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THE IMPACT OF CISCO ACADEMY IT COURSES ON SPECIAL NEEDS STUDENTS AND TEACHING BEHAVIOR

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ABSTRACT

The objective of the research was to analyze the effectiveness of CISCO academy IT courses on special education student's learning. ICT has tremendous potential to prepare special students for the workplaces globally and improve educational systems, if it's integrated wisely into a curriculum of special education students, Cisco Academy IT courses are being sorted out at distinctive levels for the educators to outfit them with essential most recent information and abilities to make them great ICT educators due to auditory, visual and kinesthetic activities for learners and teachers in the IT course. This course has an updated 21st century curriculum.

This study helps special students to engage international IT curriculum and get certified from Cisco Networking Academy. This study promotes the 21st century skills of special needs students. This study design was quantitative. Purposive sampling was used to collect data. In this study the relationships between Cisco Academy IT courses and changes in teaching and learning behavior was investigated by conducting a course in 05 Schools of Karachi. The sample of study was randomly selected 100 students and 20 teachers from 05 private schools of Special education in Karachi. These schools were only facilitating special needs child related to academics and Cisco Networking Academy Course help the special students to learn about Hardware, Software, Social Media Virtual Community and internet. An effective questionnaire having 60 items, was developed and validated using Likert Scale. Regression and Pearson correlation will be used as analytical tools for the empirical estimation.

The finding of this study highlighted the relationship of updated Cisco networking academy courses and its impact on special students leaning are statistically significant due to auditory, visual and kinesthetic learning activities of these courses. The Pearson test explained that the correlation is linear with positive sign. This study recommended these courses in all private and public schools of Pakistan. These course helps special needs children schools to update IT curriculum and promote IT knowledge among special needs students. This course helps them to engage themselves as a IT teacher in this community.

INTRODUCTION

Uncommon necessities understudies across Pakistan face difficulties with respect to IT abilities. The particular instructional class of ICTs in Education for People with Special Needs is expected to give pros engaged with training of individuals with Cisco Networking Academy with a perspective on the standards, ways, and techniques for Cisco Networking Academy configuration, considering the ICT variety in every aspect of instruction.

The course is intended for the objective unique needs understudies at more significant level to develop profound information and high capabilities with respect to:

• significance of giving comprehensive instruction to accomplish equivalent open doors for all;
• applicable parts of training for understudies with Cisco Networking Academy in Information Society;
• function of ICTs in giving comprehensive training to understudies with Cisco Networking Academy;
• basic and intelligent choice and utilization of uncommon innovations as per restrictive requirements of understudies;
• suitable instructive conditions for effective use of ICTs;
• assessment techniques identified with the instructive utilization of ICTs;

In this association, data and correspondence advances (ICTs) have become the most reasonable apparatus, which can help individuals with various learning requests practice their entitlement to instruction, business, public activity and relaxation, and admittance to data and vote based channels. The utilization of new advancements in the circle of instruction must upgrade autonomy, reconciliation, and equivalent open doors for all individuals.

Statement of the problem

For promoting standard of quality education and inculcating information communication technology (ICT) in Pakistan many free of cost information communication technology (ICT) trainings has been conducted by international agencies in Pakistan since 2001. More than 10,000 teachers are trained through Intel ® Education Initiative course in Pakistan to integrate information communication technology (ICT) in subject teaching. Many of them are not using technology properly. This study will investigate the impact of ICT courses of Cisco Networking academy on special needs students in Pakistan.

Purpose of the study

This research study examined the effectiveness of CISCO academy IT courses on special education student's learning and the relationships between Cisco Academy IT courses and changes in teaching and learning behavior

Research objectives

1. To investigate the effectiveness of 03 cisco courses (beginner, intermediate, Advanced) on student's learning.
2. To investigate the effectiveness of 03 cisco courses (beginner, intermediate, Advanced) on teaching behavior.

Research Questions

1. Is there a difference in student's learning related to 03 cisco courses (beginner, intermediate, Advanced)?

2. Is there a difference in teaching behavior related to 03 cisco courses (beginner, intermediate, Advanced)?

Hypothesis

H0: There is not a significance difference in student's learning related to 03 cisco courses (beginner, intermediate, Advanced).

H1: There is a significant difference in student's learning related to 03 cisco courses (beginner, intermediate, Advanced).

H0: There is not a significant difference in teaching behavior related to 03 cisco courses (beginner, intermediate, Advanced).

H2: There is a significant difference in teaching behavior related to 03 cisco courses (beginner, intermediate, Advanced).

Significance of the study

This study helps special needs children to learn IT skills and Cisco Academy IT courses is being sorted out at distinctive levels for the educators to outfit them with essential most recent information and abilities to make them great ICT educators due to auditory, visual and kinesthetic activities for learners and teachers in the IT course. This course has an updated 21st century curriculum.

Limitations

This research study was limited to the teachers of the special needs children who are IT literate.

Delimitations

This research study at this point cannot be conducted on those schools that are not using ICT due to lack of resources, material, finance and time.

REVIEW OF LITERATURE

Khokhar (2017) featured the distinctions among instructors and understudies about what innovation to be utilized in study hall and for what purposes. Khokhar found two inverse perspectives. From one perspective educators accept they use ICT adequately while then again understudies can't help contradicting their instructor's concept of ICT incorporation in homeroom. Uluyol, Ç., and Şahin, S. (2016) examined the function of educators in incorporating data and correspondence innovation (ICT) in schools, and persuaded instructors reflect more elevated levels of ICT use in their study hall. Semi organized meetings was utilized to examine grade teachers' ICT use and their helpers for doing as such. The members comprised of 101 grade teachers from 24 primary schools situated in the Turkish capital. Uluyol, Ç., and Şahin, S. broke down our discoveries so as to comprehend the present status of educators' ICT use and their inspirations for utilizing ICT. A general end from the outcomes is that more solid consolation, backing and openings must be created to expand educators' inspiration to improve the level and nature of ICT use in study halls.

Tondeur (2016) built up a self-report instrument to gauge pre-administration instructors' view of the degree to which they experience the vital help and preparing so as to coordinate innovation into study hall exercises. The survey things of this instrument were drawn up based on an amalgamation of 19 subjective investigations (Tondeur, 2012) and were checked on by specialists in the field. So as to examine its unwavering quality and parts of legitimacy, information were gathered and broke down comprising of an example of 688 pre-administration instructors in Flanders (Belgium). It appears to be that causing pre-administration educators to plan ICT-rich exercises and giving sufficient input can be viewed as all the more trying for

instructor preparing organizations. Proposals are given with respect to how the new scale can be valuable for both instructor preparing organizations and schools in creating ways to deal with outfit pre-administration educators with the abilities expected to coordinate innovation in instructing and learning measures.

Liu (2015) analyzed the collective expert turn of events (CPD) of three sets of coach instructors and pre administration educators in a middle school. The specific investigation of this examination was mix of innovation into guidance, by utilizing mechanical instructive and substance information. To assess proficient turn of events. A subjective exploration technique dependent on homeroom perceptions and center gathering interviews (FGIs) is received. Investigation results demonstrated that guide educators alter their guidance techniques when they get the help of pre-administration instructors explicitly by moving from introducing innovative substance information (TCK) to building different TCK bases.

Gul (2015) distinguished the elements which influenced the utilization of ICT devices and expected to investigate the view of college educators about ICT. For this, "Data and Communication Technology Usage Survey" scale was directed to college instructors of the Punjab. The outcomes additionally demonstrated a positive connection between self-adequacy conviction and saw mastery level for utilizing PCs.

Tunio (2014) decided the impacts of ICT on the up and coming age of metropolitan and rural networks. Tunio found that if appropriate administration of ICT instruments are set up, the understudies displays more inclinations towards the comprehension and use of ICT apparatuses.

Lee (2014) distinguished how pre-administration instructors' self-viability convictions for innovation joining (SETI) can be improved during the coursework intercession, and which of the course factors (instructional media advancement abilities, information on innovation, and exercise arranging practice) has the most noteworthy effect on the SETI. An aggregate of 136 college understudies at an instructor training college in Korea took an interest in the investigation. Lee examination investigation demonstrated that Lesson arranging practice didn't influence pre-administration educators' attitudinal development. Suggestions on viability of the exercise arranging and attitudinal factors on SETI, and recommendations for instructor training course configuration are talked about.

Bozdo (2014) expected to distinguish both level and recurrence of ICT innovation use and factors influencing apparent self-viability levels of pre-administration English Language Teaching (ELT) educators. Bozdo broke down in recurrence and rates utilizing spellbinding insights inside the system of Technology Acceptance Model (TAM) in view of Social Cognitive Theory and the substance examination method. It could be inferred that dominant part of the pre-administration ELT instructors get themselves self-effectual in the utilization of ICT. Results additionally recommended that the apparent utilization of PCs, experience and certainty assume critical job while absence of information and abilities, specialized issues and absence of certainty adversely impact ICT self-adequacy.

Hassan (2013) explored the hindrances to the coordination of Information and Communication Technologies (ICTs) at auxiliary level learning in Pakistan, with unique accentuation on Punjab area. Investigating significant obstructions to the incorporation of ICTs at the school level, educator level and understudy level and conceivable empowering influences to these boundaries is the significant focal point of study. Hassan found and saw from the discoveries that a large portion of the members have positive observations about incorporation of ICTs into their instructing and learning. A significant number of these obstructions are checked by the educators and understudies.

Kuter, S., Gazi, Z. An., and Aksal, F. A. (2012) analyzed the effect of a recorded reenacted instructional model on planned language instructors' co-development of information with the assistance of their companions and their manager in microteaching meetings. Inside the structure of activity research, a three-stage collective instructing model (TCCM) was created to empower students' appearance and instructional mindfulness with respect to educating and learning measures in recorded reenacted guidance. The investigation of different information showed that the three-stage recorded recreated guidance is a feasible model for learners' expert development. Being associated with video-intervened cooperative educating and exchange furnished learners with important open doors for an inside and out examination of instructional cycles, which raised their intelligent abilities as well as expert mindfulness and improvement

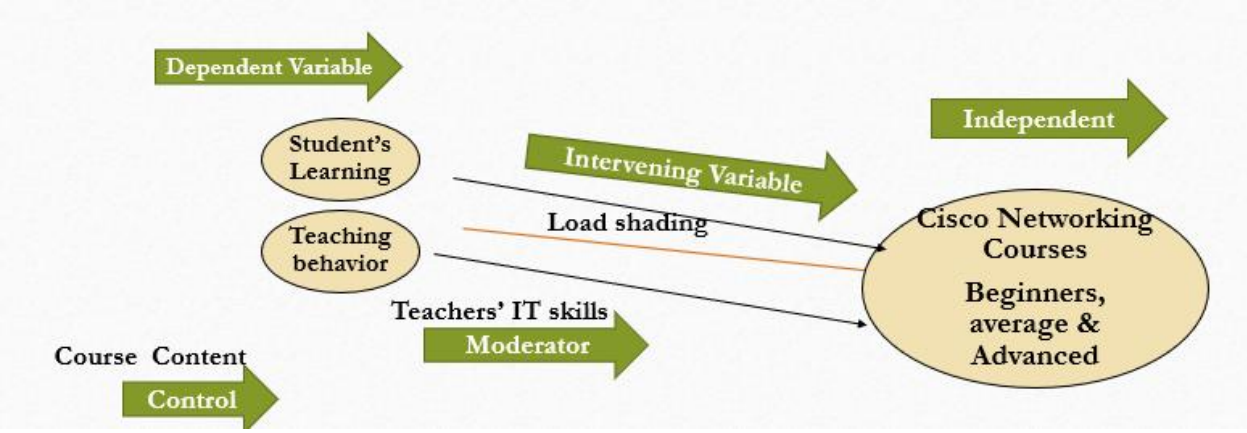
Goldstein (2011, June) analyzed the present status of ICT mix by employees in Israeli Colleges of Education utilizing consolidated quantitative and subjective examination techniques. Discoveries reflect huge advancement in ICT execution in educating by workforce in contrast with the earlier decade: what was seen then as inventive - utilizing Office apparatuses, online assets and email - is currently standard practice. Most employees actualize these fundamental ICT employments. In any case, just hardly any utilization innovation to achieve change in their instructing techniques. Most significant objectives in the current circumstance are: (a) further growing personnel contribution in ICT joining in educating and (b) creating inventive instructive methodologies most appropriate to react to the requests of the Information Era.

(Harrison and Wamakote 2010) stressed on improving the nature of subject instructing and learning. We center around the inner variables of impact on teachers‟ use, or absence of utilization, of innovation in the homeroom. These variables are talked about considering huge foundation and other outside issues. we close by drawing out various instructive ramifications for beginning educator training and expert improvement to bring tutoring inside forming settings into the 21st century.

METHODOLOGY

By purpose it is applied research. By Approach it is quantitative research. Postpositive knowledge claim support quantitative research approach. For quantitative data collection survey method is used by random sampling. A questionnaire was used to collect the data. Random sampling is a type of purposive sampling was used for collecting data in this study. All the Special education schools of private sector of Karachi, Pakistan which have ICT infrastructure. The sample of study was comprised of students and teachers of private schools of Special education in Karachi. The sample of study was comprised of randomly selected 100 students and 20 teachers from 05 private schools of Special education in Karachi.

ANOVA Model of Research



Mean differences of groups

	Beginners course	Intermediate course	Advanced course
Students' learning			

	Beginners course	Intermediate course	Advanced course
Teaching behavior			

Data Analysis

As per Venkatesh, Brown, and Bala (2013) scientists can inspect connections between two factors by contrasting the mean of the needy variable between at least two gatherings inside the free factor. Utilizing the recommendation of Venkatesh et al. The information investigation cycle of this examination included two phases. The primary stages incorporated a spellbinding investigation to portray the dissemination of the information. The subsequent stage included theory testing with ANOVA. Utilizing single direction investigation of change (ANOVA), A single direction ANOVA was led to clarify the factual critical relationship exist among IV and DV. The aftereffects of this investigation can be summed up at National and International level.

Descriptive Statistics

Table 1 displays the summary of the descriptive statistics.

Total Optimism

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18 - 29	147	21.36	4.551	.375	20.62	22.10	7	30
30 - 44	153	22.10	4.147	.335	21.44	22.77	10	30
45+	135	22.96	4.485	.386	22.19	23.72	8	30
Total	435	22.12	4.429	.212	21.70	22.53	7	30

Test of Homogeneity of Variances

Total Optimism

Levene Statistic	df1	df2	Sig.
.746	2	432	.475

ANOVA

Total Optimism

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	179.069	2	89.535	4.641	.010
Within Groups	8333.951	432	19.292		
Total	8513.021	434			

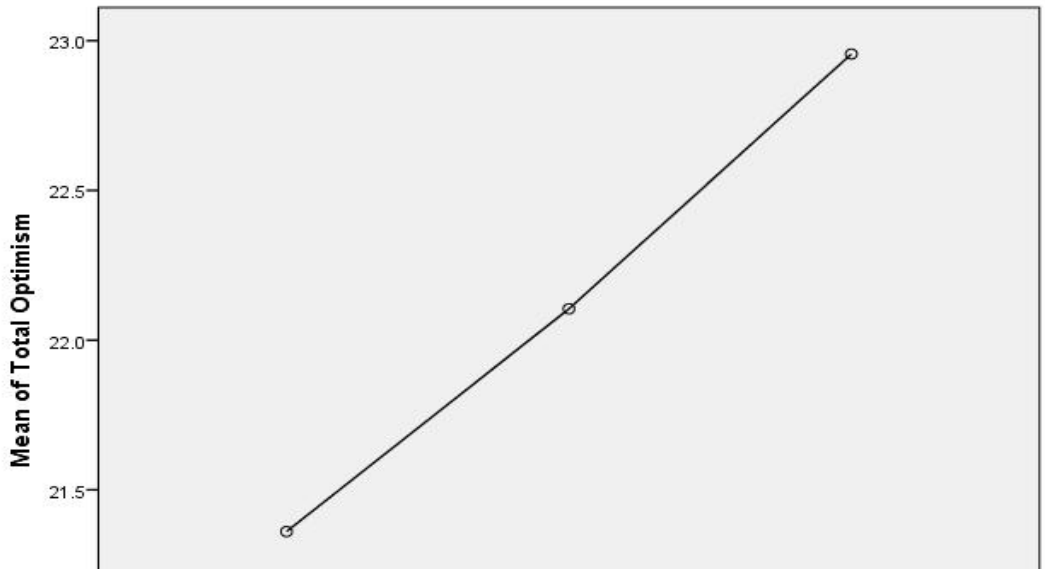
Robust Tests of Equality of Means

Total Optimism

	Statistic[a]	df1	df2	Sig.
Welch	4.380	2	284.508	.013
Brown-Forsythe	4.623	2	423.601	.010

a. Asymptotically F distributed.

Means Plots



Descriptive and Homogeneity of variables

Levene test checks whether the variance in scores is the same for each of the three groups. If Leven test is *greater* than .05, then you have *not* violated the assumption of homogeneity of variance. In our case is .465. If violated this assumption than

Robust Tests of Equality of Means.

The two tests shown there (Welsh and Brown-Forsythe) are preferable when the assumption of the homogeneity of variance is violated. If the Sig. value is less than or equal to .05, then there is a significant difference somewhere among the mean scores on your dependent variable for the three groups. This does not tell which specific group is different from other group(s). For checking inter-group difference: **Multiple Comparisons** results are checked accrued from post-hoc tests.

ANOVA

Total Optimism

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	179.069	2	89.535	4.641	.010
Within Groups	8333.951	432	19.292		
Total	8513.021	434			

Results

A one-way between-groups analysis of variance was conducted to explore the impact of 03 courses of cisco networking academy on student's learning. courses were divided into three

groups according to their level (Group 1: beginners; Group 2: intermediate; Group 3: Advanced). There was a statistically significant difference at the p<.05 level in 03 courses [F(2, 322)=3.6, p=.01]. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .02. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (M=22.37, SD=4.35) was significantly different from Group 3 (M=22.85, SD=4.69). Group 2 (M=24.10, SD=4.55) did not differ significantly from either Group 1 or 3.

Conclusion

The ANOVA analysis showed that all courses of cisco networking academy are helpful for special needs children. All the students learn a lot in each course. This course helps teachers to know how teaching style matters in student's life and cisco course facilitate a teacher to change his or her teaching behavior.

Recommendations

Cisco courses help special needs children to learn IT skills and Cisco Academy IT courses is being sorted out at distinctive levels for the educators to outfit them with essential most recent information and abilities to make them great ICT educators due to auditory, visual and kinesthetic activities for learners and teachers in the IT course. This course has an updated 21st century curriculum.

Government, NGOs, Private institute should promote Cisco courses for special needs children across Pakistan.

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