



## ARTICLE

# Evaluation of Students' Performance in Specialized Courses in Yanbian Agriculture College by Variance

Run Xu\*

Department of Metal Materials Engineering, Gyeongsang National University, Jinzhou, 660-701, Korea

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### ABSTRACT

The performance of college students' professional courses is an index to evaluate their academic status, so the performance of professional courses has a certain significance. In the process of assigning homework to teachers and taking exams in universities, the performance of specialized courses is regarded as the standard for students to study well. Because students' understanding and follow-up are often assessed on the basis of their usual seriousness and attendance in class, homework and exams, it is necessary to analyze their final grades to assess their actual situation. Test scores were evaluated using variances and covariances. This paper discusses how to evaluate the final achievement from the distribution of achievement.

## 1 Introduction

The student's examination result fills in the document as the archives, also is the important data after the evaluation its enters the society.<sup>[1,2]</sup> therefore, teachers should not arbitrarily alter or deliberately raise scores for private purposes. The results of students' four years in university are often the stones of their future work in the society. After filing, the organization will decide whether to upgrade or not based on its performance in the university and the basis of senior titles. Therefore, their achievements not only play a role in school, but also

play a role in most of the later work. How to arrange the results correctly and objectively is an important course for teachers in colleges and universities. Only the introduction of new people can make the society full of vitality and hope. Let's work together to do a good job in school evaluation is our teachers play a role in the time!

## 2. Assess Your Usual Attitude Based on Your Attendance

Because whether the students can follow up the course with the teacher in time is related to the attendance. Some

\*Corresponding Author:

Run Xu,

Department of Metal Materials Engineering, National Gyeongsang University, Jinzhou, 660-701, Korea;

E-mail: [xurun1206@163.com](mailto:xurun1206@163.com).

students are warned more about absenteeism, which shows that they do not care about the course. So for these students to give timely talk and correct mistakes. A student's attendance rate often represents the most basic attitude problem. Imagine which students can get good grades without attending classes?

### **3. The Condition of Homework Is Good or Bad**

Homework is the second most important achievement. Some students do their own homework, and some others copy. Some even have the same mistakes and punctuation. This is clearly a copy. So, the teacher should distinguish who is serious and who is not. Only in this way can students be given accurate grades. The amount of work should not be too much. This prepares students to spend most of their time on the primary task rather than the secondary problem. For example, when the reducer is designed to make students distinguish between the center distance and shaft diameter is the most important, not parts drawing and tolerance is the main. Don't make the students waste time on spare parts drawings. Be aware of the big picture so that they can successfully complete the subject and improve their confidence. Also do not be too careful in small details, make students too complex. The small mistakes in the homework can be pointed out, the problem of principle is not to go too far and reward students to gain confidence. And give students space to develop and play.

### **4. Assessment of Test Scores**

The exam at the end of the course is the most important component. How the teacher sets the question ability to distribute the paper result to two ends small in the middle big artistic distribution is the correct evaluation student when the course finishes the examination score, and into the student archives. In the future when the students work in enterprises and institutions achievement appraisal and individual reference. If the problem is too difficult performance is low, it can be appropriate to adjust the number of certain fails. This is what teachers should do, to do a good job in the differentiation of performance evaluation.<sup>[1,2]</sup> The degree of differentiation is the division of students' knowledge mastery level by means of papers and regular homework. The difficulty of setting a question can distinguish the ability of students. Based on the basis of the benchmark questions to examine the general book examples and exercise knowledge, to play the high problem students to solve difficult problems and build up confidence. Can be determined according to the actual propor-

tion respectively, such as the proportion of 30% 40% and 30% . In this way, textbook exercises are given priority to and basic concepts are added to understand and develop the problems and problems that will be faced in practical work.

#### **4.1 Postgraduate Examination Evaluation**

It is now popular to take the postgraduate entrance exam to develop their interest in this aspect and to judge students' ability to deal with difficult problems. If students want to be a university teacher can also give some comprehensive questions to develop their research ability and paper writing ability. You know, some of the graduate entrance questions are very difficult, and you need to create equations to solve them. This requires students to have a solid theoretical foundation and innovative ability to meet the strong but not weak face to solve the creative questions, to be admitted to the ideal school and professional continue to engage in scientific research, to make contributions to China's basic scientific research field. There is a paper from the university of Chinese academy of sciences on the application of algebra in the research of cutting-edge quantum theory in China to explore the profound science and the achievements are worthy of great events in the mathematical circle of China. If only the ideal school to graduate as a teacher also have certain grades. Because more and more newly graduated graduate students want to enter so must have certain competitiveness to ensure their status and not be eliminated or even fired. This is one of the reasons why college teachers write papers. The other is professional title assessment, in which an associate professor is awarded a full professor only by a certain number of papers. A full professor is called a "tenured professor" in the United States. Because achievement is big and be added title, won't be dismissed at will. There is "reappointment" is the professor who will continue to be appointed after the professor retires, can continue to work for a certain number of years and give additional pay. In China, for example, "academicians" of both the Chinese academy of sciences and the Chinese academy of engineering can enjoy the title of "academician" for life and receive allowances from the state council. Two bombs and one star of merit scientists are the United States with a certain degree of professional level, such as Qian xueshen, Guo yonghuai, Qian sanqiang and Deng jiaxin, Zhou guangzhao and other experts have made great contributions to the country's special treatment. Their contribution is to make China reach the ranks of the world's advanced countries at an early date. If students want to become the backbone of the school and want to become academicians, they

need to constantly strive to be admitted to graduate students, complete certain research tasks under the guidance of the tutor, and make efforts to make achievements. To enter oneself for an examination good school good major of this year or the graduate student of previous session did not pass examination in time graduate student also should treat positively, because graduate student exam is to take an examination of 5 courses, have difficulty very much. And each basic including two subjects or more, such as mathematics examination of advanced mathematics, linear algebra and probability theory for mathematics (a); Political study of Marxist principles, scientific socialism and the history of the revolution. The average is two subjects. This group of students should be rewarded because they can increase the popularity of the school.

#### 4.2 Assessment of CET-6

Still have English six levels of test with passed six levels of reward follow. It's also the school's job to give credit where it's due. You should know that CET-6 is equivalent to TOFLE, IELTS and GRE. If the student has passed the sixth level, the school will give a commendation. This can make other students also see the prospect of also want to pass the six levels, so as to drive the whole department, and even the school can go to the United States, Britain, France and other developed countries to study abroad talent. So that the senior students in the university to display their talent, in all aspects of the Alma mater's reputation and struggle. Therefore, the school should encourage students who have passed CET-4 to take CET-6 or even TOFLE. Because English is the first official language in the world, and English is taught in almost all countries in the world, it is an inevitable trend for the world to master English, especially the difficult English. Only those who master English can display their talents on a bigger stage and get more people's support. There are also SCI (Science citation index) and EI (Engineering index). If a student publishes an article in SCI, it will be regarded as an English publication and be respected and valued. If a paper is published on EI, it is regarded as a second-class publication. Students are encouraged to publish papers. Schools should reward students who publish several papers in EI or above. Some students can be recommended to a key university such as Peking University for further study of master's degree or doctor's degree. Some students with high scores in TOFLE and IELTS are admitted to universities in developed countries such as the United States and the United Kingdom, where they go on to do masters and doctorates. Some successful people went on to do re-

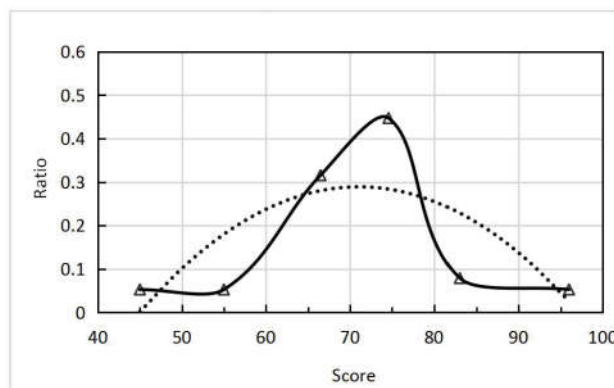
search as university professors and even won Nobel prizes. People who are accessible in the reading of reference books naturally become the target in people's mind, and can be reflected in the academic papers to become the leader of The Times. In this era of more and more fierce competition, only to continue to forge ahead and develop to achieve success.

#### 4.3 Evaluation of Students Who Have Won the National Olympic Competition

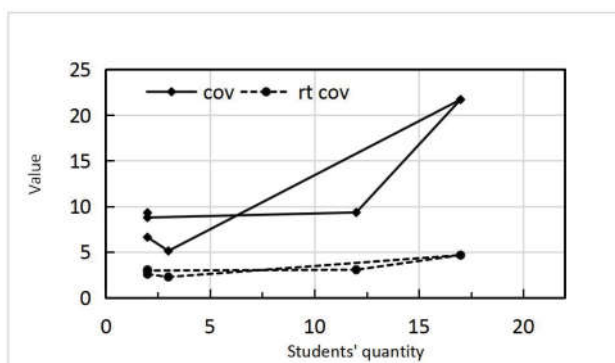
This is in the key universities such as Tsinghua & Peking university resumption of the school and the university of science of a large proportion of admission. Special attention should be paid to the admission of recommendation or extra points for their excellent performance. Do not take advantage of their major, so that they continue to do after graduation, or stay to teach. They are the representatives of the future cutting-edge science and technology of the motherland, we should give full play to their spirit and play to their advantages, for the motherland. They are respectively mathematics, physics, chemistry, biology and bioinformatics disciplines.

#### 4.4 Evaluation of Sports Talents

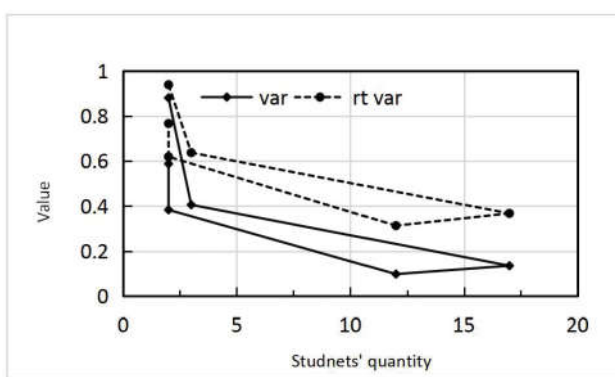
Sports specialty students are the students who achieve the first place in the national or provincial sports scores. Extra points should be given to such students so as not to fail. Including ball games such as football, basketball and table tennis, track and field, such as hundreds of meters, barriers and three kilometers, etc. These people should pay enough attention to be recommended to the university for excellent performance. Because the body is the guarantee of all activities, without a good body everything is useless. We should learn their methods and sports meaning well, and strive to improve our physical quality.



**Figure 1.** Distribution of student achievement and ratio (The dashed line is the trend line.)



**Figure 2.** Weighted covariance of scores and number of students (cov is the covariance and rt cov is the covariance root difference.)



**Figure 3.** Mean square deviation of achievement and number of students (var is the mean variance, and rt var is the standard deviation.)

According to the above three aspects of content to determine the score proportion. Typically, it's 10%, 20%, 70%. This makes grades fairly distributed rather than everything being determined on the basis of a single test score. Figure 1 shows the distribution of results of a class of material mechanics in the department of agriculture, Yanbian University. The entire black curve is close to a normal distribution, with a score of 70~75. The highest score above 90 is two, the lowest score below 45 is also two. The 4 candidates in the make-up examination scored below 60. The score was a bit low but the total error was within 5.2%. A good distinction between fractions. That's

the probability distribution of low on both ends and high on the middle. But the slope of the curve shows that the paper is a little bit difficult. Finally, the overall score 5 points to ensure the difficulty of the larger point of the tendency. Figure 2 shows the covariance of achievement and ratio. 5.5 is the best state of covariance, and 6~7 is the best state of cosquare root. Figure 3 shows their mean variances. 7.5 is the best state of mean square error and also the best root mean square error. It shows that the internal mean square error is easy to achieve, but the covariance is difficult to achieve. The higher the accuracy of the covariance, the higher the variance. The higher the covariance is, the harder it is to control. The cosquare root continues, then the mean square deviation, then the root mean square. In this way, it is more and more easy to control and close to the actual value, that is, the error rate is less and the accuracy is high.

## 5. Conclusion

(1) Students' scores should be assessed according to the overall situation, not only on the test results, which will make a part of the usual efforts of students lose their position and role. The proportion of using , justice to science. Error theories such as variance and probability of normal distribution are used to evaluate performance.

(2) The curve is close to the normal distribution, with 12 students in the majority at 70~75 points. The highest score above 90 is two, the lowest score below 55 is also two. The rating error was within 5.2%. The results calculated by using covariance 5.5 are the best covariance state, and 6~7 are the best cosquare root state. The variance calculation result 3 is the best state of mean square error and root mean square error.

## References

- [1] SuiLifen et al. Error theory and measurement adjustment foundation[M]. Surveying and Mapping Press, 2010:3-4.
- [2] Wang Bingzhang et al. Probability theory and mathematical statistics[M]. Science Press, 2013:63.