

Impact of Using the Internet on the Academic Achievement of the Undergraduate Students

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ABSTRACT: *The present study investigates the impact of using internet on the academic performance of UG students studying in higher educational institutions. For the study, casual comparative research method was employed. The main purpose of the study was to examine the impact of using internet on the academic achievement of UG students and to study the significant difference between the academic achievement scores of internet users and non-users in relation to Arts, Science, Commerce streams. Near about 450 students studying in higher education institutions of Sundargarh district, Odisha were selected as the sample of the present study. The data was collected with the help of Achievement Score Card and analyzed by applying 't' test. The result showed that there was significant difference between the achievement scores of internet user and non-users, the achievement scores of internet users were higher as compared to the non-users, also significant different was found among the internet users and non-users of Arts, Science and Commerce stream.*

Key Words: *Internet; Academic Achievement; Undergraduate Students; Internet user and non-users.*

Introduction

Background of the Study:

Educational Technology covers a wide scope. The scientific inventions have influenced the every aspect of the human life and mass communication process like teaching machines, radio television, computers; projectors which are now employed in all the phases of human life. This mechanization of teaching resulted in the emergence of educational technology in the field of education. It includes all major techniques for both the qualitative and quantitative improvement of education. So educational technology has revolutionized the process of teaching and learning at all levels of education and makes a functional analysis of teaching learning process and locates the various components that operate from the stages of input to that of the output. It is ultimately concerned with the fundamental issues of learning, teaching and social organization. It is the application of scientific knowledge and learning to improve the effectiveness and efficiency of teaching and training. Educational technology is considered as the systemic study and ethical practice of facilitating learning and improving the academic domains of student's knowledge by creating, using and managing appropriate technological process and resources (Sahu, 1996).

The emergence of the concept of teaching-learning is too old in earth. Teaching, as conventionally understood, is the act of disseminating information to the learners in the classroom. The teacher transmits knowledge, information, ideas, beliefs, theories, concepts etc., to the students in the classroom (Sniha, 2016). This transmission of knowledge by the teacher to the students takes a variety of forms. The modern world is dynamic with its revolutionary changes in all aspects of human life. The scientific inventions have influenced every aspects of man and the teaching-learning process could not remain untouched by these inventions. The term educational technology was used in India during 1960s approximately. So it is a new area in the discipline of education like educational psychology, educational philosophy and educational measurement and evaluation. The educational technology is embedded with the internet to a great extent in this 21st century, as a result the internet is being used in different aspects of human life. In the field of education, the internet plays a vital role in providing study materials and recent trends in educational policies and practices. So in this present study, we try to find out the impact of using internet on the academic achievement of the undergraduate students on the basis of the data collected from the inter users and non-users.

Related Literatures

Some related studies are below;

Young (2006) studied the effects of internet use and social capital on the academic performance. The findings showed that the students are more reliant on the internet to access to information related to their education. It was also finding that teenagers tend to manage their social capital through the network. **Usman et. al (2013)** studied the relationship between the internet addiction and academic performance among foreign under graduate students. The study revealed that there exist significant relationship between internet addiction and academic achievement. **Akhtar (2013)** studied the relationship between internet addiction and academic performance among university under graduates. The objective of this study was to study the relationship between internet addiction and academic achievement of university. The findings revealed that there was a significant correlation between the two variables, and it was also found that the male students had higher internet addiction than female ones. **Ijeoma & Burke (2013)** studied the effect of social media on post graduate students during academic lectures and library session of Salford University Manchester, United Kingdom. The findings showed that many students' use social media, especially face book, and twitter for academic activities and it had a positive effect on them. **Azizi (2014)** studied the relationship between internet competency and academic achievement of science students in Bachelor level. This study was a co-relational study with prediction and analytical approach. The findings showed that components of information search significantly and negatively correlated with academic performance of science students in bachelor level with different combination of subjects. **Methi (2014)** studied the internet usage pattern of post graduate students of Gulbarga University. The objective of the study was to examine the attitude of students and this study revealed that the purpose of internet usage for students and the findings showed that the students depends on the internet for their academic needs and they had the positive attitude towards the same. **Ellore (2014)** studied the influence of internet usage on academic performance and face to face communication and findings indicated that students' interest in the use of internet significantly impacts academic achievement. Additionally, internet usage and student interest in university significantly predicts face-to-face communication. **Alam et. al (2014)** studied the negative and positive impact of internet addiction on young adult in Malaysia. The objective of the study was to study the influence of internet addiction on young adults in Malaysia. This study comprised a sample of 200 young adults in Malaysia. The young adults believed that the internet usage can help them to improve their skills for doing their work better. The findings revealed that male users were likely having working problem, psychological problems, behavioural problems and inter personal problems than female in using internet, on the other hand females were having their physical problems while using internet excessively. **Mishra et. al (2014)** studied the impact of internet addiction on university students and its effect on subsequent academic success. This study used a survey method and findings indicated that there was little research in this domain in exploring the relations between academic success and level of internet addiction, however they found positive impact of internet. **Kaur (2015)** studied the internet addiction among adolescents in relation to depression. The objective of the study was to compare the internet addiction among adolescent boys and girls. This study revealed the relationship between internet addiction and depression among adolescents and found significant positive correlation between internet addiction and depression among adolescents except in rural adolescent. **Kakkar et. al (2015)** studied the influence of internet addiction on the academic performance and mental health of college students. The study was conducted by the descriptive survey method and the findings indicated that out of 200 subject, 58 students scored above 90 and fall in the category of excellent mental health, while 120 students scored between 70 to 90 and fall in the category of good mental health, where as 20 students scored between 50 to 60 and fall in the category of average mental health and 2 students scored below 29 and belonged to the category of very poor mental health. **Pardhasaradhi & Goel (2015)** studied the influence of internet on academic performance of adolescents. The data was analyzed using methods of descriptive statistics and the findings revealed that the internet was useful for education and it had a positive influence on students' academic achievement. **Siraj et. al (2015)** conducted a case study on the internet usage and academic performance in Malaysian public University. This was cross sectional study and they found that internet has a significant decrement on the students' achievement. **Sachitra (2015)** studied the internet addiction and academic performance of university students. This objective of the study was to identify the relationship between internet addiction and academic achievement among undergraduate and the finding revealed that there is positive significant relationship between the variables. **Mensah (2016)** studied the impact of social media on students' academic performance and found that social media and platform had a significant influence on students' academic performance in Malaysia tertiary institution. **Shahibi & Rusil (2017)** studied the influence of internet usage on students' academic performance. The finding indicated that student's interest in

university among final year students of the faculty of Information Management was the most effective factor in improving students' academic performance. **Jehopio et. al (2017)** studied the internet heavy usage and its influence on academic achievement of university students. The objective was to study the relationship between internet and academic performance. They found that students who use the internet in harmony with the aim of their study were more likely to attain higher academic achievement compared to light or average users. **Abolwafa & Mohammed (2017)** studied the internet uses and its relation to academic achievement and obesity among nursing students at Minia University the finding of this study revealed negative influence of internet on adolescent and adult nursing students on obesity and academic performance. **Mir & Paray (2018)** studied the internet usage and academic performance of secondary school students in Kashmir. The objective of the study was to compare the academic performance of Male internet user and female internet user of secondary school students and to compare the academic performance of government school internet user and private school internet users of secondary school. The findings revealed that there was significant difference on academic achievement scores of internet user with respect to their type of school.

Rationale of the Study

Internet is concerned with the sociological, psychological, pedagogical, political, cultural, technical, artistic and other dimensions of the world which is ultimately associated to information and communication technology. The internet plays a profound role in the field of education. Internet is one of the profound contemporary innovations in the world of information technology. Internet has become the need of everyone. It is a big hand of today's success of the people. It provides us an amazing facility of searching and information from any corner of the world by any one. At present the internet is used in varieties of ways to promote education, productivity, communication, business, advertisement, marketing etc. The students of higher secondary education are using their smart phones for educational purpose, course work, or for other purpose. Although now there are both positive and negative impact on the use of internet at the under graduate level students, the researcher has decided to do a research work on it.

In this present situation we use internet in our daily life. We can know everything by using internet. Through internet we can solve our problem easily. In classroom teachers also recommend to use internet more and more for educational purpose, so that the children can know about her/his study and gather knowledge. By using internet we can easily know about other country, what the people do, what is their culture, what is their motivation, they are co-operative with each other or not. Internet is used much more students they get knowledge by using internet they also have many information by using it.

However, in Sundargarh district of Odisha, a few numbers of studies were conducted on the use and internet and its impact on the learner. So in this present study mainly we have tried to examine the impact of internet user and non-users belonging from Sundargarh district on their academic achievement score

Problem Statement & Research Questions

Undergraduate students employ the internet in educational matters such as writing papers, searches for answer to questions and communicating with classmate on home work. However, time spent in activities surfing the net occurs could substitute away from time allocated to reading, studying and completing the home work. These may hurt academic achievements in the short term. So the study assessed the impact of using internet on the academic achievement of under graduate students.

As per the pros and cons and discussed needs of the study several research questions emerged in the mind of the investigator.

1. Is there any significant difference between the academic achievements scores of internet user and non user?
2. Is there any significant difference between the academic achievement score of internet user and non-user in relation to Arts Stream?
3. Is there any significant difference between the academic achievement scores of internet user and non-user in relation to science stream?
4. Is there any significant difference between the academic achievement scores of internet user and non-user in relation to commerce stream?
5. Is there any significant difference between the academic achievement scores of internet user and non-user in relation to Male students?
6. Is there any significant difference between the academic achievement scores of internet user and non-user in relation to Female students?

In order to find out the answers of the above cited problems, we undertook research on the topic entitled "Impact of Using the Internet on Academic Achievement of Undergraduate Students"

Objectives of the Study

1. To study the impact of using internet on the academic achievement of undergraduate students.
2. To study the significant difference between the academic achievement scores of internet user and non-user in relation to Arts Stream.
3. To study the significant difference between the academic achievement scores of internet user and non-user in relation to science stream.
4. To study the significant difference between the academic achievement scores of internet user and non-user in relation to Commerce stream.
5. To study the significant difference between the academic achievement scores of internet user and non-user in relation to Male students
6. To study the significant difference between the academic achievement scores of internet user and non-user in relation to Female students.

Hypotheses of the Study

1. There exists no significant difference between the academic achievement scores of internet user and non-user.
2. There exists no significant difference between the academic achievement scores of internet user and non-user in relation to Arts, Science and Commerce stream.
3. There exists no significant difference between the academic achievement score of internet user and non-user in relation to sex (Male & Female).

Scope and Delimitations

The delimitations of the present study were as follows: –

- The present study was delimited to degree colleges of Sundargarh District, Odisha, India
- The present study was delimited to undergraduate students only.
- The present study was delimited to impact of using internet on the academic achievement of the undergraduate students.
- The present study was delimited to Arts, Science and Commerce undergraduate students of Sundargarh District.
- The study was delimited to 05 undergraduate colleges.
- The study was delimited to 450 undergraduate students only
- The present study was delimited to 240 internet users and 210 non-user undergraduate students.

Materials and Methods

Variables

In this present study, internet is the independent variable, where as academic achievement is the dependent variable, in which the impact of independent variable on dependent variable is examined.

Method

Methodology is most importance in a research process. There are different types of research methodology such as historical method, descriptive method, survey method, experimental method, ex-post-fact method etc. For the present study the researcher used casual comparative method as it is designed to examine the impact of internet on academic achievement of undergraduate students, without manipulating the independent variable.

Population

The population means the entire mass of a specific region. The population of present study consisted of all the undergraduate college students of Sundargarh district affiliated to Sambalpur University, Odisha.

Participants

The representative proportion of the entire population is called as sample. Out of all the colleges of Sundargarh district affiliated to Sambalpur University, 05 colleges were selected having Arts, Science and Commerce streams. 90 undergraduate students were selected purposively depending upon the feasibility, out of the 90, 30 were internet user and 30 were non-user; however, the participants of the study consist of 450 undergraduate students in total.

Instrumentation

Data collection is every important is every research study. Tool is the instrument through with the information and data are collected techniques are the procedures and process through which tools are used for data collection. Since the study was designed to compare the academic achievement of inter users and non-users under graduate students, the academic achievement scores of internet user and non-user students were collected from the selected colleges through Achievement Score Card.

Procedure of Data Collection

In order to collect data investigator met the sample group personally and collected their academic achievement scores.

Statistical Techniques

The researcher used 't' test for the analysis of data. Here, 't' test was applied to find out the significant of differences between the academic achievement scores of internet users and non-users.

Analysis and Interpretation

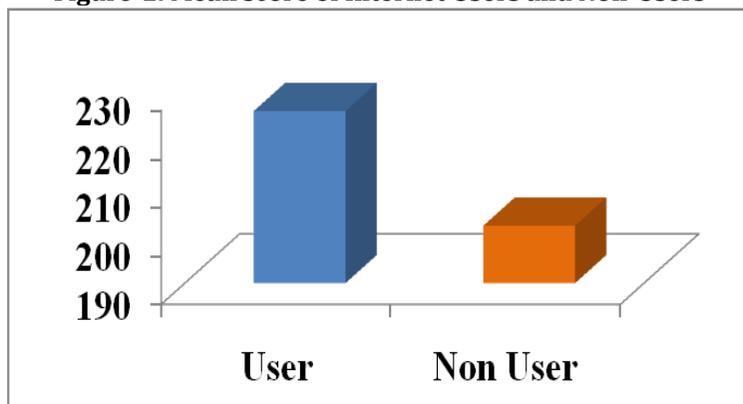
We collected achievement score data from 450 UG students about their achievement scores in first semester exam and have presented it under the following tables. The description of these tables has been given in the following manner.

Table A. Academic achievement scores of internet user and non-users

Sl. No.	Internet	N	M	SD	't' Value 7.46 significant at 0.05 level and 0.01 level
1	User	240	225.49	34.48	
2	Non-User	210	201.84	32.75	

The table A. revealed the significant difference between the academic achievement scores of internet users and non-users. It was found that the obtained 't' value (7.46) is greater than the table value at 6.05 level (1.96) and 0.01 level (2.58). So the test was significant. It revealed that the null hypothesis was rejected, so there was significant difference between the academic achievement scores of internet user and non-user.

Figure-1: Mean score of Internet Users and Non-Users



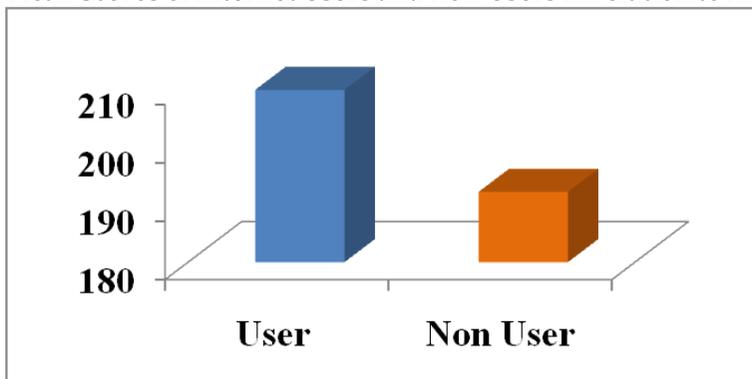
The mean score of user is 225.49 and the mean score of non-user is 201.84. The graph showed the difference between the two means (Figure 1) and indicated that the internet users had higher mean score as compared to the non-users.

Table B. Academic achievement scores of internet user and non-users in relation to Arts stream

Sl. No.	Arts	N	M	SD	't' Value 3.88 significant at 0.05 level and 0.01 level
1	User	80	209.62	27.61	
2	Non-User	70	192.08	27.49	

The table B. revealed the significant differences between the academic achievement scores of internet users and non-users belonging from Arts stream. It was found that the obtained 't' value (3.88) is greater than the table value at 0.05 level (1.96) and the 0.01 level (2.58). So, the test is significant. It revealed that the null hypothesis was rejected, so there exists significant difference between the achievement scores of internet user and non-user belonging to arts stream.

Figure-2: Mean Scores of Internet Users and Non-Users in relation to Arts Stream



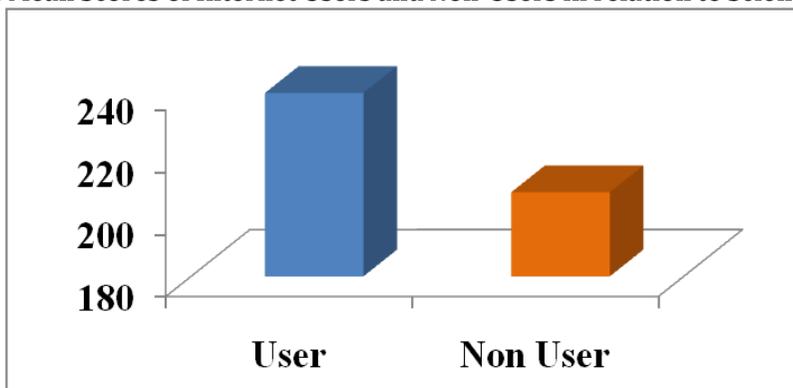
The mean score of user is 209.62 and the mean score of non-user is 192.08. So the graph showed difference between the two means (Figure 2) and indicated that the internet users had higher mean score as compared to the non-users.

Table C. Academic achievement scores of Internet user and non-users in relation to Science stream

Sl. No.	Science	N	M	SD	't' Value 5.54 significant at 0.05 level and 0.01 level
1	User	80	238.96	35.08	
2	Non-User	70	207.05	34.87	

The table C. revealed the significant differences between the academic achievement scores of internet users and non-users belonging from Science stream. It was found that the obtained 't' value (5.54) is greater than the table value at 0.05 level (1.96) and the 0.01 level (2.58). So, the test is significant. It revealed that the null hypothesis is rejected, so there was significant difference between the achievement scores of internet user and non-user belonging from Science stream.

Figure-3: Mean Scores of Internet Users and Non-Users in relation to Science Stream



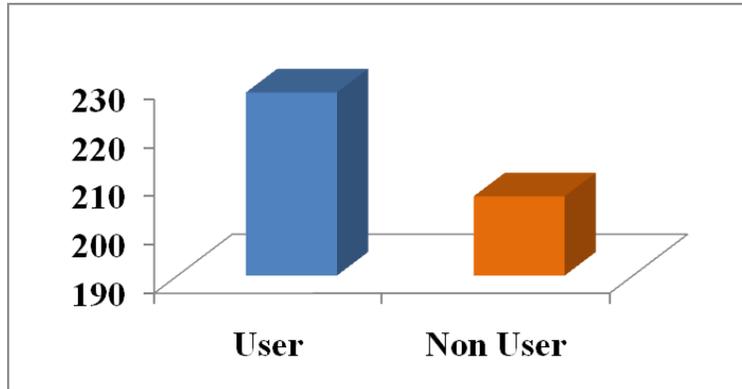
The mean score of users is 238.96 and the mean score of non-users is 207.05. So the graph showed difference between the two means (Figure 3) and indicated that the internet users had higher mean score as compared to the non-users.

Table D. Academic achievement scores of Internet user and non-users in relation to Commerce stream

Sl. No.	Commerce	N	M	SD	't' value 3.94 significant at 0.05 level and 0.01 level
1	User	80	227.88	34.58	
2	Non-User	70	206.38	32.24	

The table D. revealed the significant differences between the academic achievement scores of internet users and non-users belonging from Science stream. It was found that the obtained 't' value (3.94) is greater than the table value at 0.05 level (1.96) and the 0.01 level (2.58). So, the test is significant. It revealed that the null hypothesis is rejected, so there exists significant difference between the achievement scores of internet user and non-user belonging from Commerce stream.

Figure-4: Mean Scores of Internet Users and Non-Users in relation to Commerce Stream



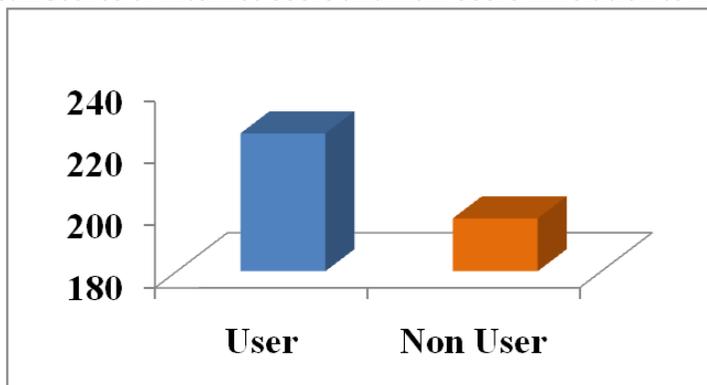
The mean score of users is 227.88 and the mean score of non-users is 206.38. So the graph depicts difference between the two means (Figure 4) and indicated that the internet users had higher mean score as compared to the non-users.

Table E. Academic achievement scores of Internet user and non-users in relation to male students

Sl. No.	MALE	N	M	SD	't' value 6.01 significant at 0.05 level and 0.01 level
1	User	120	224.63	30.17	
2	Non-User	105	197.11	25.96	

The table E. revealed the significant differences between the academic achievement scores of internet users and non-users in relation to Male students. It was found that the obtained 't' value (6.01) is greater than the table value at 0.05 level (1.96) and the 0.01 level (2.58). So, the test is significant. It revealed that the null hypothesis is rejected, so there was significant difference between the achievement scores of internet user and non-users in relation to Male students.

Figure-5: Mean Scores of Internet Users and Non-Users in relation to Male Students

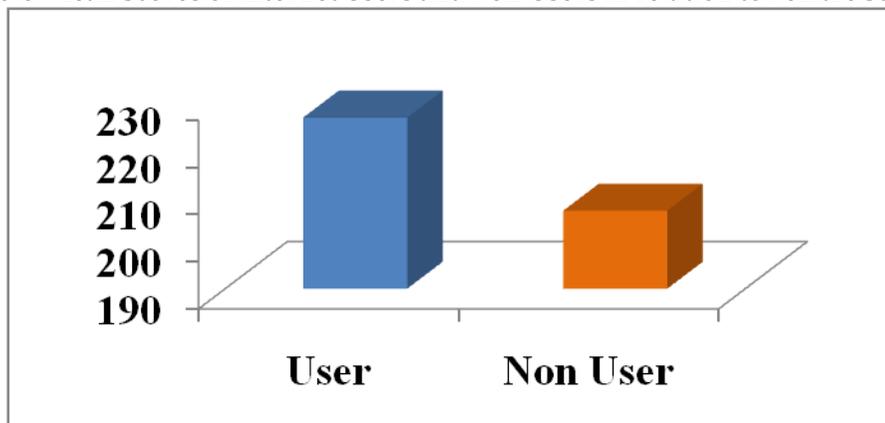


The mean score of users is 224.63 and the mean score of non-users is 197.11. So the graph represents difference between the two means (Figure 5) and indicated that the internet users had higher mean score as compared to the non-users.

Table F. Academic achievement scores of Internet user and non-users in relation to female students.

Sl. No.	FEMALE	N	M	SD	't' value 4.13 significant at 0.05 level and 0.01 level
1	User	120	226.35	38.41	
2	Non-User	105	206.57	33.45	

The Table F. revealed the significant differences between the academic achievement scores of internet users and non-users in relation to Female students. It was found that the obtained 't' value (4.13) is greater than the table value at 0.05 level (1.96) and the 0.01 level (2.58). So, the test is significant. It revealed that the null hypothesis is rejected, so there was significant difference between the achievement scores of internet user and non-users in relation to Female students.

Figure-6: Mean Scores of Internet Users and Non-Users in relation to Female Students

The mean scores of user is 226.35 and the mean score of non-user is 206.57. So the graph shows difference between the two means (Figure 6) and indicated that the internet users had higher mean score as compared to the non-users.

Results

1. The study found significant difference between the academic achievement scores of internet user and non-user students, where the internet users performed well in academic score as compared to the non-users.
2. It was also found out that there existed significant difference between the academic achievement scores of internet user and non-user students with reference to Arts Stream.
3. It was also found out that there existed significant difference between the academic achievement scores of internet user and non-user students belonging from Science Stream.
4. It was also found out that there existed significant difference between the academic achievement scores of internet user and non-user students belonging from Commerce Stream.
5. The study also found significant difference between the academic achievement scores of male internet user and non-user.
6. The study also found significant difference between the academic achievement scores of female internet user and non-users.

Discussion

The findings of the study revealed that the use of internet in education improves the academic achievement of undergraduate students to a great extent. The undergraduate students who use internet are securing higher achievement scores in their subject matters as compared to the students who don't use internet. However, the study show that there was significant difference between the academic achievement scores of internet users and non-users as a whole, which supports the findings of different related studies which revealed that the use of internet has a positive impact on the academic achievement scores of the learners.(Young, 2006; Usman et. Al, 2013; Ijeoma & Burke, 2013; Methi, 2014; Ellore, 2014; Alam et. al, 2014; Kaur, 2015; Pardhasaradhi & Goel, 2015, Sachitra, 2015; Mensah, 2016; Shahibi & Rushil, 2017; Jehopio et. al, 2017, Mir, Paraya, 2018). On the other hand the findings of the present study are contradict to some related literatures which revealed negative impact of the internet on the academic achievement of the students. (Azzizi, 2014; Siraj et. al, 2015; Abolwata & Mohammed, 2017). After all, it can be said that some literatures supports positive impact of internet on learners' academic achievement and some supports negative impact, but the maximum studies are supportingbthe positive impact of the internet on the academic achievement of the students.

Suggestions for Further Research

- An experimental study may be undertaken by manipulating the independent variable (Internet) and studying its effect on achievement and other aspects of child behavior.
- A comprehensive study on impact of internet in India and other abroad countries may be undertaken for study.
- The study can further be extended to cover the whole students of Sundargarh District affiliated to Sambalpur University and also other districts or states.

- The findings of the present study may be helpful for the new research scholars to conduct study on other aspects of using social media and social networking sites etc.
- Similar studies can be conducted between the rural and urban college students.

Conclusion

Now-a-days, internet has become an indispensable part of education, mainly for higher education. Today it is very difficult to see how students have been benefited by using internet. Now a days, younger generation use such technology in classroom, they remark the educational landscape. Earlier students were experienced the world through just books and their authorities, but the students of 21st century are learning different concepts and adapting to the new world by using the internet. Although, the use of internet among under graduate students have brought great impact on their academic life, but it must be used in proper ways with the guidance and supervision of the elders. The students are using various social networking sites through internet for a number of purposes, but the study revealed that in this constructivist era, internet is one of the greatest weapon to ensure quality in education by improving the academic achievement of undergraduate students to a great extent.

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Disclosure statement

No potential conflict is reported.

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