Technology Innovations Initiated, Leadership Practices and Performance of Secondary School Heads: Bases for Enhancement Development Program

Elvira Agno Tubungbanua
Iloilo State College of Fisheries, Tiwi, Barotac, Nuevo, Iloilo, Philippines
eivle.anhs@gmail.com

Abstract. The paper describes the technology innovations initiated, leadership practices and performance of secondary school heads: bases for enhancement development program. The mixed method design was used to enhance this study. The study was conducted among public secondary school heads in the Division of Iloilo. The respondents of the study were thirty six secondary school heads. The findings revealed the secondary school heads need enhancement development program to improve their technology initiatives, leadership skills and relevant training on school management.

1. Introduction
Life in the 21st century is an era of relentless and hasty change. The relationship between the human race and the planet that sustain it has undergone an enormous transformation. The world is a dynamic entity that poses quite powerful challenges to educational managers. Major changes are happening right before their eyes and they are aware of the implications of these rapid, fundamental and structural changes [1-2].

In today's generation we are more engaged in this especially in our teaching profession there is a valid integration of technology in the classroom. It hones as to become highly competent teachers of tomorrow. Technology for teaching achieves the goal of learning for understanding. Technology in teaching promotes collaboration as well as independent learning. It provides avenues for discussion and communication among learners. Leaders create shared visions, establish relationships and build capacity. Leaders are appreciative of the contributions of the staff and are genuine in their encouragement. Exemplary leaders empower others by engaging all team members and creating leaders to sustain the progress of the initiative [3-4]. Leaders provide resources, encourage professional learning communities, recognize good teaching practices and form partnership with parents and community. Motivated by these concepts the researcher believes that technology innovations initiated, leadership practices and performance of schools heads influence teaching-learning outcomes, thus the study.

2. Literature Review
This review of current literature addresses leadership practices and the role they play in school reform and sustainability of innovations. The premise of the study is that leadership practices are a strong influence on school reform, technology innovations and sustainability. It depicts the conceptualization of leadership practices with the aim of pinpointing the practices related to sustainability of an innovation. The predominant leadership practices seen throughout the leadership literature are vision, resources/infrastructure, professional development, evaluation, and shared decision making. It has also
noted that technology enabled teaching and learning is a social process in which leaders must understand not only the context of the school culture but also the staff adoption of the innovation. Leaders need to be facilitators of change and supporters of teaching and learning; they also need to understand the relationship between schools, systems, staff, students and school culture. This study examined how leadership practices can assist leaders in building their knowledge base of effective practices to sustain innovations.

3. Methodology
The mixed method design was used to enhance this study [5-6] The study was conducted among public secondary schools in the Division of Iloilo. The respondents of the study were thirty six secondary school heads [6]. It represents 20% of the total population of public secondary school heads in the Division of Iloilo. The actual sample size was thirty six taken from the entire population representing the 20% of the total 179 public secondary school heads in the Division of Iloilo. There were 179 public secondary school heads in the Division of Iloilo and the researcher got the 20% of the population of the population as respondents. A simple random sampling using the fishbowl technique was employed in this study. A researcher - made questionnaire was utilized. It was composed of two parts: Part One, Personal Data. Part Two, composed of 30 items to determine the technology innovations initiated, leadership practices and performance of secondary school heads in the Division of Iloilo. The instrument was submitted for content validation to a panel of five jurors considered for their expertise in educational technology, educational management, development education, research, statistics, and test construction for face and content validation. After the jury validation, the rating scale was pilot tested among 20 elementary school heads in the District of Anilao. The pilot tested results were subjected to factor analysis via the SPSS software for construct validity. The permission to conduct this study among the respondents was secured from the Schools Division Superintendent, Division of Iloilo. Upon approval, the researcher personally administered the researcher – made test to the respondents. To determine the technology innovations initiated, leadership practices and performance of secondary school heads as bases for enhancement development program. The data were gathered with the used of these statistical tools. Frequency, Rank, Mean, t-test, ANOVA, and Pearson r. Qualitative Data Analysis was used to determine the responses and reflections of the secondary school heads regarding technology innovations initiated, leadership practices and their performance.

4. Results
1. The technology innovations initiated of the secondary school heads according to rank were the following, Internet ranked first, Lore/Facebook ranked 2, PowerPoint Presentation ranked 3, E-mail ranked 4, Computer Assisted Instruction and Mobile Apps ranked 5.5, E-book ranked 7, Video Conferencing ranked 8 and Blog ranked 9. The degree of desirability of technology innovations initiated of secondary school heads as a whole and when classified according to sex, age, highest educational attainment, length of service, number of years in present school and number of years as subject teacher were interpreted as extremely desirable.

| Technology Innovations Initiated | f  | Rank |
|---------------------------------|----|------|
| Internet                        | 36 | 1    |
| Lore/Facebook                   | 34 | 2    |
| PowerPoint Presentation         | 19 | 3    |
| E-mail                          | 13 | 4    |
| Computer Assisted Instruction   | 8  | 5.5  |
| Mobile Apps                     | 8  | 5.5  |
| E-book                          | 4  | 7    |
| Video Conferencing              | 2  | 8    |
| Blog                            | 1  | 9    |
2. In terms of leadership practices of secondary school heads, Inspired a Shared Vision ranked first followed by Encourage the Heart, Enables Others to Act, Challenge the Process and Model the Way. The desirability of leadership practices when classified according to sex, age, highest educational attainment, length of service, number of years in the present school and number of years as subject teacher were elucidated as extremely desirable.

Table 2. Leadership Practices Among Secondary School Heads

| Leadership Practices          | f  | Rank |
|------------------------------|----|------|
| Inspired a Shared Vision     | 34 | 1    |
| Encourage the Heart          | 30 | 2    |
| Enable Others to Act         | 28 | 3    |
| Challenge the Process        | 25 | 4    |
| Model the Way                | 23 | 5    |

3. The level of performance of the school heads when classified as to sex, age, highest educational attainment, length of service, number of years in the present school and number of years as subject teacher was clarified as satisfactory.

4. There were no significant differences in the degree of desirability of technology innovations initiated, when respondents were classified according to sex, age, highest educational attainment, length of service, number of years in the present school and number of years as subject teacher.

5. The results for the differences in degree of desirability of leadership practices according to sex, age, highest educational attainment, length of service, number of years in the present school and number of years as subject teacher, no significant differences noted among the respondents.

6. The results for the differences in the level of performance, there were no significant differences.

7. The results for the differences in the level of performance, there were no significant differences.

5. **Recommendations**

1. Establish technology competencies for school heads, teachers and support staff.
2. Train educators to teach in blended and online learning formats
3. Connect strategic planning initiatives across various education levels as educators try to improve learning with technology.
4. Collaborate with various stakeholders to set a vision for technology-enabled learning.
5. Help develop incoming and long-time educators with professional development designed to encourage their use of technology as they improve student learning.

6. **Conclusions**

When technology used appropriately, it can transform education with “rigorous evidence as well as emerging innovations.”

A central part of being a great leader is cultivating leadership to others. The performance of the school heads must become intimately familiar with the "technical core" of schooling - what is required to improve the quality of teaching and learning. School heads with good leadership practices are innovative and they perform well.

7. **References**

[1] Kouzes, J. and Posner, B. (2003). Leadership Practices Inventory: Third Edition. San Francisco, CA: Pfeiffer, A Wiley Imprint
[2] Selwyn, N. (2010). Web 2.0 and the school of the future, today. In, OECD (eds.), Inspired by Technology, Driven by Pedagogy: A systemic approach to technology-based school innovations. OECD: Paris, France

[3] Goodwin, B. (2011). One-to One Laptop Programs Are No Silver Bullet. Educational Leadership, 68(5), 78-79

[4] Effective School Leadership Practices. Retrieved at https://www.uleth.ca/dspace/bitstream/handle/10/33/246/MR17387.

[5] Principal Leadership and School Performance: An Integration of Transformational and Instructional Leadership. Retrieved at https://www.researchgate.net/…/44832147_Principal_Leadership and School Performance

[6] Fullan, M. (2011). whole System Reform for Innovative Research Programme. Retrieved at http://www.itlresearch.com/research-a-reports/2011-itl-research-findings on