## DEVELOPMENT AND VALIDATION OF MULTIMEDIA PACKAGE ON ORGAN DONATION FOR STUDENT TEACHERS AT B. ED LEVEL

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ABSTRACT: Multimedia package is one of the technologies based selfinstruction material comprises of text, audio, video, animations, pictures etc. that enhances the learning activity among the learners. One of the salient features of multimedia package is human interactivity. The emergence of multimedia package is to reduce the face-to-face interaction between the student and the teacher and to make student learning more effective. The present study was designed to develop and validate a multimedia package on organ donation for student teachers at B. Ed level. This study comprises of both survey method and experimental method. The investigator has adopted survey method to find out the attitude, awareness and knowledge on organ donation and also to find out the attitude towards multimedia package among the student teachers with the help of two constructed tools namely RK ORGDON scale and KRMMP scale respectively, their reliability and validity was also established. For this 1200 B. Ed students were taken as the sample from the B. Ed colleges in Dindigul. In the experimental study is a single group design, wherein a multimedia package was developed and its effectiveness was found among student teachers. For this 100 B. Ed students were taken as the sample. Findings of the survey revealed that present student teachers have a low level of attitude, awareness and knowledge on organ donation and low level of attitude towards multimedia package. Findings of the experimental study shows that the developed multimedia package has raised the attitude, awareness and knowledge on organ donation among student teachers which shows that the developed multimedia package on organ donation is highly effective and can be used as an educational tool to generate awareness and create positive attitude and increase the knowledge on organ donation among the student teachers.

Keywords: Organ donation, Multimedia Package, Attitude, awareness, Knowledge

## 1. INTRODUCTION

Organ donation is a life saving responsibility that is possible for everyone. Human being is a wonderful creation of God. Organ donation is the greatest gift to help someone to lead a life or for the survival of an individual who needs a transplant. Serving human is equal to serving God. No one in this world can say that I have nothing to give for someone. It is possible for everyone to donate his or her organs even after one's death for the survival of another individual. One may die, but his organ lives after his death. It is the need of the hour to educate the students, the future citizens of the nation. The concept and the need of organ donation can be sown in the minds of the students who are greater in spirit through multimedia package on "Organ Donation".

# 2. METHODOLOGY

## SURVEY METHOD

Survey method is one of the most popularly used methods in social science research. In the present study the investigator has adopted the survey method and research has been conducted among student teachers at B. Ed level. The investigator intends to find the Medical aspects of Organ Donation, Beliefs regarding Organ Donation, Attitude towards Organ Donation, Personal beliefs towards Organ Donation, Legal aspects of Organ Donation, Public need of Organ Donation, Opinion towards Organ Donation, Biological aspects of Organ Donation, Facts towards organ donation and knowledge on Medical aspects of Organ donation and Attitude towards multimedia package among 1200 student teachers.

## EXPERIMENTAL METHOD

The experimental method involves determination of causes and effect between the variables. A change in one variable cause change in another variable by manipulating the variables. It is the most scientific and sophisticated research method in humanities the investigator has chosen the experimental method for the present study. Based on this the investigator has developed an electronic module i.e a Multimedia package on organ donation with the help of Research Guide, Subject and Technical Experts. Pretest was conducted to test the entry level performance of the student teachers. After intervention the posttest was conducted to evaluate the effectiveness of multimedia package and their exit level performance after intervention. The ultimate aim of developing multimedia package is to create awareness on organ donation among student teachers with 100 teacher trainees.

## 2.1 TOOL: 1 MK ORGDON Scale

This tool RK ORGDON scale (2015) was constructed by M. Kalaivani (2015) to collect data from the student teachers regarding their attitude, awareness and knowledge on Organ Donation This tool consists of three parts, Part A, Part B, and Part C. Part A consists of 45 items related to attitude towards organ donation with the dimension as given below

- 1. Medical aspects of Organ Donation
- 2. Beliefs regarding Organ Donation
- 3. Interest towards Organ Donation
- 4. Personal beliefs towards Organ Donation
- 5. Legal aspects of Organ Donation
- 6. Public need of Organ Donation
- 7. Opinion towards Organ Donation
- 8. Biological aspects of Organ Donation

Part B consists of 24 items related to Awareness on organ donation. Part C consists of multiple-choice questions related to Knowledge on organ donation.

# 2.2 TOOL: 2 MK-MMP SCALE

Another tool KR- MMP scale (2015) was constructed by M. Kalaivani (2015) to collect data from the student teachers. The second tool consists of 28 items with multiple choices were given to student teachers. The tool focused on the attitude towards multimedia package on organ donation

# 3. RESULTS AND DISCUSSION

- Women students are better than their counter parts in their attitude, awareness and knowledge on organ donation. The reason may be that women are more concern in life saving of their loved ones than men.
- Post graduate student teachers are better than the graduate student teachers in their awareness on organ donation. The reason may be that the post graduate student teachers may have got more exposure and matured when compared to first graduates.
- The attitude of unmarried student teachers towards organ donation is better than the married student teachers. This may be due to the unmarried student teachers have broad mind and more societal concern than the married student teachers
- Student teachers hailing from rural area have better attitude, awareness and knowledge on organ donation than the student teachers from urban areas. The reason may be the student teachers hailing from rural areas have more concern with their kin and kith.
- Student teachers who have participated in organ donation program have better attitude, awareness and knowledge on organ donation when compared to the student teachers who have not participated in organ donation program. The reason may be that when the student teachers participated in programs related to organ donation, there may be a chance for increase in their attitude, awareness and knowledge of organ donation compared to the student teachers who have not participated in the organ donation programs.
- Student teachers from above 25-28 age group are better than their counter parts in their attitude and awareness on organ donation. The reason may be the student teachers in the age group of 25-28 may have high social maturity that their counter parts.
- Student teachers from humanity subject are better than their counter parts from science subject and social science subject in their attitude and awareness on organ donation.
- Student teachers from science subject are better than their counter parts from social science subject and humanity subject in their knowledge on organ donation.
- Student teachers from private are better than their counter parts from aided and government institutions in their attitude, awareness and knowledge on organ donation. The reason may be the well-functioning of the NSS activities, Science Clubs, Environmental clubs, Blood donation camps and other social works activities are in private institutions than the government and government aided institutions.
- Women student teachers are better than men in their attitude towards multimedia package. The reason may be women show more interest towards learning when compared to men student teachers
- Graduate student teachers are better than the post graduate student teachers in their attitude towards multimedia package. The reason may be the graduates are freshers who might have got more exposure than the post graduate student teachers who have completed their studies little earlier
- Unmarried student teachers are better than the married student teachers in their attitude towards multimedia package. The reason may be unmarried student teachers will not show more involvement in their family responsibilities but they show

more involvement towards their studies when compared to the married student teachers.

- Student teachers from 21-24 age group are better than their counter parts in the dimension of attitude towards multimedia package. The reason may be the student teachers of age group 21-24 are youngest when compared to the other age groups and freshers who may have greater exposure about multimedia package that their counter parts student teachers of age group 25-28 and above 28.
- Student teachers from humanity subject are better than their counter parts from science subject and social science subject in their attitude towards multimedia package. The reason may be the student teachers from humanity subjects shows more interest than science and social science students to learn through multimedia package since they learn aesthetic, imaginary concepts like poem, short stories and prose.
- Student teachers from private B. Ed colleges are better than their counter parts from aided B. Ed colleges and government B. Ed colleges in their attitude towards multimedia package. The reason may the student teachers from private B. Ed college might have got more chance for learning through multimedia packages when compared to aided and government B. Ed colleges.
- There is a significant relationship between eight dimensions of attitude towards organ donation among student teachers.
- There is a significant relationship between attitude, awareness, knowledge on organ donation and attitude towards multimedia package among student teachers.
- Pre-test scores and post-test scores of student teachers differ significantly in their awareness on organ donation. This shows that the learning through multimedia package on organ donation is highly effective and has created awareness on organ donation among student teachers.
- Pre-test scores and post-test scores of student teachers differ significantly in their knowledge on organ donation. This shows that the developed multimedia package is highly effective thereby the knowledge level of the student teachers on organ donation is increased.
- Pre-test scores and post-test scores of student teachers differ significantly in their attitude towards multimedia package. This shows that the developed multimedia package developed by the investigator is highly effective and student teachers have gained a positive attitude towards organ donation and multimedia package.
- Pre-test scores and post-test scores of student teachers differ significantly in all the dimensions of attitude towards organ donation. This shows that student teachers have developed a positive attitude towards organ donation.

# 4. CITATION

Devi etal., (2018) conducted a study on "A Community based study on awareness of organ donation among young adults in rural areas of Puducherry". Balajee etal., (2016) conducted a study on "Awareness and Attitude toward organ Donation in Rural Puducherry, India".

These studies help the investigator to consider student teachers from rural as well as urban areas for the present study.

# Adithyan etal., (2017) conducted "A study on Knowledge and Attitude about organ donation among Medical college students at Trivandrum, Kerala"

The results of the study show that the medical college students have enough knowledge on organ donation but this knowledge was not transformed into wishes to donate. The researcher has also pointed out that his research shows similarity with the study done by Agarwal (2015) among medical students. Hence the above said related study paves way for the researcher to select student teachers as samples so that they can bring an attitudinal change among students and transform their wishes to donate.

# Eylen Eroglu Dogan etal., (2015) conducted a study on "Preservice science teacher's knowledge, practices, and behaviour about organ donation and transplantation".

The findings of the study states that the pre-service science teachers posses a low level of knowledge regarding organ donation and transplantation. This study motivates the investigator to consider student teachers who are from Arts, Science and Humanities.

Sucharitha etal., (2013) conducted a study on "Organ Donation: Awareness, Attitude and beliefs among undergraduate medical

## students in South India"

The study revealed low levels of awareness on organ donation and gaps in the knowledge among undergraduate medical students. This study creates an urge for the investigator to conduct a study among undergraduate and post graduate student teachers for the present study.

# Asan (2003) conducted a study on "School Experience course

# with multimedia in teacher education".

It was found that using multimedia in teacher education enriches the learning in pre service teachers. This study motivates the investigator to develop a multimedia package and to test and validate it. The investigator felt multimedia package on organ donation enriches one's interest and learning on organ donation

# 5. CONCLUSION

Organ donation saves life. It is considered to be the highest charity that a person can do for others. Donating organs gives a second chance of life for a recipient. Even though Tamilnadu leads first in organ donation and transplantation in India, still awareness to be made among the public because there is a demand for organ donors. Hence the investigator takes an effort to create awareness on organ donation as well as to develop positive attitude towards organ donation. For which a multimedia package on organ donation has been developed and its effectiveness was tested and proved that it is an effective tool to raise awareness among the student teachers. As well as it can be used to educate the concept of organ donation among school children. Thus, the investigator recommends the policy makers to incorporate the concept of organ donation in School curriculum as well as B. Ed curriculum.

## REFERENCES

## JOURNALS

- 1. Adithyan, G. S., Mariappan, M., & Nayana, K. B. (2017). A study on knowledge and attitude about organ donation among medical students in Kerala. Indian Journal of Transplantation, 11(3), 133.
- 2. Abadie, A., & Gay, S. (2006). The impact of presumed consent legislation on cadaveric organ donation: a cross-country study. Journal of health economics, 25(4), 599-620.
- 3. Alex, A., Shroff, S., Paul, V. B., Navin, S., Ramesh, P., Michael, J., & Menon, S. (2019). Did an increase in knowledge and awareness about organ donation improve organ donation rate in India over the past two decades? Indian Journal of Transplantation, 13(3), 173.
- 4. Agbenorku, P., Agbenorku, M., & Agamah, G. (2013). Awareness and attitudes towards face and organ transplant in Kumasi, Ghana. Ghana medical journal, 47(1), 30-34.
- 5. Balajee, K. L., Ramachandran, N., & Subitha, L. (2016). Awareness and attitudes toward organ donation in rural Puducherry, India. Annals of medical and health sciences research, 6(5), 286-290.
- 6. Bilgel, H., Sadikoglu, G., & Bilgel, N. (2006). Knowledge and attitudes about organ donation among medical students. Transplantationsmedizin, 18(2), 91.
- Bøgh, L., & Madsen, M. (2005, October). Attitudes, knowledge, and proficiency in relation to organ donation: a questionnaire-based analysis in donor hospitals in northern Denmark. In Transplantation Proceedings (Vol. 37, No. 8, pp. 3256-3257). Elsevier.
- Cárdenas, V., Thornton, J. D., Wong, K. A., Spigner, C., & Allen, M. D. (2010). Effects of classroom education on knowledge and attitudes regarding organ donation in ethnically diverse urban high schools. Clinical transplantation, 24(6), 784-793.
- Chuang, T. Y., & Chen, W. F. (2007, March). Effect of computer-based video games on children: An experimental study. In 2007 First IEEE International Workshop on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL'07) (pp. 114-118). IEEE.
- 10. Thakur, G. R. (2014). Training and Effectiveness of Multimedia E-Content Based on ADDIE Model Prepared by Student Teachers in Economics for the Students of STD. IX. Online Submission.
- 11. Dhanalakshmi, K. (2018). Effectiveness of Multimedia Package for Enhancing Achievement in Computer Science among XI Standard Students.

- 12. Coad, L., Carter, N., & Ling, J. (2013). Attitudes of young adults from the UK towards organ donation and transplantation. Transplantation research, 2(1), 1-5.
- Marqués-Lespier, J. M., Ortiz-Vega, N. M., Sánchez, M. C., Soto-Avilés, O. E., & Torres, E. A. (2013). Knowledge of and attitudes toward organ donation: A survey of medical students in Puerto Rico. Puerto Rico health sciences journal, 32(4).
- 14. McGlade, D., & Pierscionek, B. (2013). Can education alter attitudes, behaviour and knowledge about organ donation? A pretest–post-test study. BMJ open, 3(12).
- 15. Mishra, P. H., Aarti, V., & Sarma, R. K. (2004). A knowledge, attitude and practice study of organ donation and its problems in the metropolitan city of Delhi. Journal of the Academy of Hospital Administration, 16(1), 1-6.

# BOOKS

- South Asian edition of handbook of kidney transplantation 6<sup>th</sup> edition (2017) Gabriel M Donovitch)
- 2. Textbook of Organ Transplantation, 1<sup>st</sup> edition (2014) Allan D Kirk
- Infectious Diseases in Soun Ogan Transplant recipient's 1<sup>st</sup> edition 2019(Oriol Manuel, Michael G Ison
- Ethical problems concerning organ transplantation 21 game 1<sup>st</sup> edition 2008 Stefon Hinterholzer
- 5. Liver Transplantation Harrispon's Principles of Internal Medicine, 20<sup>th</sup> edition, volume 2(2018) page no 2414
- 6. Davinson's Principles & practice of Medicine 23<sup>rd</sup> edition page no 900
- Transplantation & Immunology, Sabiston textbook of surgery, 1<sup>st</sup> south Asia Edition volume 1 page no 597-675)

# THESIS

- 1. Amutha, S. (2007). Development and validation of e-content on doing for higher Secondary biology students.
- 2. Anil Tanaji patil (2006). Development of Multimedia Instructional system for Computer Education.
- 3. Felix, A. (2007). Development and Validation of e-content on DNA technology in Bio- Technology.
- 4. Jayakumar. (2007). Development and Validation of e-Content on transport for the Higher Secondary Commerce students.

- 5. Jeya kumar Rathod. (2005). Development and Implementation of an IT based Instruction Package for English Grammar to Gujarati medium students of standard VIII of Jamnagar city.
- 6. Johnson. (2006). Developing and validating a Multimedia Package in Teaching Electronic for Higher Secondary Students.

## WEBSITES

- 1. http://ije.macrothink.org
- 2. http://dx.doi.org/10.1111/j.1399-0012.2009.01200.x
- 3. http://dx.doi.org/10.1136/bmjopen-2013-003961
- 4. http://her.oxfordjournals.org/ by guest on November 4, 2015
- 5. http://www.mohanfoundation.org/organ-donation-transplantresources/organ-donation-in-india.asp 28/4/2016
- 6. www.transplantation research.com/content/2/1/9 (8/1/16)
- 7. www.nebi.nlm.nih.gov/pubmed/243972216 (8/1/16)
- 8. http://www.ijtonline.in/text.asp?2018/12/1/25/228928
- 9. http://www.ijtonline.in
- 10. http://www.academicjournals.org/ERR
- 11. https://doi.org/10.4236/ce.2019.107110
- 12.http://dx.doi.org/10.18203/2394-6040ijcmph20183083
- 13. http://www.ijtonline.in/text.asp?2017/11/3/133/221196
- 14. https://doi.org/10.4236/ce.2019.107110