Analyzing Pangasinan State University Student's Faculty Teaching Performance Rating using Text Mining Technique

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Abstract: -The study tried to analyze the relationship of the numerical value of the faculty performance rating and the actual observations, opinions, feelings, and description of the students towards the performance of the observed faculty members using text analytics. The result reveals that students describe faculty members with a rating of 1 with negative words. Faculty members with rating 2 were described by the students using neutral words/word patterns. In the case of faculty members with rating 3, positive word/word pattern "good" was used by the students to describe the performance of the faculty members. The results revealed that if a faculty members was evaluated and rated 4 and 5 the descriptions are positive observations / comments from the student respondents. The results reveal not only the quantitative values of faculty evaluation it also exposed the qualitative description of the students in the performance of their faculty members. This study brings out significant aspects of the teaching performance of the faculty members of Pangasinan State University. The results can be used for coaching and mentoring by university and campus heads to their faculty members in terms of their weaknesses. Moreover, the results can be utilized by Pangasinan State University to evaluate the teaching performance of their faculty members based on the comments or opinions of the students.

Key-Words: - Faculty Performance Rating, Text Analytics, Teaching Performance, Faculty Evaluation, Word Patterns, Students' Comments

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1 Introduction

Performance evaluation in higher education systems is a significant aspect to improve the quality of teaching – learning process and achieve excellence. For most educational institutions, assessing faculty teaching performance is a prerequisite to ensure an effective student learning. However, institutions continue to struggle with determining how effective these assessments are and how they are evaluated. Moreover, performance evaluation measurement and standards remain to be a constraint in assessing teaching skills and student learning.

Every higher education institutions traditionally measures faculty performance through questionnaire based system where a pre-designed questionnaire form is given to each student at the end of the semester. They could either be in the form a quantitative assessment with a define rating or quantitative assessment which describe the experience of the learning from the faculty under evaluation.

Like other universities, Pangasinan State University employs two forms of assessment to evaluate faculty performance for different purposes and is being conducted every end of a semester. It is designed to collect students' impressions on the teacher as well as their learning experience in the course. The main focus of summative assessment is to measure teaching component refers to aspects such as Commitment, Knowledge of Subject, Teaching for Independent Learning, and Management of Learning. These four dimensions serve as a basis for the quantitative rating of a faculty members for a particular period. This summative assessment is used to assess faculty performance for a specific semester, with the goal of determining the efficacy of teaching. Meanwhile, formative assessment aims to help faculty members extract relevant information about teaching strengths and weaknesses. These forms of assessments are utilized to identify areas for improvement. Generally, the university uses summative assessment results to review faculty teaching performance which is relevant to their tenure or promotion. Meanwhile, formative assessment is not a separate evaluation from teaching; rather, it is an essential component of the teaching and learning process. With the qualitative assessment, faculty members are able to recognize and identify their strengths and weaknesses, and

target areas that need work. Moreover, faculty members utilize the results to reflect on their teaching and curriculum and take measures to enhance their instructional techniques and course materials in order to provide future students with a more favourable learning experience.

To utilize the output of the assessment, a well – defined analysis is necessary to extract the relevant information provided by the students. Furthermore, appropriate analysis relating the result of qualitative and quantitative assessment for better utilization of the result. Most HEIs resorted to digitalization of educational services and processes which pave way to datafication which is significant particularly in understanding and enabling development within the wide framework of education.

According to [1], most student feedback analyses come up short of a deeper investigation of qualitative evaluation. Most often times, the institution only relies on the quantitative rating for evaluation purposes, discarding the qualitative feedback due to bulk abstracts collective sentiments. Qualitative data often are untapped which is an interestingly common problem in most education systems. There are number of benefits if we further process the feedback of students. In addition, when qualitative feedback is correlated with quantitative rating, it provides a wider perspective for the teachers in prioritizing and focusing the necessary modifications of the course. The challenge for the university is how to assist its faculty members in better processing such enormous quantities of feedback and identifying course delivery shortcomings. As a higher education institution, capturing and evaluating qualitative feedback data can give important understandings of teaching techniques and curriculum [2].

Technology paved way for new methods of data quantification and standardization. Currently, big data are progressively being obtained related to teaching-learning process, encouraging the development of educational data mining techniques.

Data mining is a set of tools to retrieve and classify important and relevant information. In an educational setting, these techniques are used to analyze students' behavior, performance evaluation of teachers and the learning system, and curricula [3]. The faculty evaluation process includes personal and academic data for conducting semestral performance evaluations. However, the assessment process must be unbiased to ensure the expected learning outcomes [4]. Hence, using DM methods to extract hidden yet relevant knowledge from data is worthwhile. Data mining techniques can be used to develop a performance prediction system that focuses on the continuous evaluation of faculty members based on students' evaluation.

In a Philippine higher education context, faculty members are evaluated in a traditional method. Traditional evaluation systems for the most part includes predisposition and individual contemplation between the educator and the evaluator [5]. Because it is based on superior abilities and forecasts, this evaluation approach usually results in an imbalanced evaluation when selecting active or poor performing teachers. Moreover, using these evaluation methods greatly consumes analytic time, effort to filter and collect convenient data for the evaluation process, which makes the assessment cycle essentially inaccurate. Furthermore, there is limited literature that correlates the qualitative rating with the qualitative feedback which the paper intends to address. We leverage it using a text mining approach in extracting and analysing an implicit description of a faculty members evaluation's from students' comments.

The proposed faculty evaluation relates the numerical value of the faculty performance rating and the actual observations, opinions, feelings, and description of the students towards the performance of the observed faculty members. The researchers of this paper focused on extracting students' feedback/comments using text mining approach and relating it with the performance evaluation numerical rating of the faculty members.

The technique provide innovative solution within the educational setting that range from the adoption of intelligent methodologies to the transformation of students' learning experiences.

2 Literature Review

2.1 Faculty Evaluation

Evaluation has long been involved in education, especially higher education domains and as one of the university management functions, plays an important role in correct planning, successful implementation of educational programs and academic quality [6]. Faculty evaluations are a significant measure of teaching efficacy and are a measure for promotion and tenure at many higher educational institutions. [7] defined faculty evaluation as a means to improve faculty performance and a process that helps in making personnel decisions. Inarguably, the most justifiable reason for faculty evaluation is the improvement of instruction. [8] emphasized that the primary goal of

faculty evaluation should be to improve the quality of their teaching.

Evaluating faculty, however, has proven to be a difficult task. Unfortunately, they are an imprecise metric, since biases in aspects like student academic ability have been discovered [9]. Moreover, several cited literatures found several issues concerning faculty evaluation which includes size of class [10], workload [11], and grading standards [12].

It is expected that the improvement in instruction is more likely to be the outcome of teacher evaluations based on classroom performance. Many higher education institutions face many challenges related to this, and much research has been done to address the questions and ambiguities related to teacher evaluation to help teachers adapt to the result of the evaluation [13]. Despite its wide use, several literature debate its validity and reliability with regards to the degree in which it correctly evaluates the teaching effectiveness or exhibits an inclusive rating of the course or instructor [14], [15], [16]. No clear evidence relates student ratings and teaching effectiveness is still to be argued [17], [18].

In addition, quantitative student assessments alone cannot efficiently improve the teaching efficiency and student learning across higher education institutions [17], [18].

Consequently, this requires analysis of student feedback or qualitative information, which rarely receives much academic and developmental attention [16].

2.2 Educational Data Mining (EDM) Techniques

A large amount of work using data mining in HEI has been carried out in recent years. Often, predicting employees' performance is an important issue in several organizations, such as higher educational institutions. Several studies focused on predicting students' performance [19]. The study revealed that the most frequent data mining techniques employed are Decision Tree and Neural Network. [20] employed decision trees as classification techniques to improve the students' performance and detect their GPA. The results showed a significant improvement in identifying the relevant subjects in the study plan based on the classification of student grades.

Another study conducted by [21] utilized educational data mining to prove a relevant strategy for the administration of HEIs to address the critical challenge and deficiencies of improving the quality of educational processes.

In terms of faculty evaluation, [22] suggested a model – based approach using data mining techniques which includes Naïve Bayes Classifier, LAD tree, and CART. The study used different aspects of teachers' performance measures that have a profound influence on the teachers' performance such as students' Feedback. Among the three employed models, Naïve Bayes Classifier earned the highest accuracy measure with 80.35%. [23] proposed EDM method on faculty performance evaluation using an optimal algorithm. The proposed method overcomes the limitations of the existing techniques and improves the reliability and efficiency of faculty performance evaluation system which helps produce efficient plans to improve the learning process. [5] also used various EDM techniques to uncover important patterns that are driving the teachers' performance evaluation process. The study used demographic variables and several possible and important indicators mined from a paper based on teachers' performance reports. Finding showed that NB tree provided a significant prediction accuracy improvement over Conjunctive rule (33%) and Naïve Bayes(12%).

These literatures provide various EDM techniques that focus on teacher assessment perceptions, performance prediction, and traditional methods used in the assessment process. Findings showed that a distinctive prospect to apply techniques that can effectively predict the existing faculty evaluation process as well as the perception of their performance is applicable. Moreover, EDM techniques provide working models that help in the earlier identification of faculty members with low performance ratings [24].

2.3 Text Analytics

[25] Conducted a study to analyse the underlying patterns and determine the emotional valence of the students based on their comments in the Students Evaluation of Teaching (SET). The paper proposed an Educational Process Data Mining model (EPDM) that utilize the opinions or perspectives of the students and to understand the relations or correlation of words and sentiments of the students towards their teachers. There study shows that the state-of-the-art idea of text mining for educational process innovation can be employed to provide a more robust analysis of the students' comments or viewpoints, and consequently, adopted or used by the educational process owners or advisor.

The paper of [26], [27], [28] used learning machine to analyze text sentiment and quantify the students' textual opinions and to provide the selection committee with the sentiment tendency of students' comments on teaching faculty members.

Another research by [29] which combined both numeric rating and textual feedback. They added a new value to the overall faculty performance and put a premium on student textual feedback as part of the faculty evaluation process.

Another study confirms that the Latent Dirichlet Allocation algorithm and sentiment analysis using the Plutchik wheel of emotions can reveal hidden meaning contained in documents articulating similar contents. The research used the qualitative responses of the students on the academic services provided by the university to decipher themes such as: The Disparity of Teaching Assignment to Professors' Field of Expertise, Professors' Expression of Willingness to Help Students in School-Related Matters, Desirable Traits Portrayed by a Professional Teacher, Professor's Commitment and Dedication to Classroom Instruction, and Enhancement of Teaching Practices to Improve Quality of Academic Services [30].

2.4 Conceptual Framework

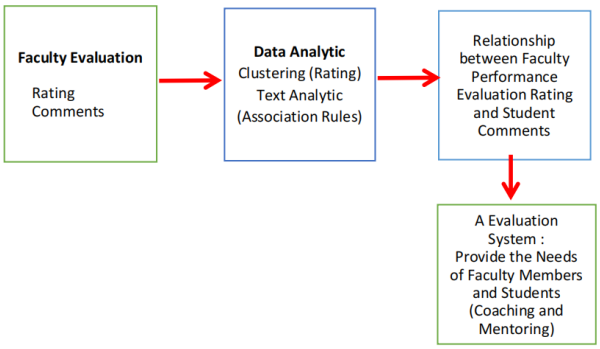

Fig. 1: Conceptual Framework of the Study

3 Methods

3.1 Research Design

This study was a mixed study utilizing both descriptive research and qualitative research. Both descriptive surveys were designed and utilized to examine and relate the numerical value and comments of the students on the performance of faculty members at Pangasinan State University. Qualitative approach was utilized to analyze and relate the occurrences of terms in the comments and its relationship to the equivalent numerical rating of students.

3.2 Data Collection

Datasets were collected from the PSU Online Portal. The Faculty Evaluation forms were sent to each students' the institutions' portal so that all students have the chance to evaluate the performance of their instructors of Pangasinan State University comprise for the First Semester, A.Y. 2019 – 2020.

Most of the comments gathered from the evaluation form were written in English language however, there some comments that were written in Filipino or a combination of Filipino and English language. The total number of comments gathered is 15,548.

3.3 Pattern Recognition

The method that was applied in determining the pattern recognition of comments was the Association Rule Mining. In Association Rule Mining, all item sets must meet the set value for the minimum threshold for support and confidence to arrive at a strong relationship between or among items. The formula for computing the support and confidence is given below:

$$Support = \frac{frq(X,Y)}{N}$$

$$Rule: X \Rightarrow Y \rightarrow Confidence = \frac{frq(X,Y)}{frq(X)}$$

$$Lift = \frac{Support}{Supp(X) \times Supp(Y)}$$

Where:

Support - indicates the frequency a word appears in the dataset.

Confidence - indicates the frequently a rule is found to be true.

Lift (X →Y) - indicates the rise in the probability of the occurrence of word X when word Y has already occurred.

Support is a set of words (to describe the performance of a faculty) or number of words in which that set of words occurs in the dataset.

Confidence determines the reliability of the inference made by a rule and is defined as the probability of finding [word1 , word n] together. Confidence is an indication of how often the rule has been found to be true. The confidence value of a rule, X→Y, with respect to a set of transactions, is the proportion of the transactions that contain word1 which also contains word*n*.

Lift computes the ratio between the rule's confidence and the support of the word in the rule consequent. If the value of lift rule > 1 then it has a positive correlation. A lift value greater than 1 indicates words appear more often together than expected.

Association rule mining finds important association or correlation relationships among a large set of data items (comments). Initially

discovers frequent/occurring itemsets satisfying minimum support, and then from which generates strong association rules satisfying minimum confidence.

3.4 FP Growth (Frequent Pattern Growth)

FP growth is creating the frequent datasets without the need for candidate generation. FP growth algorithm is a dataset in the form of a tree called a frequent pattern tree or FP tree. This tree structure will continue to uncover the relationship between two or more items.

This study utilized FP – Growth to determine the frequent patterns in the data set. The FP – Growth requires that attributes of the input ExampleSet must be binominal. In addition, it has two basic working modes in identifying the most frequent itemset/s: 1) Searching for the smallest specified number of itemsets with the highest support without considering the 'minimum support', and 2) searching for every itemset with support larger than the specified minimum support. This approach uses the FP-Tree algorithm which encodes the data set into a tree and then extracts the frequent itemsets from this tree. Frequent itemsets are groups of items that often appear together in the data.

The datasets are fragmented using one frequent item. This fragmented part is called "pattern fragment". The datasets of these fragmented patterns, then analysed. Thus, with this method, the search for frequent datasets is reduced compared.

4 Results and Discussion

Table 1. Dominant words to describe the faculty performance with an evaluation rating of 1

Premises	Conclusion	Support	Lift
loud	teach, know	0.075472	1.962963
loud	teach, voice, know	0.075472	2.944444
student	teach	0.056604	0.768116
voice	teach	0.150943	1.024155
loud	teach	0.150943	1.024155
voice, loud	teach	0.150943	1.024155
class	teach	0.056604	1.152174
class	teach, student	0.056604	8.833333
know	teach, voice	0.075472	3.785714
know	teach, loud	0.075472	3.785714
dont	teach	0.056604	1.382609
accept	teach	0.075472	1.536232
student, class	teach	0.056604	1.728261
know	teach	0.113208	1.975155
wrong	teach	0.075472	2.304348
make	teach	0.056604	2.304348
voice, know	teach	0.075472	2.304348
voice, loud, know	teach	0.075472	2.304348

Table 1 show words/word patterns that describe a teacher performance with a evaluation rating score of 1. Students describe a faculty with a evaluation rating of 1 as "don't teach". "wrong teach" "loud voice", and "student teach". There were **negative words/ word patterns description** coming from the students when a faculty is evaluated rating as 1. The prevalent words used to describe the performance of the faculty members is "loud" + "voice" + "teach" (0.16) or 16,000 that the combination words appear in the dataset, "know" + "teach" (0.11) or 11000 times that the combination word appear in the dataset. The combination of words "wrong"+ "teach" combined appear in the dataset (0.075) or 7,500 times and "dont" + "teach" combined word appear in the dataset 0.056 or 5,600 times.

Table 1 also reveals chances of togetherness / chance of utilizing both of these words to describe the performance of a faculty member. The words "class", "teach", "student" got a positive lift (8.83) and obtained the highest chance of togetherness / chance of utilizing both of these words to describe the performance of a faculty. With a positive lift 3.78 "know", "teach", "voice" are the second highest change of togetherness. Interesting "wrong" and "teach" obtain a positive lift of 2.30 chances that the words will be combined to describe the performance of a faculty member.

The results revealed that if a faculty members was evaluated and rated as 1 sometimes they don't teach and they teach wrong. This descriptions are **negative observations / comments** from the student respondents.

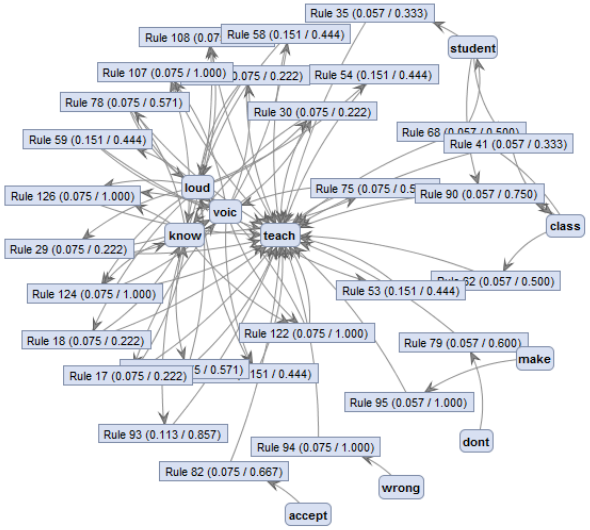

Fig. 2: Association rules derived from comments dataset with faculty evaluation rating of 1

Figure 2 reveals 108 combinational rules derived from the dataset. The word "teach" is connected with "accept", "wrong", "dont", "make", class", "know", "voice" and "loud". The following combinational rules suggest that the main task of faculty members was to "teach" however, students comments that some of their faculty member are "don't"+"teach", "wrong"+"teach". Other combinational rules are "loud"+"voice", "know" and "teach".

Table 2. Dominant words to describe the faculty performance with an evaluation rating of 2

Premises	Conclusion	Support	Lift
discuss	give	0.029931	1.682759
topic	explain	0.040648	2.400463
discuss	topic	0.039304	1.840517
give	discuss	0.029931	1.682759
topic	discuss	0.039304	1.840517
explain	topic	0.040648	2.400463

Table 2 show words/word patterns that describe a teacher's performance with an evaluation score of 2. Students report a faculty with a evaluation rating of 2 as "give discuss". "explain topic", and "discuss topic". The descriptions coming from the students when a faculty is evaluated rated as 2 were more on the **neutral** words/word patterns. The prevalent words used to describe the performance of the faculty members is "topic" + "explain" (0.040) or 4,000 that the combination words appeared in the dataset, "topics" + "discuss" (0.039) or 3,900 times that the combination word appear in the dataset and the combination of words "give"+ "discuss" combined appear in the dataset (0.029) or 2900 times.

In terms of changes of togetherness / combination to describe the performance of a faculty, Table 2 reveals that the words "topic", "explain" got a positive lift (2.4) and obtained the highest chance of togetherness / chance of utilizing both of these words to describe the performance of a faculty.

The results revealed that if a faculty members were evaluated and rated as 2 "sometimes they explain / discuss the topics". This descriptions are **neutral observations / comments** from the student respondents. They choose words which do not indicate that they are satisfied or dissatisfied of the performance of the faculty members.

Figure 3 reveals 6 important combinational rules derived from the dataset. The word "topics", "teach" "discuss" are connected with each other. The following combinational rules suggest that the faculty members discuss and teach their topics. In addition, students describes faculty members as "give" and "discuss". The comments suggest that faculty members ask their students to reports tpoics in their class or so call "claaa reporting" were students are the one who discuss the subject mater in the class.

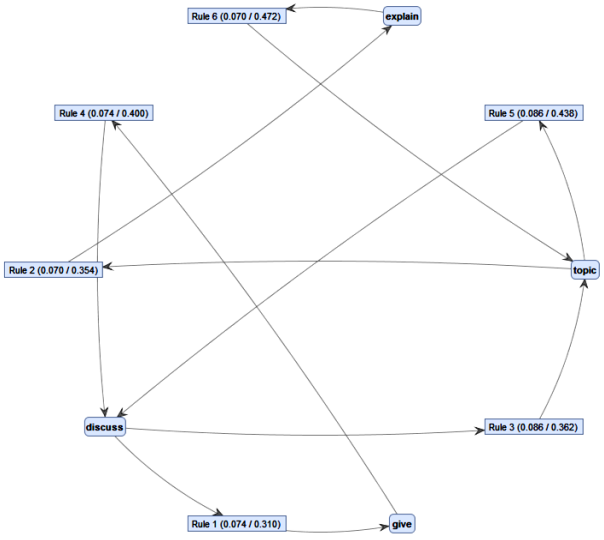

Fig. 3: Association Rules Derived From Comments Dataset with a Faculty Evaluation Rating of 1

Table 3. Dominant words to describe the faculty performance with an evaluation rating of 3

Premises	Conclusion	Support	Lift
teach	good	0.050194	1.932498
topic	explain	0.044458	2.724298
explain	topic	0.044458	2.724298
good	teach	0.050194	1.932498

Table 3 and figure 4 show words/word patterns that describe a teacher's performance with a evaluation score of 3. Students report a faculty with a evaluation rating of 3 as "teach good" and "explain topic". The descriptions coming from the students when a faculty is evaluated and obtained rating as 3 were on the positive words/word patterns. However, the number of adverb was limited to "good" word.

The prevalent words used to describe the performance of the faculty members are "good" + "teach" (0.050) or 5,000 that the combination words appeared in the dataset, and "topics" + "explain" (0.045) or 4500 times that the words combined appear in the dataset.

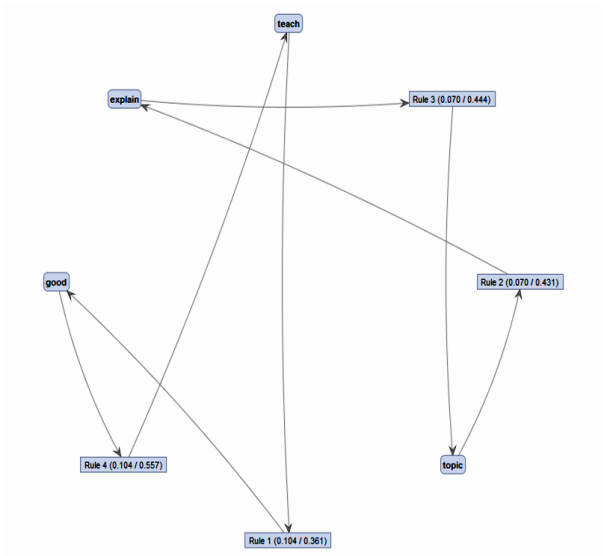

Fig. 4: Association rules derived from comments dataset with a faculty evaluation rating of 3

Table 3 also reveals chances of togetherness / chance of utilizing both of these words to describe the performance of a faculty member. The words "topic", "explain" got a positive lift (2.72) and obtained the highest chance of togetherness / chance of utilizing both of these words to describe the performance of a faculty. With a positive lift 1.93 "good", "teach" are the second highest change of togetherness.

The results revealed that if a faculty member was evaluated and rated as 3 sometimes they are "good explain the topics". This descriptions are **positive observations / comments** from the student respondents. They choose only one word "good" indicating that they are somewhat satisfied with the performance of the faculty members.

Table 4. Dominant words to describe the faculty performance with an evaluation rating of 4

Premises	Conclusion	Support	Lift
teach	student	0.00585	0.894667
topic	understand	0.023742	1.927785
student	teach	0.00585	0.894667
topic	discuss	0.028652	1.911387
discuss	topic	0.028652	1.911387
understand	topic	0.023742	1.927785
teach	good	0.056803	1.832926
topic	explain	0.048163	2.683038
explain	topic	0.048163	2.683038
good	teach	0.056803	1.832926

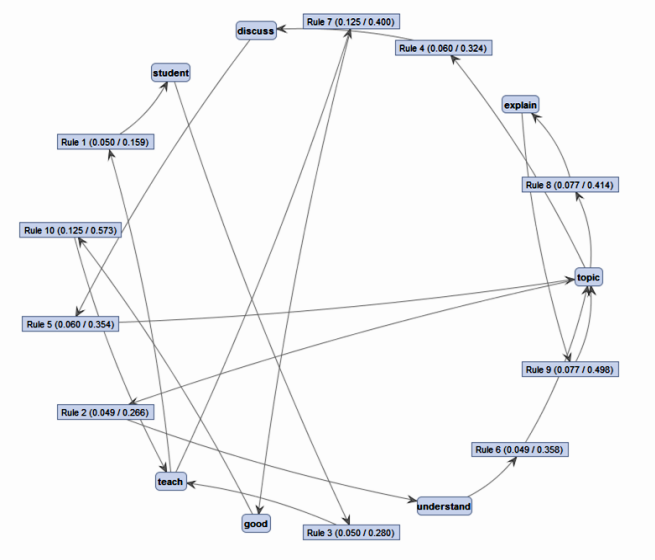

Fig. 5: Association rules derived from comments dataset with a faculty evaluation rating of 4

Table 4 and figure 5 show words/word patterns that describe a teacher's performance with a

evaluation score of 4. Students report a faculty with a evaluation rating of 4 as "teach good", "explain topic", "discuss topic", "teach students"and "understand topic". The descriptions coming from the students when a faculty is evaluated rating as 4 were positive words/word patterns. In addition, the adverb to describe the teaching of faculty members was increased.

The prevalent words used to describe the performance of the faculty members is "good" + "teach" (0.056) or 5,600 when the combination words appear in the dataset, "topics" + "explain" (0.049) or 4900 times that the combination word appears in the dataset, "discuss"+ "topics" 0.028 or 2800 times that the combination of word appear in the dataset or 2800 and "understand" + "topic" 0.023 or 2300 time that the combination of word appear in the dataset.

Table 4 also reveals chances of togetherness / chance of utilizing both of these words to describe the performance of a faculty member. The words "topic", "explain" got a positive lift (2.68) and obtained the highest chance of togetherness / chance of utilizing both of these words to describe the performance of a faculty. With a positive lift (1.92) and lift (1.91) "topic", "understand" and "Discuss","topics" are the second highest and third respectively.

The results revealed that if a faculty members were evaluated and rated as 4 sometimes they are "good to explain and discuss topics, and students understand the topics". This descriptions are **positive observations / comments** from the student respondents.

Table 5. Dominant words to describe the faculty performance with an evaluation rating of 5

Premises	Conclusion	Support	Lift
teach	understand	0.006198	1.1
teach	skill	0.044938	2.933333
good	give	0.041322	2.538462
good	understand	0.03719	1.692308
understand	teach	0.006198	1.1
explain	topic	0.050103	3.771429
teach	good	0.058368	1.579487
understand	good	0.03719	1.692308
good	teach	0.058368	1.579487
topic	explain	0.050103	3.771429
give	good	0.041322	2.538462
skill	teach	0.044938	2.933333

Table 5 also reveals chances of togetherness / chance of utilizing both of these words to describe the performance of a faculty member. The words "topic", "explain" got a positive lift (3.77) and obtained the highest chance of togetherness / chance of utilizing both of these words to describe the performance of a faculty. With a positive lift (2.92) and lift (2.53) "skill", "teach" and "good","give" are the second highest and third respectively.

The prevalent words used to describe the performance of the faculty members is "good" + "teach" (0.058) or 5,800 that the combination words appear in the dataset, "topics" + "explain" (0.050) or 5000 times when the combination word appears in the dataset, "teach"+ "skill" 0.045 or 4500 time that the combination of word appear in the dataset or 2800, "good" + "give" 0.041 or 4100 time that the combination of word appear in the dataset, and "understand" + "topic" 0.023 or 2300 time that the combination of word appear in the dataset.

The results revealed that if a faculty members were evaluated and rated as 5 sometimes they are "skill in teaching, good explain the discus topics and students understand the topics". This descriptions are **positive observations / comments** from the student respondents.

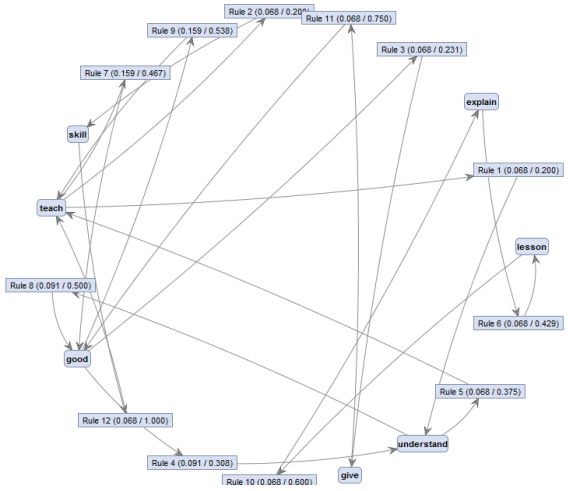

Fig. 6: Association rules derived from comments dataset with faculty evaluation rating of 5

Figure 6 show words/word patterns that describe a teacher's performance with a evaluation score of 5. Students report a faculty with a evaluation rating of 5 as "teach good", "explain topic", "discuss topic", "skill teach","give good" "good understand"and "understand teach". The descriptions coming from the students when a faculty is evaluated rating as 4 were positive words/word patterns. In addition, the adverb to describe the teaching of faculty members increases.

5 Conclusion and Recommendation

The study tried to analyze the relationship of the numerical value of the faculty performance rating and the actual observations, opinions, feelings, and description of the students towards the performance of the observed faculty members using text analytics. The result reveals that students describe faculty members with a rating of 1 with negative words like "wrong"+ "teach" and "dont" + "teach". Faculty members with rating 2 were described by the students using neutral words/word patterns like "topic" + "explain" "topics" + "discuss". In the case of faculty members with rating 3, positive word/word pattern "good" was used by the students to describe the performance of the faculty members. The results revealed that if a faculty members was evaluated and rated 4 and 5 they are good to explain and discuss topics, and students understand the topics.

These descriptions are positive observations / comments from the student respondents. The results reveal not only the quantitative values of faculty evaluation it also exposed the qualitative description of the students in the performance of their faculty members.

The study relates quantitative analysis of unstructured, verbatim responses to "open-ended" comments that can provide a solution to the problems associated with measuring faculty teaching performance rating. The approach that will be apply is so-called "quantitizing" of qualitative data or is just relating qualitative to quantitative methods. Linking quantitative results with a qualitative analysis of open comments would provide a more comprehensive understanding of teaching performance strength and its weakness.

This study brings out significant aspects of the teaching performance of the faculty members of Pangasinan State University. The results can be used for coaching and mentoring by university and campus heads to their faculty members in terms of their weaknesses. Moreover, the results can be utilized by Pangasinan State University to evaluate the teaching performance of their faculty members based on the comments or opinions of the students.

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