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The journal's title carries the symbolism descriptive of researchers who are innately driven to uncover truth, shedding light to various issues and concerns affecting the local, national and global community. Researches in the Graduate School are primarily meant to enlighten their readers for them to become better decision-makers in the practice of their professions.

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The SPUP LIGHT EXPLORER

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LEVERAGING SPIRITUALITY IN SPUP'S 21ST CENTURY EDUCATION IN THE LIGHT OF THE NEW EVANGELIZATION

Allan Peejay M. Lappay

Abstract

This study examined the implications and relevance of the educational innovations of St. Paul University Philippines (SPUP) in the light of the educational landscape of the 21st Century and pertinent to its contribution in the realization of the thrusts of New Evangelization.

Using the descriptive method, the study ascertained that infusing realities of the 21st Century and the New Evangelization highlights SPUP's efforts to promote learning experiences to learning opportunities and excellence to spirituality. Their interplay accorded SPUP an avenue to assess all its efforts relevant to its identity and charism. Amidst the challenges brought about by these milieu, SPUP persists to innovate its educational vision by adapting to the current educational setting – the 21st Century Education; and to firmly remain consistent being animated by the Gospel and the teachings of the Church in its pursuit of human excellence through faith and reason – the New Evangelization.

Introduction

The 21st Century Education and the New Evangelization have become indispensable realities in leveraging education today. For a Catholic University, the pressing challenges of the 21st Century are questions of relevance. *How does a Catholic University respond to the call and signs of the times?* Meanwhile, the New Evangelization incites a concerted to effort to revisit the institutional identity reflected by its vision and mission. *How does a Catholic University persist to be constantly rooted on its identity?*

As a learning institution, SPUP is committed to determine relevant ways and means in the delivery of its educational programs and services. It has engaged in endeavors to integrate dynamism into its process by highlighting the necessity to learn integrated and usable knowledge gained through continuing and life-long learning.

Similarly, as a Catholic University, SPUP is persistent in the transmission of faith by providing avenues for learners to articulate the harmony of faith and reason capable of guiding a life-long pursuit of knowledge and virtue. This is evident in the manner SPUP balances activities in communicating effectively the richness of the heritage of faith, the praxis of Christian moral and sacramental life and the cultivation of personal and liturgical prayer.

Theoretical Framework

The 21st Century have redefined and reinvented the goals of education and directed innovations that led to the assimilation of dynamism in the educational process. Equally, the New Evangelization has become a defining moment for Catholic Universities to institute efforts to conduct introspection regarding their educational messages and services relevant to their Catholic identity and spirituality. In like manner, SPUP, in the light of the New Evangelization, has engaged in endeavors to contextualize and to deepen spirituality of its 21st Century academic setting.

In undertaking 21st Century Education, SPUP has infringed the traditional education of antiquity. Amidst its venture into the blue ocean of the 21st Century society, the challenge of the New Evangelization persists to envelop SPUP as its 21st Century Educational thrusts and processes are deemed to be embedded in its Catholic spirituality.

In the academic year 2010 – 2011, SPUP embarked on the 21st Century Education with three salient attributes: *Strategic Directions*, *Learning Framework* and *Core Concepts*. Similarly, the New Evangelization possesses the following characteristics: *Christocentric, call for Participation, call to Mission, in the context of Culture, Comprehensive Christianization, and Communion of Spirituality* (Nodar, 2011).

Statement of the Problem

The study to analyzed and drew implications of the 21st Century Education of SPUP relative to the characteristics of the New Evangelization. It sought to specifically address the following concerns:

1. To determine the extent of attainment of the 21st Century Education of SPUP as manifested through its:
   a. Strategic Directions,
   b. Core Concepts and
   c. Learning Framework.

2. To examine the manner by which spirituality is integrated in the 21st Century Education goals of SPUP through:
   a. the Characteristics of the New Evangelization and
   b. the Paulinian Core Values.

3. To assess the role of SPUP as an avenue and an instrument of the New Evangelization.

These questions were answered through assessment and analysis by appropriating the 21st Century Education of SPUP with the characteristics of the New Evangelization.

Methods

Research Design

The study utilized the descriptive method to obtain information concerning the current status of the 21st Century educational innovations of SPUP with respect to the characteristics of the New Evangelization. Through the descriptive survey method, the study established the fact that SPUP leverages spirituality in its educational innovations and breakthroughs.

Respondents of the Study

Sectors of the SPUP academic community, composed of administrators, selected students, faculty members and staff, served as the respondents of the study.

Instrumentation

Varied data gathering method and techniques were employed in the study. The quantitative information was obtained from: a) the assessment of the University Administrators on the strategic directions; b) the survey questionnaire on the Paulinian Core Values Inventory; and, c) survey questionnaires on the extent of attainment of the 21st Century Strategic Directions vis-à-vis the characteristics of the New Evangelization, the implementation of the Learning Framework and the integration of Core Concepts. Meanwhile, the qualitative data were deduced from interview-discussions and documentary analysis. This procedure facilitated the validation of the role of SPUP as an avenue and an instrument of the New Evangelization.

Data Gathering Procedure

The gathering of the necessary information relative to the crux of the endeavor was done.

1. The approval of the University President was sought for utilization of the formative evaluation results of the educational innovations of SPUP along the 21st Century Education.

2. The interviews and discussions conducted to members of the academic community elicited insights and challenges pertinent to the role of SPUP as an avenue and an instrument of New Evangelization.

3. The documentary analysis provided further evidences regarding the implementation of SPUP's 21st Century education and the integration of spirituality in SPUP's design.

4. The responses of the participants in the questionnaires were collated, analyzed and interpreted using appropriate data analysis tools.

Data Analysis

Simple frequency counts, means and percentages were used to treat the collected data. The responses of the respondents on the questionnaires were treated in their weighted means. Moreover, the obtained qualitative data through interviews, discussions and documentary analysis were also organized using thematic analysis. Series of coding were done on the qualitative responses, after which common themes that encompassed their familiar responses were identified. After common themes were determined, frequency counts and rank of the themes were obtained.

RESULTS

On the Attainment of SPUP's 21st Century Education Goals

The general assessment on the attainment of SPUP's *Strategic Directions* for the past three academic years (2010-2011, 2011-2012 and 2012-2013) was rated as "great extent." In the manner each strategic direction was attained, only the fourth strategic direction was rated as "very great extent." Five strategic directions (SD 1,2,3,5 and 7) were given a rating of "great extent;" while, the sixth strategic direction was ascertained to be "moderate extent."

The overall evaluation on the integration of the *Core Concepts* into the curriculum and teaching-learning process was "very great extent." Respondents from schools 1, 2, 3, and 4 gave an overall rating of "very great extent," while "great extent" by those from school 5.

The implementation of the *Learning Framework* was of "great extent." Except the integration of the 21st Century competencies which was rated as "very great extent," the rest of the domains, which include: schedule, grouping patterns and spaces, were determined to be of "great extent."

On the Integration of Spirituality

The assessment of the characteristics of the New Evangelization vis-à-vis the Strategic Direction yielded a rating of "very great extent." Of the six characteristics (of the New Evangelization); only the Call to Mission was rated as "great extent," while the other five characteristics, namely Christocentric, a Call for Participation, in the Context of Culture, a Comprehensive Christianization, and a Communion of Spirituality, were considered as "very great extent."

All Paulinian core values were evaluated as "great extent" by all groups of respondents. In the individual presentation of each Core Value, all their specific behaviors were also rated as "great extent."

The integration of the Paulinian Core Values and the Characteristics of the New Evangelization was evaluated as "very great extent." Except for the "great extent" remark accorded to the core value of Commission, all other Core Values (Christ, Charity, Charism and Community) were deemed as "very great extent."

Spirituality in SPUP's 21st Century Education

For the Paulinian learners, their spiritual formation at SPUP fosters avenues for spiritual growth, forms them to be more caring, more globally aware, more committed to social justice and responsive to the many challenges of the rapidly changing technological society with a greater sense of equanimity; however, the learners considered the following challenges:

1. The necessity of guiding the learners in developing their own ways of being connected to the Catholic faith and tradition.

2. The necessity of formulating spiritual goals in a language that could inspire learners by means of using words and images that have meaning to them.

For the Paulinian employees, the significance of the development of their spirituality is relative to their commitment as they fulfill their duties anchored in the Faith, to the manner they partake in the celebration of the Faith, to the way they are led to experience spiritual development programs, to the attitudes and behaviors based on institutional standards, and the consciousness to contribute in the community and society. Still, the subsequent challenges were identified:

1. The creation of opportunities where employees test their spiritual views and experiences, by questioning them and sharing them with others;

2. The development of mutual trust and respect; to accept faith as authentic, and find ways in which they might accept other ways of believing; and,

3. The encouragement to be more open, to listen to their life-stories and hear their expectations and act accordingly by finding better ways of communicating.

As to its spiritual legacy, SPUP highly regarded spirituality as the highest value of human aspiration as it permeates any historical, artistic, scientific and cultural endeavor of the University. Moreover, in SPUP spirituality encompasses world outlook, ideology, methodology, knowledge, awareness of the person and of society, value orientations and social action.

Conclusions

Based on the findings of this study, the following conclusions were derived:

The SPUP's 21st Century Education Framework was formulated to respond the challenge of bridging the gap between the academe and the society. Through its 21st Century Education goals, SPUP has navigated the transition from traditional to dynamic learning environment. At the same time, SPUP has focused on high standards for all; coupled with the recognition on the significance of versatility and dynamism in the face of change to prepare Paulinian learners along the demands of the 21st Century.

The spirituality in the era of New Evangelization requires a commitment to be inclusive on many different levels. For education, it is manifested in the spiritual formation of the learners. Through this SPUP affirms that learning happens in a context where authentic and spontaneous relations flourish between faith and reason; and, the meaning and purpose of education.

The impact of the New Evangelization on the 21st Century Education necessitates the role of spirituality in SPUP as a Catholic educational institution. Furthermore, spirituality in the light of the New Evangelization and of the 21st Century Education enhances its relationship with teaching and learning; the cultivation of values; the practical application of moral and ethical principles; and the formation of learning communities and responsible citizens.

Recommendations

The following recommendations were generated on the bases of the results of the study:

1. That an annual evaluation on the attainment of the Strategic Directions, integration of the Core Concepts and the implementation of the Learning Framework to facilitate the overall assessment of the 21st Century Goals of SPUP for 2010-2015 be conducted.

2. That an assessment on students and employees' engagement activities for proper alignment with the Paulinian Core Values and the vision-mission of the University be done annually.

3. That an impact study of Paulinian Education to the SPUP Alumni relevant to their spirituality be conducted.

4. That an enhanced spiritual formation program for SPUP employees be mapped out and formulated.

5. That the orientation of Paulinian students and employees to the Paulinian Core Values, Spirituality and Heritage be emphasized.

6. That an instrument for gauging the Spiritual Quotient (SQ) of the members of SPUP academic community be formulated, tested, validated and administered.

7. That a thorough documentation of the all endeavors of the University and their proper classification for access and study be carried out.

8. That continuing efforts to promote SPUP as a Catholic Cultural Center, be institutionalized to ensure that faith and culture meet, be kept alive.

9. That a thorough review of the extent of integration of Catholic Teachings to non-Religious Education courses be conducted.

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WITNESSING OF THE PAULINIANS TO ST. PAUL UNIVERSITY PHILIPPINES' EVANGELICAL MISSION

Ma. Leodevina Batugal
Jesus B. Pizarro

Abstract

This paper endeavored to determine the extent to which the faculty and students of St. Paul University Philippines witness to the University's evangelical mission owing to its Catholic character as a Higher Education Institution. Paulinian faculty and students by its Catholic nature are all called to share themselves and be proactive engaged in the Apostolic Mission of the Church. This study investigated the witnessing of the Paulinian study participants on the following focus of evangelization: pro-God (*maka-Diyos*), respect for the dignity of the human person (*makatao*), pro-life (*makabuhay*), patriotic (*makabayan*) and care for the environment (*maka-kalikasan*).

This study used two forms of questionnaire that were administered to students and teachers. Findings of the study revealed that the study participants generally have high extent of witnessing in all the five focus of evangelization. Specifically, the institution has a roster of female dominated educators and students who are prayerfully grateful, deeply Marian believers, lovers of the Eucharist, moderately observant of their Sunday obligation, sacramentalized but not fully evangelized, generous, and with soft spot for the sick, the poor, the underserved and the underprivileged.

Keywords: Evangelical mission, Christian witnessing, Paulinian Spirituality

Introduction

"Let the word of Christ dwell in you richly; teach and admonish one another in all wisdom; and with gratitude in your hearts sing… to God."

Witnessing flows from and it is innate in every human being because man is created in God's image and likeness. Christian witnessing is not about intellect neither a debate skill. Paul's letter to the Corinthian Church addresses the heart of [Christian] witnessing.

> *"As for myself, brothers, when I came to you I did not come proclaiming God's testimony with any particular eloquence or wisdom. No, I determined that while I was with you they speak of nothing but Jesus Christ and Him crucified. When I came among you, it was in weakness and fear, and with much trepidation. My message and my preaching had in one of the persuasive force of wise of argumentation but the convincing power of the spirit. As a consequence, your faith rests not on the wisdom of men but on the power of God." (2:1-5)*

Thus it is not one's self that one is preaching, but Christ Jesus as the Lord, and one's self as servant that one preaches.

Witnessing essentially is sharing not just what one possesses in life but more so of one's self with others. It is living in accord with each other that is to all people from all walks of life and in harmony with God. It is making one's life a living exemplar of Christ. It is doing an impressive act for others and God unselfishly. It is said that one's attitude towards others is a reflection of his attitude towards God. One's attitude towards God if it is true and genuine is reflected in the way one relates with others and his environment.

By virtue of St. Paul University Philippines' Catholic character, Paulinians are all called to share themselves and contribute especially in the Apostolic Mission of the Church. This mission is to proclaim Jesus Christ as the God News of salvation. This assertion creates in every Paulinian the commitment to carry on to this mission with dynamism and burning desire to make Jesus Christ increasingly loved and known through one's good deeds and behavior. The Paulinians' fidelity to the charism of the Pauline foundation should give them the vitality to this commitment.

St. Paul University Philippines' quest for excellence and quality as an institution must not only be focused on the academic aspect of the Paulinians' lives. Equally important is the holistic Catholic Christian formation of the entire Paulinian community. Paulinian education should commit itself to the realization of its vision-mission. Part of this vision is to form persons who are pro-God (maka-Diyos), respectful of the dignity of the human person (makatao), pro-life (makabuhay), patriotic (makabayan) and protective of environment (maka-kalikasan). Thus to be true, genuine and authentic Paulinians one ought not only be an expert of his own field of study but also should focus on the development of his entire being which goes along with a sense of God which will eventually develop his mature, professional and responsible attitude towards others and his environment.

Paulinians pledge, not just, because they are Paulinians but by virtue of their baptism that their whole life must be apostolic. Each Paulinian must bear witness to Christ by who and what he is, dedicating himself in a singular way to the service of all, especially, to the least, the lost and the last.

St. Paul, the patron saint of Paulinians had so much zeal and enthusiasm in bringing Christ to others. His missionary zeal inspires and urges Paulinians to serve with simplicity, generosity and with enthusiasm as they carry out their mission in bringing Jesus Christ to all not just through one's words but more so through their actions as well. With their zeal in serving the poor, the least and the last this will eventually develop them into becoming living witnesses of Christ not just in their own locality but eventually lead them to carry out in their lives wherever they are or they may be. *"It is not ourselves that we are preaching, but Christ Jesus as the Lord, and ourselves as your servants for Jesus' sake' (2 Cor. 4:5).* Paulinians allow Christ and His love to be their strength, force and power to help them carry on to this mission. "He will never fail us If Christ is for us who can be against us? Let the charity of Christ impel us to carry out our mission as Paulinians to proclaim Jesus Christ as the Good News to ALL. *'Caritas Christi Urget Nos.'"*

Statement of the Problem

This study entitled, "The Witnessing of the Paulinians to the St. Paul University Philippines' Evangelical Mission," sought to determine the extent to which the administrators, faculty and students witness to the SPUP's evangelical mission.

Specifically, it sought answers the following:

1) What is the profile of the student-respondents in terms of the following variables:
   1.1 Age
   1.2 Sex
   1.3 Year Level
   1.4 School/department, and
   1.5 Religious Affiliation?

2) What is the profile of the teacher and lay administrator-respondents in terms of the following variables:
   2.1 Sex
   2.2 Length of Service, and
   2.3 Faculty Rank?

3) What is the extent of witnessing of the respondents in terms of the following focus of evangelization?
   3.1 Maka-Diyos
   3.2 Maka-Tao
   3.3 Maka-Bayan
   3.4 Maka-Buhay
   3.5 Maka-Kalikasan

Methods

This study made used of the descriptive research design. The respondents consisted of the college students from 2nd to 5th year as well as the teachers and non-religious lay-administrators from elementary to college levels. The student-respondents of this study were selected using cluster sampling. The number of students who participated in this research as respondents was determined with the use of Slovin's Formula with a margin of error of 0.01. On the other hand, all teachers and non-religious lay-administrators were included as the second group of respondents.

Data Gathering Instrument

This study mainly used the questionnaire for data gathering. It is a non-standardized questionnaire. Two forms of questionnaire were separately administered to the students and the teachers.

Data Gathering Procedure

A draft of the prepared 2 sets of questionnaire was submitted to a panel of evaluators for face and content validation. The panel consisted of the Vice-President for Christian Formation, a Theology instructor and another religious SPC Sister. After incorporating all the corrections, comments and suggestions of the members of the panel of evaluators, the final draft of the questionnaire was reproduced and floated to the target respondents.

Statistical Treatment of Data

This study made used of the weighted mean to interpret the data gathered from the use of the questionnaire.

The following scale was used to interpret the mean.

SCALE	RANGE	INTERPRETATION
5	4.20 – 5.00	Always/Very Highly Important
4	3.40 – 4.19	Often/Very Important
3	2.60 – 3.39	Occasionally/Important
2	1.80 – 2.59	Seldom/Slightly Important
1	1.00 – 1.79	Never/Not Important

The t-test for independent samples was used to determine whether or not there is a significant difference in the extent of witnessing between the students and teachers with respect to the different focus of evangelization.

The One-Way Analysis of Variance (ANOVA) was used to determine whether or not there is a significant difference in the extent of witnessing of the students with respect to the different focus of evangelization when grouped according to age, year level, School/department, and religious affiliation.

Results and Discussions

A. Profile of Respondents:

1. The biggest number of student-respondents is of ages 18 and 19 representing more than 50% of the total number. Majority of the teacher-respondents are female and only around one-third of them are male.

2. Majority (67.97%) of the student-respondents are female and only around one-third of them are male and the biggest number of student-respondents comes from the 2nd year level followed by the 4th year level.

3. Majority of the student-respondents are Catholic and only about thirteen percent (13%) are Non-Catholic.

4. The biggest number of the teacher-respondents has been in service to the University for 10 years or less.

B. Extent of Witnessing of the Respondents in terms of the following Focus of Evangelization:

MAKA-DIYOS

1. Both students and teachers "always" pray before going to bed for sleep but only "occasionally" pray before and after meals. It was also shown that both type of respondents "often" pray upon waking up and in some other occasions. The students and teachers do not pray the same as much when they retire for bed and as they wake up after sleep.

2. The teacher-respondents "always" pray with the intentions of adoring and thanking God together with their intent to seek for petition and to ask for forgiveness to sins being committed while the student-respondents "always" pray only for purposes of thanksgiving and "often" pray for praise, contrition and petition. Generally, both types of respondents are grateful people praying to God for the purpose of paying gratitude for graces and blessing received from God.

3. Both the respondents "occasionally" pray with scriptures as well as visit the chapel and pray. It was shown further that the teacher-respondents "always" use both the spontaneous and basic/formula prayers while the student-respondents "often" use the two forms. Both types of respondents put a "very high" level of importance on prayer. Lastly, the teachers "occasionally" attend novenas while students "seldom" do.

4. Most of the teacher and student-respondents attend the "Perpetual Help" Novena and the Aguinaldo Novena of Masses before Christmas. The respondents' give give high regard to Mary

as Jesus' Mother . But very few of the student-respondents attend the First Friday Devotion to the Sacred Heart of Jesus & Mary.

5. Teacher-respondents "always" hear mass, attend Eucharistic celebrations in the University and observe their Sunday Mass obligations while they only "often" pray or recite prayers in observance of their devotion to the saints. On the other hand, the student-respondents "often" hear mass and observe their Sunday mass obligation and "occasionally" attend Eucharistic celebrations in the University as well as pray in observance of their devotion to saints. The observance of their Sunday obligation and hearing mass is not so strong.

6. A significant number of the teacher and student- respondents know how to pray the Rosary but a few of the still do not know it.

7. The teacher-respondents generally have mastery of all prayers contained in the Rosary. It was found out that the student-respondents "occasionally" pray the Rosary privately while the teachers do it "often".

8. Both students and teachers consider the sacrament of Baptism as important.

9. Both teachers and students occasionally approach the sacrament of confession.

10. Both respondents attend recollections and retreats whenever they are given the opportunity.

11. Teacher - respondents' marriage are all sacramentalized while the student- respondents were all single.

12. Most of the children of the teacher-respondents have received the 2 Sacraments of initiation.

13. A significant number of the teacher and student respondents' are presently godparents.

14. Both respondents possess a healthy relationship with their godchildren but should further strive to carry out their duties and responsibilities as godparents.

15. Both types of respondents are aware of the parish to which they belong and the awareness of the affairs and activities in their parish. However, a significant number of student-respondents are not aware of their parish ongoing activities.

16. Both the teacher and student-respondents are seldom involved in parish activities either as an officer or member of the Parish Pastoral Council, nor in other programs such as Liturgy/Worship, Education etc.

MAKA-TAO

1. Majority of the respondents share their material blessings by donating money, goods/grocery items, clothing, etc. to victims of typhoon and other calamities and disasters, by lending money, practice of almsgiving, and listening to people who seek for spiritual and emotional guidance.

2. More than 60% of the teacher-respondents sponsor or assist in the education of their siblings, nephews and nieces and other relatives. Furthermore it was revealed that the teacher-respondents are more sympathetic to the needs of the sorrowing and the afflicted (i.e., burial assistance, etc.)

3. Both student and teacher-respondents maintain good socio-spiritual relationship with people surrounding them either at home, in school or anywhere.

4. Both types of respondents have truly imbibed the value of generosity of their founder Fr. Louis Chauvet and that they are strongly *maka-tao.*

MAKABAYAN

1. Both types of respondents have a strong and healthy relationship with the society.

2. It is clearly indicated that both types of respondents are *maka-bayan.*

3. Both types of respondents have the tendency to agree to and accept capital punishment as the best means to eradicate the commission of crimes.

MAKAKALIKASAN

1. Teacher-Respondents are truly *maka – kalikasan.* The student-respondents also demonstrate a high degree of love and respect for nature and the environment.

2. Almost all of the indicated duties and responsibilities were "always" observed and implemented by the teacher-Respondents with the exception of "participation in the resolution of local and national issues and problems" and "purchase of Philippine-made products" and always" feel proud of being a Filipino and use the national language as well as their dialect.

3. The student-respondents also demonstrate a high degree of love and respect for nature and mother earth as indicated in the "very satisfactory" rating they gave themselves in their adherence/ compliance with/ participation in most of the indicators of their value of nature/ mother earth/ natural environment.

MAKABUHAY

1. Both types of respondents put a high regard/value to life. For acts/practices that are detrimental to life - abortion, smoking, drinking liquor, they either "never" or "seldom" indulged in them. While, for those acts that promote and preserve life, they either "often" or "always" indulge/implement/practice them, like, having enough rest and sleep, having adequate leisure and relaxation and eating nutritious food. This is also revealed in the high general rating of "excellent" that the teacher-respondents and "very satisfactory" that the student-respondents gave themselves on the value of life. It was shown that both types of respondents have the tendency to agree to and accept capital punishment as the best means to eradicate the commission of crimes.

2. Teacher-Respondents are truly *maka – kalikasan* since they gave themselves a high rating of either "excellent or "very satisfactory" for their adherence/ compliance with/ participation in all the indicators of their value of nature/ mother earth/ natural environment, except for the last indicator - attending seminars on preservation of mother earth/ natural resources and the like, for which they rated themselves only "satisfactory".

Conclusions

Based on the findings of the study, the following conclusions are derived.

SPUP which has a pool of educators and students that is highly female dominated are:

1.   generally grateful people praying to God because of the graces and blessing received from God;

2.   deeply Marian but give less importance for the Sacred Heart of Jesus.

3.   lovers of the Eucharist but their observance to their Sunday obligation and hearing mass is not so strong;

4.   are sacramentalized but are not truly evangelized;

5.   generous people;

6.   caring especially for the sick, the bereaved, the poor and underprivileged and their relatives.

Recommendations

In the light of the findings drawn and the conclusions arrived at, the following recommendations are forwarded:

1.   Find out students who are not yet familiar in reciting/praying the rosary and they must be given attention especially by Religious Education Teachers.

2.   There is a need to strengthen and deepen students' understanding of prayer to balance their life of prayer. There are two types of prayer; these are both personal and communal. Thus, the students must be aware of the importance of personal prayer for as Catholics this is necessary to strengthen ones personal life with God.

3.   Both teachers and students must be given a pre-sacramental catechesis especially the sacraments of Confession for them to approach this regularly and Eucharist which is the highest form of worship to nourish themselves spiritually.

4.   Teachers must be given an orientation for them to understand certain devotion to saints as something that can help deepen and strengthen their spiritual life.

5. SPUP must initiate and extend its services by making a survey of those employees whose children are not yet baptized and confirmed and help these children receive such sacrament.

6. Parish awareness program must be strengthened by the school.

7. Seminars on preservation of mother earth/ natural resources and the like must be initiated.

8. Seminars, symposia and lectures on the inviolability and dignity of human life must be organized to change ones attitude towards oneself, others and the life of the criminal.

9. St. Paul University Philippines' quest for excellence and quality as an institution must not only be focused on the academic aspect of the Paulinians' lives. Equally important is the holistic Catholic Christian formation of the entire Paulinian community. Paulinian education should commit itself to the realization of its vision-mission. Part of this vision is to form persons who are pro-God (maka-Diyos), respectful of the dignity of the human person (makatao), pro-life (makabuhay), patriotic (makabayan) and protective of environment (maka-kalikasan). Thus to be true, genuine and authentic Paulinians one ought not only be an expert of his own field of study but also should focus on the development of his entire being which goes along with a sense of God which will eventually develop his mature, professional and responsible attitude towards others and his environment.

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PROPOSED BLENDED LEARNING MODEL FOR DON MARIANO MARCOS MEMORIAL STATE UNIVERSITY SOUTH LA UNION CAMPUS (DMMMSU-SLUC)

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ABSTRACT

The study showed the contributions of the developed content management system (CMS) using DRUPAL in a blended mode approach in the delivery of instruction. The proposed model can be used as a guideline for the implementation of Blended Learning (BL) for schools that wish to experiment on it.

Professional Ethics in IT was delivered using blended learning uploaded to a webhost. A total of 80 BSCS students comprised the subjects in the control and experimental groups. The subjects in the control group were taught using the traditional face-to-face instruction while the experimental group utilized the BL approach. A teacher-made test was used as post test. The final mean grade of the subjects in the experimental group is higher than that of the control group indicating that the subjects in the experimental group learned more. The study, too, revealed that the institution is not ready for the BL approach while the faculty members and students are ready for the blended learning approach.

The cost effectiveness for the BL approach increased from -28% during the first semester of first year of implementation to 70% during the 5th year of implementation. The proposed model developed by the researcher has three major components. These components affect the implementation of blended learning approach which includes the students, faculty and the institution. The model addressed issues like the need to determine if the students, faculty and the institution are ready for a blended learning approach. It defined the roles of these components in the preparation, implementation and evaluation stages. The three components should be unified to support the implementation of BL to be successful.

Keywords: *Blended Learning Approach, DRUPAL, Content Management System*

Introduction

Blended learning (BL) is gaining acceptance and being adopted at college campuses throughout the US (Bonk & Graham, 2005; Allen & Seaman, 2004) and it has also become an emerging strategy in the Philippine Education System (Refre, 2012; Arimbuyutan, 2007). Because of the vast number of emerging technologies, students' eagerness demands its inclusion in the teaching and learning strategies of colleges or institutes. It has to be an integral part of the current curriculum of the school system.

The researcher thought of developing this study because he believes that, with the advent of technology, computers should be taken as an aid to learning. Students become very proud of their work by using technology in their education. This endeavor can be shared with other students, parents, and the public. Likewise it can increase students' motivation. With the modernization of the educational system, the researcher saw this as a concern of Don Mariano Marcos Memorial State University – South La Union Campus (DMMMSU-SLUC), particularly the College of Computer Science (CCS). Thus, the campus and the CCS joined efforts to fulfill the directives to provide students with knowledge and skills they need. Computer courses in the University are of great importance for nation's development.

One important IT subject is Professional Ethics. Professional Ethics in IT is a 3-unit major subject equivalent to 3 hours lecture a week. Currently, this subject is taught using the traditional method of teaching. Responding to the provision of RA No. 7722 otherwise known as the "Higher Education Act of 1994" to keep pace with the demands of global competitiveness for ITE (CHED MEMORANDUM ORDER (CMO) NO. 53; Series of 2006) , the researcher developed and designed a blended mode approach of teaching at DMMMSU-SLUC. The researcher used DRUPAL as the CMS. The proposed program/model will help faculty members design their strategy in delivering their pedagogies regardless of the CMS which they will be using. It is within this context that the present study was conceptualized to propose a blended learning program for DMMMSU-SLUC.

Statement of the Problem

This study sought to propose a Blended Learning Program for Don Mariano Marcos Memorial State University – South La Union Campus (DMMMSU-SLUC).

Specifically, it sought answers to the following problems:

1. What is the extent of readiness of the university, faculty and students for blended learning?

2. How is the blended learning approach developed?

3. What are the features of the blended learning approach?

4. How effective is the blended learning approach?

5. What are the problems, issues and challenges encountered by the students using this approach?

6. How cost effective is the blended learning approach?

7. What model can be proposed for the blended learning approach for DMMMSU-SLUC?

Method

The study used the Pretest - Posttest Experimental Group Design or Posttest Only Control Group Design. It involved the following steps: (1) random assignment of subjects to experimental and control groups. The researcher determined as to who will be the experimental and control group by flipping a coin. (2) administration of the treatment to the experimental group but not in the control group, and (3) administration of a posttest to both groups (Borg and Gal, 1979).

Two groups of third year BS Computer Science students served as the subjects of the study. The two groups were carefully matched according to their grade point average (GPA) in their subjects during their first and second years in college. Their subjects include General Education Courses, Basic Core Courses, Professional Courses, CS electives and free elective courses. The grouping was done using fishbowl technique. The grouping was observed during the enrolment and was used as basis for the students' section during the first semester of school year 2012-2013. The researcher randomly identified the section that was to be assigned to the experimental treatment through the flipping of a coin.

The experimental group was oriented on how to use the CMS. during the initial meeting, the researcher discussed policies and disseminated instructions on how to use the Content Management System using DRUPAL. Class cards were collected as a control mechanism in order to determine

students who were enrolled in the class. Then, email addresses were submitted as a means of enrolling the students in the BL approach. Passwords and user accounts were sent through their email. The accounts sent were used as login information to the CMS. Students in the experimental group followed a schedule for online and Face-to-face (F2F) sessions. During online sessions, the students used their account name and password to log in into the CMS. He will then proceed to the course learning section and read the lessons, view video clips, perform tasks and answer questions as required in the learning tasks. He is also required to contribute ideas, suggestions, comments, and clarifications using his blog posts. At any session during the online mode, the student can explore different sections of the CMS. Assignments are posted at the Calendar Section so that students will have uniformity in locating assignments posted.

During the online sessions, students can direct questions to a specific student regarding some clarifications to a topic/s that was already discussed. Any student can reply to the query. This will allow the CMS to encourage exchange of views or ideas. Moreover, F2F interaction was also required in the experimental group. During this session, concerns, queries or problems regarding the lessons were tackled. It was also during this time that examinations were conducted. The researcher only conducted exams/quizzes during F2F sessions to prevent cheating among students. The researcher who was also the assigned instructor in the course determined the number of F2F sessions. The number of F2F sessions can vary according to the need of the instructor or students in resolving some concerns, issues or supplemental topics that were not discussed during the online session.

Due to the absence of an internet connection in the laboratory, the students are required to take their online session at any internet café or in the convenience of their home. On the other hand students assigned to the control group underwent class discussions on lecture rooms. The researcher made sure that the rooms were very conducive to learning and the students were comfortable in it. At the start of the lecture, the teacher reviewed the topics previously discussed, presented the lessons and gave assignments and activities based from the syllabus.

The experimental group was properly oriented on how to use the developed CMS-based instructional materials and its importance in their studies. Activities, Assignments and learning tasks were parallel to the two groups. The blended learning approach more or less was scheduled for 46

hours for dedicated online learning and 24/7 for those with internet access at home and more or less 8 hours of face-to-face session during the duration of the experiment. The experimental treatment started from June 11, 2012 until October 2012 which was a full term. For this reason, the posttest served as their final examination for the course.

Results and Discussions

The analysis of the results of the survey questionnaire with regards to the readiness of the Institution to blended approach is categorized into seven: Administrative Applications, Educational Technology, Student Services, Strategic Planning and Leadership, Teaching and Learning, Pedagogical Practices, ICT Status and Physical Facilities.

Based on the results, the institution is not ready for blended learning approach with an average mean of 2.50 with a descriptive equivalence of "insufficient". The analysis of the results of the survey questionnaire on the readiness of the faculty members for blended approach is categorized into six: Length of Service, Organization and Time Management (category mean = 3.11), Communicating Online (category mean = 3.36), Teaching and Online Experience (category mean = 2.54), Technical Skills (average category mean = 3.41), and Process Integration (category mean = 4.38). Overall results show that the faculty members are ready for blended learning approach.

As to the readiness of students to BL approach, results showed that students are ready for BL approach as evidenced by the following indicators with their respective category mean: a) technology and ownership (category mean = 2.97) with a descriptive equivalent of "Occasionally"; b)Preferences and Perceptions of Educational Technology (category mean = 3.04) with a descriptive equivalent of "neutral"; c) Usefulness (category mean = 4.36) with a descriptive rating of "very useful"; d) Experience with Computers (category mean = 3.37) equivalent to "Occasionally"; e) What do they think of computers (category mean = 3.47) rated as "agree"; f)Self-Direction (category mean = 3.89) with a descriptive equivalence of "agree"; and g) study habits (category mean = 3.73) with a descriptive equivalence of "agree".

The Blended Learning approach was developed with the aid of the ADDIE model with some revisions due to the inclusion of the learner's interaction in each phase. The model includes the analysis phase, design phase, development phase, and implementation phase.

The CMS has 3 types of users: the administrator, the teacher, and the student. The administrator controls all the activities of the site. The administrator can manage different aspects of the content published on the site. The teacher who is assigned by the administrator manages the content in terms of the learning environment and learning course. He is responsible for posting discussions, assignments, lectures, or any learning activities. The students take the LMS and interact with the teacher in the discussion using the different features of the LMS.

The features of DRUPAL includes: assignment calendar, chat messages, course learning, course syllabus, students' blog, teachers' blog, video conferences, recent posts and create contents. As to the effectiveness of the Blended Learning approach, the results of the post test show no significant difference, therefore, learning is as effective as traditional approach. However, the researcher made use of the final rating as a means of measuring the effectiveness of the blended approach.

The results of the analysis of the final grades of the Experimental and Control groups using the mean grade are higher than that of the control groups. This indicates that they have learned more. The results further strengthen the effects of the BL with a computed F value of 0.014 at 0.05 level of significance indicating that the Final grades of the students in the experimental group are significantly higher than the mean final grades of the control group. This implies that the BL approach is effective compared to the traditional approach.

The proponent made a questionnaire in order to determine the problems, issues and challenges they encountered during the implementation of the blended learning course. He counted the frequency of each of the problems encountered by the students in taking BL approach. Based on the results, the highest frequency referred to as "the need to have more face-to-face meetings" got the highest concern among the students. Moreover, students do not have sufficient money to rent computers with internet connection or no access in the internet which made them prefer more or less the traditional mode than the BL approach. The need to a more detailed explanation of lessons was also noted in the table. Some minor concerns were attributed to the features of the CMS like chat tools, assignment notifications, unfamiliar features, passing assignments, threads,

Good points were also tallied and based from the results, the ability to post and share topics online was the highest good point by the students. Students thought it was fun for the BL approach. They were able to

maximize the use of technology in their coursework, they were updated with current trends and laws. They were able to spare time to do more activities in their other subject because they can access their CMS anytime of the day.

The comparative cost analysis of the traditional approach and blended learning approach in 5-year Implementation based on a two-classroom unit of measurement revealed that the cost effectiveness in the first year of implementation is greater in the BL approach than in the traditional approach. This is because of the initial investment in the preparation of BL approach like trainings for faculty members, internet subscription, honorarium of faculty members, electric consumption and depreciation cost. However, it can be noted also that the cost effectiveness of the BL approach increases in the succeeding years of implementation from -28% during the first semester of first year of implementation to 70% during the 5th year of implementation.

The proposed model developed by the researcher has three major components. These components affect the implementation of blended learning approach at DMMMSU-SLUC which includes the students, faculty and the institution (Administration). These are the key players that make its implementation successful. The willingness to migrate from a brick and mortar session to a blended mode solely depends on the support and unified interaction among these components. It is within this purview that this model was developed.

Conclusions

Based on the results of the study, it was found out that all courses offered at DMMMSU-SLUC are using traditional approach. The institution needs attention on the implementation of BL. The bulk of requirements needed to implement BL make the institution not ready with its implementation. But, the willingness of the administrators to comply with the requirements like technology, infrastructure and student support in implementing BL plus their belief that technology is indeed a component of learning help the researcher develop a model for DMMMSU-SLUC.

Students are ready to take blended approach because of their familiarity with the different technologies. Though slight apprehensions are apparent due to financial concerns as students are unable to pay rents from internet cafes because of the absence of internet connection in the school, faculty members are also ready in terms of shifting their teaching strategies to a blended approach. Most of them do not have any experience in online

learning or online teaching however, they are willing to attend trainings and programs related to online or blended learning.

Learning is also evident in the experimental group because of the significant difference in their mean grade compared to control groups. Issues and concerns were also manifested during the implementation of the BL because there were issues that need to be acknowledged like the need to have more F2F sessions, absence of internet connections, dedicated laboratory rooms, high cost of rents, unable to understand topics/lessons, technical problems with the use of LMS among others. These may be correlated to the anxiety experienced by students, faculty and administrators being the first time to conduct and implement BL in the school. Results for the cost effectiveness based on the study are plausible. The 5-year implementation of BL will eventually be cost effective in favor of DMMMSU-SLUC. The developed model will serve as a guide in order to implement it successfully.

Recommendations

Based on the findings, the researcher made a recommendation to the DMMMSU-SLUC as a guideline for the implementation of the BL approach:

1. The University must adopt the Blended learning approach;

2. Institution or the administrators has also a major role in the implementation of BL. This includes faculty support and student support. The campus should have a strong task force intended for BL learning. This includes the presence of Course developers, course designers, programmers as regards to BL approach. The presence of an objective Strategic Plan giving similar attention to ICT is also very important. This will enable the institution to acknowledge the issues regarding infrastructures in implementing BL;

3. Students' readiness should not only include their competency in using technologies but also consider learning styles. Because of the heterogeneity of a group, there is no single learning style best for one group;

4. Faculty members should attend trainings on BL or similar trainings. In this way the faculty members will be fully equipped with the different strategies in the implementation of BL;

5. Cost effectiveness analysis is an instrument to convince administrators to approve proposals. Therefore, a deeper study is required to capture the realization of implementing the BL. Conduct feasible studies and do surveys. Tap local government units, or private sectors to support the plan.

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AN ASSESSMENT OF THE COOPERATING SCHOOLS FOR THE BACHELOR IN ELEMENTARY EDUCATION STUDENT TEACHERS OF ST. PAUL UNIVERSITY PHILIPPINES: A POLICY STUDY

Inicia Corpuz-Bansig

Abstract

This study sought to assess the extent of effectiveness of the cooperating schools where the Bachelor of Elementary Education student teachers of St. Paul University Philippines do their practice teaching. The study hopes that with this assessment, student-teachers' strengths can be further strengthened and possible interventions be designed to address the weaknesses of the student teaching program.

The study made used of the descriptive correlational survey research design to assess, describe and analyze the data indicative of the effectiveness of the cooperating schools and to test for significant relationships that exist among selected variables. The study revealed that the cooperating schools of the BEED student teachers are highly effective with respect to the administrators' and faculty performance of the responsibilities with regard to student teaching instruction and facilities. The study recommends that faculty selection should be done strictly in terms of educational background, experiences, skills, values and character as faculty performance and attitude toward the subject affects the students' attitude and their performance as well. The degree of effectiveness of the cooperating schools is affected by the quality of teachers. Since teachers are seen as role models, the student teachers imitate and follow the professional and personal characteristics and values that they manifest or exhibit.

Introduction

Education is the solid foundation upon which the life of the individual and of the state should be built; and from this shall be erected other stable institutions. Education is to be understood as the actualization of potentiality, a means for a comprehensive empirical realization of man whose potential is experienced in others. It is also said that good education is the basic foundation of a strongly developed nation. It is a critical element in a country that endeavors to achieve a rapid take off towards progress and prosperity.

While education is a social responsibility, school learning is the responsibility of educators. The role of educators is therefore as significant as the quality of education that they are able to impart to the students. The direction towards which the present and future generations will go depends greatly on how teachers perform their respective roles both in the classroom and in the community. Classroom education cannot be fully substituted by automation. As such, the caliber of educators is highly critical.

The importance of a teacher as an architect of the future generation demands that only the best and the most intelligent and competent members of the intelligentsia be allowed to qualify for this profession. Likewise, rigorous standards for selection should be applied, with character and morals being evaluated along with professional competence.

In the Philippines, there have been many programs introduced by the government for the improvement of the quality of education both in the basic and tertiary levels. Despite this, there has been a problem on the continuous deterioration in the quality of education in our country.

In response to this problem, the Philippine Association for Teacher Education (PAFTE) on its 35th Annual Convention focused on the theme. "Asia pacific Conference on Teacher Education: Creating World Class Teachers". It aimed to discuss initiatives taken by various stakeholders of teacher education *hi* the implementation of the Commission on Higher Education Memorandum Order (CMO #30) Revised Policies and Standards for Undergraduate Teacher Education Curriculum; strengthen the linkages among teacher education institutions Department of Education, Commission on Higher Education. Professional Regulation Commission and all other agencies involved in Pre-Service Education; share best practices in

teacher education of selected countries in Asia and the Pacific, and provide the results of the 2006 Licensure Examination for Teachers to improve the Professional Board Examination. In the said conference, Dr. Allan Bernardo's talk focused on the "Teacher Education Development Project, Its implications on the Pre-Service Teacher Education Sector". The essence of his talk called for an improvement of the student teaching program with a more rigorous training of student teachers, exposure to different kinds of assessment, and the need to undertake research studies to improve the quality of education in the country.

The student teaching program of St. Paul University provides the student teachers an opportunity to actually experience the varied tasks that compose the personal and professional life of a teacher. These hands-on experiences enable them to learn through observation. participation and actual teaching. Their immersion in both private and public schools enable them to learn about the schools' operation, their mission-vision and goals, and their organization.

With the recent innovations made in the Teacher Education Curriculum, especially in the field study courses, the researcher deems it necessa1 to conduct an assessment of the extent of effectiveness of the cooperating schools where the Bachelor of Elementary Education student teachers are fielded. Through this assessment, strengths can be further enhanced and that proper interventions regarding the weaknesses of the program can he done to ensure the effectiveness and relevance of the student teaching program to the changing patterns of the teaching profession.

In view of the above observation, this study is undertaken to assess the effectiveness of the cooperating schools for the BEED student teachers of St. Paul University Philippines.

Statement of the Problem

This study aims to assess the effectiveness of the cooperating schools for Bachelor of Elementary Education student teachers of Saint Paul University Philippines.

Specifically, it sought to answer the following questions:

1. What is the institutional profile of the cooperating schools in terms of the following?

        1.1 number of faculty
        1.2 type of class

2. What is the profile of the school administrators and cooperating teachers in terms of the following variables
        2.1 age
        2.2 gender
        2.3 civil status
        2.4 highest educational attainment
        2.5 academic rank
        2.6 length of service?

3. What is the degree of effectiveness of the cooperating schools as assessed by the three groups of respondents in terms of the following:
        3.1. Faculty
            3.1.1 instructional skills/teaching methodology
            3.1.2 personal and professional qualities
        3.2 Instruction
            3.2.1 instructional facilities and equipment
            3.2.1 instructional materials
        3.3 School administrators' extent of performance of their responsibilities with regard to student teaching.
        3.4 Cooperating teachers' extent of performance of their responsibilities with regard to student teaching?

4. Is there a significant difference in the assessment of the three groups of respondents on the degree of effectiveness of the cooperating schools in terms of identified variables?

5. What is the extent of performance of the school administrators and the cooperating teachers of their responsibilities with regard to student teaching when grouped according to selected profile variables?

6. Is there a significant difference in the extent of performance of school administrators and the cooperating teachers when grouped according to the profile variables?

7. What is the student teachers' performance with respect to the following:
        7.1 on-campus training
        7.2 off-campus training?

8. Is there a significant difference in the student teachers' off-campus performance when grouped according to the institutional profile variables:
   8.1 Schools
   8.2 Type of schools

9. Is there a significant relationship between teachers' performance and the degree of effectiveness of the cooperating schools where they are respectively assigned in terms of the identified variables?

10. What are the problems/difficulties encountered by the student teachers in their student teaching?

11. What measures/activities should be undertaken to enhance the BEED Student Teaching Program?

Hypotheses

1. There is no significant difference in the assessment of the three groups of respondents on the degree of effectiveness of the cooperating schools in terms of the identified areas.

2. There is no significant difference in the extent of performance of the school administrators and cooperating teachers' of their responsibilities with regard to student teaching when grouped according to selected profile variables.

3. There is no significant difference in the student teachers' off campus performance when grouped according to the institutional profile variables of the cooperating schools where they arc assigned.

4. There is no significant difference in the student teachers' off campus performance when grouped according to the institutional profile variables.

5. There is no significant relationship between student teachers' performance and the degree of effectiveness of the cooperating schools where they are respectively assigned with respect to the identified variables.

Research Design

The researcher made use of the descriptive correlational survey method. Sevilia (1992) explained that the descriptive correlational survey method is designed to determine the extent to which different variables are related to each other in the population of interest. The critical distinguishing Characteristic is the effort to estimate a relationship, as distinguished from simple description. Through this, one can ascertain how much variation is caused by one variable in relation with the variation caused by another variable.

This study endeavors to gather, assess, describe and analyze the data indicative of the effectiveness of the cooperating schools of the Bachelor of Elementary Education Student-Teachers of St. Paul University Philippines and to determine significant relationships that exist among selected variables.

Summary of Findings

After a careful analysis of the data, the most significant findings are summarized as follows based on the problems.

    1. Institutional Profile of Cooperating Schools

        1.1   Number of Faculty

              The cooperating schools have almost the same number of faculty with 62 faculty members as the lowest and 82 as the highest.

        1.2   Type of Class

              Tuguegarao East Central School and Tuguegarao North Central School are composed of SPED and regular sections while Tuguegarao West Central School consists of School of the future (SOF) and regular sections.

    2. Profile of Administrators and Cooperating Teachers

        2.1   Age

              The ages of the administrators of the cooperating schools range from 40-49 and 60

and above. Majority of the cooperating teachers or 5 9.62% belong to age range 50 and above and 3 or 5.77% are young who belong to 20-29 are range.

2.2   Gender

There is only one or 33.33% male administrator and then are two or 66.67% female administrators. There are 6 or 11.54% male and 46 or 88.46% female cooperating teachers. This clearly indicates that majority of the cooperating teachers are female.

2.3   Civil Status

All or 100 % of the administrators are married, and majority of the cooperating teachers are also married.

2.4   Highest Educational Attainment

Among the administrators, 66.67% are with Ph. D. Units and 1 or 33.33% is a Master's degree holder. There is only 1 or 1.92% with Ph.D. units among the Cooperating teachers. Ten of them or 19.23% are Master's degree holders. Majority or 51.92% are with M.A. units, and 14 or 26.92% are Bachelor's degree holders. Majority or 73.07% of the cooperating have finished at least some MA units. This speaks of their desire for professional growth and in upgrading their competencies.

2.5   Academic Rank

One hundred percent (100%) of the administrators are ranked Principal Ill. For the Cooperating teachers, majority or *51.92%* belong to the Teacher III category, while only 1 or 1 .92% belongs to the highest academic rank which is the Master Teacher III category. Majority or *75%* of the cooperating teachers are in the Teacher

Position Category while only *25%* belong to the Master Teacher Category.

2.6   Length of Service

All the three principals have been in the Service for more than 21 years now. Among the cooperating teachers, majority or 53.85% have been in the service for 21 years and above, while only 1 or 1.92% o has served for at most 5 years. Majority of the cooperating teachers are experienced teachers, hence they are more effective and competent in terms of the performance of their teaching asks.

3. Respondents' Assessment of the Degree of Effectiveness of the Cooperating ,Schools in Terms of the Identified Areas.

3.1 Faculty

3.1.1   Instructional Skills/Teachers Methodology

The overall mean of 4.36 as assessed by the three groups of respondents reveals that the cooperating schools have demonstrated a very high degree of effectiveness in terms of teachers' instructional skills/teaching strategies.

3.1.2   Personal and Professional Qualities of Teachers

There is a very high degree of effectiveness of the cooperating schools in terms of the teachers' personal and professional qualities as evidenced by the overall mean of 4.53 which means that the personal and professional qualities have always been manifested by the cooperating teachers.

The three groups of respondents assessed the cooperating teachers as always manifesting the expected personal and professional qualities expected of efficient and effective teachers

which are a plus factor in the effective delivery of instruction and in mentoring student teacher.

3.2 Instruction

    3.2.1   Instructional Facilities and Equipment.

        Generally the three groups of respondents assessed the instructional facilities and equipment as highly adequate with a mean of 3.50. This is a manifestation of the cooperating schools' desire to provide the necessary facilities and equipment that help enhance the learning process.

    3.2.2   Instructional Materials.

        The overall weighted mean of 3.54 shows that the instructional materials are highly adequate.

3.3 School Administrators' Extent of Performance of Their Responsibilities With Regard to Student Teaching.

    The overall mean of 4.36 indicates that the principals have efficiently and effectively performed their responsibilities with regard to student teaching.

3.4. Cooperating Teachers' Extent of Performance of Their Responsibilities With Regard to Student Teaching.

    The overall mean of 4.46 interpreted as very great extent of performance on the pail of the cooperating teachers implies the very strong concern and support of the cooperating teachers towards the student teachers in terms of providing them with meaningful experiences and skills necessary in performing their role as future teachers.

4. Significant Differences in the Assessment of the Three Groups of Respondents.

There are no significant differences in the assessment of the three groups of respondents on the degree of effectiveness of cooperating schools in terms of the variables, personal and professional qualities, administrators' extent of performance and cooperating teachers' extent of performance.

5. Administrators and Cooperating Teachers' Extent of Performance of Their Responsibilities With Regard to Student Teaching.

5.1. Administration

5.1.1 Administrators' Extent of Performance With Respect to Age

The principals with age 50 and above were assessed as having performed their responsibilities with regard to student teaching to a very great extent with a mean of 4.34, while the principal whose age is from the range 40-49 was assessed to have performed her responsibilities with regard to student teaching to a great extent as shown by the mean of 3.80.

5.1.2 Administrators' Extent of Performance With Respect to Gender.

The male administrator manifested his responsibilities in terms of student teaching to a very great extent as evidenced by the mean of 4.41, while the female administrators were assessed to have demonstrated their responsibilities with respect to student teaching to a great extent with a mean of 4.07. It further shows that the male administrator was rated higher than the other two female administrators with a mean of 4.41.

5.1.3 Administrators' Extent of Performance With Regard to Highest Educational Attainment.

The administrators with Ph.D. units were assessed to have demonstrated their responsibilities with regard to student teaching to a very great extent with a mean of 4.64 The Master of Arts in Education graduate was assessed to have manifested her responsibilities to a great extent with mean of 4.14.

5.2. Cooperating Teachers' Extent of Performance When Grouped According to the Profile Variables With Respect to Age.

5.2.1 With Respect to Age

The cooperating teachers in all age levels were assessed to have demonstrated their responsibilities with regard to student teaching to a very great extent.

5.2.2 With Respect to Gender

The extent of performance of their responsibilities in relation to student teaching of both the male and female respondents is found to be very great.

However, on the basis of the overall means, the female cooperating teachers were rated higher than the male as indicated by the computed means of 4.58 for the female and 4.38 for the male.

5.2.3 With Respect to Civil Status.

The single cooperating teachers' extent of performance of their responsibilities in terms of student teaching was assessed as very great in all the items. This is indicated in the overall mean of 4.57. The married respondents likewise were assessed as having performed their responsibilities to a very great extent in all the items.

5.2.4 With Respect to Highest Educational Attainment

Cooperating teachers with Ph.D units were assessed to have performed their responsibilities with regard to student teaching to a very great extent with a mean of 3.92. On the other hand, the cooperating teachers with Master's degree with Master's units and with Bachelors degree are assessed to have performed their responsibilities with regard to student teaching to a very great extent with a mean of 4.76, 4.49 and 4.44 respectively.

The over all means show that the cooperating teachers generally performed their duties and responsibilities relative to student teaching to a very great extent.

5.2.5 With Respect to Academic Rank.

All the cooperating teachers were assessed to have extended their responsibilities with regard to student teaching to a very great extent as reflected in the means of 4.73, 4.51, 4.43, 4.34 and 4.92. However, the cooperating teachers with the highest rank (Master Teacher 3) were rated the highest with a mean of 4.92, followed by the teachers with the lowest rank, teacher 1 with a mean of 4.73. This implies that the cooperating teachers who belong to the Master Teacher 3 performed their responsibilities with regard to student teaching to a greater extent than the rest of the cooperating teachers.

5.2.6 With Respect to Length of Service

All the cooperating teachers performed their responsibilities related to student teaching to a very great extent as indicated by the over all means of 4.37 for the 21 years and above. 4.79 for 16-20 years, 4.48 for 11-15 years, 4.44 for 6-10 years and 4.64 for 1-5 years. However, it has been observed that among the cooperating teachers, those who belong to age range 16-20 years were rated the highest.

6. Significant Differences in the Extent of Performance of Administrators and Cooperating Teachers With Regard to Students Teaching When Grouped According to Selected Profile Variables

   a. Significant Differences in the Administrators' Extent of Performance en Grouped According to Profile Variables.

      There exist significant differences in the school administrators' extent of performance when grouped according to age and gender.

   b. Significant Differences in the Cooperating Teachers' Extent of Performance When Grouped According to Profile Variables.

      Significant differences exist in the cooperating teachers' extent of performance when grouped according to gender, civil status, highest educational attainment, academic rank and length of service. On the other hand, there is no significant difference in the cooperating teachers' extent of performance with respect to age.

7. Student Teachers' Performance

   Majority or 73.21% had a very satisfactory on- campus performance while the rest had satisfactory performance. On the average, the student teachers performed very satisfactorily as indicated by their average grade.

8. Student Teachers' Off-Campus Performance When Grouped According to the Institutional Profile Variables

   8.1 With Respect to School Assignment

      Generally, the averages of 88.44, 87.70 and 88.44 in the three cooperating schools show that the student teachers' off- campus performance was very satisfactory.

8.2 With Respect to School Classes

The student teachers assigned in the SOF classes had a mean of 89.60°/o. SPED classes, 89.22%. and regular sections. 87.31 %.

9. Significant Relationship Between Student Teachers Off-Campus Performance and the Degree of Effectiveness of Cooperating Schools in Terms of Identified Variables

There are no significant relationships that exist between student teachers' off-campus performance and the degree of effectiveness of the cooperating schools in terms of the identified variables except on the teachers' personal and professional qualities.

10. Problems Encountered by the Student Teachers in Their Student Teaching

The following problems were considered serious: choosing/preparing appropriate instructional materials, selecting appropriate strategies/ activities, organizing the term presentation, preparing audio-visual materials, maintaining students' interest in the lesson, doing item analysis, computing grades, teaching schedule and teaching assignment. All the other items were considered as moderately serious except on the item, classroom management, which they found to be very serious with a mean of 4.38.

Conclusions

On the basis of the findings of the study, the researcher arrived at the following conclusions:

The cooperating schools of the BEED student teachers are highly effective in terms of the administrators' and faculty performance of the responsibilities with regard to student teaching instruction and facilities.

The high performance of the student teachers teaching in the special sections like the SOP and SPED may be influenced by the quality of teachers and students belonging to those sections. This is supported by the study of

Atanacio (2000) wherein she concluded that faculty performance and attitude toward the subject affects the students' attitude and their performance therefore, the selection of faculty should be strict in terms of educational background, experiences, skills, values and character.

The quality of teachers tends to affect the degree of effectiveness of the cooperating schools. Since the teachers are considered role models, the student teachers emulate from them the professional and personal characteristics which they exhibit.

Recommendations

1. The administrators and cooperating teachers should maintain a sound working relationship and partnership with the student teacher supervisor and should continue doing their responsibilities in student teaching to ensure better student teachers' performance in their student teaching.

2. Topics on classroom management and maintaining students' interest in the lesson should be ed en emphasis to student teachers in their early college year's in order to effect better teaching-learning.

3. Professional education teachers as well as those handling technology courses should provide more hands-on experiences in the choice, preparation, evaluation and utilization of instructional materials.

4. The proposed Student Teaching Program prepared as an output in this study should be implemented and the administrators should support its implementation.

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KNOWLEDGE AND UTILIZATION OF FREE OPEN SOURCE SOFTWARE AMONG INFORMATION TECHNOLOGY EDUCATORS IN REGION 02: PROPOSED FREE OPEN SOURCE SOFTWARE TRAINING PROGRAM

Maria Visitacion N. Gumabay

ABSTRACT

This descriptive study aimed to assess the extent of knowledge and utilization on free open source software (FOSS) among the IT Educators of Region 02. The researcher used a questionnaire to gather the needed data supplemented by an informal interview to elicit the schools' best practices and IT administrators' support mechanisms on teachers' use of FOSS. Data obtained were analyzed using descriptive and inferential statistics and the results served as bases for the design of a Proposed Training Program for Teachers on the Use of Open Source Software.

The study revealed the following results: 1) IT educators using FOSS perceived that teaching IT subjects becomes more interesting for students and learning is better enhanced. 2) IT educators either from CHED recognized Centers of Development for IT Education or Autonomous institutions are more knowledgeable or more frequent users of FOSS 3) IT educators possess inadequate knowledge and erroneous notions about FOSS.

Keywords: free open source software, IT education, software, IT instruction

Introduction

The rapid advances in information technology (IT) has immensely affected and altered the educational landscape. Learners as well as educators have greatly utilized the innovations in information technology to significantly enhance the teaching and learning process. With IT infrastructures permeating all facets of education, learning is no longer confined within the four walls of the classroom but it now has gone beyond it making access to education possibly borderless.

Teachers from basic to post graduate education are pushed against the wall to keep themselves abreast with the fast pace of technological advancements. They simply can no longer afford to provide their learners with conventional teaching strategies using the chalk-talk or the boring classroom lecture approach but they are now compelled to employ varied educational technologies to prepare their students to the demands and needs of the 21st century learning skills. Teachers now are then motivated to attend faculty development trainings that will primarily enable them to effectively use more advanced educational technologies such as desktop computers, laptops, netbooks, ipods and a lot more to strengthen students' participation and learning engagement.

With the use of advanced educational technologies, a significant number of educators now teach students virtually using available learning management system (LMS) platforms and software. Most LMS platforms and software are though expensive to maintain for both school administrators and teachers delivering their instruction using them. However, some of these are readily available and are free of use without the teacher and the school administrators to worry over license and copyright infringement. These are called sharewares or more commonly called as free and open source software (FOSS). A good example of this is the Moodle, a learning management system platform or a virtual learning environment (VLE). As of October 2010, Moodle had a user base of 49,952 registered and verified sites, serving 37 million users in 3.7 million courses (http://en.wikipedia.org/wiki/Moodle Accessed October 31, 2011) used by educators all over the world.

The emergence of FOSS in the World Wide Web had dramatically helped millions of educators worldwide in reducing the cost of teaching and learning. A lot of open source software are readily accessible in certain websites that advocate the principle of sharing and collaboration.

Sourceforge.net is an example of a site that offers a myriad of open source software that can be used freely by anyone not only in the area of education but in other disciples as well such as business enterprise, science and engineering, games, graphics and a lot more.

With FOSS, a lot of educators in higher education institutions (HEIs) particularly those offering information communications technology related courses are immensely benefited. This is so because open-source software, being free, can now be used by IT educators and practitioners in the practice of their profession without having to worry on spending on high cost of licensing and maintenance. IT educators and students can now freely access the source codes of a lot of open-source software and improve and customized them according to their intended needs.

The emergence of FOSS is however relatively new. The researcher believes that only a few IT practitioners and educators utilized available open-source software either because of the interplay of a lot of factors and reasons. Some think many open-source software are unreliable and not user-friendly. Others suspect that they are prone to virus attack and thus belittle their quality. The researcher believes that FOSS are under-utilized. It is in this light that the researcher intends to find out the extent to which open-source software are used by IT educators in Region 02 as well as to assess their knowledge of it and the problems that they have encountered with the use of open-source software.

Statement of the Problem

The study aimed to assess the extent of knowledge and the use of open source software among the IT Educators in Region 02.

Specifically it sought to answer the following:

1.   What is the profile of the higher education institution in terms of:
      1.1 Type of Institution,
      1.2 CHED recognition as COD/Autonomous and
      1.3 Years of operation of the IT program?

2.   What is the profile of the respondents in terms of the following:
      2.1 Nature of work,
      2.2 Gender,
      2.3 Age,
      2.4 Highest educational attainment and
      2.5 Number of years as IT educator/administrator?

3. What is the respondents' extent of use of the open source software in their professional practice as IT educators?

4. To what extent do the IT administrator respondents support the use of FOSS by their teachers in their institution?

5. Is there a significant difference on the respondents' extent of use of the open source software in their professional practice as IT educators when grouped according to profile variables?

6. Is there a significant difference on the school's extent of use of the open source software when grouped according to institutional profile?

7. What are the respondent's ideas and beliefs regarding free open source software?

8. What is the respondent's level of knowledge about free open source software classification?

9. Is there a significant difference on the respondents' level of knowledge about open source software classification when they are grouped according to profile variables?

10. What enhancement program can be developed to strengthen the IT educators' knowledge and extent of use of open source software in their professional practice?

Methods

Research Design

This study made used of the descriptive survey to assess, describe and compare the respondents' extent of use, ideas and beliefs, knowledge level on open source software.

Respondents of the Study

The IT educators in the different Higher Education Institutions in Region 02 are the respondents of the study.

Table A shows the frequency and percentage distribution of the respondents from the different HEIs of Region 02.

Table A

Frequency and Percentage distribution of Respondents According to Higher Education Institution Employees

Name of Institution	Frequency	Percentage
Aldersgate College	10	5.43
AMA Computer College Santiago	3	1.63
AMA Computer College Tuguegarao	6	3.26
Batanes State College	1	.54
Cagayan State University - Aparri	6	3.26
Cagayan State University – Piat	2	1.09
Cagayan State University Carig	17	9.24
Cagayan State University Sanchez Mira	9	4.89
Cagayan valley Computer & Info Tech College	3	1.63
Florencio L. Vargas College	7	3.80
HGB College	3	1.63
International School of Asia and the Pacific	5	2.72
Isabela State University - Ilagan	12	6.52
Isabela State University Cauayan	16	8.70
Isabela State University Echague	3	1.63
Lyceum of Aparri	3	1.63
Northeastern College	4	2.17
Nueva Vizcaya State University	9	4.89
Patria Sable Corpus College	3	1.63
PLT College Nueva Vizcaya	6	3.26
Quirino Polytechnic College	4	2.17
Saint Ferdinand College	5	2.72
Saint Joseph College – Baggao	2	1.09
Saint Mary's University	8	4.35
St. Paul University Philippines	6	3.26
STI College Santiago	6	3.26
University of Cagayan Valley	6	3.26
University of La Salette	6	3.26
University of Perpetual Help	4	2.17
University of St. Louis	9	4.89
Total	184	100.00

Instrumentation

The researcher made use of a researcher-prepared questionnaire to gather the needed data. It is a questionnaire composed of 4 parts. Part I covers the profile of the institution, Part II on respondents' profile, Part III on knowledge and use of open source software, Part IV on ideas and beliefs on Free Open Source Software.

The questionnaire was tried out and was subjected to validation procedure to ensure its validity and reliability.

To supplement the data gathered for the questionnaire, an informal interview was also done to elicit best practices on the use of FOSS and support by IT administrators for its use by their teachers.

Data Gathering Procedure

The data collection involves the floating of questionnaires. The researcher sought permission and approval from the different HEI administrators in Region 02 through personal delivery of the letter of permission for the conduct of the study.

After approval to conduct the study was obtained, the researcher personally administered the research instruments to the different IT educators who were chosen as respondents of this study in order to answer questions and address clarifications regarding the questionnaire in case there are.

The researcher also employed the use of informal interview to supplement and cross validate the respondents' answers to the questionnaire and derive other data focusing on best practices and FOSS support by the administrators.

After all questionnaires are retrieved from the respondents, the data was electronically tallied and analyzed using SPSS, a data analysis software.

Data Analysis

The following statistical tools were employed in the treatment of the data.

1. **Frequency and percentage.** This was used to obtain the respondents' profile and respondents' ideas and beliefs on open source software.

2. **Mean.** This was used to obtain the respondents' extent of use on open source software. To interpret the means, the given arbitrary scale was used.

Mean Range	Verbal Interpretation
2.25 – 3.00	Always
1.50 – 2.24	Sometimes
0.75 – 1.49	Rarely
0.00 - 0.74	Never

3. **T-test for Independent Samples and One-Way Analysis of Variances (ANOVA).** These were used to test the significant difference on the respondents' extent of use and knowledge of the open source software in their professional practice as IT educators when grouped according to institutional and profile variables.

Results and Discussion

1. Institutional Profile

1.1 Type of School

Majority of the respondent-schools are private higher education institutions.

1.2 CHED Recognition

Majority of the respondent-schools are either non-CODs or non-autonomous schools.

1.3 Length of Operation

Most of the respondent-schools have been operating the Information Technology or Computer Science programs for 10 – 14 years.

2. **Profile of the Respondents**

   2.1 Nature of Work

   Majority of the respondents are fulltime classroom teachers.

   2.2 Gender

   Majority of the respondents are male.

   2.3 Age

   Most of the respondents belong to age range 21 – 25 years.

   2.4 Highest Educational Attainment

   Most of the respondents have earned units in their Master's education.

   2.5 Number of Years as IT Educator

   Most of the respondents have been in the IT profession as educator for 5 – 6 years.

3. **Respondents' Extent of Use of the Open Source Software in Their Professional Practice as IT Educators**

   Majority of the respondents use the open source software in the practice of their profession but generally use the software "rarely".

4. **IT Administrator-Respondents' Extent of Support for the Use of the Open Source Software by Their Teachers in their Institution**

   Majority of the respondents' heads of the IT program are not supportive of the use of the free and open source software by their teachers.

5. **Test for Significant Difference in the Respondents' Extent of Use of the Open Source Software in their Professional Practice as IT Educators when Grouped According to Profile Variables**

   There is no significant difference in the respondents' extent of use of the open source software when they are grouped according to:

- nature of work
- gender
- age
- highest educational attainment
- number of years as IT educator/administrator.

6. Test for Significant Difference in the Respondents' Extent of Use of the Open Source Software in their Professional Practice as IT Educators when Grouped According to Institutional Profile

There is no significant difference in the respondents' extent of use of the open source software when they are grouped according to CHED recognition as COD or autonomous institution. However, the respondents' extent of use of the open source software is significantly higher for respondents who teach in the public HEI and for respondents who teach in the institution offering the Information Technology/Computer Science program already for a longer period of time.

7. Respondents Ideas and Beliefs Regarding Open Source Software

Most of the respondents have erroneous beliefs about FOSS.

8. Respondents' Level of Knowledge about Open Source Software Classification

Majority of the respondents were able to correctly classify only about less than 5 open source software out of the 31 identified FOSS. The respondents' scores range from 0 to 17.

9. Test for Significant Difference in the Respondents' Extent of Knowledge of the Open Source Software Classification when Grouped According to Profile Variables

There is no significant difference in the respondents' extent of knowledge of the open source software when they are grouped according to:

- nature of work
- gender
- age
- highest educational attainment
- number of years as IT educator/administrator.

10. Test for Significant Difference in the Respondents' Extent of Knowledge of the Open Source Software Classification when Grouped According to Institutional Profile

There is no significant difference in the respondents' extent of knowledge of the open source software classification when they are grouped according to type of school. However, the respondents' extent of knowledge of the open source software classification is significantly higher for respondents who teach in either a COD or autonomous institutions and for respondents who teach in institutions offering the Information Technology/Computer Science program already for a longer period of time.

<u>Conclusions</u>

Based on the summary of findings, the following conclusions are arrived at:

Educators and administrators in the Information Technology or Computer Science programs in the different higher education institutions in Region 02 generally are users of the open source software in the practice of their profession. It is however sad to note that its use is not optimized considering that these software are readily available and costless. Teaching IT subjects certainly becomes more interesting for students and learning is better enhanced when high quality open source software are used to supplement the licensed software that are normally used to teach certain subjects.

The IT educators' poor knowledge about open source classification necessitates further strengthening with respect to their awareness of use. IT educators need to dispel their erroneous notions of open source software in the teaching of their subjects so they can effectively impart their knowledge about FOSS and to ensure maximum engagement of students to participate in scholarly discussions about open source software.

Educators who are connected with institutions that are recognized by CHED as Center of Development for IT Education or recognized as Autonomous institutions are either more knowledgeable with open source software or are more frequent users of FOSS. Being affiliated with prestigious institutions, they really should be the foremost advocates of

FOSS to afford their students with a wider array of learning focus and avenues.

Recommendations

In the light of the findings and the conclusions reached, the researcher hereby recommends the following:

1) That Higher Education Institutions in Region 02 offering IT curricular programs should intensify their promotions and advocacy of the use of open source software.

2) That IT educators in Region 02 should enrich their knowledge and skills in the use of open source software so they can effectively and optimally use its capabilities and unique attributes.

3) That the Commission on Higher Education through its COD and autonomously recognized HEIs conduct orientation, capability building activities and seminars and trainings on open source software as regards their capability and use in enriching classroom instruction.

4) The PSITE Region 02 in collaboration with CHED and HEIs recognized as CODs, specifically St. Paul University Philippines' School of Information Technology and Engineering implement the proposed enhancement training of this study.

5) That IT administrators of IT programs should strengthen their support for the use of open source software among their faculty and students to provide them with a wider array of options to lead and learn IT concepts and topics with greater breadth and depth.

6) That COD recognized HEIs in Region 02 be more aggressive in the use of FOSS and be the primary strong advocates of FOSS in the Region.

7) That more studies and researches focusing on the other facets of FOSS be conducted among non-IT educators and practitioners as well as students in the tertiary level.

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PARENTS' INVOLVEMENT IN ADOLESCENTS' SEXUALITY AND FERTILITY

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ABSTRACT

This study focuses on the assessment of the extent of parents' involvement in providing guidance on their adolescent children's orientation, understanding and handling of their sexual life and experiences. It also attempted to determine the extent to which identified factors influence adolescents' sexuality and fertility behavior.

The research involved both the parents and their adolescent children as respondents randomly selected from twenty-nine (29) cities and towns of the five (5) provinces in the Cagayan Valley region. It made used of two sets of questionnaire for the two types of respondents.

The study revealed that mothers generally are more involved than the fathers in providing their adolescent children with the needed guidance and direction in terms of modeling and decision making as regards sexuality and fertility behavior. Furthermore, the study revealed that parents who have attained a higher level of education, parents with higher income and with less number of children tend to have greater extent of involvement. The adolescents being within the nurturance of their natural fathers and mothers greatly influenced their experience of sexuality and fertility. Furthermore, their experience of an intact family relationship, conservative family upbringing, positive family values and spirituality (fear of God) greatly influenced their sexual experience.

Keywords: *Parents' Involvement, Adolescents' Sexuality and Fertility*

Introduction

The adolescent stage is claimed to be the "storm and stress" period of human development as it is often riddled with problems of varied types and of different magnitude. It is also a period of rapid and dramatic changes in biological, cognitive, social and psychological make up and functioning of an individual. As such, it is a time of great opportunity and potential as well as of vulnerability and risk. That is, at this stage, a lot of opportunities to maximize their potential come their way owing to their heightened interest and enthusiasm to explore and learn new things but at the same time as they can also become easy prey to the destructive effects of mishandled changes and peculiarities that characterize the adolescence stage.

Adolescence will bring to each young person unprecedented changes both physical and emotional so that one needs time to cope with a "new self" that sometimes appears almost everyday. True to this fact, adolescents tend to suffer from all kinds of normal stress which when not properly handled may lead to their self-destruction.

With these facts, families with adolescent children face the tremendous task of guiding and supporting their children to be able to handle the changes that come along with this stage. It is a natural role of parents to guide their children safely through the transition called adolescence. They should help their children become men and women who accept their sexuality, appreciate their powers of fertility and are ready to take on the responsibility of growing into adulthood. Parents are precisely the persons to whom growing children can and should go for information about all important things in life, including sexual things and by all means, parents should discuss these things openly with their children honestly and without embarrassment.

However, in a country like the Philippines where families are still predominantly conservative, topics of family discussion center mostly on something of economic importance, if not on trivial things that range from personalities to events of superficial importance. Topics about sexuality and fertility are still taboo despite the advent of modern technology and the extensive exposure of   children to media. Hence, young people are left to themselves in coping with problems relative to their sexuality and fertility without accurate information or good counsel. Consequently, many adolescents nowadays do not truly understand their sexuality and fertility. More often than not, they reduce their sexuality to genital sex which results

to a growing number of pregnancies among unmarried young women, many of whom resort to abortion, fearing inconvenience and shame. In addition, their lack of understanding of their sexuality and fertility yields several other problems like the proliferation of sexually transmitted diseases, substance abuse, and suicide among other things.

Aware of the many ways by which adolescents are misguided about their sexuality and fertility, and of parents' indispensable role in helping their children understand their fertility and appreciate their sexuality, this study sought to determine the extent of parents' involvement in the adolescents' experience of sexuality and fertility in order that proper action will be undertaken by concerned stakeholders to help minimize incidence of adolescents' problems.

Statement of the Problem

This study entitled "Parents' Involvement in the Adolescents' Sexuality and Fertility" sought to determine the extent of parents' involvement in guiding the adolescents' orientation, understanding and handling of their sexual life and experiences.

Specifically, it sought answers to the following questions:

1. What is the profile of the parent-respondents in terms of the following variables?
   1.1 age
   1.2 religion
   1.3 educational attainment
   1.4 occupation
   1.5 family monthly income
   1.6 number of children in the family
   1.7 marital status
   1.8 type of locality
   1.9 ethnic group

2. What is the profile of the adolescent-respondents in terms of the following variables?
   2.1 age
   2.2 sex
   2.3 sibling order
   2.4 religion
       2.5.1 educational status
       2.5.2 educational attainment

2.6 academic performance
2.7 monthly income
2.8 occupation
2.9 ethnic group

3. As assessed by the parent-respondents and their adolescent children, what is the extent of involvement of the parent-respondents in the adolescents' experience of sexuality and fertility in terms of the following:
    3.1 orientation
    3.2 communication
    3.3 supervision/direction
    3.4 role modeling
    3.5 decision-making

4. Is there a significant difference in the extent of the parents' involvement in the adolescents' experience of sexuality and fertility when parents are grouped according to their profile variables?

5. Is there a significant difference in the extent of involvement of the father and the mother in the adolescents' experience of sexuality and fertility?

6. Is there a significant difference in the assessment of the parent-respondents and their adolescent children on the parents' extent of involvement in the adolescents' experience of sexuality and fertility?

7. To what extent do the following family characteristics influence adolescents' sexuality and fertility?
    7.1 Parental classes
    7.2 Family interaction
    7.3 Family relationship
    7.4 Parents' manner of children upbringing
    7.5 Family values

8. As perceived by the respondents, what are the prevailing problems involving adolescents' sexuality and fertility behavior?

9. Is there a significant difference between the extent of adolescents' problems involving sexuality and fertility when

respondents are grouped according to some selected variables?

10. To what extent do the following factors affect the occurrence of the problems relative to sexuality and fertility?
    10.1 family
    10.2 peers
    10.3 school
    10.4 church
    10.5 neighborhood/larger community
    10.6 government
    10.7 media

Method

Research Design

This study used the descriptive method of research. It endeavored to gather, assess, describe and analyze the data indicative of the extent of involvement of the parents in guiding their adolescent children's experience of sexuality and fertility. It attempted to determine the extent to which identified factors influence adolescents' sexuality and fertility behavior.

Assessment of the parents and adolescents through the questionnaire and informal interviews served as bases for the descriptions.

Locale of the Study

This study was conducted in Region 02, particularly in the provinces of Batanes, Cagayan, Isabela, Quirino and Nueva Vizcaya. Each of these provinces was represented by the towns that were selected according to the sampling technique employed in the study.

Respondents

This study included respondents from the five provinces of Region 02. It required two groups, one group consisting of parents (both parents of the adolescent child as the case maybe) and their adolescent children.

The two groups of respondents were determined using the multistage sampling as described in the sampling procedure.

From the list of towns and barangays of each province, different strata from which the respondents are to be chosen, were identified.

According to Gay (1976), the minimum acceptable size for the descriptive research is 10% of the population while 20% is required for smaller population. Hence, in this study the researchers have decided to use 30% of the population in each stratum. This sample size of respondents is essential as this exceeds the 10% mark as stated by Gay and de Leon, et. al. (1978)

From the total number of towns in each of the five provinces, 30% were taken. From these towns, a number of barangays were identified such that 30% of the total number of barangays in each town was selected. From among these selected barangays, families with adolescent children were identified. From these families, 30% were taken to represent the sample to be investigated. This sample consisted of the parent- respondents (both father and mother, the single parent, adoptive parents, or guardians) and their adolescent children (one adolescent child per family).

The actual number of respondents was determined after consulting the list of towns and barangays with their corresponding population which was obtained from the DILG, Regional Office.

Table A presents the number of respondent families in the five provinces of Region 02.

Table A: Frequency and Percentage Distribution of Respondent Towns and Household Respondents Per Province

PROVINCE	Total No. of Towns/ Cities	No. of Respondent Towns/ Cities	Total No. of Households with Adolescent Children	Frequency	Percentage
Batanes	6	3	287	86	1.66
Cagayan	29	9	4,832	1447	27.88
Isabela	37	11	9,087	2726	52.51
Nueva Vizcaya	15	4	2,260	678	13.06
Quirino	6	2	847	254	4.89
Total	93	29	17,304	5191	100.00

Sampling Procedure

The study made use of the multi-stage sampling. Since the population under investigation is spread out over a wide geographical area, the population was then divided into five provinces which form the first stratum. From each province, 30% of the total number of towns was selected which form the second stratum. From each of these towns, 30% of the total number of barangays was chosen which form the third stratum. From these barangays, the families with adolescent children were identified and which form the clusters. Out of these clusters of families, 30% was taken to serve as respondents. The parent and adolescent respondents were determined using the simple random sampling technique. Both father and mother together with one adolescent child served as respondents.

The following towns/cities consisted the respondent-towns of this study in each province: Cagayan: Alcala, Amulung, Aparri, Enrile, Gonzaga, Iguig, Peñablanca, Piat, Tuguegarao City, Isabela: Cabagan, Cauayan City, Gamu, Ilagan, Mallig, Naguilian, Quezon, Roxas, San Mateo, Sta. Maria, Tumauini, Nueva Vizcaya: Bambang, Bayombong, Dupax del Norte, Solano, Quirino: Diffun, Saguday Batanes:, Basco, Mahatao, Uyugan.

Research Instruments

To gather the needed data, two (2) sets of questionnaire were utilized. Each set consisting of five parts was used by the parents and by the adolescent children. These questionnaires were constructed by the researchers based from the review of related literature and studies. These were shown to experts for comments, suggestions and for refinement. They were further tried out to a small group of adolescents and parents who were not part of the respondents of the study for ease of directions, clarity of language, and reliability of responses.

The first part is designed to gather information regarding the personal profile of the parent and adolescent respondents.

The second part consisted of items that sought to elicit the extent of involvement of the parents in the adolescents' experience of sexuality and fertility.

The third part consisted of items on the extent to which family characteristics influence adolescents' sexuality and fertility.

The fourth part dealt with the problems of adolescents relative to sexuality and fertility behavior.

The fifth part contained items on the extent to which identified factors influence adolescents' problems involving sexuality and fertility.

Collection of Data

Initially, the researchers secured the lists of towns and barangays from the Department of Interior and Local Government, Region 02 through a letter of request addressed to the Regional Director. Permission from the town mayors and barangay captains were sought for the identification of the families. The researchers coordinated with the barangay officials in the identification of the respondents. From these lists, the two groups of respondents were selected on the basis of the sampling technique that was employed in the study.

The researchers then floated the questionnaires to the respondents with the assistance of the Barangay Nutrition Scholars (BNS) or the Barangay Health Workers (BHW). The directions and content of the two sets of questionnaires were explained to the BNS and/or BHW in the language or dialect that they can understand so that they will be able to answer questions/ clarify terms/concepts in case they will be asked by the respondents. This is also done to enable the BNS and BHWs to clarify respondents' misconceptions/ misinterpretations. Informal interviews were conducted to validate the respondents' responses and to check for inconsistencies.

Analysis of Data

Data were analyzed using the following statistical measures:

The frequency and percentage count were used to describe the personal profile of the respondents.

The weighted mean was employed to describe the respondents' assessment on the extent of parents' involvement, the extent to which family characteristics affect adolescents' sexuality and fertility behavior, and the extent to which identified factors influence the occurrence of these problems relative to adolescents' experience of sexuality and fertility.

The t-test and the Analysis of Variance were used to determine the significant differences that exist among the means with respect to the different variables.

The Chi-square test was used to determine whether a significant difference exists on the extent of the adolescents' problems related to sexuality and fertility when respondents are grouped according to some selected profile variables.

The hypotheses stated in this study were tested at 0.05 level of significance.

For a 5-point scale, the following scale was used to describe the respondents' assessment.

Scale	Scale Range	Verbal Interpretation
5	4.20 – 5.00	Very Great Extent
4	3.40 - 4.19	Great Extent
3	2.60 - 3.39	Moderate Extent
2	1.80 - 2.59	Little Extent
1	1.00 - 1.79	Very Little Extent

For a 4-point scale the following scale was used to describe the respondents' assessment.

Scale	Scale Range	Verbal Interpretation
4	3.25 – 4.00	Very Serious
3	2.50 - 3.24	Serious
2	1.75 - 2.49	Moderately Serious
1	1.00 - 1.74	Not a Problem

Summary of Findings

1. **Profile of the Parent-Respondents**

   1.1 Age

   Majority of the father and mother respondents belong to age range 40 – 49 years with percentages of 55.13 and 55.71,

respectively. The father-respondents' mean age is 47.08 years while that of the mother-respondents is 44.55.

1.2 Religion

Majority of the parent-respondents are Catholic, 82.51 of the mother-respondents and 84.01% of the father-respondents are Catholic.

1.3 Educational Attainment

Most of the mother-respondents are high school graduates while most of the father-respondents are high school undergraduates.

1.4 Occupation

Majority (60.16%) of the mother-respondents are plain housewives while majority of the father-respondents are self-employed.

1.5 Family Monthly Income

Majority or 65.83% of the parent-respondents have a monthly family income below P10,000.00 followed by those with family income ranging from P10,000.00 – P19,000.00 with a percentage of 27.20.

1.6 Number of Children in the Family

The biggest number or 45.25% of the parent-respondents have 1 – 2 children followed by those with 3 – 4 children (30.90%).

1.7 Marital Status

Majority or 79.68% of the parent-respondents are legally married.

1.8 Type of Locality

Majority or 54.59% of the parent-respondents live in rurban areas followed closely by those living in rural areas.

1.9 Ethnic Group

Majority or 63.98% of the mother-respondents and most (45.08%) of the father-respondents belong to the Ilocano ethnic group followed by the Ibanag ethnic group for the mother-respondents and the Tagalog ethnic group for the father-respondents.

2. **Profile of the Adolescent-Respondents**

2.1 Age and Sex

Almost the same percentage of respondents belong to the different age groups for the male adolescent respondents while for the female, the biggest number belong to the 16 years age group while the least number belong to the 21 years age group. The mean ages of the male and female adolescent-respondents are 17.80 and 17.52 respectively and their overall mean age is 17.65.

2.2 Sibling Order

The biggest number or 41.32% adolescent-respondents are middle children in the family followed by the eldest children.

2.3 Religion

Majority or 80.52% of the adolescent-respondents are Catholic.

2.4 Educational Status

Majority or 66.60% of the adolescent-respondents are in-school while 28.07% are out of school.

2.5 Educational Attainment

The biggest number or 41.96% of the adolescent-respondents are college undergraduates followed by the high school undergraduates.

2.6 Academic Performance

Majority (79.31%) of the adolescent respondents have average academic performance.

2.7 Occupation

Only 16.45% of the adolescent-respondents are employed either as skilled workers, professionals or self-employed while the majority (83.55%) are not engaged in any form of occupation.

2.8 Ethnic Group

Majority or 65.07% of the adolescent-respondents belong to the Ilocano ethnic group.

3. Extent of Parents' Involvement in Adolescents' Experience of Sexuality and Fertility

3.1 Orientation

The father-respondents' assessment of the extent of their involvement in the adolescents' experience of Sexuality and Fertility is to a "Moderate Extent" (3.36) while the mothers' assessment is to a "Great Extent" (3.51).

Based from the children's assessment of their parents' involvement, the mother-respondents are greatly involved with a mean of 3.51 while the father-respondents are moderately involved with a mean of 3.35.

3.2 Communication

Both the father and mother-respondents' assessment of their involvement in their adolescents' experience of Sexuality and Fertility in terms of Communication is to a "Great Extent" with weighted means of 3.47 and 3.61, respectively.

The adolescent-respondents assessed both their fathers and mothers' involvement in terms of communication to a "Great Extent".

3.3 Supervision/Direction

In terms of Supervision and Direction, all respondents - father, mother and adolescent children assessed the father and mother respondents' involvement in the adolescents' experience of sexuality and fertility to a "Moderate Extent" with weighted means of 3.18 (father-respondents' assessment), 3.27 (mother-respondents' assessment), 3.10 (adolescent children's assessment of the father) and 3.25 (adolescent children's assessment of the mother).

3.4 Role Modeling

All respondents - father, mother and adolescent children assessed the parents' involvement in the adolescents' experience of   sexuality and fertility in terms of Role Modeling to a "Great Extent" with weighted means of 3.74 (father-respondents' assessment), 3.80 (mother-respondents' assessment), 3.70 (adolescent children's assessment of the father and 3.80 (adolescent children's assessment of the mother).

3.5 Decision Making

All respondents - father, mother and adolescent-children assessed the parents' involvement in the adolescents' experience of sexuality and fertility in terms of Decision-making to a "Great Extent" with weighted means of 3.61 (father-respondents' assessment), 3.70 (mother-respondents' assessment), 3.61 (adolescent children's assessment of the father's involvement), 3.73 (adolescent children's assessment of the mother's involvement).

4. **Parents' Extent of Involvement in the Adolescents' Experiences of Sexuality and Fertility by Area and Province**

   4.1 Age

   With respect to age, parents' extent of involvement varies from little to very great extent in all the areas and in all the provinces.

   4.2 Religion

   With respect to religion, parents' extent of involvement varies from very little to great extent in all the areas and in all the provinces. In Cagayan and Nueva Vizcaya, the weighted means of the Non-Catholic parents' involvement are higher than those of the Catholic parents. In Isabela, the weighted means of Catholic parents' involvement are higher than those of Non-Catholic parents. In Batanes, the weighted means of the Catholic mothers' involvement are higher than those of Non-Catholic mothers.

   4.3 Educational Attainment

   With regard to educational attainment, parents' involvement in all the areas varies from very little to very great extent. The involvement of parents is generally greater for those with higher educational qualification.

   4.4 Occupation

   In terms of occupation, parents' involvement generally varies from moderate to great extent in all areas. Parents who are unemployed tend to have a greater extent of involvement.

   4.5 Family Monthly Income

   In terms of family monthly income, generally, parents' involvement in all the areas varies from Little to Very Great Extent. Parents with higher income tend to have a greater extent of involvement than those with lower monthly income.

4.6 Number of Children

With respect to number of children, parents' involvement varies from Moderate to Great Extent. Parents with fewer children tend to have a higher extent of involvement in all the areas and in all the provinces.

4.7 Marital Status

In terms of Marital Status, parents' involvement varies from Moderate to Great Extent.

4.8 Type of Locality

With respect to type of locality, parents' involvement varies from Moderate to Great Extent.

4.9 Ethnic Group

With respect to Ethnic Group, parents' involvement varies from Very Little to Very Great Extent.

5. Test for Significant Difference in the Extent of Parents' Involvement in the Adolescents' Experience of Sexuality and Fertility when Parents are Grouped According to Profile Variables

5.1 Age

There is no significant difference in the mothers' extent of involvement in the adolescents' experience of sexuality and fertility in the areas of orientation and communication when they are grouped according to age. There is however a significant difference in the extent of mothers' involvement in the areas of supervision, role modeling and decision-making when they are grouped according to age.

The weighted means of mothers' involvement with respect to orientation and communication for the different age groups are almost the same. With respect to supervision/direction, role modeling and decision-making, the weighted means for the different age groups almost vary. Mothers tend to be less

involved as they grow old in the areas of supervision, role modeling and decision-making.

As for the fathers' involvement, there is a significant difference in the fathers' involvement in all areas when they are grouped according to age. Generally, the father-respondents tend to have   greater involvement as they progress in age.

5.2 Religion

The mothers' extent of involvement in terms of orientation, communication, supervision/ direction, role modeling and decision making do not significantly vary when grouped according to religion. This observation is also the same for the father-respondents except in the area of Orientation where the Catholic father-respondents have higher extent of involvement than those who are non-Catholic.

Generally, the assessment of the father and mother-respondents' extent of involvement in the adolescents' experience of sexuality does not depend on their religion.

5.3 Educational Attainment

There is a significant difference in the extent of both the father and mother-respondents' involvement with respect to orientation, communication, supervision/ direction, role modeling and decision-making when they are grouped according to educational attainment.

The weighted means on the extent of parents' involvement with respect to orientation, communication, supervision/ direction and role modeling vary when grouped according to educational attainment. Parents with higher educational background generally have greater extent of involvement in all areas than those who have lower degree of education.

5.4 Occupation

There is a significant difference in the extent of both the father and mother-respondents' involvement with respect to orientation, communication, supervision/ direction, role

modeling and decision-making when they are grouped according to occupation.

The weighted means on the extent of parents' involvement with respect to orientation, communication, supervision/ direction and role modeling vary when grouped according to occupation. Parents who are unemployed generally have greater extent of involvement in all areas than those who are employed.

5.5 Family Monthly Income

There is a significant difference in the extent of both the father and mother-respondents' involvement with respect to orientation, communication, supervision/ direction, role modeling and decision-making when they are grouped according to family monthly income.

Generally parents belonging to higher income groups are involved in the adolescents' experience of sexuality and fertility to a greater extent than those belonging to lower income groups.

5.6 Number of Children in the Family

The parents' extent of involvement with respect to orientation, communication, role modeling and decision-making significantly vary when grouped according to the number of children in the family.

Parents with fewer children have a greater extent of involvement in the adolescents' experience of sexuality and fertility in terms of orientation, communication, supervision, role modeling and decision making than those with more children.

5.7 Marital Status

There are no significant differences in the parents' extent of involvement with respect to communication, supervision, role modeling and decision-making when they are grouped according to their marital status.

On the other hand, a significant difference exists in the fathers' extent of involvement with respect to orientation. In terms of communication, there is no significant difference in the mothers' assessment of their involvement when they are grouped according to marital status.

Generally, the parents' marital status does not have any effect on their extent of involvement in the adolescents' experience of sexuality and fertility.

5.8 Type of Locality

There are no significant differences in the assessment made by the father and mother-respondents on the extent of parents' involvement in terms of orientation, communication, role modeling and decision making when grouped according to type of locality. With respect to supervision/ direction, there exists a significant difference in the extent of parents' involvement when grouped according to type of locality.

Parents from urban areas have a greater extent of involvement in terms of supervision/direction than parents who live in rurban and rural areas.

5.9 Ethnic Group

Both the father and mother-respondents' assessment on the extent of parents' involvement in the adolescents' experience of sexuality and fertility significantly vary in terms of orientation, communication, supervision/ direction, role modeling and decision making when they are grouped according to ethnicity.

6. Test for Significant Differences in the Parent-Respondents' Assessment on the Extent of Parents' Involvement in the Adolescents' Experience of Sexuality and Fertility

There is a significant difference in the assessment of the extent of involvement of the father and mother respondents in the adolescents' experience of sexuality and fertility in terms of Orientation, Communication, Supervision/ Direction, Role Modeling, and Decision-Making. Generally, the mean assessment

of the mother-respondents on their extent of involvement in all areas is significantly higher than that of the fathers.

7. **Test for Significant Difference in the Assessment of the Parent-Respondents and the Adolescents on Parents' Extent of Involvement in the Adolescents' Experience of Sexuality and Fertility**

   7.1 Father and Child

   There is no significant difference in the assessment of the father respondents and the adolescents on the parents' extent of involvement in the adolescents' experience of sexuality and fertility in terms of communication, supervision/ direction, role modeling and decision-making. With respect to orientation, there exists a significant difference in the assessment of the father and the adolescents on the parents' extent of involvement in adolescents' experience of sexuality and fertility.

   Generally, the father and the adolescent-respondents' assessment of the fathers' extent of involvement in all areas except in the area of orientation do not significantly differ. This means that the fathers' assessment is consistent with that of the adolescents' assessment.

   7.2 Mother and Child

   There exists a significant difference in the assessment of the mother and the adolescent-respondents on the extent of parents' involvement in the adolescents' experience of sexuality and fertility in terms of orientation, communication, supervision/ direction, and role modeling. On the other hand, in terms of decision making, the mother respondents and the adolescents do not differ in their assessment regarding the parents' extent of involvement in the adolescents' experience of sexuality and fertility.

8. **Extent to which Family Characteristics Influence the Adolescents' Experience of Sexuality and Fertility**

The natural father and mother influence adolescents' experience of sexuality and fertility to a "Great Extent" with means of 4.08 (mother) and 4.02 (father) while the rest of the parental classes influence adolescents' experience of sexuality and fertility to "Moderate/Little" Extent.

Generally, as assessed by both father and mother respondents, parental classes influence adolescents' experience of sexuality and fertility to a "Moderate Extent".

Based on the assessment of the parent respondents, an extensive family interaction was rated highest while the minimal family interaction was rated lowest. Generally, family interaction whether extensive, moderate or minimal, influences adolescents' sexuality and fertility to a "Moderate Extent".

An intact family relationship influences adolescents' experience of sexuality and fertility to a "Great Extent" while a dysfunctional family relationship influences adolescents' experience of sexuality and fertility to a "Moderate Extent".

Generally, family relationship influences adolescents' experience of sexuality and fertility to a "Great Extent".

A conservative family upbringing influences adolescents' experience of sexuality and fertility to a "Great Extent". Generally, as assessed by the father-respondents, family upbringing influences adolescents' experience of sexuality and fertility to a "Moderate Extent" while the mother respondents assessed the influence of family upbringing to a "Great Extent".

Based on the father respondents' assessment, family values influence adolescents' experience of sexuality and fertility to a "Great Extent" with fear of God having the highest mean. Regarding the mother-respondents' assessment, family values in terms of respect, trust, loyalty, and fear of God influence adolescents' experience of sexuality and fertility to a "Very Great Extent" while integrity and self-worth/dignity have a great influence on the adolescents' experience of sexuality and fertility.

Generally, both parents assess the influence of family values on the adolescents' experience of sexuality and fertility to a "Great Extent".

9. **Problems Involving Adolescents' Experience of Sexuality and Fertility Behavior**

The father-respondents assessed pre-marital sex and teenage marriage as "Serious" problems while the other problems that include teenage pregnancy, use of contraceptives, teenage abortion, exposure to pornographic media, occurrence of sexually transmitted diseases, use of prohibited drugs and suicide as "Moderately Serious". Both mother and adolescent children respondents assessed pre-marital sex, teenage pregnancy and teenage marriage as "Serious" problems and the rest as Moderately Serious. Based on the category means, all the three respondents assessed the stated problems as "Moderately Serious".

10. **Test for Significant Differences in the Respondents Assessment on the Degree of Seriousness of Adolescents' Problems Involving Sexuality and Fertility when Respondents are Grouped According to Some Selected Variables**

10.1 Age

Based from the chi-square results, significant differences exist in the assessment of the father respondents on the degree of seriousness of each of the problems when grouped according to age.

On the other hand, the mother respondents' assessment on the degree of seriousness of the problems on pre-marital sex, teenage pregnancy, teenage marriage, and use of contraceptives and teenage abortion differ significantly when grouped according to age while their assessment on the degree of seriousness of the other problems mentioned do not vary significantly.

With regard to the adolescent respondents' assessment, significant differences exist regarding their assessment on the degree of seriousness of the use of

contraceptives, teenage abortion, and exposure to pornographic media when they are grouped according to age while their assessment does not vary significantly with age in terms of the problems on pre-marital sex, teenage pregnancy, teenage marriage, occurrence of sexuality transmitted disease, use of prohibited drugs and suicide.

10.2 Religion

The father-respondents' assessment of the degree of seriousness of each of the stated problems varies significantly with their religion.

For the mother-respondents, significant differences exist in their assessment of the degree of seriousness of all the problems when grouped according to religion except for teenage abortion and exposure to pornographic media.

For the adolescent respondents, significant differences exist in their assessment of the degree of seriousness of the problems on teenage pregnancy, teenage marriage, use of contraceptives, use of prohibited drugs, and suicide when grouped according to religion.

10.3 Type of Locality

The assessment of the three groups of respondents on the degree of seriousness of all the problems vary significantly with respect to their type of locality.

11. **Extent to which Certain Factors Affect the Occurrence of the Problems Relative to Sexuality and Fertility**

Biological factors, economic status, emotional stability and religious affiliation affect the occurrence of the problems on sexuality and fertility to a "Great Extent" as assessed by the mother and adolescent respondents, while these factors are assessed by the father respondents as affecting the occurrence of the problems to a "Moderate Extent" except for religious affiliation.

Generally, these individual factors affect the occurrence of the adolescent problems on sexuality and fertility to a "Great Extent" as assessed by the three groups of respondents.

On the other hand, family and school factors are assessed by the father, mother and adolescent respondents as affecting the occurrence of the problems to a "Great Extent". The neighborhood/larger community, government and media affect the occurrence of the problems only to a "Moderate Extent".

Generally, environmental factors moderately affect the occurrence of the problems relative to sexuality and fertility as assessed by the three groups of respondents.

Conclusions

Based on the summary of findings, the following conclusions are arrived at:

One of the most important responsibilities of parents toward their children is to provide them with the needed guidance and orientation regarding their experience of sexuality and fertility. Ideally, the father as well as the mother should work closely in giving their children the right information regarding matters that pertain to their sexuality as their children grow. This study however, generally, reveals that mothers are more involved than the fathers in providing the adolescents with the needed guidance and direction in terms of modeling and decision making.

The families who made the study possible typically describe the familial landscape in Region 2. Majority of the parent-respondents belong to age range 40 to 49 years, Ilocanos living in rurban areas. They are predominantly Catholic, legally married, at most high school graduates with mothers of the adolescents as plain housewives and with self-employed fathers. Most of the parents in this study have family monthly income less than P10,000.00 with most of them having at most 4 children.

On the other hand, the adolescents who participated in this study have mean age of almost 18 years with most of them being middle children in their family. Just like their parents, the adolescents are predominantly Catholic and most of them are Ilocanos. They, too, are mostly still attending school, thus, considered as undergraduates and not engaged in any form of

occupation. In terms of their academic standing, most of them have average academic performance.

Given the above profile, this study revealed that parents who have attained a higher level of education, parents with higher income and with less number of children tend to have greater extent of involvement. This is expected because parents who are more educated are more likely to have the sufficient knowledge, expertise and the personality to provide their children with the information and guidance they need. As the saying goes, "One can not give what he does not have". In the same manner the parents' income and occupation have something to do with their extent of involvement because parents who have less income will spend more of their time finding other ways of augmenting the finances of their family and will thus barely find time discussing and attending to the concerns of their adolescent children Lastly, occupation and family size, particularly on the parents' number of children, tend to have an effect on the extent of parents' involvement in the adolescents' experience of sexuality and fertility. Parents who are unemployed and with fewer number of children will definitely have more time to spend with their children to discuss matters, issues and problems that have to do with their experiences on sexuality and fertility.

The adolescents being within the nurturance of their natural fathers and mothers greatly influence their experience of sexuality and fertility. Furthermore, their experience of an intact family relationship, conservative family upbringing, positive family values and spirituality (fear of God) greatly influence their sexual experience. Indeed, an adolescent will likely become better oriented and directed in his sexuality under a family that is intact where good family children upbringing is a great concern for parents. An adolescent truly gets to understand better his sexuality when he is equipped with positive family values such as respect, trust, loyalty, fear of God and a lot more. He eventually learns to appreciate his body, his sexuality and become better able to handle responsibly his power of fertility when he experiences respect and trust from other people.

Recommendations

In the light of the findings and the conclusions reached, the researchers hereby recommend the following:

1) That older adults especially parents be educated on handling issues of adolescent sexuality in order to promote positive attitudes among the young.

2) That the adolescents be encouraged to talk openly about their concepts and attitude regarding sexuality, for them to develop the capacity to decide on sex related issues and to develop positive attitudes towards sexuality and fertility.

3) That the Commission on Population through its local chapters conduct orientation, capability building activities and seminars on Family Planning and Responsible Parenthood for parents as regards their responsibility as parents of adolescents with emphasis on the fathers' involvement.

4) That Sex Education be integrated in the different subject areas in school starting from grade school specifically in subjects where they are most relevant.

5) That the school through its Guidance Center design educational and counseling programs that address the adolescents' specific interests, needs and characteristics based on their gender, age, socio-economic status and other variables.

6) That the Commission on Population, Department of Health, Department of Social Welfare and Development and other concerned agencies provide activities/opportunities to properly channel adolescents' interests, dynamic character towards more productive endeavors.

7) That the seriousness of the problems on pre-marital sex, teenage pregnancy and teenage marriage identified by the respondents of this study should be addressed and sufficiently given attention to by parents, teachers and all other individuals, entities, agencies or organizations.

8) That the Catholic Church and all other religious denominations remain the most potent force in influencing the parents to provide guidance and direction to the adolescents' experience of sexuality and fertility.

9) That parents and teachers maintain a healthy harmonious family and school environment characterized by openness, respect and trust in order for the adolescents to be more open in discussing with them their experience of sexuality and fertility.

10) That parents observe sound family planning practices so they can have quality time to assist, orient, direct and supervise their children in handling their experiences of sexuality and fertility effectively.

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FLOOD PREPARATION AND MITIGATION OF LOCAL GOVERNMENT UNITS OF CAGAYAN

Eva C. Dela Cruz

ABSTRACT

This study assessed the flood preparedness and mitigation activities of six disaster prone Local Government Units (LGUs) in Cagayan with the end in view of formulating policies to address the problems and needs of these LGUs on flood preparedness and mitigation. The LGUs include Alcala, Amulung, Enrile, Iguig, Solana, and the City of Tuguegarao. Descriptive survey method was employed since the study attempted to determine the status of the disaster programs and activities, best practices and problems encountered by the LGUs in the implementation of disaster plans. The respondents included the flood-affected community residents, Barangay Disaster Risk Reduction Management Council (BDRRMC) members, the MDRRMC officials and Flood Preparedness and Mitigation implementers.

All the six LGUs have disaster risk reduction and management plans, but do not have a separate flood preparedness and mitigation plans. Their disaster plans include contingency plans for flooding, erosion and landslide. There was no separate budget allocated for floods. Majority of the LGUs assessed their budget, equipment and manpower as inadequate and their flood preparedness as very much prepared. The respondents also positively rated the extent of implementation of their various flood preparation and mitigation activities. Their most pervasive problem include: limited financial resources and refusal of flood victims to be evacuated to safe places.

The LGUs find their strong networking and linkages and quick coordination among civic organizations, government and non-government agencies as one of their best practices. Other practices also include adequate trainings on Disaster Preparedness and Rescue Operations, provision of soft loan for livelihood programs to affected families and presence of early warning system.

Introduction

The Philippines is identified as a natural disaster-prone country in the world. The International Red Cross and Red Crescent Societies (Post-Disaster Needs Assessment, November, 2009) described the Philippines as the fourth most accident-prone country in the world. The two institutions concluded   that some 5,809,986 Filipinos were killed or injured as a result of disasters or man-made calamities over a ten-year period from 1992 to 2001.

The Philippine National Red Cross (PNRC) Governor Dante Liban reported that the Philippines is a natural laboratory for floods, typhoons, monsoon rains, earthquakes, volcanic eruptions, and landslides. (Philippine Daily Inquirer, July 10, 2011).

The Province of Cagayan has the second largest population in Region 02 in the 1990 and 1995 Population Commission (POPCOM) survey. Cagayan is basically an agricultural-based province and its towns have large land areas and/or vast areas of flat land, usually those with large populations like Penablanca, Baggao, Gattaran and Lallo, all east of the Cagayan River, and Allacapan, Lasam, Solana and Tuao on its west bank.

Tuguegarao, an identified primary growth center of Region 02, is a rapidly urbanizing city that provides socio-economic support services not only for the province of Cagayan but also for the whole Region 02. Sometimes it also includes the provinces of Kalinga and Apayao of the Cordillera Administrative Region.

In Cagayan, municipalities vulnerable to severe flooding include Solana, Amulung, Alcala, Tuguegarao City, Enrile and Iguig. Other municipalities expecting flashfloods and flooding as an effect of three to four days continuous rain are areas near tributaries like Gattaran, Baggao, Sto. Nino, Lasam, Abulug, Piat, Tuao, Rizal, Gonzaga, Claveria, Camalaniugan, Lallo and Sta. Teresita. Tributaries that can cause flooding and erosion to these municipalities include Cagayan River, the longest and the largest river in the country which traverses from North to South, the Dummun River of Gattaran, Zinundungan River of Lasam, Matalag River of Rizal, Chico River of Piat, Tuao and Sto. Nino, Pata River of Sanchez Mira,Abulug River, Buguey River, Cabicungan River of Claveria, Pared/Fulay River of Baggao and Alcala, and the Pinnacannauan River of Tuguegarao City (DSWD, R02).

Region 02 was affected by four (4) out of eight (8) cyclones in 2008 leaving behind millions of pesos in damages to properties. The typhoons affected 679 barangays with 56,016 families or 249,790 individuals. Totally damaged houses were reported at 1,961 and partially damaged houses at 11,029.

In December of 2011, the first-ever region wide flood summit, which was hatched amid the series of floods besetting Cagayan Valley in recent years, was held. The summit dealt with the impact of climate change on the agricultural sector, with emphasis on how to minimize or mitigate the effects of floods brought about by typhoons and torrential rains on food production. This is a concerted effort of all sectors of society, especially the agricultural sector which has been severely affected by recent floods (Philippine Star, 2011).

Cagayan, the country's northernmost mainland province is also a major rice and corn producer, has been on the losing end every time the region is inundated. Since stakeholders noticed that typhoons usually hit the region during the last quarter of every year, some studied the possible rescheduling of the planting season so that the farmers could harvest their crops before the typhoon months. Included in the plan was the dredging of the Cagayan River, the country's longest river system, whose siltation has been blamed for the widespread flooding in the region.

Each year, billions of pesos in the Philippines is spent for aiding typhoon victims and repairing damaged infrastructure nationwide which significantly impedes the country's social and economic development. Thus, one way to cope with the situation is to strengthen disaster risk preparation and mitigation activities, particularly on the reduction of risks in the Philippine archipelago especially in Cagayan province.

Moreover, ensuring one's safety and security during disasters is a concern of everyone. Psychological, physical, emotional, cognitive and other forms of preparatory support from individuals, families, neighbors, barangays, municipalities, provinces and the government and non-government organizations is a necessity.

Some professionals contend that the impact of natural disasters goes beyond physical effects and often result in a range of stresses. All who have been through a disaster can attest to this fact of life. Stress can be very detrimental to one's health. Stress has often been associated with negative outcomes including illness, loss of motivation and depression. Children in

particular are very adversely affected by stress that may eventually lead to serious consequences. In the article "*Everything You Ever Wanted to Know about Natural Disasters and Mental Health*," it said, "The need to seek and receive all forms of preparatory and post disaster support then becomes essential to lessen the impact of stress. Ensuring mental health (not just physical health or injuries from disasters) needs attention. Because of this, professionals often advise never to underestimate the importance of food, water, shelter, medicines and others alike, to positive physical and mental health preparation and recovery. Families must help families, neighbors must help neighbors, co-workers must help co-workers and so on to prevent or reduce the continued presence or decrease the mental stressors before and after a disaster ", (National Center for PTSD, 2009).

With the Philippines' susceptibility to natural disasters, emergency preparedness has always been a priority concern. The Local Government Units have the primary responsibility to deal with disasters. Under the Local Government Code, the local government serves as the first line of defense. They are expected to prepare contingency plans, invest in prevention, preparedness and mitigation measures, establish a DDC with participation from civil societies, and set aside five percent of their local income for calamity fund. They may also allocate additional human and financial resources from their annual budget to disaster-risk reduction activities and establish permanent in-house capacity to manage disaster risk on a full time basis (http://www.pdf.ph/pdna accessed March 12, 2012).

Statement of the Problem

The study aimed to assess the flood preparedness and mitigation activities of six disaster prone Local Government Units (LGUs) in Cagayan. Specifically, it sought to answer the following questions:

1. What is the status of the flood preparedness and mitigation program of disaster prone LGUs with respect to:
   1.1 Municipal Flood Preparedness and Mitigation Plan,
   1.2 Facilities,
   1.3 Manpower Pool, and
   1.4 Fund Allocation?

2. What is the level of preparedness of these LGUs with respect to preparation, mitigation, response and recovery?

3. To what extent are these flood preparedness and mitigation activities implemented as perceived by:
3.1. Community residents,
3.2. Flood preparedness and mitigation implementers?

4. What are the best practices of the six selected LGUs in Cagayan with respect to flood preparedness and mitigation?

5. What are the problems encountered by LGUs in the implementation of flood preparedness and mitigation activities?

6. What policies for flood preparation and mitigation can be designed to uniquely address the problems and needs of respondent-LGUs

Methods

Research Design

This study made use of the qualitative survey research as it aimed to explore the views of respondents as expressed in their own words. Descriptive survey was also employed since it attempted to determine the status, disaster programs and activities, and best practices of the LGUs regarding flood preparedness and mitigation and problems they encountered in the implementation of disaster plans.

Respondents of the Study

The respondents in this research work were the flood-affected community residents, Barangay Disaster Risk Reduction Management Council (BDRRMC) members, the MDRRMC officials and Flood Preparedness and Mitigation Implementers of the respondent municipalities. Total enumeration was used in taking the respondents. Table 1 shows the profile of respondents.

The study consisted of one thousand and seventy eight (1078) respondents distributed as follows: 106 MDDRMC members from the six LGUs, 331 BDDRMC members, and 641 Community Residents coming from the forty six (46) barangays.

Instrumentation

The instrument used was the questionnaire carefully drafted by the researcher after considering other sources as bases. The sample questionnaire was pre-tested to six MDRRMC members in Solana for validity and reliability. The test group was not included as respondents. Other data like best practices and problems encountered in the implementation of the plans, were gathered through interview and general assembly with the respondents.

Data Analysis

Descriptive statistics was used such as frequency, percentage, and mean to analyze the data for the descriptive research questions. The following scale was used to interpret the weighted mean obtained from questionnaire.

Mean	Qualitative Description
4.20-5.00	Very knowledgeable/very adequate
3.40-4.19	Knowledgeable/adequate
2.60-3.39	Quite knowledgeable/uncertain
1.80-2.59	Fairly knowledgeable/inadequate
1.00-1.79	Ignorant/very inadequate

Mean	Qualitative Description
4.20-5.00	Very Much Prepared
3.40-4.19	Much Prepared
2.60-3.39	Moderately Prepared
1.80-2.59	Less Prepared
1.00-1.79	Least Prepared

Results and Discussions

I.   Status of the Flood Preparedness and Mitigation Program of Disaster-Prone Local Government Units

All the six LGUs have disaster risk reduction and management plans, but do not have a separate flood preparedness and mitigation plans. Contingency plans for flooding, erosion and landslides are incorporated in their disaster plans. There was no separate budget, too, for floods. Majority of the LGUs find their budget, equipment and manpower to be inadequate.

II. Flood Preparedness and Mitigation Activities of the LGUs

Common flood preparedness and mitigation activities of LGUs are as follows:

- Construction of Flood control gates preventing back up of high flood waters
- Intensive orientation on RA 10121
- Organization of rescue groups armed with WASAR and BLS skills
- Purchase of complete rescue paraphernalia like rubber boats
- Designation of evacuation centers
- Pre-positioning of food and non-food items to evacuation areas
- Deployment of rescue paraphernalia, such as rubber boats, ropes, etc

III. Level of preparedness with respect to preparation, mitigation, response and recovery

The overall mean of the 6 LGUs as regards Preparation Activities is 4.73, described as "very much prepared".

The 6 municipalities are "moderately prepared" in the area of flood mitigation.

Of the 7 response activities, only Incident Command System got a rating of "moderately prepared" with a mean of 3.19. The other six items had a rating of "much prepared".

With regard to recovery activities, five of the LGUS are "much prepared". Only Enrile has a rating of "moderately prepared"

IV. Extent of Implementation of the Flood Preparedness and Mitigation Activities as Perceived by:

A. The Community Residents

The overall mean of the 641 community residents representing the 46 barangays in terms of the extent of implementation of the preparedness and mitigation is 4.06, qualified as "great extent" of implementation.

B. Flood Preparedness and Mitigation Implementers

The overall mean for the extent of implementation of flood preparedness and mitigation activities as perceived by the implementers was 3.35 with qualitative description of "moderate extent" of implementation.

As revealed in the data, there was a difference in the perception of the community residents and the implementers on the level of preparedness and mitigation measures in all the LGUs.

V. Best Practices of the Six Selected LGUs in Cagayan with Respect to Flood Preparedness and Mitigation

- Strong networking and linkages with coordinating agencies
- Preparedness of the Barangays that are affected by flood
- Adequate Trainings on Disaster Preparedness and Rescue Operations
- Cooperation and coordinated efforts among civic organizations, GOs and NGOs.
- Provision of soft loan for livelihood programs to affected families
- Quick coordination among member agencies before any calamity occurs
- Delineation of responsibilities to facilitate smooth cooperation and coordination among member agencies, and
- Presence of early warning system

VI. Problems Encountered by LGUs in the Implementation of Flood Preparedness and Mitigation Activities

Major problems encountered by LGUs are as follows:

- Limited resources in terms of finances resulting to their inability to realize some of their plans
- Refusal of flood victims to be evacuated to safe places

VII. Policies for Flood Preparation and Mitigation Designed to Uniquely Address the Problems and Needs of Respondent-LGUs

The following are the proposed policies to uniquely address the problems and needs of LGUs:

- Strengthening of capability building and trainings from the barangay to the municipal levels with emphasis on rescue operations and evacuation center management
- Forced pre-emptive evacuation
- Reinforcing the implementation of climate change adaptation in schools through the help of CHED and DepEd
- Provision and installation of flood warning signs in strategic places
- Strong information dissemination in schools from the elementary to the tertiary levels
- Tree planting in backyards, vacant public lots and along highways of trees.
- Creation of Barangay and Family Disaster Contingency Plan. Majority of the respondents said their plans remain on status quo since they find them to be effective; however, minor changes were given like:
- Incorporation of more training especially in rescue operations and in managing evacuation centers.
- Specific unique plans to be incorporated in the existing plans based on the problems and needs of the LGUs.
- Conduct of researches especially on the latest topography of the municipality

Conclusions

Based on the findings of this study, the following conclusions were arrived at:

1. There is no specific Flood Preparedness and Mitigation Plans in all the LGUs under study. At the present time, majority of the LGUs do not feel the need of additional equipment and manpower. However, continuous trainings especially on rescue operations are highly identified as one of the major needs of the LGUs and the constituent barangays.

2. In general, all LGUs are considered "prepared" in all the cycles of disaster preparedness, mitigation, response and recovery.

3. There is a difference in the perception of the implementers and the community residents on the extent of implementation of the flood preparedness and mitigation activities, that is, it varies from "great extent" to "moderate extent"

4. The 6 LGUs have unique and common best practices. Studying its adaptability and replicability to a certain LGU is the concern of policy makers.

5. LGUs and barangays lack necessary funds to realize all their plans.

6. Barangay folks resist evacuation because they do not like to leave their homes and property even during disaster events.

Recommendations

In the light of the conclusions, the following recommendations are arrived at:

1. Comprehensive municipal and barangay flood preparedness and mitigation plans and contingency plans to respond to flood events should be properly prepared and maintained in operational status where flooding might occur in order to increase response capabilities and preparedness of organizations obliged to perform flood fighting and mitigating activities.

2. For LGUs to have an integrated approach covering all relevant aspects of water management in their plans.

3. In the development of a flood plan, decision makers at the municipal and barangay levels as well as stakeholders and civil society should be involved.

4. For a successful flood preparedness and mitigation planning, it is imperative to learn from the experiences and best practices of other towns and countries for greater collaboration and information sharing to enhance the synergy and to extend the resource base for more effective implementation of flood preparedness programs.

5. The most common problem identified by LGUs and the barangays is limited resources. It is necessary to train and mobilize local structures to seek funding outside the community. Teaching communities to generate resources for their flood preparedness through networking and income-generating activities do not only discourage dole out mentality but may assure communities of enhanced livelihood sustainability.

6. As mentioned by one of the respondent barangays, plans must be built up from the grassroots level, respecting the unique qualities of each community, and from the bottom up, not super-imposed from the top-down and that experiences drawn from communities that have suffered from past hazards must be incorporated in the plans while, at the same time, considering their geographical location and vulnerable conditions.

7. There is a need for a holistic, coordinated and integrated approach to preparing and mitigating floods in all its systems and components.

8. To minimize the human, property and environmental losses, along with the social and economic disruption associated with extreme hazards, critical assessment must be made to address the structural as well as non-structural measures adaptable to the localities under study considering its short-term and long term impacts.

9. That all academic institutions, private and public, must offer in their curriculum, Disaster Preparedness and Climate Change Adaptation as to prepare students in the dispensing of their civic responsibilities and to further strengthen their knowledge and awareness on the issue.

10. To address agriculture losses and the problem of food insecurity, researches along agricultural production practices that are more appropriate to the local environment, crop adaptability and new planting calendar could be conducted by concerned agencies like the Department of Science and Technology (DOST) and the Department of Agriculture (DA).

11. That an Incident Command System must be strengthened to improve efficiency and effectiveness of individual agencies as they work toward the common goal of stabilizing the incident and protecting life, property, and the environment.

12. A broad base participation of the community must be ensured, to attain zero casualties and reduced economic losses in times of disasters.

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EFFECTIVENESS OF CONCRETE-LANGUAGE-SYMBOL (CLS) MODEL IN TEACHING PROBABILITY AND STATISTICS AMONG SECOND YEAR COLLEGE STUDENTS OF ST. PAUL UNIVERSITY PHILIPPINES

Fe S. Masigan

Abstract

This empirical study investigated the effectiveness of the Concrete-Language-Symbol (CLS) model in the teaching of Probability and Statistics among second year college students of the School of Information Technology and Engineering. Total enumeration was employed in the selection of the students enrolled in Probability & Statistics, as subjects of the study. The researcher made use of the quasi-experimental method. Activity sheets on selected topics along Probability and Statistics were prepared and used for the experimental group. A pre-post test was administered to both control and experimental groups based on the topics covered during the midterm period, which were drawn from the researcher's bank and subjected to test item analysis. The results of the pre-post test were treated using the t-test for independent means, and paired samples to determine the significant difference in the posttest mean performance scores of both groups. The findings of the study revealed that there is a significant difference on the performance of the two groups. Students' exposed to the Concrete-Language-Symbol model performed better than those exposed to the lecture-discussion method. From the foregoing findings, the researcher concluded that through CLS model, Mathematics learning is facilitated as the students are exposed to learning situations that are concrete and realistic, thus making learning more meaningful, interesting and engaging.

Introduction

In the verge of societal innovations, people live in an era filled with complexities, economic and technological advancements. With these rapid developments and changes, it becomes imperative for any individual to be equipped with the desired competencies and skills for them to confidently face more challenging and difficult tasks ahead of them and to meet the demands of the rapidly changing society.

Present day society collectively needs a great deal of the most sophisticated kind of mathematics for its functioning and survival. The highly complex problems of the technological society require complex mathematics to solve them. The demand, therefore, for increased competencies in Mathematics has become a reality for many. Corollary with this is the fact that Mathematics has become indispensable to any person's daily life. Every now and then, one is faced with problems that need mathematical solutions be it with the simple buying of goods in the store, or budgeting the expenses for the day, to a more complicated problem that needs wise and instant mathematical solutions/answers.

Thus, in the previous years, tremendous efforts have been made at the national level to enhance the mathematics curriculum in response to the challenges of the 21st century learning. The Department of Education has been undertaking continuous curricular development since 2002 geared towards enhancing the Science and Mathematics curricula in order to comply with national and global standards. One of its concerns is to focus on the strategies that will enhance the students' ability to handle abstractions and on the approach to problem solving. Furthermore, proposals have been made not only on the content of Mathematics but also on instructional materials. New courses of study have been organized and new text and learning modules have been produced. Many teachers have been back to school to upgrade their knowledge of Mathematics and to learn more innovative and effective teaching-learning strategies, models or approaches of teaching.

However, despite of this tremendous efforts made by the Department of Education, Acorda (2012) cited in her study that in the Philippine educational system, achievement rate in the secondary level in Science remained low, and Mathematics was lower in the past two years. Compared to other Asian countries, as cited by King & Guerra (2005), the

Philippines is really lagging behind in Mathematics and Science. This is further supported by the results of the study of Martin (2004) and report from the Trends in International Mathematics and Science Study (TIMSS, 2004), which was conducted among eighth (8th) graders. Results revealed that the Philippines ranked 36th among 38 countries in 1999 and 43rd among 46 countries in 2003. Further, according to the National Education Testing and Research Center (NETRC), the achievement rates in Mathematics from AY 2005-2006 to AY 2009-2010 were as follows: 47.82%, 39.05%, 42.85%, 38.03% and 39.64%, all of which are below 50% mastery level. (DepEd Fact Sheet, 2011).

In St. Paul University Philippines, it has been a common observation that freshmen college students have not fully mastered the competencies of Secondary Mathematics as revealed in the Math Proficiency Test which is administered upon admission to the University. The results showed that only about 10-20% would obtain 50% mastery level every year, the results of which are alarming (Acorda, 2012). In particular, considering the sample of 54 SITE freshmen students who took the examination, a mean score of 15.31 was obtained out of the 50 item questions; the highest score was 34, and the lowest was 7. Such result reveals poor performance in the Mathematics Proficiency Examination. This further supports the results of educational surveys which indicated that most of our high school graduates do not manifest the 75% mastery level as prescribed by the Department of Education. One of the reasons behind this is their inability to meaningfully comprehend the lessons presented, thus resulting to low performance in College Mathematics (Acorda, 2012). It is also a common classroom observation that students have a short span of attention which causes their limited participation in the classroom activities in Mathematics.

At present, many teachers in college are faced with the alarming fact that a great number of college students do not perform well in Mathematics. Considering for instance the performance of the subjects of this study in Algebra and Trigonometry last year, their mean grades were 77.98 and 78.88 respectively. This implies poor performance in the aforementioned subjects. "Studies have shown that poor performance in Mathematics has been caused by the traditional teaching approaches/strategies employed in the teaching-learning process where the students are not adequately provided with meaningful activities and real life experiences, thus, making it difficult for them to understand and master mathematical concepts and processes.", (Nivera, 2005).

Research has shown that teaching strategies which are interactive, integrated, experiential, varied, and which show connections of lessons to the students' daily lives, are effective in enhancing students' academic performance in Mathematics. If mathematics is taught in a manner where students are engaged in concrete activities that are meaningful and interesting, then this will lead to the developmental process of learning and meaningful understanding of Mathematics, thereby improving students' Mathematics performance or achievement.

Mathematics teachers therefore need to explore effective and innovative ways of making mathematics learning more meaningful, interesting, and engaging.

In this regard, students should be provided with activities and experiences that will help them visualize relationships and applications as they are immersed in any mathematical endeavor. This may be realized through the use of the Concrete–Language-Symbolic (CLS) model which is a versatile framework for teaching mathematics. A strategy that is anchored on this model begins with a real-life application of the concept to make the lesson more meaningful to the learners. It uses concrete or visual materials to illustrate the concept before proceeding to the operation of symbols. (Nivera 2005)

It is for these reasons that the researcher has thought of coming up with a study that would investigate the effectiveness of the CLS model in the teaching of Probability and Statistics, particularly in enhancing understanding of mathematical concepts and processes among the second year college students of the School of Information Technology & Engineering.

This study is based on the following teaching learning concepts/theories/ approaches.

- *Constructivism*

  In the constructivist classroom, teaching must provide learners the opportunity for concrete, contextually meaningful experience through which they can search for patterns, raise their own questions, and construct their own models, concepts and strategies. Students learn Mathematics when they construct their

own meanings from ideas, objects and events which they experience. (Nivera, 2005)

- *Principle on the Selection of Mathematical Experiences*

  One of the conditions for teaching and learning Mathematics is that students learn best if the Mathematics inside the classroom is linked with Mathematics in the real world

- *Thorndike Principle*

  To enhance students' performance in Mathematics, Mathematics teachers should engage their students into more meaningful, relevant, and true to life situations or activities that require higher order thinking skills in order for them to learn best. As an adage says, "Learning is by doing. (Salazar 2003)

- *Rathmell Framework*

  The Rathmell Triangle Model is a versatile framework for teaching mathematics. It states that relationships must be discussed between and among real-life situations, materials, language and symbols to develop strong mathematical ideas (Nivera, 2005).

- *Dale's Cone of Experiences*

  Dale's cone emphasizes learning experiences that appeal to the different senses and the different ways in which we learn.

Statement of the Problem

This study attempted to investigate the effectiveness of the Concrete-Language-Symbol (CLS) model in the teaching of Probability and Statistics among second year college students of the School of Information Technology and Engineering (SITE).

Specifically, it sought to find answers to the following questions:

1. What are the pretest and posttest mean scores of the control and experimental groups in Probability and Statistics?

2. Is there a significant difference in the pretest mean scores of the control and experimental groups?

3. Is there a significant difference in the posttest mean scores of the control and experimental groups?

4. Is there a significant difference in the pretest and posttest mean scores of the subjects in the experimental group?

Methods

Research Design

The study made use of the quasi-experimental method, specifically, the pre-post test design. This design involved two groups, the control and experimental groups. A pretest was administered to both groups to ensure equality of their entry requirements before the experimental stage. The lecture-discussion method was employed for the control group while the CLS model was utilized with the experimental group.

Subjects and Sampling Procedure

The study involved two classes of which 30 students were assigned heterogeneously to each class of second year college students of the School of Information Technology and Engineering who were currently enrolled in Probability and Statistics for the Second Semester of the Academic Year 2012-2013. Total enumeration was employed in the selection of samples since the population of said year level is fewer.

Research Instruments

In order to gather the necessary data for the study, and to facilitate the conduct of the experiment, the following instruments and materials were employed.

Activity Sheets

Activity sheets on selected topics in Probability & Statistics were carefully prepared and used with the experimental group. These served as tools in delivering the topics covered during the midterm period and in facilitating the development of the concepts and processes. These activity sheets were subjected to content validity by the researcher through

consultations made with fellow Mathematics teachers and research adviser. Revision and enhancement were done based on their comments and suggestions.

A pre-post test was administered to both control and experimental groups based on the topics covered during the midterm period. The test items were drawn from the researcher's test bank. These items have undergone test item analysis.

To facilitate the selection of the items in the pre-post test which were drawn from the Midterm Test Bank and to ensure the proper distribution of the items in terms of the Higher Order Thinking Skills (HOTS), a table of specifications was prepared. For the content validation of the test items, consultations were made with fellow Math teachers and research adviser.

Data Gathering Procedures

The researcher employed the following procedures in the conduct of the experiment.

1. *Pre-treatment Phase*

    The activity sheets for the CLS model were carefully prepared by the researcher which were based on the course content and competencies as prescribed in the curriculum.

    The pre-test was administered to both groups prior to their exposure to the teaching methods. The results of the pretest were recorded and later compared with the results of the post-test.

2. *Treatment Phase*

    The researcher conducted the classes with the two groups employing the lecture-discussion method and CLS teaching model with the control group and the experimental group respectively. Both classes were conducted at the same time schedule (3:00-4:30 pm) but the control group was scheduled on Mondays and Thursdays, while the experimental group, Tuesdays and Fridays, under the same learning environment.

3. *Post- Treatment Phase*

   After exposure to the teaching method/model, the researcher administered the posttest to both the control and the experimental groups. The results of the post-test were compared with the results of the pre-test scores in order to determine whether a significant difference exists in the performance of the two groups, and to ascertain which method/model of teaching is effective.

Data Analysis

The data obtained were classified, analyzed and interpreted making use of the following statistical tools such as frequency count, mean and percentages to interpret the pre-post test performance scores of the two groups while t-test for independent means and paired samples was used to determine the significant difference in the following:

1. Pretest mean performance scores of the control and experimental groups.

2. Pretest and posttest mean performance scores of the subjects in the experimental groups.

3. Posttest mean performance scores of the control and experimental groups.

Results and Discussions

On the basis of the analysis of the data gathered, the following findings were established:

A. Prior to the conduct of the study, the control and experimental groups performed fairly on the items in the pre-test. After the intervention, the control group obtained a satisfactory performance, while the experimental group obtained a very satisfactory performance.

B. There is no significant difference in the pretest mean performance scores of the control and experimental groups. The two groups were comparable with respect to prior knowledge on the topics included in the study before they were exposed to the treatment.

C. There is a significant difference between the posttest mean performance scores of the control and experimental groups. The results revealed that the students who were exposed to the use of the Concrete-Language-Symbol teaching model performed better than those who used the lecture-discussion method.

D. There is a significant difference between the pretest and posttest mean performance scores of the students in the experimental group. The posttest mean performance score of the students is significantly higher than that of their pretest mean performance score. This means that the use of CLS model enhanced students' performance or achievement in Probability and statistics.

Conclusions

From the foregoing findings, the researcher arrived at the following conclusions:

The exposure of the students to the Concrete-Language-Symbol (CLS) teaching model resulted in better performance of the students in Probability and Statistics. This then implies that through the CLS teaching model, Mathematics learning is facilitated as the students are exposed to learning situations that are concrete and realistic, thus making learning more meaningful, interesting and engaging. Effective learning takes place when real life situations are connected to the students' life as this develops meaningful understanding of mathematical concepts and processes. Students learn best when they are engaged in activities that will lead them to discover concepts and relationships from given tasks. Group work encourages students to learn from each other and make connections.

The CLS model therefore tends to enhance students' motivation and enjoyment in learning. It encourages students to actively engage themselves in classroom activities, manifest enthusiasm, learn from each other and make connections.

Recommendations

On the basis of the findings and conclusions derived from the study, the following recommendations were made:

1. Teachers should be encouraged to employ the Concrete-Language-Symbol teaching model and other innovative teaching-learning approaches in order to enhance students' critical thinking and facilitate conceptual understanding of mathematical concepts and processes. This can be done through the conduct of more meaningful and engaging activities in the classroom, thereby improving their Mathematics performance or achievement.

2. Mathematics teachers should be encouraged to prepare/develop activity sheets for their Mathematics classes as these will facilitate the teaching and learning of Mathematics

3. The administration should continuously support the use of CLS teaching model and other innovative teaching-learning models/approaches/strategies in the teaching-learning of Mathematics in order to achieve the goals of 21st century learning.

4. Future researchers may conduct parallel studies to verify the results of this investigation not only in Probability and Statistics but also in other Mathematics courses.

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PARENTS' EVALUATION OF SPEECH IMPROVEMENT FOR KIDS COURSE AND PUPILS' LANGUAGE COMPETENCE

Concepcion G. Doyugan

Abstract

The study evaluates the pupil's language competence and the clientele's satisfaction rating of the services and facilities of the Intercultural Institute for Languages (IIL) for the Speech Improvement for Kids. It made use of descriptive method using assessment technique using a survey questionnaire for 26 parent-respondents who enrolled their children in Speech Improvement for Kids during summer 2013 and first semester 2013-2014.

Results show that there is a very high satisfaction level in the different components of the course and the services and facilities at the IIL and parent-respondents are willing to recommend the course to others. It is concluded that the IIL through the course: Speech Improvement for Kids has developed the pupils' language competence and has gained very high satisfaction level from its clientele. Nonetheless, it is recommended to improve grouping scheme, scheduling and increase pronunciation and articulation drills.

Introduction

Language is entwined in all our attempts to make sense of our experience in the world (Lindfors, 1991 as cited by Clark, B, 2010). Language helps us understand the world around us and it also helps us interact with other people in our world. There are several theories on language acquisition. The nativists believe that language is innate in a child while behaviorists believe otherwise. According to Skinner, a behaviorist, the emergence of language is the result or imitation and reinforcement.(Cherry, K. , 2014) Language development is a result of repetition and encouragement. When a child learns a language, there should be a stimulating and rich linguistic environment that will support the language development of the child. Language acquisition is part of the overall development of children physically, socially and cognitively.

As viewed by some experts, one of the negative effects of not exposing children to a language before they reach six or seven years old is that they may never acquire another language. This may be the reason why many parents would bring their children to study the English language at a young age where they conceive children could learn better.

At the Intercultural Institute for Languages, short term modules are given to children like the Speech Improvement for Kids. Here, pupils are exposed to language games, functional dialogues, songs, dances, poetry and drills. With the IIL's five year existence, it is deemed proper to evaluate the short term course that it offers for children and show how it is able to develop the language acquisition of the children. In addition, the study would also look into the clientele's satisfaction rating to the services and facilities of the institute. Moreover, it could also glean on sources for improvement through the feedback given by their parents.

Statement of the Problem

The study aims to evaluate Speech Improvement for Kids on the pupils' language competence.

Specifically, it aims to answer the following problems:

1. What is the profile of the pupils enrolled in the short term course in terms of:
    1.1 age

1.2 gender

1.3 school last attended?

2. What is the level of satisfaction of the parent-respondents of the course in terms of:

    2.1 faculty/tutors

    2.2 facilities

        2.2.1 training room

        2.2.2 speech laboratory

    2.3 schedule

    2.4 activities/ tasks/ speech recital

    2.5 grouping scheme

    2.6 course content?

3. What is the percentage of satisfaction of the parent-respondents in the services rendered by the institute offering the course and the reasons?

4. What are the suggestions of the parent-respondents to enrich the program?

5. What aspects of the course do the parent-respondents like best? like least? Why?

6. What is the parent-respondents' perceived level of pupil's language competence in terms of:

    6.1 ability to socialize with others

    6.2 self-confidence and ability to perform on stage?

    6.3 ability to express himself in English?

    6.4 ability to use nonverbal language to support his verbal ability?

    6.5 ability to pronounce and articulate English words?

    6.6 ability to use the language which is learned?

7. What are the parent-respondents' recommendation with regards to the course for others? Why?

Research Design

The study made use of the descriptive method using the assessment technique. As defined by Adaza (1989) the descriptive method attempts to determine the status of a program, institution or community without the

intention to identify the causes. Furthermore, he describes an assessment study as one that determines the worth or quality of an existing program.

Respondents of the Study

The respondents of the study are twenty-six (26) parents, whose children were enrolled in the Speech Improvement for Kids short term course during summer 2013 and the first semester SY 2013-2014.

Instrumentation

The research instrument used in the study was a survey questionnaire developed by the researcher but was checked by the Assistant Research Director for improvement and further enhancement.

Data Gathering Procedure

Prior to the conduct of the study, permission was sought from the Research Director of St. Paul University Philippines. The questionnaires were then floated to the parents of the pupils enrolled in the Speech Improvement for Kids Course after the Speech Recital, the Culminating Activity. Later, the data were tabulated and analyzed.

Data Analysis

The gathered data were organized, presented in statistical tables and analyzed using frequency, percentage, mean and scale rubric

Results and Discussions

Based on the critical analysis of the data gathered, the researcher has arrived at the following findings:

1. Profile of the pupils enrolled in the short term course in terms of:

    1.1 Age

        Most of the pupils enrolled in the speech Improvement Course belong to the 4-5 age group with 24/216 or 53.85%.

1.2 Gender

The enrollees are predominantly females with 18/26 or 69.23%.

1.3 School Last Attended

A great majority of enrollees come from the SPUP Grade School with 21/26 or 80.76%.

2. Level of satisfaction of the parent-respondents of the course in terms of:

The general level of satisfaction of the parent-respondents of the course is 4.62 with a verbal description of Very Highly Satisfied.

2.1 Faculty/ Tutors

The level of satisfaction on the faculty/tutor component is 4.81 with a verbal description of Very Highly Satisfied.

2.2 Facilities

2.2.1 Training Room

The level of satisfaction of the training room component is 4.81 with a verbal description of Very Highly Satisfied.

2.2.2 Speech Laboratory

The level of satisfaction of the speech laboratory component is 4.50 with a verbal description of Very Highly Satisfied.

2.3 Schedule

The level of satisfaction of the schedule component is 4.50 with a verbal description of Very Highly Satisfied.

2.4 Activities/ Tasks/ Speech Recital

The level of satisfaction of the activities component is 4.69 with a verbal description of Very Highly Satisfied.

2.5 Grouping Scheme

The level of satisfaction of the grouping scheme component is 4.54 with a verbal description of Very Highly Satisfied.

2.6 Course Content

The level of satisfaction of the course content component is 4.50 with a verbal description of Very Highly Satisfied.

3. Suggestions of the parent-respondents to enrich the program

Suggested activities include reading, pronunciation, building of self-confidence, and stage performance.

4. Aspects of the course the parent-respondents like best and like least

The aspects of the course liked best are the activities on pronunciation, diction acting and speech recital. The aspects of the course liked least are the schedule and the grouping scheme.

5. Parent-respondents' perceived level of pupils' language competence

The average parent-respondents' perceived level of pupils' language competence is 4.54 with a verbal description of Very Highly Satisfied.

5.1 ability to socialize with others

The parent-respondents' perceived level of pupils' language competence regarding the ability to socialize is 4.65 with a verbal description of Very Highly Satisfied.

5.2 self-confidence and ability to perform on stage

The parent-respondents' perceived level of pupils' language competence regarding self-confidence and the ability to perform on stage is 4.46 with a verbal description of Very Highly Satisfied.

5.3 ability to express himself in English

The parent-respondents' perceived level of pupils' language competence regarding the ability to express himself in English is 4.42 with a verbal description of Very Highly Satisfied.

5.4 ability to use nonverbal language to support his verbal ability

The parent-respondents' perceived level of pupils' language competence regarding the ability to use nonverbal language to support his verbal ability is 4.65 with a verbal description of Very Highly Satisfied

5.5 ability to pronounce and articulate English words

The parent-respondents' perceived level of pupils' language competence regarding the ability to pronounce and articulate English words is 4.38 with a verbal description of Very Highly Satisfied.

5.6 ability to use the language which is learned

The parent-respondents' perceived level of pupils' language competence regarding the ability to use the language which is learned is 4.65 with a verbal description of Very Highly Satisfied.

6. Parent-respondents' willingness to recommend the course to others and their reasons

Majority (17/26 or 85.68%) of parents express their willingness to recommend the course to others because the course is substantive for the enrichment of a growing child in terms of

sociability, pronunciation, self-confidence, self-esteem, self-expression and the use & usage of language.

Conclusions

Based on the findings of the study, the following conclusions are drawn:

The Intercultural Institute for Languages has developed the pupils' language competence through the Speech Improvement for Kids Course. Parents are very highly satisfied with the components of the course and the language competence of their children.

Recommendations

The researcher would like to recommend the following based on the findings of the study:

1. The grouping scheme should be modified in such a way that there is a more homogenous grouping scheme for the enrollees in terms of age group and grade level.

2. There is a need to improve the scheduling of the classes. It is recommended that considerations for the schedules should include the convenience of the parents, availability of the pupils, the pupils' residence.

3. More drills on pronunciation and articulation should be given to the enrollees to increase the level of satisfaction in this area.

4. Additional computer programs could be purchased to improve the speech laboratory component.

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FORMATIVE EVALUATION OF THE SPUP EDUCATIONAL INNOVATION

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Abstract

Educational innovation is central to St. Paul University Philippines' five year strategic directions. This study was conducted to evaluate the extent of implementation of the various innovations done in the University along curriculum engineering, administrative support, and instruction. It involved randomly selected students, teachers, and administrators of the University as study participants and evaluators. The study utilized a descriptive survey research design using the questionnaire and the interview guide as data gathering instruments.

Results of the study revealed that the 3 groups of participants have the same favorable perception on SPUP educational innovations. The participants highly commended the different innovations implemented as the innovations further trained students to be independent thinkers, fostered the development of higher order thinking skills, communication skills, sense of responsibility, confidence, social skills, resourcefulness, creativity and problem solving skills. The teacher participants were intellectually stimulated in the process of the preparation and implementation of the Dynamic Instructional Plan (DIP) as they assessed it as appropriate to address students' wide-ranging talents, learning styles and multiple intelligences. The perceived successful implementation of the different innovations is attributed to the all-out collaboration among faculty members, the proactive engagement of the students and teachers, the strict compliance and complementation of the faculty and administrators of their responsibilities and obligations, the willingness and dedication of the faculty to embrace innovations, the teachers' open-mindedness, the administrations' innovative attitude, strong support and close supervision in the implementation of the educational innovations.

Introduction

The future scenarios of the political, social, cultural and economic sectors will depend on the contributions of the students of our schools today. More than ever before, education must be visionary and future-oriented, in the face of dramatic scientific and technological innovations and changes, unprecedented socio-economic challenges and opportunities, surprising socio-political reforms, and amazing cultural reawakening. Failure to innovate means repeating yesterday's educational programs and strategies tomorrow, which will only further jeopardize education's reputation as contributor to development efforts.

To ensure that learners be equipped with the skills needed for 21st century survival, school must be placed with a project-based curriculum for life which are aimed at engaging students in addressing real-world problems and issues important to humanity. This is a dramatic departure from the factory-model education of the past. It is abandonment, finally, of textbook-driven, teacher-centered, paper and pencil schooling.

St. Paul University Philippines, in its aspiration of providing quality Catholic education has been aggressively introducing innovative moves to better prepare students to meet the unprecedented challenges in the digital era. The University launched its new instructional approach in the tertiary level, this is dubbed as Dynamic Instructional Approach. This is based from the constructivist philosophy that learning is a process of construction and reconstruction of ideas on the basis of the realities in life. This calls for instruction that allows students to generate new knowledge derived from shared experiences and researches. The Dynamic Instructional Approach has the following features:

1. Project-based, problem-based and research-based
2. Student-centered, high student-engagement
3. Promotes independent learning
4. Integrates the 21st century life skills
   - Agility and adaptability
   - accessing and analyzing information
   - collaboration
   - curiosity and imagination
   - critical thinking and problem solving
   - entrepreneurialism

- effective communication
- moral, spiritual and ethical decency
5. Interdisciplinary and multidisciplinary

Through this teaching approach, the school hopes to produce students who can confidently meet the challenges and adapt to changes brought about by the rapid technological innovations. For the successful implementation of the SPUP educational innovation, series of trainings and enhancement of teaching guides were undertaken.

The SPUP educational innovation is on its 2nd year of implementation. A need to conduct an evaluation of the instructional innovation is imperative as this may point out elements that curb the implementation process.

Statement of the Problem

The study generally aims to conduct an initial evaluation of the SPUP educational innovation with the end of improving its implementation for the successive years.

Specifically, the study aims to answer the following sub-problems:

1. What is the students' experience on the SPUP Educational innovation?

2. What is the teachers and administrators' assessment on the extent of implementation of the SPUP Educational Innovation along the following areas?

   2.1 curriculum re-engineering,

   2.2 administrative support, and

   2.3 instruction?

3. What is the perception of the students, teachers, and administrators on the SPUP Educational Innovation?

4. Is there a significant difference on the students and teachers/administrators' perception on the SPUP Educational Innovation?

5. What do the students, teachers and administrators like most or like least about the SPUP Educational Innovation?

6. What are the facilitating or the hindering factors in the implementation of the SPUP educational Innovation as perceived by the teachers and administrators?

7. What are the perceived effects of the SPUP educational Innovation on students' learning outcomes as perceived by the teachers and administrators?

8. What do the students and teachers/administrators suggest to improve the implementation of the SPUP Educational Innovation?

Methodology

The study utilized a descriptive survey research design. Randomly selected students, administrators and teachers were the participants of the study. The "SPUP Educational Innovation" Questionnaire was used to obtain pertinent information needed in the evaluation process. The instrument was subjected to content validation from administrators and research experts. Interview was conducted to obtain in-depth information on the educational innovation. Weighted means and scales were used to interpret the students' experience, extent of implementation and the perceptions on the SPUP Educational Innovation.

Results and Discussions

1. The students were exposed to the learning experiences expected in a Dynamic Instructional Environment to a "high extent".

2. The participants experienced Curriculum Re-engineering to a "high extent". However, in terms of the upgrading of internet connectivity from copper to fiber optic, increasing bandwidth, and the provision of adequate time for faculty to prepare their DIPs, these were experienced by the students to a "moderate extent".

3. Along the area of instruction, students' engagement, maximization of the Wednesday sessions, conduct of group dynamic activities or research endeavor, utilization of the learning spaces provided for group learning, teachers' support and implementation of the Dynamic Instructional Approach and utilization of varied/alternative assessment tools for measuring learning outcomes were experienced to a "high extent".

4. The participants have equally favorable perceptions on the SPUP Educational Innovation.

5. The perception of the two groups of respondents on the SPUP Educational Innovation does not differ significantly.

6. The SPUP Educational Innovation is highly commended as this trains students to be independent thinkers, fosters the development of higher order thinking skills, communication skills, sense of responsibility, confidence, social skills, resourcefulness, creativity and problem solving skills. Further, this is considered to be very relevant to the 21st century learning as this is dynamic, interactive, enjoyable, experiential, learner-centered, systematic, flexible, collaborative and holistic. The preparation of the DIP is also intellectually stimulating for teachers are appropriate to students' varied talents, learning styles and multiple intelligences.

7. The SPUP Educational Innovation is seen to be time consuming, laborious, and tiresome for both teachers and students. Further, this approach is not appropriate to all subjects.

8. The successful implementation of the SPUP instructional innovation is facilitated by the full cooperation among faculty members, the active participation of the students and teachers, the full compliance and collaboration of faculty and administration of their responsibilities and obligations, the willingness and dedication of the faculty to embrace innovations, the teachers' open-mindedness, the administrations' innovative attitude, strong support and close supervision in the implementation of the SPUP Education.

9. Time constraints, limited source of information or internet, limited multimedia resources, library and laboratory limited spaces are the hindering factors in the implementation of the instructional approach.

10. The SPUP instructional innovation has some positive effects to students as this trains them to become more independent, responsible, active, creative, holistic, and confident to express their ideas, to be more critical and innovative, to develop their social skills, their learning styles and multiple intelligences are better addressed.

11. The participants recommended that teachers must develop more relevant activities that will make the students learn more and

enjoy, that a balance of traditional and modern methods must be used since there are appropriate methods for every specific lesson, that a series of consultation and discussion, more orientations and trainings for faculty must be undertaken before any innovations be introduced in the University and that the University should improve on its internet connectivity so to allow students and teachers to search for adequate and updated information related to their lessons.

Conclusions

The students' degree of exposure to the Dynamic Instructional environment is adequate.

The basic step needed in the implementation of the SPUP Educational Innovation such as curriculum re-engineering, presence of instructional plans that sub-summed all the activities in a dynamic learning environment, the adequacy of facilities and equipment needed and the readiness of teachers to the instructional framework were experienced to a "high extent".

The equally favorable perception on the SPUP Educational Innovation is an indicator of the appreciation and the optimistic attitude of the participants to the new instructional approach.

The SPUP Educational Innovation was highly commended as this is perceived to have a positive impact on the students' holistic development, although it has some drawbacks in terms of time constraints.

The successful implementation of the SPUP instructional innovation is facilitated by the faculty and administrations' full and active cooperation, collaboration, dedication, and open-mindedness, and the administrators' innovative attitude, strong support and close supervision in the implementation of the SPUP Education.

Time constraints, limited source of information or internet, limited multimedia resources, library and laboratory limited spaces are the hindering factors in the implementation of the instructional approach.

The SPUP instructional innovation has some positive effects to students as this trains them to become more independent, responsible, active,

creative, holistic, confident to express their ideas, to be more critical and innovative, to develop their social skills, their learning styles and multiple intelligences are better addressed.

The participants recommended that teachers must develop more relevant activities that will make the students learn more and enjoy, that a balance of traditional and modern methods must be used since there are appropriate methods for every specific lesson, that a series of consultation and discussion, more orientations and trainings for faculty must be undertaken before any innovations be introduced in the University and that the University should improve on its internet connectivity so to allow students and teachers to search for adequate and updated information related to their lessons.

Recommendations

In the light of the findings and conclusions reached, the researcher hereby recommends the following:

1. The students must be given orientation on the details of the SPUP Educational Innovation to help them understand the entire learning and teaching processes involved.

2. The faculty must improve the implementation of the SPUP Educational Innovation especially on the planning of appropriate activities to maximize students' potentials and opportunities to learn.

3. The administration may consider the enhancement of the laboratories, technological equipment and internet connectivity to help students access information related to their course work.

4. The administration may consider the number of subject preparations and the nature of the courses taught by the teachers in the teachers' preparation of DIPs.

5. The administrators may consider the recommendations offered by the students and teachers for the improvement of the implementation of the SPUP dynamic instructional approach.

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FACULTY CARING BEHAVIORS AND ACADEMIC PERFORMANCE OF NURSING STUDENTS IN A PROBLEM-BASED LEARNING ENVIRONMENT AT ST. PAUL UNIVERSITY PHILIPPINES

Ma. Elizabeth C. Baua

Abstract

Nurses by virtue of their profession are expected to demonstrate caring behaviors in whatever sector they are into, including the field of teaching. This study sought to ascertain the perceived caring behaviors of the nursing faculty and measure the relationship of the nursing faculty's caring behavior with nursing students' academic performance within a problem-based learning environment in St. Paul University Philippines. It also attempts to discover shared meanings and patterns of caring that resides between the transpersonal caring relationship of nurse educators and students.

The study made use of the mixed methods of qualitative and quantitative data analysis. Data were extracted mainly from the use of the Faculty Caring Behavior Instrument (FCBI) answered both by the faculty nurses and students. The study extracted seven caring themes that include *presence, concern, commitment, competence, conscience, confidence and guidance*. Findings revealed that the male nursing faculty manifested stronger caring behaviors than their female counterparts and that there is low correlation between nursing faculty's caring behaviors and students' academic performance.

Introduction

Developing a caring behavior is a cognitive endeavor that opens other avenues of learning relevant pedagogical competencies as part of nurses' unending quest for knowledge to improve instructional delivery in the nursing learning space. There is a need for nurses to share experiences of caring to come to know new possibilities for nursing practice, research and education. Nurse educators are expected to exhibit caring practices in conducting classroom activities and in their interaction with nursing students. In order to recognize the significant implications of a learning experience grounded from a caring framework, the faculty must have a clear grasp on how caring practices transpire within a problem-based learning environment. The pedagogical challenge for the nurse educator is to provide a problem-based learning environment in which the students learn to develop in themselves the initiative to become self-directed learners. PBL tutors can communicate caring practices by using PBL teaching moments as caring occasions. This whole view is the locus of the current research.

Nurse educators are the most influential role models of caring behaviors in the learning environment. They are expected to communicate caring practices by the way they manage classroom activities and interrelate with nursing students. If nurse educators are expected to translate caring behaviors to their students, how do they teach the art and science of nursing without losing caring?

The School of Health Sciences (SHS) of St. Paul University Philippines (SPUP) as a center of excellence for nursing program pioneered the use of problem-based learning (PBL) in teaching/learning nursing. This situation raises a query: "Is caring translated in the faculty-student interaction during PBL tutorials? "What are the students' experiences of caring within a problem-based learning environment?

The present educational system focuses more on content and information rather than on the affective domain of learning. The Philippine's educational organizations are more concerned with the technical and cognitive dimensions of teaching and learning. This raises another question, "how might faculty caring behaviors influence the academic achievement of students?"

The purpose of this study is to illuminate shared meanings and patterns of caring that resides between the transpersonal caring relationship between nurse educators and students within a problem-based learning environment and find out if faculty caring influences academic performance of nursing students.

Statement of the Problem

This study ascertained the perceived faculty caring behaviors of the nursing faculty and its relationship with academic performance of nursing students within a problem-based learning environment in St. Paul University Philippines.

Specifically, it sought answers to the following research questions:

1. What is the demographic profile of the nursing faculty of the School of Health Sciences of SPUP in terms of:

    1.1 age,

    1.2 gender,

    1.3 civil status,

    1.4 educational attainment

    1.5 teaching experience in years ?

2. What are the faculty caring behaviors as perceived by the

    2.1 nursing faculty and

    2.2 students?

3. To what extent are the faculty caring behaviors manifested as perceived by

    3.1 nursing faculty and

    3.2 students?

4. What are factors that enhance the caring behaviors of the faculty?

5. What is the level of academic performance of the nursing students?

6. Is there a significant difference in the extent of the nursing faculty's manifestation of caring behaviors when grouped according to their demographic profiles?

7. Is there a significant relationship between faculty caring behaviors and academic performance of nursing students?

Methods

Research Design

In the course of the study, the investigator utilized descriptive relational analysis. Moreover, it made use of the mixed methods of qualitative and quantitative research process.   The use of qualitative and quantitative data was valuable in order to give a fuller, richer picture of the respondents' experiences of faculty caring behaviors.

Qualitative method was utilized to develop a rich understanding of the caring behavior phenomenon as it exists in the real world and as it is constructed by the two groups of respondents within the context of PBL environment.

To provide measured description and validation of the variables being studied, this research utilized quantitative methods. The qualitative meanings by the two groups of respondents were quantified to provide information about the frequency of occurrence of the themes or patterns of caring experiences within the PBL environment.

Respondents of the Study

The target population groups were Levels II, III & IV faculty and nursing students from the School of Health Sciences of St. Paul University Philippines. The investigator utilized purposive sampling technique in the selection of these two groups of respondents.

Eighteen (18) eligible faculty members have participated in the study and were given teaching assignments in professional nursing courses during the summer term of academic year 2009-2010   using PBL as an approach to teaching-learning nursing.

For the student respondents, purposive sampling technique was utilized in which 40 nursing students were included in the qualitative part of the study. These students were enrolled in the summer of academic year 2009-2010. To determine sample size of student respondents for the quantitative part, total enumeration was used per year level. A total of 224 BSN students participated in answering the FCBI to determine faculty caring behaviors.

Instrumentation

Faculty Caring Behavior Instrument

The investigator developed the Faculty Caring Behavior Instrument (FCBI) from the interview descriptions of the nursing faculty and students. The instrument was constructed after preliminary qualitative interviews using unstructured open-ended guide questions.   The Faculty Caring Behavior Instrument (FCBI) contained 74 items reflecting perceived caring behaviors by the nursing faculty and students distributed across the 7 caring themes that were identified and categorized from the focus group interviews.

The FCBI utilized a 4-point Likert Scale to measure caring behaviors of the faculty with the following scoring interpretation: 4- caring is observed at all times; 3- caring is observed on most occasions; 2- caring is seldom observed and 1- caring is not observed at all.

Faculty Caring Behavior Instrument for the Nursing Faculty

The FCBI for the nursing faculty was composed of two parts: The first part consisted of the faculty information sheet which determined demographic profile of the nursing faculty.

The second part was the faculty caring behavior instrument that contained 74- items meant to measure faculty caring behaviors in terms of the 7 caring themes: presence (11 items); concern (10 items); guidance (10 items) commitment (10 items); confidence (12   items)   competence (11 items) and conscience (10 items).

Faculty Caring Behavior Instrument for nursing students

The FCBI for student respondents included the 74 item questions to evaluate faculty caring behaviors of PBL tutors. The investigator administered the FCBI to 224 BSN students.

Data Gathering Procedure

Data gathering was conducted in two parts:

For part 1, the following procedures were done: The faculty respondents (n=18) were asked to complete the Faculty Information Sheet that contained information about faculty demographic profile.

The faculty (n=18) and student respondents (n=40) were interviewed and asked to recall or describe a situation that they have gone through in their PBL sessions in which caring was demonstrated by their PBL tutors. Unstructured open-ended interview guide questions were used to conduct the focus group interviews. The interviews lasted for 20-30 minutes. The focus group interviews were terminated when the respondents have nothing more to say.

Interview results were transcribed verbatim immediately after the focus group discussion. Data was analyzed using the modified version of the constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985) which contained four steps: 1) comparing incidents applicable to each category; 2) integrating categories and their properties; 3) delimiting the construction and 4) writing the construction (Glaser & Strauss, 1967).
Part 2 consisted of the following processes:

1. The faculty caring behavior instrument was developed based on the qualitative descriptions of caring by nursing faculty and student respondents.

2. The faculty caring behavior instrument was developed by the investigator after consultation with nurses who were known-experts on caring and problem based learning.

3. The faculty caring behavior instrument was administered to 18 nursing faculty and 224 nursing students under the NCM 100, 103 and 106 PBL courses during the summer term of SY 2009-2010.

4. The investigator developed the achievement tests for NCM 100, 103 and 106. The achievement test is a 70-item multiple choice questions taken from the concepts learned in NCM 100, 103 and 104 during the summer semester of SY 2009-2010.

5. To establish instrument reliability, the faculty caring behavior instrument was pilot tested to 50 registered nurses who had utilized PBL during their study of nursing. Test/re- tests of the instrument were conducted to the same group of nurses in order to compare results. The return of the instrument was 100%.

6. To establish content validity, the instrument has been critiqued by nurse educators, senior nurses, masters and doctorate students who had PBL experiences during their study of nursing.

7. To assess face validity, the FCBI was then reviewed for clarity by the nursing faculty who participated during the qualitative phase and at least 30 nursing students who were part of the interview process. The respondents did not express any difficulty in understanding any word or item found in the tool, which clearly demonstrated face validity.

8. The completed FCBI were subjected to SPSS software to tally the respondents' answers.

Data Analysis for Qualitative Data

Informal focus group discussions had been conducted with the nursing students during the qualitative interview phase. An unstructured interview guide had been used containing open-ended questions to elicit information about the phenomenon of caring among the respondents.

Data gathered from the interviews was analyzed and grouped according to categories or themes using the modified version of the constant comparative method (Lincoln & Guba, 1985; Glaser & Strauss, 1967).

Data Analysis for Quantitative Data

Using descriptive statistics, the following statistical treatment were employed:

1. To determine demographic profile, factors that enhance faculty caring behaviors, frequency count and percentage distribution was used.

2. To determine significant relationship between faculty caring behaviors and academic performance; *Pearson r* correlation coefficient was used.

3. To determine significant differences in the extent of faculty caring behaviors when grouped according to demographic profile, the t-test or one-way analysis of variance was used.

4. The Statistical Package for Social Sciences (SPSS) was utilized to test the hypotheses.

5. To interpret mean range data of the faculty caring behavior instrument, the following was used:

Mean Range	Interpretation	Qualitative Description
3.25 – 4.00	Caring is observed at all times	High Caring
3.24 – 2.50	Caring is observed in most occasions	Moderate caring
2.49 – 1.75	Caring is seldom observed	Low caring
1.74– 1.00	Caring is not observed at all	Poor caring

Results and Discussions

Based on findings, the investigator has arrived at the following findings:

1. **Demographic Profile of Nursing Faculty**

Age:

Majority of nursing faculty n= 11 (61.11%) belonged to the age range of 20-29 and n=2 or 11.11% belonged to the age range of 50-59.

Gender:

There are more female faculty members n=12 or 66.67% than male faculty members or n=6 (33.33%).

Civil status:

There are more single faculty members or n=12 (66.67%) than married ones or n=6 (33.33%).

Educational Attainment:

Twelve or n=12 (66.67%) faculty members have finished their master's degree in nursing and six or n=6 (33.33%) faculty have a Bachelor's degree in Nursing.

Length of teaching experience (in years)

There are three or n=3 (16.67%) faculty members who have achieved 16-20 years teaching experience and twelve of n=12 (66.67%) have 1-5 years teaching experience.

2. **Perceived Faculty Caring Behaviors by the Nursing Faculty and Students**

    Caring themes and subthemes were identified and categorized according to the interpretation of the investigator. The faculty caring behaviors expressed by the respondents were analyzed and grouped according to categories or themes. Seven caring themes were identified: *Presence, concern, commitment, competence, conscience, confidence and guidance*.

3. **Faculty Caring Behaviors according to the Nursing Faculty and Students**

    Nursing Faculty

    "Showing empathy or compassion" and "giving advice were dominant faculty caring behaviors perceived to be significant by the nursing faculty. These caring behaviors were categorized under the caring themes "concern" and "guidance" respectively.

    "Attentive listening" (concern) and "facilitation skills" (competence) received the lowest rank.

Nursing Students

The students perceived "being available" (presence) as highest faculty caring behavior followed by "counseling/advising" (guidance) and "showing compassion" (concern).

"Being responsible, "instilling faith/hope/trust" and being patient/persevering, "being with" and "non-judgmental" received the lowest rank.

4. **Extent of Manifestation of Faculty Caring Behaviors as Perceived by the Nursing Faculty and Students**

The highest weighted mean caring scores by the faculty were noted in the caring themes "confidence and conscience "(M=3.81). Lowest weighted mean caring score was reflected under the caring theme of "presence" (M=3.62).

For the nursing students, the highest weighted mean caring scores were reflected in the caring themes "confidence and concern" (M=3.63). The lowest average mean caring score was noted under the caring theme "guidance" (M=3.53)

5. **Factors that Enhance the Caring Behaviors of the Nursing Faculty**

The nursing faculty perceived that there are several factors that may enhance their demonstration of caring behaviors. Role modeling of administrators was viewed as the dominant factor perceived by the faculty as an important factor for them to demonstrate caring behaviors. The nursing faculty believed that caring behaviors shown by administrators can be emulated.

Lowest factor mentioned by the faculty is "proper motivation. "The faculty becomes motivated to strive more and help the students not only in their academic pursuits but also in their individual needs.

6. **Academic Performance of Nursing Students**

Overall, it is worthy to note that nursing students performed very satisfactorily in the achievement tests with a transmuted grade range of 85-89% or a descriptive interpretation of "very good" academic performance in their NCM –PBL subjects during the summer term of AY 2009-2010.

7. **Relationship Between Faculty Caring Behaviors and Their Demographic Profile**

There is no significant difference in the extent of faculty manifesting caring behaviors when grouped according to age.

Findings revealed that the male faculty (M=89) members manifested stronger caring behaviors than their female (M=3.66) counterparts as revealed in their mean scores.

There is no significant difference in the extent of faculty manifesting caring behaviors when grouped according to civil status.

The test for significant difference in the extent of faculty manifesting caring behaviors according to the faculty's educational attainment revealed no statistical significance.

The is no significant difference in the extent of faculty manifesting caring behaviors when grouped according to years of teaching experience.

8. In the extent of relationship between faculty caring behaviors and academic performance of nursing students, data showed that there is low correlation between faculty caring behaviors and academic performance; hence one cannot conclude that the low relationship is descriptive of the independent samples. However, several studies have confirmed that significant relationship do exist between faculty caring behaviors and academic performance of students. Studies supported the notion that caring is highly valued and considered integral to nursing. Caring behaviors role modeled by faculty in a learning environment enhance student understanding and ability to learn nursing and caring.

Conclusions

Based on the findings derived from the study, the following conclusions are hereby presented:

1. Demographic profiles of the faculty like age, civil status, educational attainment and teaching experience in years have no significant correlation with the manifestation of caring behaviors; however, gender was established to have significant correlation with faculty caring behaviors. This finding proves that men in nursing can be as compassionate and nurturing as their female counterparts.

2. Seven caring themes and subthemes were identified as faculty caring behaviors within a problem-based learning environment. Caring themes included "presence, concern, guidance, commitment, competence, confidence and conscience." The results of this study further validated that the power of caring are expressed in caring relationships emanating from the faculty-student transpersonal caring relationship.

3. Transpersonal caring relationships between the nursing faculty and students which occurs during PBL sessions yielded "high levels of caring" which means that caring is observed at all times in the faculty-student interactions during PBL tutorials.

4. The results of the achievement tests of the students showed that at least half of the total number of students obtained "very good" performance in the achievement tests given in their NCM subjects during the summer term of AY 2009-2010.

5. Several factors can enhance the demonstration of caring behaviors by the faculty but role modeling of caring behaviors by administration can further enhance the faculty to establish emotional connections with their students..

6. Academic performance of students and faculty caring behaviors showed low correlation between the two variables; however, several studies had already established that faculty caring behaviors significantly correlate academic achievements of students.

Recommendations

From the findings of the study, the investigator would like to recommend:

1. That the concept of caring which is uniquely known and expressed in nursing be explored and further studied to provide an organizing framework for studying caring in nursing education, practice and research.

2. That nurse educators further validate the measuring tool used in this study.

3. That school deans, program coordinators, and team leaders provide learning opportunities for the faculty and students to create "care groups or care circles" in order to mentor novice faculty and students in sustaining and enhancing caring practices within the university.

4. That the results of the study offer new perspectives to future researchers to continue exploring innovative ways to teach/learn nursing through pedagogical approach like problem-based learning grounded in the caring science .

5. That nurse educators' awareness on the relevance of developing and enhancing their caring abilities can facilitate learning among their students.

6. That the nursing faculty is encouraged to invest emotional connections with their students to motivate them to learn and become self sufficient individuals.

7. That the university continues to conduct in-service training programs, seminars and conferences on caring to enhance the caring capabilities of the faculty, staff, students and administrators.

8. Those involved in curriculum planning must integrate the concept of caring as the core of every educational program in order to develop caring competent individuals.

9. That this study be replicated to add significantly to understand the substantive concept of caring in nursing and to put in valuable insights to the teaching /learning nursing using the technology of PBL grounded on the power of caring. This study can be replicated with different faculty, courses, academic programs and educational levels of students since caring behaviors may differ based on the context that they are modeled.

10. That a teaching/learning module on the concept of caring science be included in the nursing curriculum for the students and faculty to improve or strengthen their caring behaviors.

11. That the results of this study be utilized by CHED, ADPCN, BON, as they make necessary revisions in the BSN curriculum. Caring must be threaded throughout the BSN curriculum and should be manifested within the context of every nursing course.

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