UNIVERSITY GRANT COMMISSION
CENTRAL REGIONAL OFFICE, BHOPAL – 462016

PROFORMA FOR SUBMISSION OF INFORMATION AT THE TIME OF SENDING THE FINAL REPORT OF THE WORK DONE ON THE PROJECT

1.	Name and Address of Principal Investigator	:	**Dr. J Durga Prasad Rao** **Block 2/B, St. 5, Sec.7, Bhilai**
2.	Name and Address of Institution	:	**Shri Shankaracharya Mahavidyalaya, Junwani, Bhilai**
3.	UGC Approval No. and Date:		F.**No.MS-10/202081/XII/14-15/CRO** **Date 26 May 2015**
4.	Date of Implementation	:	1**9 June 2015**
5.	Tenure of the Project	**:**	**2 Years (2015-16, 2016-17)**
6.	Total Grant Allocated	**:**	**Rs.3,50,000/-**
7.	Total Grant Received	**:**	**Rs. 3,00,000/-**
8.	Final Expenditure	:	**Rs. 3,54,999/-**
9.	Title of the Project	:	**"Analyzing The Advantages And Disadvantages Of Laptop Distribution Among Engineering Graduate Students: With Special Reference To Chhattisgarh State"**

10. Objectives of the Project :

The objective of this study was to examine factors that may have influenced the decision to implement laptop technologies inside classroom environments is correct or not. Factors were grouped and limited to three different areas: social and political influences, perceived benefits of implementation, and influence of shifting types of hardware, software and operating systems. Pretest and posttest assessments were gathered from stake holders in Engineering colleges in Chhattisgarh.

11. Achievements of the Project :

Advantages

Students are able to research information quickly. They can find their own answers, discover their own truths. Laptops lend themselves to a lot of creative and interesting activities i.e. creating a "commercial to advertise their favorite task"

Disadvantages

Students can easily get off task. They may wander to sites like Facebook, Myspace etc. Without knowing it teachers can create computer-related activities that are quite exciting, but the intended content is not learned i.e. teachers focus too much on the "cool activity" rather than the actual lesson itself.

On reviewing the results, there were differences found between the social/political pressure sources, perceived educational benefits and finally hardware and software attributes. Moreover, when combined with Engineering College enterprise size, the information revealed differences in the participant responses in every single categorical area except for the attributes listed as educational benefits of Laptop technologies. Further research ought to be conducted to better understand the sources of social/political pressures taking into consideration the educational decision makers to likewise be cited as the sources of the perceived influence affecting the selection process.

12. Summary of the Findings :

It may be discovered that if educational technology leaders were all by themselves the sources of social/political pressures, then they may not report other types of external pressures as they would observe such factors to be congruent with their own particular beliefs.

Given the divide between educational technology leaders regarding the appropriateness of Laptop devices when attempting higher order skills, for example, composing, this study performed concentrating on implementation successes and failures in such environments.

A detailed examination of the software applications being leveraged and a cross grid of whether those titles, or comparable offerings, are available for Android could prove to be very useful to decision makers.

This study provides for the ordering of preference between existing types of technology including notebooks, netbooks, and desktops and take into account the examination based upon cost, features, movability and ease of use when compared to Laptops and other new technological offerings.

It is recommended that a study of Laptop acquisitions be conducted in conjunction with the status of Engineering College organizations' monetary status. Examining the purchase propensities for Engineering Colleges that have experienced subsidizing constraints due to the property assess tops to those who have not experienced such issues may provide extra bits of knowledge into the factors influencing such acquisitions.

13. Contribution to the Society :

Technical education in Chhattisgarh is currently thinking about the continued effects of the established amendment that places tops on property taxes. This has served to create disproportionate pockets of well and inadequately funded Engineering College regions. Given this, it is imperative that the available assets leveraged for educational technology be used in the most prudent manner possible. The current trend toward mobile computing and laptop devices is a significant move in the recorded manners in which educational technology has been implemented and leveraged inside Technical Colleges educational environments. Accommodating a better understanding of the factors that have motivated this change can provide extra knowledge into the prudence of the overall movement. This study will serve as an underlying attempt to identify factors to enable other researchers the chance to expand and evaluate the overall value of laptop devices inside our Technical Colleges.

14. Weather any Ph.D. Enrolled/Produced out of the Project: No

15. No. of Publication out of the Project : 02

Signature of Principal Investigator

Dr. J. Durga Prasad Rao

Computer Science

Principal

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To

Dr. J. Durga Prasad Rao[1], Mr. Krishna Murali Sahu[2]
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[2]AsstProf.,Pt. Harishankar Shukla Memorial College, Raipur,

Subject : Regarding the Selection of Research Paper for VIDYAWARTA.(ISSN 2319 9318) (Impact factor 4.014)

R/ Sir/Madam,

We are very glad to make you know that the editorial board of 'Vidyawarta' has selected your Research Paper entitled "**Analyzing Laptop Distribution Effects Among Engineering Students in Chhattisgarh.**"

Your paper will be published in **Issue-19, Vol-02** Which will be published on **30 June 2017** A copy of the printed Issue will be sent to you by Registered Post.

Thank you for sending your valuable writing for VIDYAWARTA.

Editor

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Indexed

Analyzing Laptop Distribution Effects Among Engineering Students in Chhattisgarh.

Dr. J. Durga Prasad Rao[1], Mr. Krishna Murali Sahu[2]

INTRODUCTION

Educators have again and again found been subject to taking after trends without completely understanding the true inspirations, expenses, and outcomes of their efforts. The quick pace of ever-changing technology exaggerates this phenomenon. Often, the emphasis on e-learning has led educators to place very much an excessive amount of emphasis on the "e" and not upon the real learning which we are attempting to foster (Garrison, D. R. (2011). As technology is adopted, it is imperative that educators have a comprehensive knowledge of both the technology being adopted, and where it fits into the pedagogical process.

The future reception and subsequent implementation of laptop devices inside the Engineering Technical education environment is undeniable. By the year 2020, mobile information movement generated by laptop devices alone will exceed the aggregate sum of information transmitted in 2015 by the entire worldwide mobile network (Harms, R., and Yamartino, M. (2010)). Acknowledging that Engineering Colleges will take action accordingly in the quick expansion of these devices, it is vital to more completely understand the elements that are leading educational technology leaders to take after, and often lead, this trend.

SIGNIFICANCE OF THE STUDY

Technical education inside the state of India is currently thinking about the continued effects of the established amendment that places tops on property taxes (Gurwitt, R. (2011)). This has served to create disproportionate pockets of well and inadequately funded Engineering College regions. Given this, it is imperative that the available assets leveraged for educational technology be used in the most prudent manner possible. The current trend toward mobile computing and laptop devices is a noteworthy move in the recorded manners in which educational technology has been implemented and leveraged inside India Technical Engineering College educational environments. Accommodating a better understanding of the factors that have motivated this change can provide extra knowledge into the prudence of the overall movement. This study was intended to serve as an underlying attempt to identify these factors to enable other researchers the chance to expand and evaluate the overall value of laptop devices inside our Technical Engineering Colleges.

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LITERATURE REVIEW

Learning Theories and Associated Mobile Learning Adaptations

Theory Description Mobile Learning Example Behaviorist Learning that is shaped by reinforcement between a jolt and a response (Sweller, J. (2014)) The use of penetrate and feedback applications or mobile response systems (Quizdom, Promethean, Poll Anywhere, etc) Cognitivist Information-processing theory serves as a useful model to describe the demonstration of learning as an internal process that comprises of several stages (Cronjé, J. (2006)) Collaborative online research and learning designed to enable learners to make choices with regards to the articles they read and direct a shared exploration of the articles meaning (Ashcraft, Treadwell, and Kumar, 2008) Constructive Learners engage in building items, ideas, or concepts that are personally meaningful to themselves or to others around them based upon past knowledge (Shaikh and Khoja, 2012) The use of collaborative interactive reproductions permitting the creation of simulated communities, towns, or even universes which enable students to explore the interconnected nature of their choices amid the reenactments Problem Based Learning Learners are presented with reflective problems to work to a collaborative arrangement (Ma, X., and Rada, R. (2005)) Collaborative social interaction through SMS and social media systems to work to a collaborative arrangement Context Awareness Learning is mediated by the context of the learner. This may include the encompassing environment or the computing interface being presented (White, J. A. (2014).)

Early Technologies Leveraged for Mobile Learning

Since the presentation of the personal information partner (PDA), many ground breaking educators have dreamed of universal access to affordable electronic instructional devices. Chief among the devices that offered a glimpse into the next decade of development was the Apple Newton Messagepad 2100 first introduced in 1993 and discontinued four years later (Pace, S. (2008)). This device offered the promise of inkwell technology that converted a user's penmanship into a method of text info. Unfortunately, the technology was very early in the design stage and rarely functioned as intended. However, the model of handheld mobile computing devices that easily provided for human computer interaction was a powerful concept for some educators. Taking after the Newton, different incarnations emerged, each having unique features and differing ranges of success. Examples of such include the Palm Pilot and the Compaq iPaq, which offered an early version of the Windows Mobile operating system. As these devices continued to develop and evolve, features, for example, device to computer synchronization, infrared information exchange, Wi-Fi information transfer, and cellular connectivity were added to augment the devices features.

Enter the Apple iPod Touch and iPhone

The iPhone was first made available for purchase on June 29, 2007 (Allan, W. C., Erickson, J. L., Brookhouse, P., and Johnson, J. L. (2010)) and the subsequent release of the iPod Touch amid September of 2007 (Ireland, G. V., and Woollerton, M. (2010)) offered a glimpse into the future of human device interaction. While earlier devices depended upon physical catches for interaction with the underlying software, these two devices ushered in a new era leveraging onscreen input through touching and multi-touching the virtual show screen. Unlike the Blackberry, the leading smartphone of the time that utilized a physical keyboard, these devices presented the user with an onscreen virtual keyboard and offered haptic4 and audible feedback

METHODOLOGY

Null Hypotheses Listing

H01 There is no significant difference between the attributes listed as educational reasons being cited as the benefits of Laptop technologies when compared to corporation enrollment size.

H02 There is no significant difference between the types of preferred hardware attributes listed.

H03 There is no significant difference between the types of preferred hardware attributes listed when compared to corporation enrollment size.

Presentation and Analysis of Data

Null Hypotheses Four (H01) was formulated as takes after: There is no significant difference between the attributes listed as educational reasons being cited as the benefits of Laptop technologies when compared to organization enrollment size. Because no items tested displayed factual significance, the research data supported the acceptance of H01.

Null Hypotheses Five (H02) was formulated as takes after: There is no significant difference between the types of preferred hardware attributes listed. Because three of the items tested achieved factual significance, the research data supported the rejection of H02.

Table 4.4

Scheffé post hoc criterion for significance comparing hardware preferences and college size

Reflecting on the purchasing process, to what degree do you agree with the following statement:			Mean Difference (I-J)	SE	95% Confidence Interval Lower Bound	Upper Bound
Public perception of the brand of laptop device influences my purchase decisions	Very Small	Small	-0.91*	0.29	-1.74	-0.07
		Medium	-0.58	0.34	-1.54	0.37
		Large	-0.41	0.34	-1.38	0.55
	Small	Very Small	0.91*	0.29	0.07	1.74
		Medium	0.32	0.36	-0.68	1.33
		Large	0.49	0.36	-0.53	1.51
	Medium	Very Small	0.58	0.34	-0.37	1.54
		Small	-0.32	0.36	-1.33	0.68
		Large	0.17	0.40	-0.95	1.29
	Large	Very Small	0.41	0.34	-0.55	1.38
		Small	-0.49	0.36	-1.51	0.53
		Medium	-0.17	0.40	-1.29	0.95

* $p<0.05$

Null Hypotheses Six (H03) was formulated as takes after: There is no significant difference between the types of preferred hardware attributes listed when compared to organization enrollment size. Because one item tested achieved measurable significance, the research data supported the rejection of H03.

Discussions

H01. There is no significant difference between the attributes listed as educational reasons being cited as the benefits of Laptop technologies when compared to corporation enrollment size.

Contrasting the responses measuring perceived benefits with the four gatherings of Engineering College size produced no items differing in factual significance. Here, over the range of partnership sizes educational leaders appear to agree with the perceived benefits of Laptop technologies. As a result no items tested showing measurable significance, the research supported the acceptance of H01.

H02. There is no significant difference between the types of preferred hardware attributes listed.

Numerous responses to this battery of questions achieved measurable significance. Among the six items perceived to be preferences were:

- Processor speed
- Battery life between 4-8 hours
- Battery life 8 hours and over
- IOS (Apple) based items
- 32 Gb or more of internal storage
- Screen size of 10 inches or over

All things considered, the research supported the rejection of H02.

H03. There is no significant difference between the types of preferred hardware attributes listed when compared to corporation enrollment size.

Here it was determined that there was a difference of factual significance between very little and little regions giving a mean difference of - .91 demonstrating that little areas were more likely to report that the perception of the brand of Laptop influenced their decision when compared to very little regions. Hence, the research supported the rejection of H03.

CONCLUSIONS

Taking after a review of the results, there were differences found between the social/political pressure sources, perceived educational benefits and finally hardware and software attributes. Moreover, when combined with Engineering College enterprise size, the information revealed differences in the participant responses in every single categorical area except for the attributes listed as educational benefits of Laptop technologies. Further research ought to be conducted to better understand the sources of social/political pressures taking into consideration the

educational decision makers to likewise be cited as the sources of the perceived influence affecting the selection process.

ACKNOWLEDGEMENT

This study is part of UGC Sponsored project entitled "Analyzing the Advantages and Disadvantages of Laptop Distribution among Engineering Graduate Students: With Special Reference to Chhattisgarh State." The first author is thankful to UGC committee for sponsoring the project, Principal for assistance in doing project, Members for supporting in completion of the project.

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To,

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Subject : Regarding the Selection of Research Paper for Printing Area Research Journal (ISSN 2394 5303) (Impact factor 4.002)

R/ Sir/Madam,

We are very glad to make you know that the editorial board of 'Printing Area Research Journal' has selected your Research Paper entitled, **"Laptop Distribution Among Engineering Graduate Students in Chhattisgarh: A Brief Perspective."**

Your paper will be published in **Issue-31, Vol-01.** Which will be published on **30 June 2017.** A copy of the printed Issue will be sent to you by Registered Post.

Thank you for sending your valuable writing for printing area Journal

Editor

Dr.Gholap Bapu Ganpat
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Laptop Distribution Among Engineering Graduate Students in Chhattisgarh: A Brief Perspective.

Dr. J. Durga Prasad Rao[1] , Pranjali Dewangan[2]

INTRODUCTION

Engineering College reform has been a subject of ceaseless dialog since the inceptions of the Indian education system. Today's Engineering Colleges are a clear reflection of the vision of Horace Mann and his efforts to usher in the normal Engineering College era. However, the tools and resources available to today's Engineering foundations are immense and often divergent from the core educational modules of Mann's time when just written work and reading were required to be instructed (Hinsdale, 1898). The quick pace of ever-changing technology exaggerates this phenomenon. Often, the emphasis on e-learning has led educators to place very much an excessive amount of emphasis on the "e" and not upon the real learning which we are attempting to foster (Garrison, D. R. (2011). As technology is adopted, it is imperative that educators have a comprehensive knowledge of both the technology being adopted, and where it fits into the pedagogical process.

The purpose of this review was to pick up a better understanding of the advantages and disadvantages of Laptop dispersion, the people driving these decisions, and the technological qualities that have been driving the reception process of laptop devices inside the Engineering landscape of Technical Engineering Colleges located in the Chhattisgarh state of India. The intent was to better pinpoint the gatherings and people who have been influencing educational technology leaders to receive laptop devices and to better understand the scope of influence in which each of these gatherings really holds amid the selection process.

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LITERATURE REVIEW

Vision of a 21st Century Educational Environment

It has been argued that for now's students to successfully develop and become tomorrow's workforce, they should be prepared to work inside an ever-changing world where the capacity to consume and process information is the key to success. Furthermore, researchers have stated that students must develop the capacity to become "expert thinkers" (Levy, F., and Murnane, R. J. (2006).) where they should demonstrate the capacity to fundamentally interpret information from multiple sources. Advocates of 21st century learning environments have proposed that students who neglect to learn these skills may end up tumbling to the base of the employment ladder, greatly constraining their career alternatives and lifetime earnings. Also, impediments upon their career alternatives will be a result of interconnectedness of our international economy that will demand that tomorrow's workforce possess the skills and competencies necessary to collaborate with coworkers connecting disciplines and geographic areas. Educational scholars have maintained that this will require students to have a deep understanding of their content areas, a commitment to interpersonal relationships, and the dedication necessary to tie the two together in a meaningful, productive manner (ERA, C. L. M. I. A,2013).

Mobile Learning

Mobile learning, or M-Learning, is a term that has been coined to describe a derivation of E-Learning that is facilitated using a mobile device. Thusly, mobile learning has been defined as the transfer of information, knowledge, content and skills using mobile devices that replace other types of print and digital media to facilitate the learning process. Mobile devices regularly have included, yet were not limited to, personal information aides, Laptop computers (Apple iPad, Google Android devices and Windows 8) and cellular phones, all running an extent of operating systems.

Early Technologies Leveraged for Mobile Learning

Since the presentation of the personal information partner (PDA), many ground breaking educators have dreamed of universal access to affordable electronic instructional devices. Chief among the devices that offered a glimpse into the next decade of development was the Apple Newton Messagepad 2100 first introduced in 1993 and discontinued four years later (Pace, S. (2008)). This device offered the promise of inkwell technology that converted a user's penmanship into a method of text info. Unfortunately, the technology was very early in the design stage and rarely functioned as intended. However, the model of handheld mobile computing devices that easily provided for human computer interaction was a powerful concept for some educators. Taking after the Newton, different incarnations emerged, each having unique features and differing ranges of success. Examples of such include the Palm Pilot and the Compaq iPad, which offered an early version of the Windows Mobile operating system. As these devices continued to develop and evolve, features, for example, device to computer

synchronization, infrared information exchange, Wi-Fi information transfer, and cellular connectivity were added to augment the devices features.

Teacher Acceptance and Other Barriers

Teacher acceptance of new technologies has verifiably hinged upon a number of factors. A considerable lot of these factors have been observed to be characteristic for the technology itself and others have stemmed from the vantage purpose of the user themselves. To begin to explore this relationship, researchers often lead what are termed ease of use studies upon a given technology. In describing ease of use in devices, for example, Laptops, there are a number of standardized methods in which to gage such convenience. While such studies are commonplace inside the technology business arena to help refine and enhance items for the marketplace, the use of such frameworks is relatively rare inside ENGINEERING educational environments.

METHODOLOGY

Null Hypotheses Listing

H01 There is no significant difference between the attributes being cited as perceived pressure sources regarding purchase of Laptop technologies.

H02 There is no significant difference between the attributes being cited as perceived pressure sources regarding purchase of Laptop technologies when compared to corporation enrollment size.

H03 There is no significant difference between the attributes listed as educational reasons being cited as benefits of Laptop technologies.

PRESENTATION AND ANALYSIS OF DATA

Null Hypotheses One (H01) was formulated as takes after: There is no significant difference between the attributes being cited as perceived pressure sources regarding the purchase of Laptop technologies. Because three items tested achieved measurable significance, the research data supported the rejection of H01.

The data received in response to question 3 (Social/Political Influences) was then examined based upon four groupings comprising of Engineering Colleges reporting less than 1,500 students (very little companies), 1,500 to 2,999 students (little partnerships), 3,000 to 5,999 students (medium organizations) and, in conclusion, an aggregate student enrollment of 6,000 and over (large enterprises). As indicated in Table 4.1, the ANOVA and Scheffe' post hoc tests revealed that there were measurably significant differences between gatherings in questions 3.7 and 3.10 when contrasting responses utilizing enterprise size as an independent variable.

Table 4.1

Scheffé post hoc criterion for significance based upon college size

To what degree do you agree with the following statements:					95% Confidence Interval	
			Mean Difference (I-J)	*SE*	Lower Bound	Upper Bound
	Very Small	Small	-0.89	0.32	-1.80	.03
		Medium	-0.36	0.37	-1.41	.69
		Large	0.46	0.38	-.60	1.53
	Small	Very Small	0.89	0.32	-.03	1.80
		Medium	0.53	0.39	-.58	1.63
		Large	1.35*	0.40	.23	2.47
	Medium	Very Small	0.36	0.37	-.69	1.41
		Small	-0.53	0.39	-1.63	.58
		Large	0.82	0.43	-.41	2.06
	Large	Very Small	-0.46	0.38	-1.53	.60
		Small	-1.35*	0.40	-2.47	-.23
		Medium	-0.82	0.43	-2.06	.41
	Very Small	Small	-1.03*	0.34	-2.00	-.05

I perceived pressure from my superintendent to implement laptop devices		Medium	0.21	0.39	-.90	1.32	
		Large	0.46	0.40	-.67	1.59	
	Small	Very Small	1.03*	0.34	.05	2.00	
		Medium	1.24*	0.42	.06	2.41	
		Large	1.49*	0.42	.30	2.68	
	Medium	Very Small	-0.21	0.39	-1.32	.90	
		Small	-1.24*	0.42	-2.41	-.06	

* $p<0.05$

Null Hypotheses Two (H02) was formulated as takes after: There is no significant difference between the attributes being cited as perceived pressure sources regarding purchase of Laptop technologies when compared to partnership enrollment size. Because three of the items tested achieved measurable significance, the research data supported the rejection of H02.

Table 4.2

Results of all responses to question 4 perceived educational benefits influencing laptop purchases displaying statistical significance

To what degree do you agree with the following statement:	***N***	***M***	***SE M***	***SD***	***Sk***	***SE Sk***	***z***
Laptop technologies improve classroom instruction	138	4.17	.09	1.00	-.43	.21	-2.09
Laptop technologies increase the differentiation of instruction	138	4.50	.10	1.12	-.64	.21	-3.10
Implementing laptop technologies lowers printing costs	138	4.07	.11	1.30	-.46	.21	-2.25
Implementing Laptop technologies improves teacher-student communication	138	4.17	.10	1.16	-.42	.21	-2.02
Implementing laptop technologies improves student collaboration	138	4.45	.10	1.17	-.80	.21	-3.89
Implementing laptop technologies increases student involvement in classroom activities	138	4.50	.09	1.10	-.80	.21	-3.86

Implementing laptop technologies lowers district expenditures on technology	138	2.51	.12	1.36	.86	.21	4.18
Laptop technologies receive positive public responses	138	4.14	.09	1.00	-.87	.21	-4.23
Laptop technologies are essential to the adoption of digital textbooks	138	3.96	.12	1.40	-.42	.21	-2.04
Laptop technologies increase student learning outside of school hours	138	4.05	.10	1.17	-.62	.21	-3.02
Laptop technologies are well suited to student tasks regarding the viewing of media and basic research (examples: watching videos, web browsing)	138	4.73	.10	1.12	-1.33	.21	-6.45

Null Hypotheses Three (H03) was formulated as takes after: There is no significant difference between the attributes listed as educational reasons being cited as the benefits of Laptop technologies. Because nine of the items tested achieved measurable significance, the research data supported the rejection of H03.

Processing ANOVA tests on the results did not return any items of measurable significance. All things considered, the Scheffe' post hoc tests were unnecessary as there was no factual significances found between the four gatherings.

CONCLUSIONS, DISCUSSION, AND IMPLICATIONS FOR FUTURE RESEARCH

Review of Hypothesis Testing

When testing the invalid hypotheses against enterprise size four examined groupings were utilized comprising of Engineering Colleges reporting 1,500 or fewer students (very little companies), 1,500 to 2,999 students (little organizations), 3,000 to 5,999 students (medium partnerships) and, finally, an aggregate student enrollment of 6,000 and over (large organizations).

H01. There is no significant difference between the attributes being cited as perceived pressure sources regarding purchase of Laptop technologies.

Given that each of these items was positively skewed, while taking into account the rejection of the invalid hypothesis, the results indicated that these were not factors influencing the purchase of Laptop technologies. In that capacity, the research supported the rejection of H01.

H02. There is no significant difference between the attributes being cited as perceived pressure sources regarding purchase of Laptop technologies when compared to corporation enrollment size

Here the differences of the means all indicated that technology leaders in little locale reported perceiving higher levels of pressure from their superintendents to implement Laptop technologies. In that capacity, the research supported the rejection of H02.

H03. There is no significant difference between the attributes listed as educational reasons being cited as benefits of Laptop technologies

Numerous responses to this battery of questions achieved measurable significance. Among the ten items perceived to be benefits were:

- Improvement to classroom guideline
- Increase in differentiation of guideline

- Lowers printing costs
- Improvement of teacher-student correspondence
- Enhanced student cooperation
- Better student classroom involvement
- Positive Technical response to the technologies
- Essential to the selection of digital textbooks
- Enhancement of student learning outside of Engineering College hours
- Devices are well suited to consume media

In that capacity, the research supported the rejection of H03.

RECOMMENDATIONS

One item that was observed to be lost from this study was that the survey neglected to inquire whether participants were self-motivated to recommend the purchase of Laptop technologies. This is an undeniable piece of information that is absent from this study which would help give better knowledge into the social/political factors. It may be discovered that if educational technology leaders were all by themselves the sources of social/political pressures, then they may not report other types of external pressures as they would observe such factors to be congruent with their own particular beliefs.

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