ETHICAL ISSUES IN TECHNOLOGY DRIVEN TEACHING AND LEARNING IN TEACHER EDUCATION PROGRAMME

Dr. Jawaid Ahmad,
Asst. Prof. Dept.. of Education.,
R..K. College, Madhubani-847211 Bihar,
E-mail-jawaidahmadrkcbed@gmail.com

Abstract :-

The stand-alone computer is the earliest IT training model in teacher education. Designed in the early 2000s, the course responded to increasing demands from schools that teachers have adequate technology skills. The primary goal was to improve technology proficiency among pre-service teachers. Research later determined that student teachers and recent graduates continued to have difficulty relating technology to instructional activities and lacked strategies to integrate computers in the curriculum. This result prompted severe criticism of the stand-alone computer course. Computers, it was argued, should not be taught in isolated technology courses but integrated into all education courses, especially methods courses, so that faculty could model the intergration of computers in teaching content areas.

KEYWORDS:

Computer, Teaching, Education

INTRODUCTION

Advocates of the integrated model assume that students today enter universities with adequate computer skills. With technologically savvy students, the reasoning goes, the stand-alone computer course is not necessary. So which is better for ensuring that pre-service teachers learn how to use technology effetively in the classroom?

The stand-alone computer course or technology training intergrated into methods courses? By Yu-mei Wang exposure depends on the faculty's technology proficiency and belief in the role of technology in teaching and learning. To help the educational computing program provide optimally effective IT training to pre-service teachers, the program decided to systematically collect information on the technology proficiency of entering students. A survey administered to all students in the educational computing courses in 2005 asked students to rate their technology proficiency on a scale of 1-5 (1=poor, 2=below average, 3=average, 4= above average, 5= advanced). Self-rated proficiency was low, with only e-mail skill rated as above average. Word processing, using Web browsers, and desktop skills were rated average. Students rated their abilities in all other skills (use of spreadheets, graphics, databases, Powerpoint, Hyperstudio, digital

cameras, digital video editing, Web page design, listservs, scanning, Typing, discussion boards, and troubleshooting) below average.

The survey results contradict the assumption that students enter the teacher education program with adequate computer literacy skills and indicate that the stand-alone computer course should not be dismissed based on false assumptions of student IT skills.

Moreover, various factors influence pre-service teachers' It ability and training: the digital divide among incoming students, the learners' cognitive load, and barriers to integrating It in the education program. These factors must be considered before making a decision on how to train pre-service teachers in IT skills.

A 2003 study found the student-to-computer ratio was higher in lower socio economic school district than in upper-middle class school districts. In addition, children from high income families or whose parents had more education were likelier to have computers and Internet acces than those with parents having limited education or low incomes. Further, the use of computers and the Internet at home was higher among white children than among black and Hispanic children.

ETHICAL ISSUES IN TEACHER EDUCATION

Students lacking technology skills that are expected to learn them while taking teaching-methods courses often encounter cognitive overload. A high-level cognitive task frequently involves numerous sub-skills that compete for working memory capacity. Performance of these sub-skills must become automatic to free memory capacity to concentrate on more complicated aspects of the task. If the learner has to devote a great deal of time to performing the sub-skills, performance on higher level skills suffers. The results of two studies implied that student learning was negatively affected when trying to learn teaching methods and technology skills simultaneously. Both studies compared the stand-alone It approach and the integrated IT approach.

In a study by Anderson and Borthwick, one group of students received computer training integrated into a special-education methods course. The other group completed a computer training course and the methods course separately. The results showed that the students who received stand-alone computer training achieved grater improvements not only in their technology capabilities but also in their abilities to teach with computers A study by Glazewski, Brush, and Bergo produced similar results. One group of students took computer training integrated into a methods course taught at a local school, where they could design and implement teaching lessons with technology in authentic settings. The other group of students completed computer training and a separate methods course on campus. The results of this study showed that pre-service teachers in the integrated field-based

training felt less prepared in technology integration than the students who took separate courses on campus.

The greatest challenge for the integrated approach is that technology must be thoroughly infused throughout teacher education programs, which is not the case in most institutions. It can be problematic for Pedagogy faculty to modify their courses to include technology components without additional traiing and without a common starting point for entering students.

The stand-alone computer course provides a foundation on which Pedagogy faculty can build their course work. With the elimination of the stand-alone course, however, this foundation goes away, and Pedagogy faculty struggle with questions about how much students know about technology and from where they should start. It is difficult for them to plan and design their courses to include technology components without this common base as a reference. To resolve this problems, teachers educator have to go through different course organized by UGC-HRDC, like Orientation Programme, Referesher Programme, Methodology along with different subject specific courses cum training Programmes. A part from that through PMMMNMTT scheme. The Central Govt. aims to implement the recomendations of NEP-2020, viz. improve the quality of teaching at all levels and in all domain, Motivated, energized, and capable faculty, to focus on equity and inclusion in higher education and promote online and Digital education, ensure equitable use of technology, promote Indian language and calture. Now to improve new approaches to curricular transactions , teaching- learning Pedagogical strategies and assesment methods which are recomended in NEP-2020 it is expected that through PMMMNMTT schems like school of education (SoE), (CESME), Teaching learning Centre (TLC), Faculty Development centre (FDC), Inter-Uninversity centre for Teacher's Education (IUCTE), National Resource Centre for Education (NRC), Subject Network for curricular Renewal and Reforms (SBN)

DISCUSSION

The stand-alone computer course deserves a place in pre-service teacher's IT training along with integrated methods course, despite the drawbacks:

- The technology requirement probably won't fit all incoming students, some of whom might already have the requisite computer skills.
- Technology taught in the standalone computer course tends to get disconnected from teaching methods.
- Timing can be problematic. When students take the course too early in the program, they do not have the background needed to relate technology to teaching. If they take the course too

late, the lack of technology exposure will impede their progress in other educational courses, especially Pedagogy courses.

Some teacher education programs test pre-service teachers' technology proficiency. Students who pass the tests are exempted from taking the computer course Alternatively, a stand-alone computer course separated into various modules might allow students to test for exemption from taking particular modules.

More often than not, student technology proficiency is not evenly distributed Fro example, students might be adept with surfing the Internet but know little about spreadsheets.

Learning technology situated in educational contexts can model for students how they might relate technology to teaching. For example, prior to teaching spreadheet skills, the instructor might demonstrate how to use spreadsheets to teach math concepts, testing hypotheses and generating formulas. Instructors can encourage students to consider how the application might help in teaching various subjects. school teachers could be invited to demonstrate the use of a particular computer application in teaching a content area.

Pierson and Thompson presented a creative way to align the stand-alone computer course with the education students' curriculum. The program divided the three-credit computer course into three one-credit courses, each designed and offered in coordination with pre-service teachers' professional training. The first course teaches basic computer skills during the junior year, while students are taking pre-professional development courses. The second course focuses on integrating technology into teaching.

Students learn to design lessons integrating computers while they are taking Pedagogy courses so that they can connect technology with teaching content areas. The third course is offered concurrently with student teaching to support teaching with technology in authentic settings. The course uses the Web to deliver insructions.

CONCLUSION

Both training models-stand-done computer training and integrated technology education-help pre-service teachers become practitioners. The stand-alone computer course teaches them skills they can apply in integrated training. The integgrated methods courses provide students with contexts in which they can practice teaching with computers and reinforce and sharpen their computer skills.

As demand increases for technology using teachers, teacher education faces the challenge of graduating teachers who are competent to teach in virtual classroom on information age classrooms. If we view the two training models as a learning continuum, we can focus our efforts on improving and perfecting the models to provide optimal IT training to pre-service teachers.

REFERENCES

- K. Glazewski, t. Brush, and K. Berg, "Integrating Technology into Pre-service Teacher Education: Comparing a Field-Based Model with a Traditional Approach," Proceedings of Society for Information Technology and Teacher Education International Conference 2012 (Chesapeake, Va. : AACE, 2012.

- Anderson and A. Borthwick, "Results of Separate and Integrated Technology Instruction in Pre-service Training," paper presented at the National Educational Computing Conference, San Antonio, Texas, June 2012.

- P. Eggen and D. Kauchak, Educational Psychology : Windows on Classrooms (Upper Saddle River, N.J.: Merrill Prentice Hall, 2011).

- K.E. Eifler, T.G. Greene, and J.B. Carroll, "Walking the Talk is Tough: From a Single Technology Course to Infusion," The Educational Forum, Vol. 65, No. 4, 2011, pp. 366-375.

- D.F. Salisbury, "Cognitive Psychology and Its Implications for Designing Drill and Practice Programs for Computers," Computer Based Instruction, Vol. 17 No.1,2010, pp. 23-30.

- M Pierson and M. Thompson, "The Re-envisioned Educational Technology Course: If Addition Isn't Possible, Try Division," Computing in Teacher Education, Vol. 22, No. 1, 2005, pp. 31-36

- Kleiner and L. Lewis, Internet Access in U.S. Public Schools and Classrooms: 2004-2002 (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2003) NCES 2004-011.

- R. Oliver, "Factors Influencing Beginning Teachers' Uptake of Computers," Journal of Technology and Teacher Education, Vol.2, No. 1, 2004, pp. 71-89.

- M. DeBell and C. Chapman, Computer and Internet Use by Children and Adolescents in 2001 (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2003), NCES 2004-014.

- D. Novak and J.G Knowles, "Beginning Elementary Teacherr' Use of Computers in Classroom Instruction," Action in Teacher Education, Vol. 8, No. 2, 2001, pp.43-51

****