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Teachers' Efficacy, Instructional Practices and Attitude Towards Mathematics

Benjamin and Rosario F. Quicho

ABSTRACT

The study was conducted to determine the self-efficacy, instructional practices, and attitude toward Mathematics of public and private secondary school teachers in the Division of Science City of Munoz, Nueva Ecija, during the school year 2017- 2018. The study participants were the 45 permanent teachers of public and private schools. Descriptive statistics and Pearson r were used to analyze the data. Almost one-half of the teacher respondents were 21-30 years old, the majority were females, had a mean age of 34.76, taught in public schools, had long been in the teaching service, the majority had MA/MS units, were Mathematics majors, and were Teacher in terms of position. The teachers' self-efficacy was described as "quite a bit." The respondents showed quite a bit on efficacy to influence decision making, efficacy to influence decision on school resources, instructional self-efficacy, efficacy to create a positive school climate; showed a great deal on disciplinary self-efficacy and efficacy to create a positive school climate; and some influence on efficacy to enlist community involvement. The respondents were always practicing competencies in lesson planning and dealing with homework, often performing practices in assigning homework and classroom practices, had a great deal in utilizing assessment results and in planning for professional development; quite a lot in the extent of limitation to teach Mathematics and in assessment practices; and used direct instruction in presenting most lessons. The respondents agreed on always showing an attitude towards mathematics and attitude towards teaching mathematics, and showing an attitude towards teaching practice in every lesson. Educational attainment showed a highly significant relationship with the utilization of assessment results and significant.

Keywords: high school, mathematics education, teacher development

21st-Century Instructional Practices and Perceived Effectiveness in Delivering 21st-Century Instruction in Talugtug District, Division of Nueva Ecija

Erickson L. Urmatan and Rosario F. Quicho

ABSTRACT

The study determined the relationship between 21st-century instructional practices and perceived effectiveness in delivering 21st-century instruction of public elementary school teachers in Talugtug District, Division of Nueva Ecija, during the school year 2017-2018. The respondents of the study were the 73 teachers and 22 school heads. The study was anchored on the theories of behaviorism proposed by Watson (1958) and the constructivism theory proposed by Bruner (2016). Descriptive statistics such as frequency, mean, percentage, standard deviation and Pearson Product Moment Correlation were used to analyze the results of this study by employing the Statistical Package for Social Sciences (SPSS). The majority of the respondents had a mean age of 36.42; the majority of them were females (93.2%); most of them were married (75.3%) and Roman Catholic (89%). Most of the respondents had MA/ MS units (82.2%), they were Teacher 1 (49.3%) in terms of position; they had a mean teaching experience of 8.70; a mean monthly salary of PHP 23,408.25 and most of them had no seminar attended (46.6). Under 21-century instructional practices: instructional planning practices, instructional delivery practices, and assessment practices had a highly significant relationship with the effectiveness in delivering 21-century instruction. It denoted that 21st-century instructional practices had a good effect in delivering 21st-century instruction. Indeed, 21st-century instructional practices were effective in delivering 21st-century instruction. The findings above posited that 21st-century instructional practices highly affected the teachers' execution of 21st-century instruction.

Keywords: instructional practices, teaching and learning, teaching effectiveness

Perceived Effectiveness on the Use of English Language in Teaching Mathematics and Science

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ABSTRACT

This thesis investigated the perceived level of effectiveness in mathematics and science 39 students, including grades 5 and 6, and six teachers participated in the study by providing data on their experiences in learning and teaching Mathematics and Science using English medium for instruction. A quantitative method was employed to analyze data, performing statistical procedures of descriptive statistics and Pearson correlation using SPSS 20. The study shows that most participants perceived that English medium instruction helped them improve their English reading and writing skills. Most participants agreed with the helpfulness of English as a Medium Instruction. There was no significant relationship between teachers' socio-demographic characteristics and the perceived effectiveness of using English in teaching Mathematics and Science. There was a significant relationship between students' socio-demographic characteristics and the perceived level of effectiveness of the use of English in teaching mathematics and science. There was a significant relationship between school factors such as facilities and equipment and the perceived effectiveness of using English in teaching mathematics and sciences by students. There was a negative significant relationship between school factors and teachers' perceived effectiveness in teaching mathematics and science.

Keywords: mathematics, medium of instruction, science

Academic Performance and Attitude of 8 Special Science Section Students in Topics in Science using English and Filipino as Media of Instruction: A Comparative Analysis Grade Selected

Jomell M. Santiago and Eden S. David

ABSTRACT

The study was conducted to determine the academic performance and attitude of Grade 8 special science section students in selected topics in Science for Grade 8 under two mediums of instruction, English and Filipino. The study's respondents were Sixty-eight (68) Grade 8 students of Juan R. Liwag Memorial High School. A researcher-made test was used as a pretest and posttest. The instrument was subjected to expert validation. Also, a survey questionnaire was used for the socio-demographic characteristics of the respondents. An instrument adapted from the Science Attitude Scale (SAS) was utilized in the attitude toward science. The majority of the respondents were 14 years old, and many of them were females. Most of them have two siblings, and they are the eldest in their family. They all speak Filipino at home and had a grade of 90 and above. The majority of their parents finished their bachelor's degrees, and they are professionals. Many respondents have a monthly gross family income from P15781- P31560. They all have smartphones and use them for about 5 to 6 hours daily for entertainment. The socio-demographic characteristics have no significant relationship with the respondents' academic performance in Science 8. The difference in the academic performance of the control and experimental groups was statistically significant. Students in the control group whose medium of instruction is English recorded significantly higher mean gain scores than those in the experimental group whose medium of instruction is Filipino. Thus, language appeared to affect the student's academic performance. Hence, English as a medium of instruction is more effective in teaching selected topics in science 8. Moreover, the study showed that before and after the instruction, the mean attitude scores of the respondents meant that they agreed on the positive beliefs/opinions about science. The control and experimental groups exhibited a statistically comparable overall mean in the attitude before and after instruction. The language appeared not to affect the student's attitude toward science. Hence, students taught using English and Filipino had the same attitude towards science.

Keywords: academic performance, attitude in science, medium of instruction.

Development and Validation of Strategic Intervention Material to Enhance the Academic Achievement in Chemistry of At-risk Grade 9 Students

Maricor V. Santos and Rosalie R. Rafael

ABSTRACT

This study is about developing and validating a Strategic Intervention Material (SIM) and its effectiveness on the performance of at-risk Grade 9 students in learning Chemical Bonding. The study consisted of two phases: Developing and evaluating the strategic intervention material and utilizing the prepared module in the teaching-learning process in Science 8, particularly on Chemical Bonding. This study used a random sampling technique. Ninety (90) at-risk Grade 9 students from Muñoz National High School-Main served as respondents. One-half of the students (45) were assigned to the control, which was taught the traditional method of instruction, and the other half to an experimental group, which used the SIM. The effectiveness of the prepared SIM in enhancing the teaching-learning process in Chemistry was determined. The effects of the SIM on students' achievement were determined. The student's attitude towards the instructional material after using it was likewise noted. The prepared SIM on Chemical Bonding was named "Bond-Aid, A Bond to Forever." Evaluators of the SIM favorably rated the six attributes: objectives, instructional quality, content - quality, technical quality, significance, and effectiveness. The criteria per card consists of the different parts of the SIM: title card, guide card, activity card, assessment card, enrichment card, reference card, and answer card. Pretests and posttests mean scores of students in both modes of instruction showed highly significant differences using independent paired t-tests at 0.01. Both groups improved in their achievements after modes of instruction were utilized. However, students who used SIM had significantly higher scores on the achievement test than those in traditional instruction. The prepared material enhanced the learning process, considering that students were learning topics indicative of information processing and memory retention. Mode of instruction has a highly significant relationship with students' achievement. Students had better achievement scores using SIM than the traditional mode of instruction. Based on the results of this study, the prepared SIM in Chemistry enhanced students' achievement and developed them to be good at processing information.

Keywords: strategic intervention material, student achievement, chemical bonding, intervention material, at-risk student

Career Guidance Program and Matching of Strands among Senior High School Students in Sto. Domingo National Trade School

Medelyn T. Valiente and Irene G. Bustos

ABSTRACT

This study described the Department of Education's Career Guidance Program in terms of activities, workforce, use of modules, and referrals done in Sto. Domingo National Trade School. Likewise, it also dealt with the description of students' strand choice, the usefulness of the career guidance program, and the relationship of the career guidance program to students' specialization grade and their strand choice. Results of the study showed that mandated activities and workforce were not 100% followed. Moreover, having matched choice of strand before the career guidance program implementation cannot be attributed to the implementation, though the respondents found the activities very useful. Likewise, it did not significantly affect the student's grades in their specialization subjects. Based on the study's findings, it is recommended that the guidance program be intensified and based on students' needs. Further, registered guidance counselors and other guidance personnel must be hired to implement and monitor guidance services smoothly. Likewise, teachers must be fully oriented on guidance activities and be given enough support. Moreover, further studies can be done to identify the relationship between students' socio and academic profile to students' strand choice and factors they must consider.

Keywords: career guidance, strand choice, guidance counselor, senior high school

Personal and Emotional Profiles and Triggers of Drug Offenders under Parole and Probation Office: Bases for Individualized Relapse Prevention Program

Mylene DG. Carbonell and Irene G. Bustos

ABSTRACT

This study was conducted to design an individualized Relapse Prevention Program for convicted drug offenders under the Parole and Probation Office based on the gathered data on the respondents' profile (socio-demographic characteristics, family background, present family status, livelihood skills, social support, and history of drug use), emotional profile and triggers for drug use. Data were gathered using clinical forms, particularly the Severity of Dependence Scale (SDS), Emotional Quotient Inventory: Short, External Relapse Trigger Survey, Internal Relapse Trigger Survey and Assessment of Social Support Worksheet, and the legal form Post-Sentence Investigation worksheet (PPA form 1). Results showed that the majority of drug offenders under the supervision of Tarlac City Parole and Probation Office are aged 17-57 years, Roman Catholics, have partners, income contributors in their families, and are bilingual. Levels of highest educational attainments are ranging from elementary level to tertiary level. Most of them are presently minimum wage earners. They grew up with inadequate family income, had "fair" family relationships, and had parents living together. They reported generally "fair" relationships with their partners and children. Convicted drug offenders were dependent poly-users and had been using for 10- 20 years before they were indicted. The onset of using drugs was at the age of 13-15 years. Clients admitted to having committed other drug-related crimes like causing physical injuries, theft, domestic violence, and pushing either during "high times" or as their endeavors of acquiring their abused substances. Peer influence and negative emotions were identified as external and internal triggers for drug use, respectively. Respondents have adequate social support in terms of emotional, social, informational, and practical aspects. Clients had generally low EQ indicative of their poor scores in the five EQ composite scales, suggesting that they should be taught strategies to enhance their emotional quotient. Based on the results above, the researcher developed individual rosters of proposed interventions per a client's distinct characteristics and needs. The acquired data also help determine the relapse prevention activities for the other respondents. This research can also be a reference for the provision of individualized treatment plans for future RA 9165 offenders under the supervision of any DOJ-PPA field office.

Keywords: drug offenders, parole and probation, personal profile, psychological profile, relapse prevention program, RA 9165

Motivational Framework of Regular and Independent Class Student Teachers under English Study Program in Jambi University

Suchi Isti'anah and Rosario Quicho

ABSTRACT

This study determined the motivational framework of the regular and independent class student teachers under the English Study Program of the Faculty of Teacher Training and Education at Jambi University. The study's respondents were 62 regular class student teachers and 35 independent class student teachers under the English Study Program at Jambi University during the second semester of SY 2017-2018. This study was anchored on the Personal Investment (P1) Theory (Maehr and Braskamp, 1986; Maehr and McInerney, 2004). The majority were 20-year-old females (53.4%) with a mean age of 20.43, and most were Islam (79 or 89.8%). Most of the regular class student teachers' parents graduated from college (50.0%), while independent students graduated from senior high school (53.1%). Most regular and independent class student teachers had income above the poverty line (54.5%). Most regular and independent class student teachers had three members in their families (52.3%). Facilities, classroom environment, and scholarship from the university were described as "good" by the respondents. The lecturer was described as "highly satisfactory" by both respondents. The respondents described achievement goals, sense of self-goal, and facilitating conditions as "agree" or having a high purpose for achievement pursuit. Respondents showed a significant difference in the sense of self, particularly negative self-esteem, facilitating conditions specifically with further education intention, school valuing, leaving school, pride from others, and negative peer influence. A significant difference was also noted in achievement goals, particularly competition and facilitating conditions, specifically peer help; Sex was found to be highly significant with performance goals and facilitating conditions, while age was significant with mastery goals. Parents' Educational Attainment was significant with positive peer influence; Facilities, scholarship from the university, and lecturers had a significant relationship with achievement goals. Facilities, classroom environment, and scholarship from the university showed a significant relationship with a sense of self, particularly a sense of purpose. Scholarship from the university was highly significant with facilitating conditions, while facilities were significant with facilitating conditions.

Keywords: motivation, regular class, independent class, student

Students' Performance in Indonesian National Examination and Career Choice among First-Year Students in Selected Universities in Jambi Province

Suci Fitriani and Florante P. Ibarra

ABSTRACT

This research study investigated the role of the four components of the Indonesian National Examination in students' career choices. Around 310 respondents participated in the study using their overall scores in the National Examination. Anchored in Holland's (1997) RIASEC Theory, a quantitative method was employed to gather data using a research instrument tool. Data analysis included performing statistical procedures of descriptive statistics and Spearman's product-moment correlation using Statistical Package for Social Science version 20. The study's findings revealed a significant difference in the national examination between high and low-performing students and their career choice, and there was a significant relationship between socio-demographic profile, four components of the Indonesian National Examination, and Indonesian students' career choice. Results suggest that students with high scores in the National examination tend to choose numeric academic courses.

Keywords: national examination, RIASEC theory, students' career choice