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## **Factors Affecting Secondary Teachers' Decision to Integrate Information and Communication Technologies (ICT) In Convent School**

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### **Abstract**

*The new generation learners are so fluent in using the technology that they want new things to learn in the day to day life. They come to school to get the new things which they required in the manner. The students are so intense to use this technology that they can tell about their iPods' or the social networking sites or about their smart phones. Life without technology is not possible now a days, technology has become the part and parcel of the life. This ICT helps to connect to the families with the job professional as well as the businesses. Buabeng-Andoh, (2012); Ertmer et al., (1999); Melita, (2005); Mikre,(2012). Globalization, industrialization, privatization is all the concept and blessing of the technology in one or the other ways. The use of ICT in the teaching-learning process has the immense impact on the learning process. The factors which hindrance or support the use /integration of the ICT have the great impact on the teaching-learning process. In this research researcher tried to study these factors which hindrance or influence the integration of ICT in the teaching-learning process.*

**Key Words: ICT, secondary teacher, culture, condition, context.**

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**Introduction:** The use of ICT in the teaching-learning process has the immense impact on the learning process. The reforms of the country should be plans considering the educational systems Which will make the youth of the country mentally strong, business policy and the future policy strongly handled. It should be included ICT in the curriculum in the school and the colleges, for the 21<sup>st</sup> century learner which require the skill and competencies to compete in the global market. Bingimlas, (2009).Educational institute shifting teaching from traditional to the technological based to ensure the quality education. Mikre,(2012). Traditional leaning is where all the power is in the hand of the teacher. Where teach will deliver the lecture an student will listen them sitting on the same place. Students even not allow showing what they have understood in that lecture. The activity was also limited which hindrance the children potential. Student lack the team work and the limited variation. Student worked in the limited source and individual manner. Students' different learning styles were neglected. They were forced to learn in the same manner as the teacher wish to. Voogt (2003). For the development plan ICT should be used as an instrument. Voogt (2003). This

is the practice on what the students learns in the first-hand knowledge experience. ICT help to increase the interest of the students by removing the old boring traditional teaching process into the new manner of learning with new learning experience. This makes the child to get up early in the morning and go to school, the development of the skills which helps to solve the new challenges for the students, the teaching-learning make ease, researching and the teamwork. Afshari, Bakar, Luan, Samah, & Fooi,( 2009).ICT can help the learner to view the world by the different ways of prospective. The professional development is also important for the teachers. With the new technology and new use of the software teacher gets new ideas, instructional techniques, projects that teachers can use in into the teaching. It can further use in the development of the students which prepare them for real world.

### **Theoretical framework:**

1. ***Concept attainment by Jerome Bruner:*** This theory says about the Social constructivist approach for the learning and its application in the teaching-learning. This theory is about the teacher modeling and scaffolding principle the knowledge the learner has which he can use it in the future and can retain whenever necessary this is called as the learning. The name itself suggests that this theory says about the clarifying the ideas about the concept of the content which engage the students to formulate its own concept through the examples available. The one who gets the ideas first and who make its own concept are invited to suggest their own examples. In this study this theory is the backbone as with the use of the ICT concept of the student can be cleared and the learner engage himself for new invention of the learning the new things.
2. ***'Zone of Proximal Development' (ZPD), by Lev Vygotsky:*** This theory of the Vygotsky states that the child will be able to solve the problem correctly if that same problem he has solved before successfully.in another sense if new problem has been given to the child which he has not solved before he will not able to solve the problem he will need the help of the teachers to sit and solve the problem together. Proper development of the learning set the goal of the improvement in the learner. And motivate him positively. For the overall development of the individual learning is important. And school learning is the best part to inculcate this aspect in the learner. This theory elaborate the dimension of the school learning in sort of all direction.in the social environment what the children can achieve with the company of the other what are the impact happen on the children all are studied under the roof of this studies. The school environment emphasis the mental development what they can't do by themselves. This theory support the study of the research as the environment affects the teaching learning process which clearly the theory suggests. The impact of the surrounding of the school may hamper the teaching-learning process in integrating the ICT in the classroom. If the positive environment is given to the teacher it may result in the positive result using it in a great advance with the ease.
3. ***Kolb's learning style theory:*** This theory suggest that with the concrete experience, reflective observation, abstract conceptualization and active experimentation the learner can able to use the past experience for solving the present current situation. There are examples for this theory like the social environment, cognitive structure and the educational experiences of the individual. This theory set four distinct learning styles; the learning style is the product of the two pair of the variables which can in other words said as choice Which Kolb presented as line of axis at either end conflicting modes. Typical presentation of the Kolb's two continuums in the east-west axis is called as the Processing which ultimately deals with how we approach to a task and the north-south axis is called perception continuum which is the emotional response which is how we feel or think about something.

This theory has the supporting background to the researcher work as the Kolb's theory says the all-round development of the individual happen with the concrete experience, reflective observation, abstract conceptualization and active experimentation the learner can able to use the past experience for solving the present current situation. So ICT helps the learner to learn the concept clearly and develop it resume it whenever it is required in the situation. If the factors are encouraging then the teaching-learning takes place in the flow with the positive aspect.

**Needs and importance of the studies:** The need behind the study of factors researcher will examine factors that affect the teachers' decision, for integrating the ICT in the convent school. The expected outcome of this research was a set of recommendations for a realistic, clear, and achievable action plan to enhance the effectiveness of ICT integration in school. The factors which support or hindrance in the integration has been studied. ICT is a process rather a product. The ICT integration is considered as the success only when it is implemented in all directional and dimension. It has been observed that the integration of the ICT is successful when the hindrance conditional are removed in other words the optimal conditions are place to support the integration of ICT in the positive manner. The difficult process is that the integration is the complex process and it involve the large number of the influencing factors. These factors are usually called as "barriers" there are two types of successful implementation of the ICT. Extrinsic and intrinsic barriers.

**Objective of the study:**

- To find out the factor affecting ICT integration in organization in the convent school.
- To find out the factor affecting ICT integration in teaching-learning process in academic achievement of students.
- To find out the factor affecting ICT integration in individual in the convent school.
- To study the school culture, conditions, competencies, and contexts those are forming the current technology integration status in school.

**Methods:** This study has focused on the teachers who integrate the ICT in the teaching-learning process in the classroom. Researcher has collected the data by survey method. The convent school from the area of the Pimpri-Chinchwad Municipal corporation. Pune Maharashtra district in India. random selection was done and the data was collected from those school which has the English as the teaching medium with the international, state and the CBSE pattern of syllabus. Respondents: the respondent in the research were the secondary teacher who are computer literate and integrate ICT in the teaching-learning process.

**Data collection procedure:** Scoring according to the school wise (25 sample each) a list of higher secondary school in PCMC were selected. The head of the respective institutions were contacted and permission was taken for approaching the teachers. The teachers were engage during their leisure. The teachers were requested to fill the final questionnaire, which was classified as A, B, C, and D, E, F. enough time was given to the students to complete the schedule. The teachers were also given enough time to ask questions and seek clarification. The schedules were checked for the complete information, that was incomplete were deleted. Before actual data collection the questionnaires was given for the pilot study and after that the final questionnaires was used for the data collection.

**Statistical analysis:** Percentage was calculated to find out the factors affecting the secondary teacher integrating the ICT in the teaching-learning process in the convent school.

- Questionnaire: in the research SCORING SCALE

**TABLE 3.3**  
**Scoring Scale**

Scale	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
score	05	04	03	02	01

1. Total SA Question:  $33*5=165$

2. Total SD Question:  $33*1=33$

3. Range: 33- 165

From the data collection scoring scale the ranges outcomes will be

- 33-77 (low score)
- 78-121(average score)
- 122-165(high score)

So from the NPC the value shows that the low scoring people will be the five.nineteen percent that is the one who are very poor in the use of the ICT or they can't get the assess to the electronic media in the teaching learning process.it may also happen due to less knowledge or misconception about the use of the technology the uses are less in number.

The average user falls under the second categories and that is in the higher range. These technology users get the chance and use this technology in the teaching learning process. But not in the high or low. They know the values of ICT and that is why they are in use. Secondly the management has made compulsion to include the ICT in teaching. This also makes the user to use the ICT.

The third group falls under the higher use of the technology and on the same side supporting the use of the ICT. These group users are again less in number but the use of ICT is higher as compare to the other two groups. These may happens because of the knowledge about the ICT and the proper use in teaching-learning process. They believe in the new way of teaching and learning and in the innovative learning. These users get the support of the management to use that is why the use has been flourishing.

**Scope of research:** The research has been carried out to learn about the factors within the four wall of the class i.e., culture, conditions and context which direct the teacher to integrate the use of ICT in the educational manner in the teaching-learning process. These factors are responsible for the motivating or act as a barrier in this process. The use of technology in the classroom with the multiple ICT applications is responsible factors. The most observable factors in the school environment is that force of ICT use in the teaching-learning. The increased pressure for the integrating the new technology may face by the teacher while using the ICT. Thus it is important for the teacher how to cope with the situation and come up with the new teaching aspect along with the technology. It has been observed that the teachers when feel technology as a pressure they use it as likely to for delivering the instruction. To have the student use the technology in the class time in a small interval of the time. In the use, support, and effect of instructional technology (USEIT) study claim that the positive pursuing pressure may take the use of technology in the good manner and handling of the technology with the ease for the creating class product in the form of the concept clearing of the students and the class preparedness.

**Delimitation of the research:**

1. Researcher will analyze and evaluated the data collected then came up with the plan of action to implement change.
2. The researcher will be conducted in the Pimpri-Chincwad area of the Maharashtra in international school.

3. The ICT integrated program refers mainly to the use & knowledge of the computer while teaching.

**Limitations of the study:**

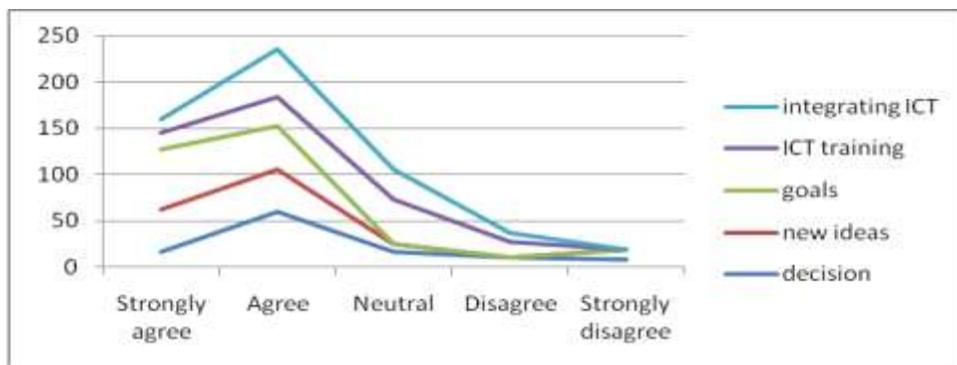
1. In this research Data collection from the teacher and analysis that data is limitation.
2. The response rate of the teachers is depending upon the external factors and the interest

**Presentation and analysis of data:**

Table showing the survey done on five school strength based on the objectives:

**TABLE 4.1**  
**Factors representing organization**

Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Integrating ICT	17	60	16	11	08
ICT training	46	46	09	00	11
Goals	65	47	00	00	00
New ideas	17	31	48	16	00
Decision	15	52	33	10	00
Total	160	236	106	37	21
%	28.57	42.14	18.92	6.60	3.75



**Figure 4.1 Factors representing organization**

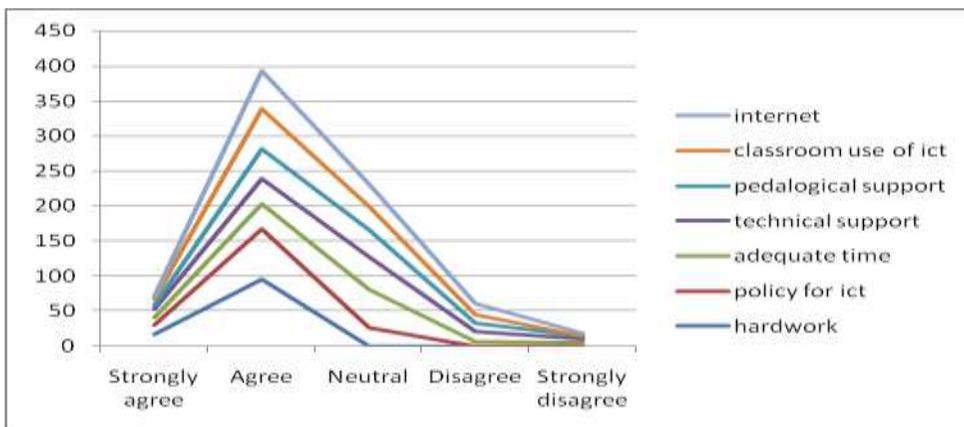
**Observation:** From the table “organizational factors” it has been seen that the percent of response for strongly agree is 28.57, for agree is 42.14%, for neutral is 18.92% for disagree 6.60% and for the strongly disagree 3.75%. From the table researcher can say that agree response for are high in number followed by strongly agree and neutral. Few responses are neutral as the responded don’t have the conclusion for the question. Disagree and strongly disagree are less in numbers.

**Interpretation:** From the table “organizational factors” it has been seen that the organization involves in the making the important decision, welcome the new ideas of the teacher who give and impart the training to the teacher in the institution and integrate the ICT in the teaching and learning process. Here it has been seen that the organization is more or less supportive to the use of the ICT in the day-to-day teaching and in the administration. Few are the result which can be seen as they are fully supporting to the teachers and the nearly four percent are there where organization doesn’t play any major role in the imparting the ICT in the teaching or learning. **Quangyen Tran Yezhuang Tian** states that the organization is the institute which is formed by the group of the people with the

same intension, work and the purpose. Which an individual cannot do it alone. The proper organization and its founding on the bases of profitable or non-profitable. The organization plays an important part in the development of the school environment. If the organization is well educated and knowledgeable and has attitude towards the ICT then this helps the teacher to make the use of it with the ease. In contract the organization is not in the favor of the ICT integration then the negative impact forced the teacher to hamper the teaching learning of the ICT in the classroom. The definition, concept and details had been studied before in the first, second and third chapter of this study. The study reveals that the organization is the major factors to hindrance or the successful implementation of the ICT in the school. The organizational structure is that for the goal of the inner order. For the proper functioning of the organization control and the positive environment is require.

**TABLE 4.2**  
**Factors representing teaching-learning process:**

Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Internet	17	95	00	00	00
Classroom use ICT	13	72	27	00	00
Pedagogy	11	36	54	06	05
Technical	11	36	46	14	05
Adequate	06	42	38	12	04
Policy	09	57	34	12	00
Hard work	04	55	32	17	04
Total	71	393	231	61	18
%	9.05	50.12	29.46	7.78	2.29



**Figure 4.2: Factors representing teaching-learning process**

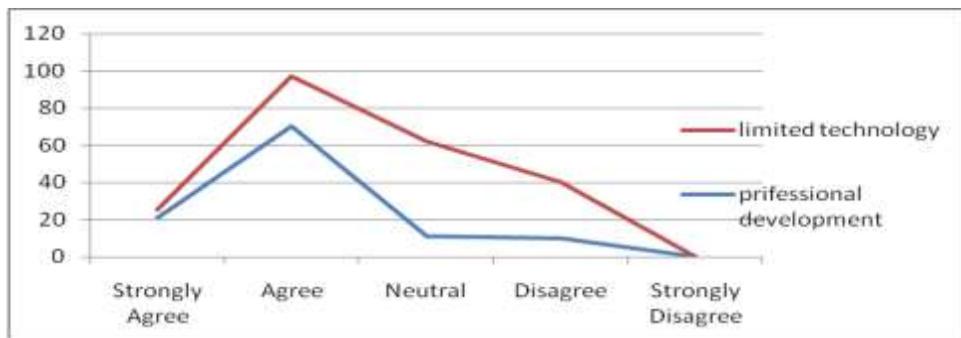
**Observation:** From the table researcher can say that the respondent of “agree” and “neutral” are 50.12% and 29.46% respectively. The response for strongly agree is 71, for agree is 393, for neutral is 231, disagree is 61 and strongly disagree is 18.the percentage for this is 9.05% for strongly agree, 50.12% for agree, 29.46 % for neutral, 7.78% disagree, 2.29% for strongly disagree. The figure representation show the line is high agreeing response followed by neutral.

**Interpretation:** This table represents the teaching-learning process which focuses on the learning of students, use of ICT for teaching and learning, technical support technology equipped classroom and

the use of internet for the study purpose. Total seven question for this table. The responses for the asked question fall under the “agree” and the neutral group and 2.29% for the “strongly disagree”. **Keith trigwell** (1999) stated that the teaching approach of the teacher and the learning approach of the students the relationship between the students and the teacher and the teaching learning process on this basis. The qualitative research has characterized the students’ quality and the teachers’ quality and the different approaches towards the teaching and the learning process. This is the link between the approaches towards the teachers teaching and the students learning.

**TABLE 4.3**  
**Factors representing the individual:**

Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Technology	21	70	11	10	00
Development	04	27	51	30	00
Total	25	97	62	40	00
%	11.16	43.30	27.67	17.85	00



**Figure4.4.3 Factors representing the individual**

**Observation:** This table represent the individual factor where again the response to the “agree”. The response for strongly agree is 25,agree is 97,neutral is 62,disagree is 40 and strongly disagree is 00.the percent for this total findings are strongly agree 11.16, agree 43.30, neutral 27.67, disagree 17.85 and strongly disagree 00.the line graph says the high response for the agree factor.

**Interpretation:** From the interpretation researcher can say this table represent the individual factor where again the response to the “agree”. Where the teachers are the participated in the continuous professional development session for the students welfare. And second important thing is that the students have the limited access to the need technology outside the school. These two are the questions where individual factor is responsible. Response to the neutral are 27.67% and the response to the strongly Disagree is 00%

**TABLE 4.4**  
**Factor representing (status) culture:**

Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Respect	11	70	29	02	00
Involved	21	65	26	00	00
Total	32	135	55	02	00
%	14.28	60.26	24.55	0.89	00

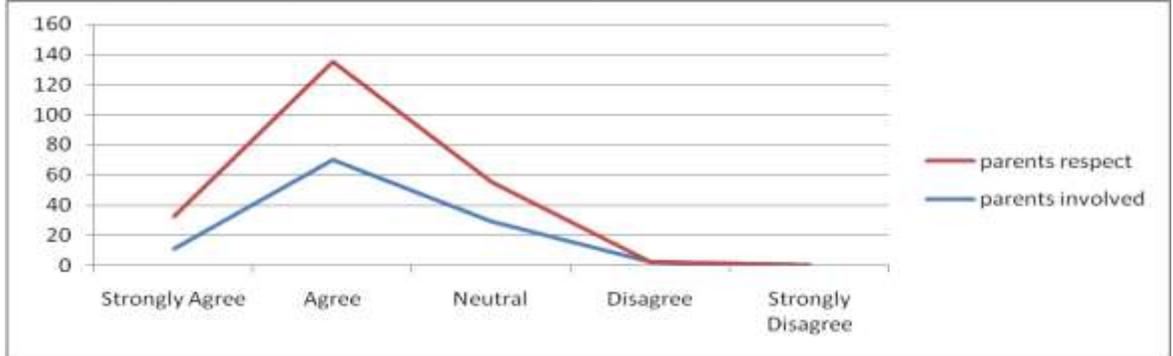


Figure 4.4 Factor representing (status) culture

**Observation:** From the table researcher can say that the Total responses for Strongly Agree is 32, Agree is 135, Neutral is 55, Disagree is 02 and Strongly Disagree is 00. the percentage for the reading are Strongly Agree 14.28%, Agree is 60.26 %, Neutral is 24.55%, Disagree 0.89%. the line graph shows that agree response is high followed by neutral response.

**Interpretation:** From the table researcher can say that the culture factors are also needed for the use of ICT. Here the strongly agree and agree viewer have the majoring which say that parents involves in the children's school experience and the they respect what the teacher do for them. so the culture of respecting the teacher and the use of ICT is also walks hand in hand. **Frank Thomas (2005)** the culture deals with the societies the outer and the inner elements which help to develop and leave in the society. The homogenous and egalitarian society includes the degree of communication with the world. There are many patterns of the society which has the experience of gender and ethnicity, the culture religions educational and the language all these differences has the impact on the culture.

TABLE 4.5

Conditions:

Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
White board	00	60	37	15	00
Correspondent	04	37	50	19	02
Online group	00	60	35	13	04
Projector	09	75	26	00	02
Eduline	00	94	11	07	00
Internet	00	80	13	19	00
Daily use	02	44	37	29	00
Freedom	15	33	56	06	02
Computer lab	20	44	21	27	00
Software	00	21	65	24	02
Technology	06	18	58	28	02
Easy use	00	25	43	38	06
Integrating	00	17	51	38	06
Regular use	18	60	30	00	04
Total	74	668	533	263	30
%	4.71	42.60	33.99	16.77	1.91

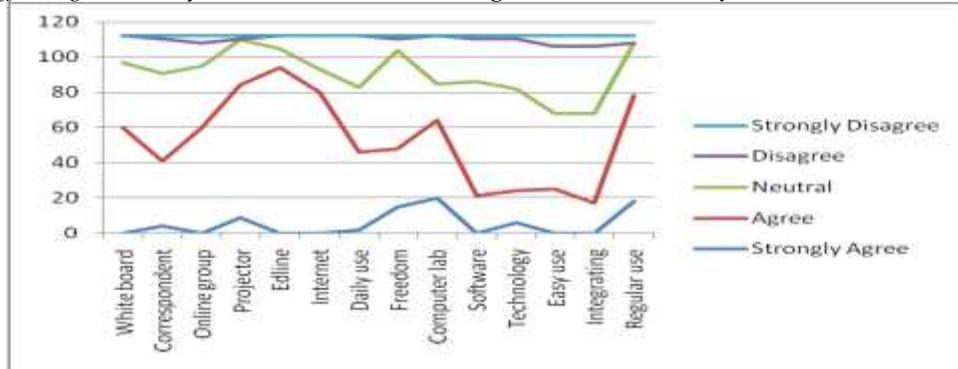


Figure 4.5 Conditions:

**Observation:** From the data researcher can say that the Strongly Agree is 74, Agree is 668, Neutral is 533, Disagree is 263, Strongly Disagree is 30. percentage for this reading Strongly Agree is 4.71, Agree is 42.60, Neutral is 33.99, Disagree is 16.77, Strongly Disagree is 1.91. the graph says that agree and neutral factors.

**Interpretation:** From the data researcher can say that the teacher has the freedom to make decision in regarding the ICT integration, supervising the students while using it, have the knowledge of software in using ICT, easy to use technology in the school, use of computer for day to day life, use of ICT in admin work, use of internet resources for teaching, displaying of the material in the classroom, online group, and the use of whiteboard in the school while teaching-learning. The response for the se response are most of the teacher agree by 42.60% supporting the response. And neutral are 33.99% responses. For disagreeing this factors 1.91% response are there. **Seyed Mahmood Husseini and LeilaSafa** (2009) in a 1998 survey by the National Education tested. The online education demand increasing the popularity. The use of the ICT in the school college and the universities are now a day is increasing. Use of computer in the classroom and the laptop with most of the students are increasing. Technology based learning has taken the place of the traditional teaching. New technology takes times to indulge itself to the human race. Many classes are conducted online on the internet, distance learning the growing pattern of the ICT is in the full swing. Most of the institutes now a days has the web connectional and the Wi-Fi broadband connection for the ample use of the students, this has given the feather of the knowledge to invent new things to learn new things and to learn by own pace. The sudden change has change the face of the educational systems all over the globe. Technology use can be examined now and then and full access should be given with the well technological knowledge. Faculty technologies have attracted the attention of many satisfaction and student learning were highly correlated scientists, policymakers, planners, economists and even and co-linear.

TABLE 4.6  
Competencies:

Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Technology	00	22	42	48	00
Parents	08	65	20	15	04
Perceive	00	19	38	55	00
Total	08	106	100	118	04
%	2.38	31.54	29.76	35.11	1.19

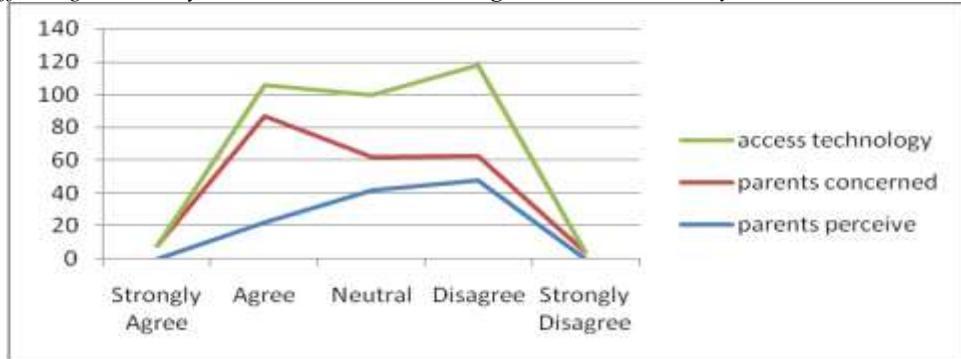


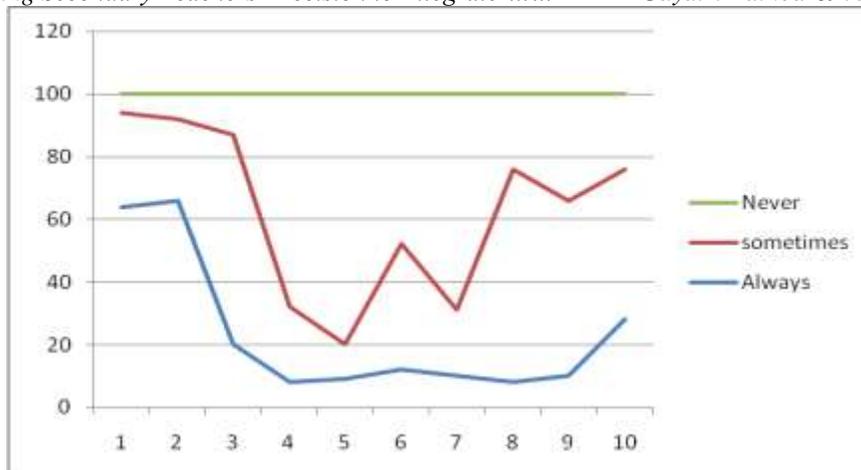
Figure 4.6 Competencies:

**Observation:** From the table researcher can say that in Strongly Agree is 08, Agree is 106, Neutral 100, Disagree is 118 and Strongly Disagree is 04. percentage are Strongly Agree is 2.38%, Agree is 31.54% , Neutral is 29.76%, Disagree is 35.11% and Strongly Disagree is 1.19%. The graph shows disagree and agree on the high peak.

**Interpretation:** From the interpretation researcher can say that in the factors like the “competencies” is also useful. Here emphasis is given to the parents an there thinking about the ICT what they think and how they use. Here the responses are like disagree supporting that the parents don’t care about the ICT. But in real sense they care about the use of the ICT. And they are technology user. Few responded don’t agree for the parents technology knowledge. **Derya Bozdoğan** (2014) states that the students are becoming stronger for the use of the internet in the education and the way they control their learning process, this has been down with the internet essentially and the teachers pedagogical approach towards the integrating the ICT in the teaching learning process. The integration of the ICT leads to the new way of understanding the concepts and the knowledge.

TABLE 4.7  
Contexts

Factors	Always	sometimes	Never
01	64	30	06
02	66	26	08
03	20	67	13
04	08	24	68
05	09	11	80
06	12	40	48
07	10	21	69
08	08	68	24
09	10	56	34
10	28	48	24
Total	235	391	374
%	23.5	39.1	37.4



**Figure 4.7 Contexts**

**Observation:** The table shows that always is 235, sometimes is 391 and never is 374. Percentage for always is 23.5%, sometimes is 39.1% and never is 37.4%.the graph shows that sometime shows high peak.

**Interpretation:** From the table researcher can say that the teacher update knowledge and there use of ICT in there day to day life in the school has been checked. Like the writing the lesson notes, mailing the score card of the children, use of the internet, Eduline, group decision and use of whiteboard. Here the responses researchers got that teacher 39.1% sometime use the ICT for the work 37.4% never use for this day to day life and 23.5% always use ICT. **Louise K. Schaper (2007)** stated that the computer anxiety, attitude and the efficacy has encompasses the individual context. UTAUT concedes that computer attitude don't have a significant influence on behavioral intention because the effect being captured by performance and effort expectancy which hamper the development of the use in the ICT.

#### **Findings:**

- **Factors representing organization:** From the interpretation researcher can say that the organization support is also useful and it affect in positive and negative also. If the organization is supportive then the result is in the side of the positive and vise-versa.so it can be said that the organization is the one of the factors which can hamper the use of ICT in the teaching learning process.
- **Factors representing teaching-learning process:** From the interpretation researcher can say that the respondent are using and the students are also taking efforts for learning new things, here the school provide the knowledge and the well-equipped lab for the use of ICT in the teaching-learning. The new way of teaching-learning is practice. Like the responses are also in the second column the factors representing teaching-learning process affect the results. It can be said that if the ICT is in use then the process of learning and teaching goes in hand to hand with the ease. The school/institution who don't use have the less response for this.
- **Factors representing the individual:** From the interpretation researcher can say that the individual factor, Interest and accessibility of ICT help in the development of ICT use. If the individual don't have the access to the technology then the response will be zero and the one who have the proper access to the technology has the percent. From this researcher can say that individual factors are also responsible for the development of the individual and use of the ICT

in the teaching-learning process. If individual gets proper help or guidance or accessibility then the use of ICT may increase.

- **Factor representing (status) culture:** From the interpretation researcher can say that the factor “culture” is also important for the use of ICT in the school. The culture is the most important factors as the school permits and the parents are involve in the process its make the administration easy and crystal clear. If the parents are educated and they respect the teacher then this also help to impart the knowledge to the student as this give the support to the teacher to use and in calculate the knowledge.
- **Condition:** From the interpretation researcher can say that factor “condition” is important as for the use of ICT when to use and how to use that it will be effective for the student teacher freely can take the decision. If we consider that teacher don't have the freedom to use the ICT then it may hamper the percentage and the teaching quality so for the use of ICT freedom and the taking decision, ICT integration, supervising the students while using it, have the knowledge of software in using ICT, easy to use technology in the school, use of computer for day to day life, use of ICT in admin work, use of internet resources for teaching ,displaying of the material in the classroom, online group ,and the use of whiteboard in the school while teaching-learning is so important.
- **Competencies:** From the interpretation researcher can say that the parents are supporting the use of ICT, they are consent about the marks but along with that they also want their ward should know the ICT and the use of it. They are more concern about the day to day changing technology and the demand for that. So they are in support for the USE few responses shows that there who don't want their ward should waste their time in the ICT they are condense only with the academic result.
- **Contexts:**

From the interpretation researcher can say that the sometime user are more in number as compare to the always and the never. If the leader is well knowledge then only he/she can impart this knowledge to the students. Well knowledge of the ICT is must for doing the simple work which indirectly makes the life ease. This factor of context is also affect the teaching learning process in the integrating the ICT in the teaching-learning process as it can be easily impart only when the teacher is knowledgably and supportive in nature for the ICT. If the teachers don't have the access to the ICT then it may hamper the use and interest for the use of ICT in the class.

## Reference:

- Afshari, M., Bakar, K. A., Luan, W. S., Samah, B. A., & Fooi, F. S. (2009). Factors affecting teachers' use of information and communication technology. *International Journal of Instruction*, 2(1), 77-104.
- Amy L Baylora, Donn Ritchieb. What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms? *Computers & Education* Volume 39, Issue 4, December 2002, Pages 395–414
- Antifaiff, G. (2000). Integrating technology into the curriculum. Retrieved from: <http://www.usask.ca/education/coursework/802papers/antifaiff/antifaiff.htm>.
- Bandura, A. (2001). Social cognitive theory: An argentic perspective. *Annual Review of Psychology*, 52, 1-26.

- Bandura, A. (2006). Adolescent development from an argentic perspective. In Pajares, F., & Urdan, T. C. (Eds). Self-efficacy beliefs of adolescents [Google Books version]. Retrieved July 22, 2012 from <http://books.google.com.tr/books?hl=en&lr=&id=KMzuu9aTdY0C&oi=fnd&pg=PA1&dq=pajares+overview+of+cognitive+theory+self+efficacy&ots=zczj7y4ASY5&sig=4-0NxSp3ss1YKcGbaYY4j9jn62I&safe=active=onpage&q=pajares%20overview%20of%20cognitive%20theory%20self%20efficacy&f=false>
- Becker, Henry Jay, Internet Use by Teachers: Conditions of Professional Use and Teacher-Directed Student Use. Teaching, Learning, and Computing: 1998 National Survey. Report #1.
- Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science & Technology Education*, 5(3), 235-245.
- Blurton (1999) New Directions of ICT-Use in Education, on-line version of the original contribution to UNESCO's World Communication and Information Report1999
- Bowers, C.A. (1998: 113). The Paradox of Technology: What's Gained and Lost? *The NEA Higher Education Journal*, spring, 1998, 113.
- Buabeng-Andoh, C. (2012). Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education and Development using ICT*, 8(1), 136-155
- C Weiqi, The structure of secondary school teacher job satisfaction and its relationship with attrition and work enthusiasm, *Chinese Education & Society*, 2007 - ME Sharpe,
- Chai, C.S., J.H.L. Koh, C.C. Tsai and L.L.W. Tan, 2011. Modeling primary school pre-service teachers' Technological Pedagogical Content Knowledge (TPACK) for meaningful learning with Information and Communication Technology (ICT). *Computer Education*, 57: 1184-1193. DOI: 10.1016/j.compedu.2011.01.007
- Charles Buabeng-Andoh (2012), Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature, *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2012, Vol. 8, Issue 1, pp. 136-155.
- Cousins, J. B., & Whitmore, E. (1998). Framing participatory evaluation. *New directions for evaluation*, 1998(80), 5-23.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson/Merrill Education.
- Crossman, A. (2012). Stratified Sample. Retrieved from: <http://sociology.about.com/od/Types-of-Samples/a/Stratified-Sample.htm>
- Dawes, L. (2001). What stops teachers using new technology? In M. Leask (Ed.), *Issues in Teaching using ICT*, 61-79. London: Routledge.
- Dede, C. (1998). Learning about Teaching and Vice Versa. Paper Presented at the Conference of Society for Information Technology in Education. Washington D.C: USA.
- Derya Bozdoğan (2014) Use Of Ict Technologies And Factors Affecting Pre-Service Elt Teachers' Perceived Ict Self-Efficacy. *TOJET: The Turkish Online Journal of Educational Technology – April 2014, volume 13 issue 2*
- Dorothy Williams, Louisa Coles, Kay Wilson, Amanda Richardson and Jennifer Tuson. Teachers and ICT: current use and future needs, *British Journal of Educational Technology* Volume 31, Issue 4, pages 307–320, October 2000

- Dyrli, O. E., & Kinnaman, D. E. (1994). Gaining access to technology: First step in making a difference for your students. *Technology & Learning*, 14(4), 15-20.
- Ertmer, P. A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, 47(4), 47-61.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
- Ertmer, P. A., Addison, P., Lane, M., Ross, E., & Woods, D. (1999). Examining teachers' beliefs about the role of technology in the elementary classroom. *Journal of Research on Computing in Education*, 32(1), 54-72.
- Frank Thomas, Leslie Haddon, Rosemarie Gilligan, Peter Heinzmann, Chantal de Gournay (2005), Cultural Factors Shaping the Experience of ICTs: An Exploratory Review, In Haddon, (Ed.) (2005) International Collaborative Research. Cross-cultural Differences and Cultures of Research, COST, Brussels
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-607.
- Guma Ali1, Faruque A.Haolader2, Khushi Muhammad,(2013) The Role of ICT to Make Teaching-Learning Effective in Higher Institutions of Learning in Uganda, *International Journal of Innovative Research in Science, Engineering and Technology*(An ISO 3297: 2007 Certified Organization)Vol. 2, Issue 8, August 2013
- <http://www.ncte-in.org/teachers-education/11-teacher-education-in-india>
- <http://edglossary.org/school-culture/>
- <http://www.microsoft.com/en-us/education/training-and-events/education-competencies/default.aspx#fbid=frPOVjhkpJL>
- <http://scholar.harvard.edu/mkraft/publications/how-context-matters-high-need-schools-effects-teachers%E2%80%99-working-conditions-their>
- <http://www.sedl.org/change/school/culture.html>
- Kaushal satish (2011) <http://www.ey.com/IN/en/Industries/Government---Public-Sector/GPS-New-roads-to-learning---perspectives-on-e-learning-in-India>
- <http://mhrd.gov.in/technology-enabled-learning-0>
- Inije, G. O. (2012). Strategies for Upgrading the Use of ICT in Business Education, *Association of Business Educators of Nigeria. Book of Readings*, 2(1), 163-169.
- Haghighi, S. & Eskandari, M. (2012). A study on barriers of using information technology on learning and teaching in elementary Schools, *Management Science Letters*, 2, 417-424.
- Hamilton, Laura; Halverson, Richardson; Jackson, Sharnell S.; Mandinach, Ellen; Supovitz, Jonathan A.; Wayman, Jeffrey C., Using Student Achievement Data to Support Instructional Decision Making. *IES Practice Guide. NCEE 2009-4067*
- Hanaa Eid Al harbi, (2014), towards successful implementation of ict in education, *The 2014 WEI International Academic Conference Proceedings Vienna, Austria*
- Hartman, J., C. Dziuban and P. Moskal, 2000. Faculty satisfaction in ALNs: A dependent or independent variable? *Journal of Asynchronous Networks*, 4(3) (Retrieved April 19, 2006 from [http://www.aln.org/publications/jaln/v4n3/pdf/v4n3\\_hartman.pdf](http://www.aln.org/publications/jaln/v4n3/pdf/v4n3_hartman.pdf)).
- Jarene Fluckigera, Yvonne Tixier y Vigila, Rebecca Pascoa & Kathy Danielsona, *Formative Feedback: Involving Students as Partners in Assessment to Enhance Learning*, Published online: 29 Sep 2010 Article Views: 1302

- Factors Affecting Secondary Teachers' Decision to Integrate .....* Gayatri Rathod & Vaibhav Jadhav
- Jo Shan Fu(2013), ICT in Education: A Critical Literature Review and Its Implications, International Journal of Education and Development using Information and Communication Technology (IJEDICT), 2013, Vol. 9, Issue 1, pp. 112-125
- Julianne Lynch(2005) Individual and Organizational Factors Influencing Academics' Decisions to Pursue the Scholarship of Teaching ICT, Journal of Information Technology Education Volume 4, 2005
- Kamaldeen Oladosu; Basic Technology Teachers' Awareness and Attitude Towards the Use Of Information and Communication Technology For Sustainable Development in Lagos State Education Districts: I, IV and VI
- Keith Trigwell, Michael Prosser<sup>2</sup> & Fiona water house,( 1999.). Relations between teachers' approaches to teaching and students' approaches to learning, Higher Education 37: 57–70, 1999.© 1999 Kluwer Academic Publishers. Printed in the Netherlands.
- Kozma, R. B., & Anderson, R. E. (2002). Qualitative case studies of innovative pedagogical practices using ICT. Journal of computer assisted learning, 18(4), 387-394.
- Kwok-Wing Lai andKeryn Pratt (2004), Information and communication technology (ICT) in secondary schools: the role of the computer coordinator, British Journal of Educational Technology Volume 35, Issue 4, pages 461–475, July 2004.
- Matthew Kraft, how context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement
- Melita, K. (2005). The role of ICT integration into classroom in Kenya: A literature review. Retrievedfrom:[http://www.academia.edu/1410234/The\\_role\\_of\\_ICT\\_intergration\\_into\\_classr\\_oom\\_in\\_Kenya.\\_A\\_literature\\_review](http://www.academia.edu/1410234/The_role_of_ICT_intergration_into_classr_oom_in_Kenya._A_literature_review)
- Mijares, I. and D. Chan, 2012. Information and communication technologies for the teaching and learning processes in the online modalities of higher education. University of British Columbia.
- Mikre, F. (2012). The roles of information communication technologies in education: Review Article with emphasis to the computer and Internet. Ethiopian Journal of Education and Sciences, 6(2), 109-126.
- National Education Association of United State 2000. Quality on the line. Washington, DC: Institute for Higher Education Policy.
- Quangyen Tran Yezhuang Tian,(2013). Organizational Structure: Influencing Factors and Impact on a Firm, American Journal of Industrial and Business Management, 2013, 3, 229-236,<http://dx.doi.org/10.4236/ajibm.2013.32028> Published Online April 2013 (<http://www.scirp.org/journal/ajibm>)
- Russ-Eft, D., & Preskill, H. (2001). Evaluation in organizations. New York: Basic Books
- Seyed Mahmood Husseini and Leila Safa (2009)., Factors Affecting the Use of Information and Communication Technologies (ICTs) by Iranian Agricultural Faculty Members, World Applied Sciences Journal 6 (8): 1123-1127, 2009 ISSN 1818-4952 © IDOSI Publications, 2009
- Shen, C. (2004). Technology and learning: Theory and practice, Taipei: Psychology Press.
- Sharma.M.C,(2006) Facing the ICT revolution-Task ahead for teacher educators ,Anweshika Indian journal of teacher education. Vol 3 Dec (2006)
- Showkat Ahmad Rather<sup>1</sup> and Salma Kuraishy.( 2015), assimilation of information and communication technology (ict) in education for improving teaching- learning processes: a critical review of literature., Reviews of Literature, Impact Factor : 1.4716 (UIF) Volume 2 , Issue 6 / Jan 2015

- Factors Affecting Secondary Teachers' Decision to Integrate .....* Gayatri Rathod & Vaibhav Jadhav
- Spotts, T.H., 1999. Discriminating factors in faculty use of instructional technology in higher education. *Educational Technology and Society*, 2(4) (Retrieved April 19, 2006 from application in agricultural higher education using [http://ifets.massey.ac.nz/periodical/vol\\_4\\_99/spotts.html](http://ifets.massey.ac.nz/periodical/vol_4_99/spotts.html))
- Stake, R. E. (1995). *The art of case study research*. India: Sage Publications, Inc.
- Swami.R.M (2012), Integrating ICT in teacher Education: An inevitable step towards improving the quality of education. *University News Weekly Journal* vol 50.feb (2012)
- S. Demetriadis, A. Barbas, A. Molohides, G. Palaigeorgiou, D. Psillos, I. Vlahava, I. Tsoukalasa, A. Pombortsisa, "Cultures in negotiation": teachers' acceptance/resistance attitudes considering the infusion of technology into schools.
- Ton Mooij, Ed Smeets. Modeling and supporting ICT implementation in secondary schools, *Computers & Education* Volume 36, Issue 3, April 2001, Pages 265–281.
- Turkmen, H. (2006). What technology plays supporting role in learning cycle approach for science education? *The Turkish Online Journal of Educational Technology*, 5(2), 71-76.
- UNESCO. (2011). ICT in Education. Retrieved December 25, 2012, from <http://www.unesco.org/new/en/unesco/themes/icts/>
- UNESCO (1998), teacher development P-43
- Virginia Richardson.(1998), How Teachers Change. What will lead to change that most benefits student learning? Volume 2, Issue C: September 1998
- Volman, M. (2005). A variety of roles for a new type of teacher educational technology and the teaching profession. *Teaching and Teacher Education*, 21(1), 15-31.
- Volman, M., & van Eck, E. (2001). Gender equity and information technology in education: The second decade. *Review of Educational Research*, 71(4), 613-634.
- Voogt, J. (2003). Consequences of ICT for aims, contents, processes and environments of learning. *Curriculum landscapes and trends*, 217-236.
- Wagner, T., Kegan, R., Lahey, L. L., Lemons, R. W., Garnier, J., Helsing, D., & Rasmussen, H. T. (2010). *Change leadership: A practical guide to transforming our schools*. San Francisco: Jossey-Bass.
- Watson, D. M. (2001). Pedagogy before technology: Re-thinking the relationship between ICT and teaching. *Education and Information technologies*, 6(4), 251-266.
- Yusuf, M.O. (2005). Information and communication education: Analyzing the Nigerian national policy for information technology. *International Education Journal* Vol. 6 No. (3), Pp.; 316-321.
- Zukoski, A., & Luluquisen, M. (2002). Participatory evaluation. What is it? Why do it? What are the challenges? *Community-based public health policy & practice/Partnership for the Public's Health*, 1(5), 1-6

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