



To Study The Effect of Information Technology on Vocational Interests of Secondary School Students of Aligarh District

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ABSTRACT

The aim of this present study was to know the effect of Information Technology on Vocational Interests of secondary school students of Aligarh district. A sample of one thousand secondary school students was considered by using Simple Random Technique. For the purpose of data collection, the investigator developed two scales – Vocational Interests Scale and the Scale on Effect of Information Technology for vocations. Before administering these tools, the investigator checked the reliability and validity of these Scales. To test the hypothesis of the study, the data were analyzed by using Statistical Methods like Product Moment Coefficient of Correlation and Regression Analysis. The study revealed that – positive and significant relation was found between Information Technology and Vocational Interests of secondary school students. 30.6 percent of the variance of Vocational Interests was contributed by Information technology.

KEYWORDS

Information Technology, Vocational Interests, Secondary School Students.

INTRODUCTION:

In this fast changing modern sophisticated techno-scientific global society where internet, cell phone, e-mail, chatting, liberalization, globalization etc. are the frequently used terminologies of our young generations. This 21st Century is known as the age of science and technology because of the tremendous advancement that has been made in scientific, technological and industrial fields. Exciting discoveries and new inventions along with technological developments which are taking place every day are influencing human beings in every sphere of life, work and play worldwide. It has influenced every aspect of life, like education, business, industry, banking, agriculture, medicine and various other fields, i.e. new and emerging technologies challenge the traditional teaching-learning process and the ways of education.

India is into the second decade of the 21st. Century with a population of 1210.2 million (Census Report, 2011). It is very essential to preserve and utilize the human resources of a developing country, like India where economic, social, educational and occupational set-up are changing very fast, vocational availability is limited but at the same time huge human resources with varied ability, aptitude and interest are available in abundance. Of the total population, 756.6 million are in the age group of 15-59 years i.e. the economically active population (Census Report, 2011). 481.7 million from this economically active population are employed while the remaining 274.9 million are still unemployed. This may be due to lack of vocational and skill development training (Mohankumar, V., and Sanjay, B., 2014) i.e. there is lack of proper guidance at every educational field. The large percentage of failures in different jobs and dropouts is an immense waste of money and energy. The life of misfits in a vocation is tragic, resulting in heavy loss to individuals as well as to the society.

The present education system of India is aggravating the problem of unemployment. One of the most challenging demands of this 21st Century is to remove unemployment and poverty, and attain a sustained economic growth. India's changeover to a knowledge-based economy requires a new generation of educated and skilled people. Therefore, it is the responsibility of the society to prepare the young generation for this unique demand of 21st Century. Today, vocational education has become synonymous with quality life as it contributes significantly in promoting the interests of individuals, enterprises, economy and society.

The social, economic, technical and cultural efficiency of a na-

tion depends on secondary education. Secondary education is one of those stages of education, which is given after primary education but before university education. It plays an important role in the training of the youth in order to take an active part in the social reconstruction and economic development of a nation. It is at this stage that students acquire those basic skills and abilities which enable them to enter the job market or go for higher education.

Therefore, the secondary education system should be made so practical that the students after passing this stage do not run for admissions to universities and remain unemployed but become economically independent by having acquired some vocational skill of productive nature. Thus, these students during their school years require help in understanding the need and importance of career planning. Therefore, educators and administrators need to look for the various career orientations, with a view to understand the ways in which secondary school students make career planning and the various factors, which influence their planning. It has been observed that students in India make career plans without having enough knowledge; easily falling to the pressures of parents and peers, thereby forcing them to take unrealistic career decisions. Unfortunately, this has led to dissatisfaction and maladjustments in their vocations. Hence, it has become essential to give due weightage to the factors which influence their Vocational Interests in order to minimize the maladjustments in their vocational spheres as life satisfaction and happiness, to a large extent depends upon job satisfaction which is the outcome of interest which one takes in his vocation.

Vocational Interests signifies an individual's interest towards a particular vocation i.e. the desire to work in a particular field as means to earn his/her livelihood. Vocational Interests are one of the most enduring and compelling areas of individual differences (Lubinski & Dawis, 1995) and the most popular means for characterizing, comparing and matching persons and environments (Hogan & Blake, 1996).

The basic skills of reading, writing and arithmetic (3 R's) remain the foundation of schooling and students learning. It has been found from various studies conducted in India and abroad that there was a positive effect of use of Information Technology in teaching-learning of various subjects. As in the study of Mauther, M. Z. (1999) revealed that when computer was used to its full potential, it helped students achieve more in learning vocabulary, grammar and comprehension to the learner's with different IQ, motivation and attitude. It helped

the students learn better because it provides them with lot of freedom and responsibility to learn at their own pace and the students were found to have positive attitude towards Computer Assisted English language instruction. Samal, Y. (2000) found that both the Education Television Programme and School Broadcast Programme to have positive effect on school achievement of pupils. Yadav, K. (2004) had found a significant gain in terms of students' achievement through Information Technology enabled instructional package. According to Rathod, J. (2005) the developed Information Technology based instructional package was more effective for teaching English grammar and also the students had positive reactions towards the developed Information Technology based instructional package. The students and teachers both were found to have favourable opinion towards the developed instructional package. Siddique, U. (2013), confirmed that Computer Assisted Instruction (CAI) was an effective tool for teaching and learning Physical Sciences. Thus, technology helps students in accomplishing their goal of having a solid foundation of basic skills and inculcating in them an interest to learn. Realizing this, schools are now introducing Information Technology tools to improve students' basic skills. The use of audio and video tools in the classrooms rejuvenates the subject matters, which helps to stimulates student's minds and thus facilitates learning. Pictures sound and animation, multimedia considerably enhances students' ability to recall basic facts, as well as improving their understanding of complex systems.

The investigator, after scrutinizing various reviews of related literatures had observed that numerous researches on the relationship between Vocational Interests and other variables like socio-economic status, gender difference, father's occupations, etc. were conducted. But in today's fast changing modern techno-scientific global society of 21st Century, our students have a new style of thinking which makes them different and independent right from an early age. They want to decide their own careers and determine their own future professional growth. This, prompted the present investigator to work with variables other than the types of variables mentioned above and therefore, wanted to know how Vocational Interests of today's generation is effected by Information Technology. The investigator from review of related literature conducted both in India and abroad on variable Information Technology had found that most of the studies had positive effect of Information Technology on various teaching subjects like English, Sanskrit, etc. and also found positive effect of Information Technology on student's achievement. These studies motivated the investigator to take Information Technology as a variable in the present study and to know its effect on Vocational Interests of secondary schools students.

OBJECTIVE OF THE STUDY:

In order to achieve the desired result the following objective is formulated.

Objective. To find the effect of Information Technology on Vocational Interests of secondary school students.

HYPOTHESIS OF THE STUDY:

In order to achieve the above objective the following null hypothesis was formulated:

Ho.: There will be no significant effect of Information Technology on

Vocational Interests of secondary school students.

METHODOLOGY:

The Research Design was descriptive as the information collected from the subjects was not manipulated. The population used for the study was students of secondary schools of Aligarh district. One thousand secondary (CBSE affiliation) school students were considered by using simple random technique as a sample. For the purpose of collection of data, the investigator developed two scales – (i) Vocational Interests Scale and (ii) the Scale on Effect of Information Technology for

Vocations. Before administering these tools, the investigator checked the reliability and validity of these scales.

In order to refine and have a statistically sound and theoretically meaningful 'Vocational Interests scale' the investigator had applied factor analysis. Factor Analysis singled out nineteen (19) factors or areas with eighty (80) items along with their corresponding factor loadings. The factors or areas are – Teaching, Performing Arts, Engineering Services, Health Services, Clerical Jobs, Entrepreneurial Services, Sports Professionals, Social Scientist, Gadget Technician, Finance & Accounts, Social Services, Conventional Jobs, Creative Arts, Managerial Services, Airline Services, Investigative Services, Media, Counselor, and Literary Arts. Reliability was found to be 0.939 by using Cronbach Alpha formula. The content validity of the Vocational Interests Scale was established by circulating the content of the scale among a panel of experts in the field of Education and Psychology.

The investigator also developed the Scale on Effect of Information Technology (IT) for Vocations. Factor Analysis singled out six (06) factors with thirty (30) items along with their corresponding factor loadings. The factors were – Knowledge of IT, Use of IT Services, IT & Artistic Jobs, Career Options in Computer, IT & Entrepreneurial Services and IT for Human Welfare. The reliability of the scale was 0.844 by using Cronbach Alpha formula. The Scale on Effect of Information Technology for Vocations was circulated among a panel of experts in the field of Education and Psychology for content validity.

ANALYSES AND INTERPRETTION :

Product Moment Correlations of Coefficient and Simple Regression Analysis were used as the collected data were normally distributed.

Objective: To find the effect of Information Technology on Vocational Interests of secondary school students.

H₀: There will be no significant effect of Information Technology on Vocational Interests of secondary school students.

In order to find the effect of Information Technology on Vocational Interests the investigator first analyzed the scores to study the relationship between Information Technology and Vocational Interests of secondary school students. The following table (Table no. 1(a)) depicts the value of Product Moment Coefficient of Correlation.

Table no.1(a)

Product Moment Coefficient of Correlation between Information Technology and Vocational Interests of secondary schools students (N = 1000).

| VARIABLES | df | Calculated r | p |
|------------------------|-----|--------------|-------|
| Information Technology | 998 | 0.554** | 0.000 |
| Vocational Interests | | | |

**** Significant at the 0.01 level (2-tailed) df: degree of freedom**

From the above table it could be said that the coefficient of correlation between Information Technology and Vocational Interests was 0.554**, significant at 0.01 level which indicates a positive and significant relationship.

As there was a significant relationship between Information Technology and Vocational Interests, the investigator could determine the effect of Information Technology on Vocational Interests. The following table (Table no 1(b)) depicts the value of Simple Regression Analysis.

Table no. 1(b)

Simple Regression Analysis between Information Technology and Vocational Interests of secondary school students (N = 1000).

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--------------------------------------|-----------------------------|----------------|---------------------------|------------------|--------------|
| | B | Std. Error | Beta | | |
| 1. (Constant) Information Technology | 85.985 1.584 | 8.276 0.075 | 0.554** | 10.390 20.996 | .000 .000 |
| R=0.554 | | R Square=0.306 | | | |

**Significant at 0.01 level (2-tailed).

It has been observed from the above table that the square of R was 0.306, which indicates that Information Technology contributed 30.6 percent of the variance in Vocational Interests. In addition, the positive Beta value, which was significant at 0.01 level, indicated that Information Technology had a positive effect on Vocational Interests. Therefore, the investigator is of the opinion that Information Technology has helped the students to enhance their interests about the different areas of vocations i.e. Information Technology has significant effect on Vocational Interests of secondary school students. Hence, the above null hypothesis is rejected.

Furthermore, the investigator calculated the correlation values between six dimensions of Information Technology and the nineteen areas of Vocational Interest by using Product Moment Correlation of Coefficient. The following table (Table no. 1(c)) shows the correlations values between them.

Table no. 1(c)

Coefficient of Correlations between six dimensions of Information Technology (IT) and nineteen areas of Vocational Interests of secondary school students (N = 1000).

| Areas of Vocational Interests | Dimensions of Information Technology | | | | | |
|-------------------------------|--------------------------------------|---------------------------|---------------------------|-----------------------------------|--------------------------------------|-----------------------------|
| | Knowledge of IT (IT-1) | Use of IT Services (IT-2) | IT & Artistic jobs (IT-3) | Career options in Computer (IT-4) | IT & Entrepreneurial Services (IT-5) | IT for Human Welfare (IT-6) |
| Teaching | .193** | .132** | .290** | .231** | .329** | .189** |
| Performing Arts | .149** | .158** | .620** | .208** | .265** | .154** |
| Engineering Services | .221** | .135** | .002NS | .229** | .153** | .089** |
| Health Services | .206** | .167** | .215** | .215** | .280** | .184** |
| Clerical Jobs | .161** | .066* | .307** | .279** | .394** | .196** |
| Entrepreneurial Services | .174** | .081** | .262** | .267** | .351** | .180** |
| Sports Professionals | .222** | .187** | .235** | .291** | .351** | .171** |
| Social Scientists | .225** | .109** | .263** | .281** | .421** | .185** |

| | | | | | | |
|------------------------|--------|--------|--------|--------|--------|--------|
| Gadget Technicians | .226** | .189** | .224** | .398** | .324** | .225** |
| Finance & Accounts | .259** | .162** | .153** | .281** | .298** | .187** |
| Social Services | .087** | .028NS | .395** | .123** | .285** | .066* |
| Conventional Jobs | .180** | .082** | .174** | .205** | .293** | .177** |
| Creative Arts | .183** | .266** | .334** | .217** | .190** | .117** |
| Managerial Services | .159** | .105** | .137** | .219** | .232** | .148* |
| Airline Services | .261** | .230** | .083** | .152** | .184** | .089** |
| Investigative Services | .172** | .117** | .098** | .187** | .244** | .116** |
| Media | .166** | .130** | .360** | .194** | .353** | .139** |
| Counselor | .177** | .126** | .159** | .214** | .268** | .171** |
| Literary arts | .156** | .151** | .152** | .133** | .219** | .103** |

***Significant at 0.05 level (2-tailed). **Significant at 0.01 level (2-tailed). NS: Not Significant at any level**

It was evident from the above table that all the dimensions of Information Technology (Knowledge of IT, Use of IT Services, IT & Artistic jobs, Career Options in Computer, IT & Entrepreneurial Services and IT for Human Welfare) had positive and significant relationships (at 0.01 and 0.05 levels, 2-tailed) with all the areas of Vocational Interests (Teaching, Performing Arts, Engineering Services, Health Services, Clerical Jobs, Entrepreneurial Services, Sports Professionals, Social Scientists, Gadget Technicians, Finance & Accounts, Social Services, Conventional Jobs, Creative Arts, Managerial Services, Airline Services, Investigative Services, Media, Counselor and Literary Arts). The IT & Artistic Jobs – one of the dimensions of Information Technology however, had positive but not-significant (at any levels) relationship with the Engineering Services area of Vocational Interests.

FINDING:

The following was the finding of this present study:

Positive and significant relationship was found between Information Technology and Vocational Interests of secondary school students. 30.6 percent of the variance of Vocational Interests was contributed by Information Technology.

CONCLUSION:

It was concluded from the finding of the objective that students who were accustomed with Information Technology were found to be more interested to explore the world of vocations. Hence, it may be concluded that Information Technology played a very effective role in inculcating Vocational Interests among secondary school students. This trend is because of Information Technology revolution that is affecting the whole world and it has been instrumental in bringing down the boundaries, atomized different types of jobs; opened numerous opportunities for the cross-section of people the world over, enhanced generation, development and information of vocational guidance more easily accessible to all and therefore India is also suddenly witnessing a new age of vocations, vocations that were unheard of and undiscovered in previous years.

EDUCATIONAL IMPLICATIONS OF THE STUDY:

In present era, Information Technology has played an important role in every sphere of life and education is no exception to it. The result of the present study also found that the use of Information Technology tools had a positive effect on Vocational Interests. This signifies that Information Technology plays an important role in inculcating students' Vocational Interests. Information Technology has opened up a completely new potential in technology-based learning. The present findings should motivate every educational institution to use and infuse Information Technology into their curriculum.

SUGGESTIONS FOR FURTHER RESEARCHES:

The present investigation was restricted only to students studying in class X of CBSE Board schools of Aligarh district; the findings cannot be generalized for all secondary school students. Hence, in order to generalize these findings, further research could be done with students of other Boards.

In order to get better, authentic and generalized results for secondary school students, districts other than Aligarh could be considered in the future.

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