in realising the instructional objectives in Yoga Education. Perhaps each strategy has its own strength in coping with the needs of the learners in practice yoga online.

There is no significant difference among different web-based instructional strategies viz. Training Mode (TM), Training and Feedback (TF) & Training Feedback & Guidance (TFG) of web-based yoga education in terms of their effectiveness in realising the instructional strategies at Knowledge and Application levels of cognition but there is significant difference only at Knowledge level.

Perhaps the strategy II is the most effective one in terms of its effectiveness in developing the cognition at Understanding level due to the feedback mechanism inbuilt in the system. It is obvious that the immediate feedback helps the learners improve their cognitive performance viz. comparing, contracting, differentiating, interpreting, categorizing, citing example, etc.

The content areas ranked as most difficult by the learners is least effective while that ranked as least difficult is most effective in realising the instructional objectives at Knowledge and Application levels. But, at the same time, the content areas ranked as medium difficulty level comes between other two in realising the instructional objectives at Knowledge level. However, the content areas ranked as most difficult and medium difficult are equally effective in realising the instructional objectives at Understanding level while that ranked as least difficult and medium difficulty are equally effective in realising the instructional objectives as a whole. But, at the same time, the content are ranked as most difficult is least effective with regard to the same.

The content areas which are the most difficult may not be suitable for the learners practising yoga online. The intricacies inherent in there complicated asanas may cause poor learning particularly at Knowledge and Application levels. However, those of early contents are quite suitable for these learners due to less of intricacies inherent in there asanas. Hence, while we choose the asanas for online teaching, care may be given to see the level of difficulty of the asanas.
There is no significant difference among the different web-based instructional strategies viz. TM, TF and TFG in terms of the Nationality of the learners in realising the instructional objectives in Yoga Education. Perhaps, the online learners are equally interacted in learning Yogasanas irrelative of their nationality.

The age groups between 41-50 secured less total mark in Web-based Yoga Education. But, the same time, the age groups between 51-60 secured secure higher total mark. Hence, it is evident that the age groups between 51-60 is the best among the different age groups in terms of availing the web-based Yoga Education.

Perhaps people with above 50 years of age are more benefited of the web-based Yoga Education due to higher incidents of suffering because of these diseases at their age level. As there is no need feeling among youngsters, people below 50 years of age are not much benefited of the Yoga online.

Sex, educational qualification and occupation have no influence on the learners of Yoga online. Perhaps, irrelative of sex, educational qualification and occupation, people are suffering from diseases. Hence, all are equally motivated in learning Yoga online.

People with pre-knowledge in e-Learning are more benefited of Yoga online, due to their pre exposure to e-Learning systems. The pre exposure might have given them adequate confidence in learning Yoga online.

Strategy I takes most time while Strategy II takes least time in computing Yoga Education online pertaining to Diabetics, Asthma and Heart diseases. The Strategy III comes in between.

Perhaps Strategy I without additional feedback and guidance, may not be so effective for the learners to that they take more time to complete the practice. However, the Strategy II with feedback makes learning Yoga Education via online lessons the border on the part of the learners.

Hence, they could easily learn the asanas. But, at the same time Strategy III comes between the Strategy I & the Strategy II in terms of time taken. The reason is quite obvious. Hence, it is clear that teaching alone would not save the purpose in online learning. Teaching with immediate feedback mechanism will be the most helpful in practising Yoga online.
SIGNIFICANCE OF YOGA EDUCATION IN THE STUDY:

When designing the experimental study, an attempt was made to analyse which of the content area would attract required number of subject, since the study aimed at involving people at the International Level. It is obviously known that the Western People are interested in learning Yoga. Hence, it was inferred that it Yoga online would be taken up as a subject of instruction, it might be helpful for the investigator to involve require number of subjects for the context of the experiment.

If the investigator had chosen other than Yoga Education viz. Environmental Education, Nutrition Education, Population Education, Human Right Education, etc. It must be a question whether the investigator could have involved such a large number of subjects for the experiment.
RECOMMENDATIONS:

Based on the experiences gained in developing and evaluating the web based instructional package for practising Yogasanas through online at International Level, the following recommendations have been offered to the personnel concerned in order to make the teaching learning process through Online supported with Multimedia as an effective and efficient strategy in the context of e-Education and e-Training.

1. Among different Web Based Instructional Strategies (WBIS) viz. Training Mode (TM, Training and Feedback (TF) and Training, Feedback and Guidance (TFG) are found to be the most effective in modifying the cognition of the e-Learners in Yoga Education at Knowledge, Understanding, and Application levels. It is also found that there is no significance in terms of effectiveness within the groups but there is difference between groups in modifying the cognition of e-learners in Yoga Education. Hence, it is evident that Web Based Yoga Instruction (WBYI) can be exploited for achieving different instructional objectives in Yoga Education.

2. Web Based Package (WBP) in Yoga Education is found to be more effective in realising the instructional objectives at all levels of cognition. Hence, it is recommended that web based packages in Yoga Education may be developed. Such packages may be helpful to the people suffering from diseases such as Diabetics, Asthma and Heart Diseases at the instructional level.

3. Web Based Learning Packages (WBLP) like Yoga Education may be developed which may help the e-Learners to learn at their own pace. Further, while developing the WBLP, the factors such as age, sex, interest, intelligence, nationality, education, need, motivation, etc. related to the users must be taken into account. Hence, the investigator may produce the WBLP in consultation with the various experts in the related areas.

4. Web-Based Instructional Packages (WBIP) in Yoga Education may be analysed, planned, designed, developed, evaluated, implemented and properly documented with the help of the various experts viz. e-Content Experts, Curriculum Planners, Educational Technologists, Yoga Experts, Psychologists, Web Based Software Engineers, and Physical Education Personnel. This will be helpful in the development of quality WBIP in the teaching and learning of Yogasanas.
5. Conferences may be organised to discuss the importance of Yoga Education as well as the role of WBIP for the physical well being of the general public. Conferences are the means through which message could be taken to the people in large. Yoga Education being vital in the modern days to live long & healthy, conferences are the only means to appeal large number of people at particular place and time.

6. From research evidences, it is known that learning Yogasanas through online helps the people with diseases and without diseases to live longer. Hence, we may develop WBIP for different Yogasanas curing various diseases. Review of studies related to Yoga made it clear that people with or without any specific diseases could live long. Hence, it is imperative to take Yoga Education to a large number of people via online which is readily available for significant number of people at the international level in the modern times.

7. Based on the feedback of the e-learners, it is recommended that the WBIP may be developed to improve the learners interest, motivation and self-learning in Yoga Education.

8. This is the right time to realise the emerging need of Yogasanas to impart online training and education worldwide, so that such training and education play an important role in self-realization for development of our nation. Hence, every individual may take their own time to practice Yogasanas regularly.
SUGGESTIONS FOR FURTHER RESEARCH:

The present study has been focused on the effectiveness of web-based instruction in relation to the e-Learners’ use of web-based instructional strategies. The present research study has opened up many desirable avenues for further research in the area of “Internet in Yoga Education”, a few of which are given as follows:

1. In this study, the investigator used three strategies viz. TM, TF and TFG. Further research may be conducted with a view to establishing the relative effectiveness among other modes of Web Based Training Packages (WBTP) the content of practicing Yogasanas for various diseases.

2. Further studies may be taken up to find out the different benefits associated with alternative modalities of implementation of WBIP at international level.

3. It is important to find out the perception of e-Learners to practice the Yogasanas regularly. Based on the perceptions of the user community, the researchers may use different tools and techniques for teaching Yogasanas online.

4. From the present study, the investigator found that the different instructional strategies are useful in enhancing the e-Learners’ use of Web Based Instructions. Research may be conducted to integrate the instructions, self-learning, feedback and acknowledge construction. They should share their personal experience in practising Yogasanas through online. Hence, research may be conducted to explore the relationship between the goals and Web Based Training (WBT). They may address the nature of goals and how goals do guide the WBT among e-learners.

5. This study was conducted only for three major diseases namely Diabetes, Asthma and Heart diseases. An online e-Learning programme can be created to educate online users about other common ailments like migraines, spondylitis, and psychological disorders like depression, mania etc.

6. There are several thousands of people who are reluctant to visit doctors or learn Yoga from a professional trainer due to lack of time. An online Yoga training programme to educate and teach Yoga for such patients will prove to be very fruitful.

7. The repute of Yogasanas needs to be reemphasized in the every changing facet of the world today. Mankind faces new challenges every day and Yoga through e-Learning can keep pace with this scenario. Therefore a new avenue to develop this emerging research area needs to be studied.