TEACHER EFFECTIVENESS IN RELATION TO WORK SATISFACTION, MEDIA UTILIZATION AND ATTITUDE TOWARDS THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG SECONDARY SCHOOL TEACHERS OF NEPAL

A SUMMARY OF THESIS
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SUMMARY AND CONCLUSIONS

The 21st century will be an era of acute modernization and both teacher and students will have to cope with the changes and challenges. The information society requires a higher level of skill and knowledge of all individuals than did the industrial economy, geared to factory production. Environmental changes are inevitable and therefore a teacher is effective if he/she can adopt to and improve his/her environment. Teacher must be able to increase conceptual understanding and analytical ability among students through the use of diverse media.

Teacher effectiveness can be judged through many factors through their competency and their performance in classroom. The act of teaching along with their competency and performance results in effectiveness in the classroom. Besides, due to the availability of modern technology, the advance media have to be incorporated in the teaching learning process. A perusal of research studies reveals that teacher effectiveness is related to work/job satisfaction and influences media utilization, attitude towards media and acceptance of new communication technologies in education by teachers. So, the investigator proposed to investigate the relationship between teacher effectiveness, work/job satisfaction, attitude towards media, media utilization and the attitudes toward the use of Information and Communication Technology (ICT) among secondary school teachers of Nepal.

STATEMENT OF THE PROBLEM

“TEACHER EFFECTIVENESS IN RELATION TO WORK SATISFACTION, MEDIA UTILIZATION AND ATTITUDE TOWARDS THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY AMONG SECONDARY SCHOOL TEACHERS OF NEPAL.”
OBJECTIVES

1. To compare the secondary school teachers of government and private schools with regard to
   - teacher effectiveness
   - work/job satisfaction
   - media utilization
   - attitude towards media
   - attitude towards ICT

2. To compare the secondary school teachers of various academic streams, viz. Language, Science/Mathematics and Social Sciences with regard to
   - teacher effectiveness
   - work/job satisfaction
   - media utilization
   - attitude towards media
   - attitude towards ICT

3. To study the interaction effect of school type (Government and Private) and academic stream (language, Science/Mathematics and Social Sciences) of secondary school teachers with regard to
   - teacher effectiveness
   - work/job satisfaction
   - media utilization
   - attitude towards media
   - attitude towards ICT.
4. To study the teacher effectiveness of government and private secondary school teachers in relation to
   - work/job satisfaction
   - attitude towards media
   - media utilization
   - attitude towards ICT.

5. To compare more effective and less effective teachers of government and private secondary schools with regard to
   - work/job satisfaction
   - attitude towards media
   - media utilization
   - attitude towards ICT.

**HYPOTHESES**

Hypotheses related to Teacher Effectiveness

\( H_1 \) There is no significant difference between teacher effectiveness scores of government and private secondary school teachers.

\( H_2 \) There is no significant difference between teacher effectiveness scores of secondary schools teachers belonging to different academic streams, viz., Language, Science and Mathematics and Social Sciences.

\( H_3 \) There is no significant interaction between school type and teachers of different academic streams for teacher effectiveness scores.
Hypotheses related to work/job satisfaction

$H_4$ There is no significant difference between government and private secondary school teachers with respect to global work/job satisfaction and its different areas:

- $H_{4.1}$ job concrete
- $H_{4.2}$ job abstract
- $H_{4.3}$ psycho-social
- $H_{4.4}$ economic
- $H_{4.5}$ community growth

$H_5$ There is no significant difference between secondary school teachers of different academic streams viz., Language, Science and Mathematics, and Social Sciences, with respect to global work/job satisfaction and its different areas.

- $H_{5.1}$ job concrete
- $H_{5.2}$ job abstract
- $H_{5.3}$ psycho-social
- $H_{5.4}$ economic
- $H_{5.5}$ community growth

$H_6$ There is no significant interaction between school type and academic streams of secondary school teachers with respect to global work/job satisfaction and its different areas:

- $H_{6.1}$ job concrete
- $H_{6.2}$ job abstract
- $H_{6.3}$ psycho-social
- $H_{6.4}$ economic
- $H_{6.5}$ community growth
Hypotheses related to attitude towards media

$H_7$ There is no significant difference between government and private secondary school teachers with respect to attitude towards media.

$H_8$ There is no significant difference between secondary school teachers of different academic streams viz., Language, Science and Mathematics and Social Sciences with respect to attitude towards media.

$H_9$ There is no significant interaction between school type and academic streams of secondary school teachers with regard to attitude towards media.

Hypotheses related to media utilization

$H_{10}$ There is no significant difference between media utilization by government and private secondary school teachers.

$H_{11}$ There is no significant difference between media utilization by secondary school teachers of different academic streams, viz., Language, Science/ Mathematics and Social Sciences.

$H_{12}$ There is no significant interaction between school type and academic streams with respect to media utilization.

Hypotheses related to attitude towards Information and Communication Technology (ICT)

$H_{13}$ There is no significant difference between the government and private secondary school teachers with respect to attitude towards Information and Communication Technology and its different areas:

$H_{13.1}$ Quality of learning

$H_{13.2}$ Quality of teaching

$H_{13.3}$ New instructional setting

$H_{13.4}$ Socialization
H_{13.5} Change of teachers role
H_{13.6} Development of students abilities
H_{13.7} Evaluation mode
H_{13.8} Effect on educational system on the whole, research and administration.

H_{14} There is no significant difference between the secondary school teachers of different academic streams, viz. Language, Science and Mathematic and Social Sciences with respect to the attitude towards Information and Communication Technology and its different areas:

H_{14.1} Quality of learning
H_{14.2} Quality of teaching
H_{14.3} New instructional setting
H_{14.4} Socialization
H_{14.5} Change of teachers role
H_{14.6} Development of students abilities
H_{14.7} Evaluation mode
H_{14.8} Effect on educational system on the whole, research and administration.

H_{15} There is no significant interaction between the school type and the academic streams of secondary school teachers with regard to the attitude towards Information and Communication Technology and its different areas:

H_{15.1} Quality of learning
H_{15.2} Quality of teaching
H_{15.3} New instructional setting
H_{15.4} Socialization
H_{15.5} Change of teachers role
H_{15.6} \text{ Development of students abilities}

H_{15.7} \text{ Evaluation mode}

H_{15.8} \text{ Effect on educational system on the whole, research and administration.}

Hypotheses related to relationship between Teacher Effectiveness and work/job satisfaction, attitude towards media and attitude towards ICT

There exists no significant relationship between

H_{16(a)} \text{ teacher effectiveness and work/job satisfaction}

H_{16(b)} \text{ teacher effectiveness and attitude towards media}

H_{16(c)} \text{ teacher effectiveness and media utilization}

H_{16(d)} \text{ teacher effectiveness and attitude towards ICT of secondary school teachers of both government and private schools.}

There exists no significant relationship between

H_{17(a)} \text{ teacher effectiveness and work/job satisfaction}

H_{17(b)} \text{ teacher effectiveness and attitude towards media}

H_{17(c)} \text{ teacher effectiveness and media utilization}

H_{17(d)} \text{ teacher effectiveness and attitude towards ICT of government secondary schools teachers.}

There exists no significant relationship between

H_{18(a)} \text{ teacher effectiveness and work/job satisfaction}

H_{18(b)} \text{ teacher effectiveness and attitude towards media}

H_{18(c)} \text{ teacher effectiveness and media utilization}

H_{18(d)} \text{ teacher effectiveness and attitude towards ICT of private secondary school teachers.}
There exists no significant relationship between

$H_{19(a)}$ teacher effectiveness and work/job satisfaction

$H_{19(b)}$ teacher effectiveness and attitude towards media

$H_{19(c)}$ teacher effectiveness and media utilization

$H_{19(d)}$ teacher effectiveness and attitude towards ICT of Language teachers of government secondary schools.

There exists no significant relationship between

$H_{20(a)}$ teacher effectiveness and work/job satisfaction

$H_{20(b)}$ teacher effectiveness and attitude towards media

$H_{20(c)}$ teacher effectiveness and media utilization

$H_{20(d)}$ teacher effectiveness and attitude towards ICT of Language teachers of private secondary schools.

There exists no significant relationship between

$H_{21(a)}$ teacher effectiveness and work/job satisfaction

$H_{21(b)}$ teacher effectiveness and attitude towards media

$H_{21(c)}$ teacher effectiveness and media utilization

$H_{21(d)}$ teacher effectiveness and attitude towards ICT of Science and Mathematics government secondary school teachers.

There exists no significant relationship between

$H_{22(a)}$ teacher effectiveness and work/job satisfaction

$H_{22(b)}$ teacher effectiveness and attitude towards media

$H_{22(c)}$ teacher effectiveness and media utilization

$H_{22(d)}$ teacher effectiveness and attitude towards ICT of Science and Mathematics private secondary school teachers.
There exists no significant relationship between

H_{23(a)}  teacher effectiveness and work/job satisfaction
H_{23(b)}  teacher effectiveness and attitude toward media
H_{23(c)}  teacher effectiveness and media utilization
H_{23(d)}  teacher effectiveness and attitude towards ICT of Social Sciences government secondary school teachers.

There exists no significant relationship between

H_{24(a)}  teacher effectiveness and work/job satisfaction
H_{24(b)}  teacher effectiveness and attitude towards media
H_{24(c)}  teacher effectiveness and media utilization
H_{24(d)}  teacher effectiveness and attitude towards ICT of Social Sciences private school teachers.

Hypotheses related to differences between more effective and less effective teachers

There exists no significant difference between more effective and less effective teachers of government and private secondary school teachers with regard to

H_{25(a)}  work/job satisfaction
H_{25(b)}  attitude towards media
H_{25(c)}  media utilization
H_{25(d)}  attitude towards ICT

There exists no significant difference between more effective and less effective teachers of government secondary schools with regard to

H_{26(a)}  work/job satisfaction
H_{26(b)}  attitude towards media
H_{26(c)}  media utilization
H_{26(d)}  attitude towards ICT.
There exists no significant difference between more effective and less effective teachers of private secondary schools with regard to

H27(a) work/job satisfaction
H27(b) attitude towards media
H27(c) media utilization
H27(d) attitude towards ICT.

There exists no significant difference between more effective and less effective language teachers of secondary schools with regard to

H28(a) work/job satisfaction
H28(b) attitude towards media
H28(c) media utilization
H28(d) attitude towards ICT.

There exists no significant difference between more effective and less effective Science and Mathematics teachers of secondary schools with regard to

H29(a) work/job satisfaction
H29(b) attitude towards media
H29(c) media utilization
H29(d) attitude towards ICT.

There exists no significant difference between more effective and less effective Social Sciences teachers of secondary schools with regard to

H30(a) work/job satisfaction
H30(b) attitude towards media
H30(c) media utilization
H30(d) attitude towards ICT.
DELIMITATIONS OF THE STUDY

- Survey was restricted to only three districts – Kathmandu, Lalitipur and Bhaktapur districts of Nepal.
- The study was delimited to only 300 secondary school teachers of government and private schools.
- Both male and female teachers were included in the study.
- The present study was delimited with respect to secondary school teachers’ teacher effectiveness, work/ job satisfaction, media utilization, attitude towards media and attitude towards information and communication technology.

DESIGN OF THE STUDY

Descriptive method of research was employed for the present study as this method is concerned with surveying, describing and investigating the existing phenomenon or issues, conditions and relationships that exist.

This method enabled the researcher to investigate government and private secondary school teachers of different academic streams viz. Language, Science/Mathematics and Social Sciences with respect to teacher effectiveness, work/job satisfaction, media utilization, attitudes towards media and attitude towards information and communication technology. Five 2 X 3 ANOVA designs were employed and the five dependent variables in each of the five designs were: scores on teacher effectiveness, work job satisfaction, attitudes towards media, media utilization and attitude towards information and communication technology. The independent variables in each of the five 2X3 ANOVA designs were:

School Type  - Government and Private Secondary Schools
Academic streams  - Language, Science and Mathematics and Social science teachers.
Also teacher effectiveness was studied in relation to work / job satisfaction, media utilization, attitudes towards media and attitudes towards information and communication technology. Further, more effective and less effective teachers were compared with respect to work / job satisfaction, attitude towards media, media utilization and attitude towards information and communication technology.

**SAMPLE**

For the current investigation, the population was the teachers of government and private secondary school of the Kathmandu valley (Kathmandu, Lalitpur and Bhakatpur) which are adjacent to each other.

The sample was selected at two levels, viz.

1. Secondary schools sample.
2. Teachers sample.

**Secondary school sample**

At this level, purposive-cum-random sampling technique was employed. A list of all government and private secondary schools of three districts only was obtained. From the available list of schools, sixty schools from three districts were selected randomly as given below:

**Kathmandu**

- Balambhu Secondary School
- Bhanu Bhakta Secondary School
- Guheshwori Secondary School
- Koteshwore Sarasoti Secondary School
- Mangal Secondary School
- Nandni (Day) Secondary School
- Nandni Ratri Secondary School
- Shivprui Secondary School
- Shri Santi Secondary School
- Siddeshwori Secondary School

**Lalitpur**
- Indrayani Secondary School
- Kitni Secondary School
- Lumbhu Secondary School
- Madan Smarak Secondary School
- Mahendra Bhrikuti Secondary School
- Prerna Secondary School
- Rudranyani Secondary School
- Shree Padma Prakash Secondary School
- Shree Chandi Secondary School
- Tripadma Secondary School

**Bhaktapur**
- Adarsh Secondary School
- Adarsh Secondary School Gathaghar (DMPS)
- Balpremi Vidyarathi Secondary School
- Basu Secondary School
- Bode Secondary School
- Ganesh Secondary School
- Kanya Secondary School
- Shanti Niketan Secondary School
- Shree Padma Secondary School
The Private Secondary Schools of Kathmandu

- Birat Secondary School
- Dale Kunj Secondary School
- Diamond Secondary School
- Hebron Public Secondary School
- Himalayan English Secondary School
- Kotedevi English Secondary School
- Mount Glory Secondary School
- Nepal Kalenga Secondary School
- Nobel Academy Secondary School
- Ujjal Secondary School
- Santona Memorial Secondary School
- Super Lucky Secondary School

Lalitpur

- Chadani Secondary School
- Dibya Jyoti Secondary School
- Gauri Shankar Secondary School
- Jupiter English Secondary School
- Lalitpur Secondary School
- Lok Smriti Secondary School
- Paradise Secondary School
- Purnatara Secondary School
- Subhkamna Secondary School
- Sramik Shanti Secondary School
**Bhaktapur:**

- Bhakatpur English Secondary School
- Everest English Secondary School
- Genuine Secondary School
- Mount Everest Secondary School
- Madhyapur Secondary School
- North – East English Secondary School
- Siddharth Vidyapith Secondary School
- Vidya Vikas Secondary School.

**Teachers Sample**

From the above schools, 150 secondary school teachers were chosen from government schools and 150 from private secondary schools. Care was taken that at least 5 teachers of both the type of schools belonged to three different academic streams, viz, Language, Mathematics/ Science and Social Sciences. The sample distribution for the teachers has been presented below:

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Secondary School Teachers
  - Government Schools
    - Language (n = 48)
    - Science/Mathematics (n = 50)
    - Social Sciences (n = 52)
  - Private Schools
    - Language (n = 56)
    - Science/Mathematics (n = 55)
    - Social Sciences (n = 39)
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TOOLS USED

The following mentioned tools were used to conduct the present study.

1. Demographic characteristics data sheet
2. Teacher effectiveness scale (TES) developed by Kumar and Mutha (1974)
3. Job Satisfaction Scale (JSS) developed by Singh and Sharma (1999)
4. Media Utilization checklist (developed by the investigator)
5. Attitude towards media scale (developed by Bhushan and Mehra, 2004).
6. Attitudes towards Information and Communication Technology scale (developed by the investigator).

PILOT STUDY

A pilot study was conducted by the researcher with 50 secondary school teachers of Lalitpur district. The reason for conducting a pilot study was to determine the reliability of the tools, viz, Teacher Effectiveness Scale, Work/Job Satisfaction Scale and Attitude towards Media Scale that were developed by researchers in India. The pilot study showed that the reliability coefficients (estimated by test-retest method) for the above three tools ranged between 0.65 and 0.77. Hence, these tools were thought to be suitable for data collection from teachers of Secondary Schools of Nepal.

PROCEDURE

The data was collected at two stages:
Stage I: Selection of the sample.
Stage II: Collection of the data.
Stage I: Selection of the sample.

This stage has been discussed under the heading sample in this chapter.

Stage 2: Collection of the data

After development of the tools and validating the related tools, the investigator contacted the Principals of about 60 government and private secondary schools to obtain permission for collecting data from their teachers. After securing the necessary permission, the teachers were explained the objectives of the study and given the tools. Clear instructions were given on the tools. Investigator himself interacted with the teachers and answered all their queries. The data was collected in year 2005. Due to unstable political conditions in Nepal, schools used to be closed occasionally for many days. It took about six months to collect data from 300 teachers.

After collecting the responses to each tool from all the teachers, scoring was done in accordance with the instructions given in the manual of each tool. Next, data of 150 teachers of government schools was divided: into 3 academic streams, viz, Language, Science/Mathematics and Social Sciences. Similarly, data of 150 private school teachers was divided into 3 academic streams.

STATISTICAL TECHNIQUES

The following statistical techniques were employed to analyze the data obtained in order to test the hypotheses:

- Descriptive Analysis techniques, like, means & standard deviations were worked out to study the general nature of the sample employed.
- 2×3 ANOVA was employed to study the impact of school type and academic streams on Teacher Effectiveness, Work/Job Satisfaction Scale, Media utilization Attitude
towards Media and Attitude towards information and communication technology.

- Coefficients of correlation for studying relationship of Teacher Effectiveness with work/job satisfaction, attitude towards media, media utilization and Attitude towards information and communication technology.

- t-ratios to study the difference between more Effective and Less Effective teachers with respect to Work/Job Satisfaction Scale, Attitude towards Media, Media utilization and Attitude towards information and communication technology.

FINDINGS

Finding of the study related to Demographic Characteristics

- About sixty percent of the teachers in government secondary schools possess graduate degree and more than fifty teachers of private secondary schools possess postgraduate degree.

- Majority of the teachers were male in both government and private secondary schools 68.66% in government school and 84.66% in private schools.

- Majority of the teachers in private schools were younger than the government secondary schools as they fall in 21-30 years age group. The least percent ages of the secondary teachers in government and private schools were above the age of 51.

- About 77% of private school teachers had 1-10 years of teaching experience as compared to 31% teachers in the government secondary schools. On the whole government school teachers had more teaching experience than private school teachers.
• About 64% of teachers of government secondary school teachers possess education degree whereas in the case of private school only 41% possessed the same.

Findings related to Teacher effectiveness
• The secondary school teachers belonging to government and private schools exhibited comparable teacher effectiveness.
• The secondary school teachers belonging to different academic streams viz, Language Science and Mathematics and Social Sciences exhibited comparable teacher effectiveness.
• No significant interaction was found between school type and teachers of different academic stream with regard to teacher effectiveness.

Findings related to Work/Job Satisfaction Scale
• The secondary school teachers of government and private schools exhibited comparable global job satisfaction and in its areas such as job-concrete, job-abstract, psycho-social and community growth areas. But government teachers exhibited better job satisfaction related to economic factors as compared to their private school counterparts.
• Secondary school teachers of different academic streams viz, Language, Science/Mathematics and Social science exhibited comparable global satisfaction.
• Language teachers were least satisfied with respect to job-concrete and economic factors as compared to the teachers of Science/Mathematics and Social science stream. With respect to other areas of job satisfaction viz. job abstract psycho-social and community growth, no significant differences were found.
The school teachers of government and private secondary schools belonging to different academic streams exhibited comparable job satisfaction in each of the areas of job satisfaction.

**Findings related to Attitude towards media**

- Secondary school teachers belonging to government and private schools exhibited comparable attitude towards media.
- The teachers of different academic streams viz, Language, Science/Mathematics and Social science exhibited comparable attitude towards media.
- The teachers of different academic streams of government and private secondary schools teachers exhibited comparable attitudes towards media.
- More than fifty percent of government and private secondary school teachers of different academic streams agreed that Media promotes interaction, it helps students in better comprehension, helps to create real life experiences, projected media improve the quality of content presentation, All media are not equally suitable for teaching every content, Media promotes exactness in learning and facilitates students learning.
- About forty percent of government and private school teachers of different academic streams disagreed that Media are not cost effective and they donot distract student attention.

**Findings related to Media utilization**

- Teachers of private secondary schools exhibited more media utilization as compared to their government school counterparts.
• Language, Science/Mathematics and Social science teachers exhibited comparable media utilization.

• Teachers of private and government schools belonging to different academic streams exhibited comparable media utilization.

• All most all of the secondary school teachers of government and private schools with different academic streams viz, Language Science/Mathematics and Social sciences used Textbooks and Chalkboard regularly.

• On the whole, most of the Secondary School Teachers of private schools used non-projected media more frequently than Secondary School Teachers of government schools.

• Most of the Secondary Schools Teachers of government and private schools never used projected and electronic media such as Films, Slides, CCTV, T.V., Computer Assisted Instruction, Internet, Teleconferencing, Tele Text, Projectors, Cameras, Audio Cassette, Computer, CD-Rom, Video Camera, LCD projector, Slide and Film Projector and Multimedia.

• Majority of the secondary school teachers of both government and private schools occasionally used non-projected media such as Journals, Magazines, Charts, Graphics, Diagrams, Documents, Worksheet, Maps, Drawing and Printing.

• Few teachers seldom used OHP transparencies, Clipping Flat Pictures, Cutouts, Puppets, Models, Microfilm, Videotext, Epidiascope, Internet and Multimedia kits.

**Findings related to teachers attitude towards ICT**

• Government and private secondary schools teachers exhibited comparable attitudes towards ICT and its areas such as quality of learning, quality of teaching, new
instructional setting, change of teachers role, development of student abilities, evaluation mode and effect on educational system. But private school teachers were favourable towards the socialization aspects.

- Teachers attitudes towards ICT and its areas were not found to be different for teachers with different academic streams.

- Government and Private Secondary school teachers of different academic streams believed that ICT can bring about change in teacher’s role in the future. With respect to global attitude towards ICT and its other areas, such as quality of learning, quality of teaching, new instructional settings, socialization, development of students’ abilities, evaluation mode and effect on educational system on the whole, the teachers of both government and private schools with different academic streams exhibited comparable attitudes.

- About than 25 percent of teachers of different academic streams of government and private schools strongly agreed that ICT can increase the quality of learning, it can be used for learning, makes teaching an enjoyable experience, can be a valuable tool for conducting research, it has brought a revolution in higher education and teachers should join ICT education program for improving their professional competency.

- More than 50 percent of teachers of different academic streams of government and private schools agreed that ICT can increase the quality of learning, it increases analytical abilities of students, can increase initiative among students, can be used for teaching and learning, can make teaching an enjoyable experience, promote social skills, ICT intervention can lead to conversion of formal, non-formal,
in-formal system of education, it can increase learner’s autonomy in choosing an institution and course of own choice, ICT based education makes schools to be community learning and resource centers, can enhance self-learning opportunity, provide flexible interactive opportunity at a distance, strengthens collaborative learning among learners with common interest. Accountability of educational institutions of ICT based learning can be higher and ICT can promote continuous and comprehensive evaluation in education system. ICT can make evaluation process more transparent and reliable every educational institution must promote ICT based education. It can help teachers to assume the role of learner, mentors, researchers and managers.

- About than 25 percent of secondary teachers of the three different academic streams of government and private schools disagreed that ICT can be useful only in Science and technical education, can widen the gap between men and women, can isolate an individual and solve all problems of education.

- About 25 percent of secondary school teachers of three different academic streams of government and private schools were undecided that ICT could emphasize individual accomplishments rather than collaboration in teaching or research.

**Findings related to relationship of teacher effectiveness with work/job satisfaction scale, attitudes towards media, media utilization and attitude towards ICT.**

- For the total sample of the government and private school teachers, teacher effectiveness was found to be positively related with work/job satisfaction, attitude towards media, media utilization and attitude towards ICT.
• For government secondary school teachers, teacher effectiveness was found to be positively related with work/job satisfaction, attitude towards media, media utilization and attitude towards ICT.

• For private secondary schools teachers, teacher effectiveness was found to be positively related with work/job satisfaction, media utilization and attitude towards ICT. But, no relationship was found between teacher effectiveness and attitude towards media.

• For government school Language teachers, teacher effectiveness was found to be not related with work/job satisfaction and media utilization, but related positively with attitude towards media and attitude towards ICT.

• For private school Language teachers, teacher effectiveness was found to be positively related with work/job satisfaction, attitude towards media, media utilization and attitude towards ICT.

• For government school Science/Mathematics teachers, teacher effectiveness was found to be not related to work/job satisfaction, attitude towards media and attitude towards ICT, but was found to be positively related with media utilization.

• For private school Science/Mathematics teachers, teacher effectiveness was not found to be related to work/job satisfaction, attitude towards media and attitude towards ICT.

• For government school Social sciences teachers, teacher effectiveness was found to be positively related with media utilization and attitude towards ICT, but not related with work/job satisfaction and attitudes towards media.
• For private School Social science teachers, teacher effectiveness was found to be positively related with work/job satisfaction, but not related with attitude towards media, media utilization and attitude towards ICT.

**Findings related to differences between more effective and less effective teachers**

• More effective teachers exhibited better work/job satisfaction, attitude towards media, media utilization and attitudes towards ICT than less effective teachers of government and private schools.

• More effective teachers exhibited better work/job satisfaction, attitude toward media, media utilization and attitude towards ICT than less effective teachers of government schools.

• More effective teachers exhibited better work/job satisfaction, media utilization and attitudes towards ICT, but more effective and less effective teachers exhibited comparable attitude towards media.

• More effective teachers exhibited better work/job satisfaction, attitudes towards media, media utilization and attitude towards ICT than less effective Language teachers of secondary schools.

• More effective teachers and less effective teachers of science/ mathematics of secondary schools exhibited comparable work/job satisfaction, attitudes towards media, media utilization and attitudes towards ICT.

• More effective teachers of Social science of secondary schools exhibited better media utilization and attitude towards ICT, as compared to less effective teachers, but exhibited comparable work/job satisfaction and attitude towards media.
EDUCATIONAL IMPLICATIONS

- Media helps to enhance the teaching process.
- Teacher with media is better than a teacher alone.
- All media can instruct and learners can learn from almost any medium.
- Media adds concreteness to any situation.
- Media motivates both learners and teachers.
- Media provides variety in the learning situation.
- Media encourages students to actively participate in classroom.
- Media individualizes instruction.
- Flexibility in teaching and learning is possible by media.
- Attitude backs action, so teachers with positive attitude towards media will surely use media if they are provided appropriate motivation and cooperation by the school administration.
- For optimum learning outcomes, media could be used by teachers to capture attention of students and to bring variety in teaching situations.
- A picture is worth a thousand words is true and visuals do have an impact on the mind of the learner.
- Media, especially can help a teacher to assume the role of learner, mentor, facilitator, researchers and managers, but sadly technology is not easily accessible to teacher.
- Use of ICT in class room can produce student centered learning environment, which would make student an dependent learner.
- Not all teachers are motivated to use technology. Teachers must realize that media an the whole and ICT, specially can provide opportunities for new learning experiences.
- Integrating media/ICT in teaching can make a real difference in how teachers teach. It enables the teacher to
spend more time with individual students, less time teaching to the whole class and allows student to carry out more independent work.

- Research has shown that technology in education contributes to both teacher effectiveness and student achievement.

- In-service training should be provided to teacher for increasing their teacher effectiveness.

- Training should be provided to teacher in the use of media, especially ICT, because in the coming of acute modernization, pupils are more well versed with computers than teachers.

- Staff development programs should be held quite often for teachers to keep them up to date with the latest technologies in education.

- Of course the required infrastructure should be there. The secondary schools should be the equipped with a variety of traditional and new media.

- Teachers of Nepal must be provided with on the Job training in the use of ICT in subject classes – individualization and differentiation of classroom work and managing personal and performance data on pupils.

- However, too much involvement in TV or ICT could have certain disadvantages such as social isolation, and health problem/ especially, neck or back pain).

- Support for national research and development for technology application in education is critical to keep pace with emerging technologies.

- Teachers should willingly perform new roles in the classrooms of the future. As students become more self-directed, it will prove an excellent opportunity for the teacher to not only learn from the student, but also model
to being an information seeker, lifelong learner and risk taker.

- The school administration should provide time to teachers for ongoing professional development. Some incentives (such as job security, financial) may be offered to teachers to use technology as they need to prepare students for the technological work place of the future, enables teachers to spend more time with individual students, less time lecturing to the whole class and allows students to carry out more independent work.

- Staff development that is individualized to the needs of the teacher should be provided, because technology can be an effective catalyst for educational reform.

- Time should be provided to teacher for planning learning about implementing technology applications.

- Teachers school be involved in planning statewide, school and classroom uses of technology

**SUGGESTIONS**

- A longitudinal survey of applications of ICT in primary schools secondary schools, colleges and university of Nepal may be conducted.

- A comparative study of attitude towards ICT of teachers and pupils may be conducted at various educational levels.

- Effect of use of ICT on student’ creativity, initiative and motivation may be conducted.

- More research is needed to inform educators and software developers about the most effective & needed uses of technology.

- Development of strategies for using technology to enhance engaged learning for at risk students, enhance literacy instruction and improve student achievement.