

## IMPACT OF SELF EFFICACY BELIEF NOVICE TEACHERS' IN CLASSROOM LEARNING ACHIEVEMENT ON ICT USAGE

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### Abstract

Self-utilization is an active and intrinsic source of motivation when solving problems in this swift mounting era of technological age. Brain has transferred its workload towards Machines especially those are used in information and communication. Self-efficacy belief novice teachers is the teachers who Has the tendency to perform and implement learning behavior needed to produce specific performance linked with social needs with ICT and achievements, Laptop and Android mobile (ICT) in present, a combined and dominant part of human life in 21<sup>st</sup> century. Increasing use of ICT is changing the effecting and organization of work and learning environment. Digital technology is also working for schools, and hence for novice teachers' in recent time. Escalating trends shows curiosity of human belonging to any field. The nature of this research paper is descriptive. Aim of the study is to explore "up-to-dated state-of the art as to the implementation of ICT usage in school education institutions", to measure the impact of Self-efficacy beliefs Novice teachers' on the use of ICT in teacher education institutions. Population of the study was secondary school teachers, teacher educators and Novice teachers of Grade 9&10<sup>th</sup>. Sample of the study is those teachers who are users of ICT. Semi structured Questionnaire and observation sheet was developed to obtain the opinion of respondents. Results and findings show that more self-efficacy belief Novice teachers have influencing impact on usage of ICT in Pakistani school exist in various areas.

**Keywords:** Self efficacy belief, Novice teachers, ICT, self-efficacy, Collegial collaboration

### Introduction

Human nature likes momentum in his life whatever he wants like to do it nicely. Self means person and efficacy means someone's ability to produce a desired future result. According to Bandura, (1997) self-efficacy refers to individuals personal judgments of their competencies to form and make courses of own deed required to attain a particular aim. Self-efficacy means that person's belief to achieve behaviors necessary to build precise enactment achievements. Concept of Self Efficacy Belief is one's belief in his or her capacity to execute behaviors necessary to produce specific performance attainment. Objectives of study are to explore the supportive factors and obstacles in performing novice teachers' duties and to find out Novice teachers teaching expertise integrated with ICT in schools. Find out the impact of SEB on .Population and Sample of the study was Novice teachers and SSC level students. Self-efficacy literally means Self-efficacy refers to perceptions an individual has about his/her capabilities to perform at an expected level and achieve goals or milestones. It is shown to influence academic motivation, learning, and achievement (Pajares, 1996; Schunk & Pajares, 2001). It is also defined as judgment of capabilities a person to shape and implement ways of action necessary to achieve chosen forms of enactments (Bandura, 1997). Bandura (2006) says individual has the tendency to change by keenly watching their deeds that cause rightly perform and attain set objectives. In present literate people are much effective if they have knowledge about ICT teachers are producers of trained students and not only they prepare human but also they are preparing brains who are more accurate in their fields inside the educational environment. They have knowledge and can utilize their students' abilities by self-efficacy belief using ICT.

ICT in Pakistan is being used as facilitating tool and incorporated and central component in different walks of life. Information Communication Technology is being used currently in Tax and revenue department, NADRA, Education, Army, Courts, Banks, Agriculture, Industry, Trade, sports, Education, construction, Monitoring and evaluation many more. Self-utilization after the rapid emergence of development has been increased because trend in social life living. Man and Society has been changed due to one's self advancement and emergence of ICT. Someone may utilize oneself in the field of teaching and learning through technological support.

Personally Or Self Interest in using ICT is changing the society practices and lessening hurdles and making the difficulties easier. These practices laid the effect on the implementation and new ways of work and learning. Looking towards future this Digital technology is also vital for our novice teachers in schools and lecturers in colleges. However new teachers having ICT skills and knowledge they are self-motivated to deliver through Technology usage. , majority inside the society has mobile technology but need is to impart ICT i.e. laptop android is helping learners in getting knowledge and develop understanding It advances the thoughts, services and the proficiency to resolve issues further it has a significant role in the real world situation in learning environment (ELDaou, 2016).

Henson (2002) says society faces changes by people efforts and that results through teaching learning, since their beliefs about their usefulness have the power and command to determine their choices and encouragement, energy, determination, and even emotions. Self-efficacy is a similar to social cognitive theory, inspiration and productive thinking and action. Self-efficacy beliefs define the way people feel, think, encourage, and work (Bandura, 1994). Efficacy involves one's own perceptions or thinking about one's talent, and connects to motivation. Bandura (1997) claimed that thoughts of individuals shows their movements and inspire to attempt or restrain from a certain performance. According to Farah (2011) the teachers change behavior. This is influenced by novice teachers' efficacy. Self-efficacy belief novice teachers who know their capabilities strength and week ness rightly perform their job. While teaching instructional behavior also includes how novice teachers make strategy and arrange the tactics and events they implement and their personal presence when delivering instruction.

## Literature Review

### Self- Efficacy belief Novice Teachers

A newly appointed teacher needs some well-designed academic skills. That includes the awareness about the needs of society and students' problems; regularly observing of own way of presentation, beliefs, and strategies; a thinking of how effectively and positively committing assigned task that is according to the demands of the school and society; and the capacity to change aspects of present functioning as needed to accomplish a goal. Novice Teach are afresh appointed teachers who has no experience or has zero to five years of teaching experience and is a new entry into teaching learning environment. In Social Cognitive Theory, human internal mental and physical working is observed as an influential message of single, societal, and usual impacts. It depends upon how a novice teacher changes their surroundings factors that community have, which, can be educated and modify the outcome in current circumstances (Fanni, Rega, & Cantoni, 2013). Innovation and most recent methods have changed the trends of instructing, teaching and learning in education in modern world. Learning environment at secondary level needs to be changed in developing countries.

### Factors Affecting Self- Efficacy

'Self-efficacy' is an observation of the person of his own proficiencies to usage and establish to achieve ways of deed required to reach set performances(ELDaou, 2016). To have a strong sense of self utilization it requires experience in overpowering complications through hard work and determination.

**Mastery Experiences:** Mastery experiences are a situation in which one gets new challenge and become effective by doing so. Mastery experience is the personal experience with success (Bandura, 1997). In this paper keeping in view Pakistan School education mastery Experience affects to the capability of novice teachers in case they utilize their knowledge through ICT for learning.

**Vicarious Experience:** Execution of any activity by means of own sanities is termed as experience. Vicarious means indirect; or experience in the imagination through the action of another person. Novice teacher has not direct experience of teaching but they are well aware about by watching their teacher using technology in teaching during their studentship. After getting the understanding and practices in specified field lies in self-efficacy and by watching their university teachers it is observed one who watch his own performance and tries to develop it, increase in self-efficacy whereas failure pulls down there (González-Pienda, Bernardo, Núñez, & Rodríguez, 2017). Novice

teacher cannot be misled empty praise and condescending encouragement he is intrinsically motivate (Erikson & Erikson, J., 1981).

**Social Persuasion:** Particular condition in which a person usually learns, gains knowledge through praise or criticize. One feature nearly social persuasion is to remember that the element of warning is generally more operational. For more specifically at working interest increase using ICT software's as SEB increases while low SEB causes decrease in working simple conventional way(Kinncar & Gray, 2006).

**Emotional States** Special state of affairs when things are normal but conditions are stressful for individuals, people frequently reveals signs of suffering: anxieties, headaches, etc. Societal, emotional, and communicative (SEB) abilities cover a widespread range of proficiencies associated with individuals that keep relationships strong and manage feelings, pursue goals, and learn from practice. Therefore, lessening self-efficacy and high self-efficacy CAUSES such physiological signs as conventional and arbitrary to dimensions(Bandura, 1997).Attention and involvement of learners is central focused aspects through the observation in science subjects classes(Elda, 2016).

### Self- Efficacy and ICT

Expert says goals are unspecified through activity or occurrence at which our act is concentrating and by that we fulfill our requirement(Latham, 2016). For practical knowledge delivery of content to students in educational institutes has setup labs, in presence of upgraded ICT gadgets. Novice teachers haven't ease of access to utilize themselves for teaching purpose. If a teacher has a grip and has content knowledge he will utilize technique of using Technology then there may increase the interest of student. Novice teachers need suitable preparation and trained support to design an idea to impart knowledge by means of the interactive ICT whiteboards and Projectors support(Igwebuike, Ph, Egbro, Osaide, & Iyamah, 2014).

The utilization of ICT in teaching school education has risen interesting ways of performing. Computer technology has an innovative role and is providing important supports in learning for both teachers and students in different part of the world (ELDaou, 2016). Novice teachers of subject of Biology have the tendency to deliver concept through ICT i.e., Digestive system, Blood Circulatory system, nervous, Digestive, Respiratory system, Immune, Muscular, Nervous, Renal, Urinary, excretory system. Same Like in Physics; laws of motions, Hydrolytic machines how an engine works this is can be shown through video clips with theory. Fortunately novice teacher have high qualification and understanding but unfortunately not ease of access to ICT labs and difficult to deliver. While in Mathematics the abacus was used for two reasons one for calculation and secondly, it gives a tangible image to learners, which helps to boost up understanding difficult concepts. self-efficacy determines whether tools and capabilities are necessary to accomplish specific tasks(ELDaou, 2016). A Self Efficacy Belief novice teacher by Using video clips and videos for Calculation and illustration about geometrical concepts can be made easy. Problem is students who study these concepts unable to apply in real life situation. In the 21<sup>st</sup>-century the teaching-learning process has become stress-free job. Students know about ICT In problem-based learning (PBL) is a teaching style that pushes students to become the drivers of their learning education. It is the need of the time to impart technical education through visualization. SEB Teachers design their lesson by merging content with pictures videos and clips to made learners understand easy. Teaching in this way through vicarious experience is more fruitful, interesting and the learner full attention with active involvement. Learner develops himself and creates dimensions and decides its field of interest(Jungert & Rosander, 2010). Teaching at secondary level if linked with laptop and projector it would become so comprehensible. But in various places in schools; educational environment needs to be assessed for female novice teachers who are not familiar with ICT usage with different educational sites and application and feels and need little hesitation to practice.

### Methodology

Data collection procedure was started with obtaining consent from Executive District Officer of Schools Education and then head of selected schools for the purpose of analysis to find out impact and relationship between SEB with ICT. The data collection was done in two steps in the first step the researcher personally visited the target school and met the respondent gather information. Data is collected through questionnaire of 5 point Likert scale along with observation sheet that has been used by researcher to get responses.

**Table 1**

*Detailed Sample information from each district in Province of Punjab, Pakistan*

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	Rural	Urban
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Subject	Male		Female		Male		Female	
	Sci.	Arts	Sci.	Arts	Sci.	Arts	Sci.	Arts
Secondary School Educator	1	1	1	1	1	1	1	1
Secondary School Teacher	1	1	1	1	1	1	1	1
Total	2	2	2	2	2	2	2	2

**Table 2**  
*SEB relationship PO (ICT)*

Model	R	R Square	Adjusted R Square	F <sub>(642,4)</sub>	N
1	.100	.010	.002	1.305	647

Dependent Variable: PO (ICT)

Predictors in the Model: (Constant), ECPSC, ISE, EIDM, EEPI, EECI (SEB)

**Table 3**  
*Coefficients*

Model	B	SE	Beta ( $\beta$ )	t	Sig
(Constant)	2.767	.417		6.641	.000
EIDM1	-.014	.036	-.016	-.393	.695
ISE1	.018	.066	.010	.265	.791
EECI1	-.005	.036	-.005	-.135	.892
EEPI1	-.040	.060	-.027	-.672	.502
ECPSC1	-.193	.079	-.098	-2.442	.015*

This table expresses that relationship and Impact of Self-Efficacy Belief with and over PO (ICT) in column B, shows regression coefficient beta ( $\beta$ ), we can conclude that when EIDM1 increases by one unit there will be a decrease of (PO) ICT usage 0 .014 points. If ISE1 increases up to 1 point then the PO factor of ICT will increase .018 points. Furthermore, there is a one-unit increase in the DSE1 factor there is a decrease of 0.005 points. As one unit increase in EEPI1 of Self Efficacy Belief then there is a 0.040 point decrease in the PO factor of ICT. But ECPSC1 is increase by one unit then PO (ICT) decreases by .0193 and it is slightly significant at 5% and 1% level of significance.

**Table 4**  
*SEB relationship TS (ICT)*

Model	R	R Square	Adjusted R Square	F <sub>(642,4)</sub>	N
1	.154	.024	.016	3.134	647

Dependent Variable: TS

Predictors in the Model: (Constant), ECPSC1, ISE1, EIDM1, EEPI1, EECI1 (SEB)

**Table 5**  
*Coefficients*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	SE	Beta ( $\beta$ )		
(Constant)	2.519	.403		6.250	.000***
EIDM1	.013	.035	.015	.385	.700
ISE1	.235	.064	.144	3.676	.000***
EEPI1	-.043	.035	-.048	-1.227	.220
EECI1	.068	.058	.046	1.168	.243
ECPSC1	-.022	.076	-.011	-.285	.776

The above table shows SEB factors over TS (ICT) in second column B =2.482 this shows regression coefficient beta ( $\beta$ ), above table shows that when EIDM1 (SEB) increases by one unit there will be an increase of TS (ICT) usage 0.013 points. Instructional self-efficacy is significant because as instructional self-efficacy increases in result of it technological skill among novice teachers increased. There is one unit increase in (Instructional Self Efficacy) ISE1 resulting in 0.235 increases in TS (ICT). ISE1 is statistically highly significant at 5% and 1% level of significance.

The conclusion is that when EEPI1 increases by one unit there will be a decrease of TS (ICT) usage by 0.043 points. Furthermore, there is one unit increase in EECI1 resulting in 0.068 increases in TS (ICT). There is one unit increase in ECPSC1 resulting in .022 decreases in TS (ICT).

### **Data Analysis**

According to Kinnear and Gray (2006) the SPSS software is most suitable technique to analyses data. It presents range of explaining and inferential just as parametric and nonparametric factual tests that are helpful in separating exact and complex information. A determining factor is based on the assumption that there is a linear relationship between the factors and the variables when computing the correlations (Yong & Pearce, 2013). In data analysis technique factor analysis is used to compute result from data.

### **Variables**

The study includes one independent variable (Self-Efficacy Belief) and one dependent variable ICT (Information Communication Technology).

### **Design of the Study**

Self-Efficacy Belief Impact over ICT

### **Self-Efficacy Belief**

**EIDM**=Efficacy to influence Decision Making

**ISE**=Instructional Self Efficacy

**EEPI**= Efficacy to enlist parental involvement

**EECI**=Efficacy to enlist community involvement

**ESPSC**=Efficacy to create a positive school climate

### **Information Communication Technology (ICT)**

**PO**= Person Optimal use ICT

**TE**= Technological Equipment

**TS**=Technological Skill

**PSRICT**=Pedagogical Skill Related ICT

### **Implications**

The findings of this study show that Novice teachers at SSC level aware about the optimal usage of ICT and Android mobile technology with self-efficacy and strong beliefs on the use of ICT. But observation closely it specifies that most of Novice teachers are intrinsically motivated but surrounding inside school environment is not supportive. In absence of senior teachers 'support and OHP equipment not available in schools it is hard to deliver knowledge. Further its impact is observed on technological skilled novice teachers' guide their students through visual clips in caching centers. Furthermore, Novice teachers has not ease of access to computers and ICT labs, as well as has not proper technical support, IT department play its role to enhance their levels of self-efficacy and confidence to make changes that are desired.

### **Discussion**

Novice teachers in far areas have the inclination towards use of computer and other ICT gadgets. Novice Teachers are ICT literate and are frequently using android mobiles, capable to use and handle ICT gadgets but they need professional trainings and development programs. This paper explored vicarious experience Novice teachers (who observed a peer succeed at a task) students learning increases quickly if he visually learns through ICT. In Islamiyat subject, among five pillars of Islam, performing Pilgrimage is a difficult task and student confused; it is so easy to show all steps and stages through teaching by videos, clips and sequencial pictures using ICT. But in very few schools novice teachers are ICT literate and have access to computer labs; have much potential to expand not only their knowledge but also they have the tendency to increase the value and usefulness of ICT regarding every aspect of social life. Simply where ICT facilities mobile and internet is available download relevant subject centered



videos in spare time and through visual activity after watching; that may ask question about that. Similarly in Social study and Islamiyat subjects they may show different places weather condition, changing atmosphere in world map. Impact was observed through self-efficacy belief when they use laptop, internet mobile, MMS, SMS, WhatsApp, twitter, Facebook and emails E-commerce E-ticket booking Online shopping, Training session should be incorporated to utilize ICT for Novice teachers and students. Projectors should be used to draw the attention of learners. Concepts that are not verbally persuaded may be delivered through support of available visual technology. Training session should be held about pollution reduction, plantation, global warming issues, energy crises and to face other social and global challenges and think solution about. Beside it android mobile may be used for teaching purpose by connecting overhead projectors. teacher have higher capability to accept information's and have capability to make understand the contents is short time by using ICT gadgets. Subject Integrated technique of ICT should be implemented to enhance learning.

### Conclusion and Recommendations

The main purpose of the current study was to trace out “Self-efficacy belief novice teachers utilize themselves in current state-of the art adoption of ICT in teacher education institutions” to arrange for how we may push ahead, includes rethinking the educational plan and in the future world youngsters may be relied upon to occupy. Much can likewise be gained from taking a gander at

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