Course experience as the predictor of career personal efficacy

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Article Info

ABSTRACT

Despite the proliferation of the culture of accreditation in the country, accreditation evaluations fail to capture authentic student course experience. This study aimed to assess the students' course experience as to how it can contribute to increasing their career personal efficacy when employed in the work field. The 70 respondents were the education graduates of the college of education of a certain university in the past 6 years. The hierarchical multiple regression (HMR) was used to determine which of these domains can explain a statistically significant amount of variance to the career personal efficacy of the respondents. Correlation analysis r and the analysis of variance (ANOVA) were also employed to determine the relationships of the domains of course experience to career personal efficacy. Results revealed a high correlation between the six domains of course experience and career personal efficacy with good teaching, and clear goals and standards as the best factors among the domains of course experience which can predict career personal efficacy. It is recommended that administrators and policymakers should look into these two domains of the course experience to plan for the development goals of colleges and universities.

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1. INTRODUCTION

Higher education institutions have been under strict scrutiny by government agencies and private stakeholders over the past few decades [1]. With the emergence of various accrediting agencies and institutions both for state-run and private colleges and universities, tertiary education institutions are at an all-time high in measures to cope with the standards set by such agencies [2]–[4]. The accreditation process is understood to be the means by which a tertiary educational institution assesses all or a portion of its instructional offerings and looks for an impartial opinion to verify that it significantly meets its goals and is, on the whole, of a similar caliber to other similar establishments [5]. Areas evaluated during accreditation include faculty, curriculum, students, facilities, and administration, to name a few [6], [7]. Evaluation of the area of students, for example, focuses on the services a college or university offers students as well as the performance of these students in the form of employment rates or the percentage of passing in professional board exams. Though evaluation instruments employed by these accrediting agencies are extensive, they often fail to capture one of the critical factors that might affect student performance upon graduation–course experience [8]. Accrediting agencies might argue that the students' experience is still assessed by considering how much these students availed services available to them or the use of facilities in the institution. However, these evaluations are done by the accrediting agencies themselves without taking into account how the students themselves evaluate their own experiences. Therefore, there is a growing interest by administrators

of universities and colleges in how students assess their own experiences while taking up their undergraduate courses. Whatever the assumptions and motivation, taking an interest in the student evaluation of their course experience will provide baseline data on how tertiary institutions deliver their services to the main clientele– the students. Doing so will surely benefit the students in the long run, since this information can push these institutions to upgrade and enhance their existing services and facilities to improve student experience and, subsequently, help increase student personal efficacy, especially when landing an education-related job. Also, knowing their experiences in the course could help identify the problems the students encounter, like problems that cause failure or dropping out from school and signs of student anxiety [9].

Several studies examined the course experience of their students to assess their teaching-learning systems and students' behavior. For example, the course experience questionnaire (CEQ) [10] was adapted in China to evaluate online teaching during the COVID-19 pandemic [11]. Further, Rehman *et al.* [12] used their data in the course experience as one of their variables in developing strategies to attract and retain students for their postgraduate programs in some Zimbabwean universities. Also, the findings on determining the effects of course experience on the overall satisfaction of Malaysian undergraduate students prompted some recommendations on crafting courses to meet students' needs and gain service satisfaction [13]. Additionally, more studies were conducted related to course experience in context, to name a few: self-efficacy for online learning along with course experience [14]; connections between motivation and creative divergent thinking (CDT) are found in course assignments as preludes to the overall course experience [15]; and the effects of the flipped classroom on course experience [16]. Given that this literature implies the interest of the researchers to conduct a study on course experience, on the other hand, the present study is concerned with relating course experience to another vital aspect of student success in their chosen careers–self-efficacy.

Bandura originally defined self-efficacy as the belief in one's capacity to carry out a specific behavior [17]. The significance of job goals for a person's emotional, psychological, financial, and social well-being makes it imperative to investigate how self-efficacy expectations function in the career development process [18], [19]. Although self-efficacy has been associated in the literature as a predictor of career choice among college students [20]–[22], there seems to be a literature gap in evaluating self-efficacy based on course experience. This study aims to employ the CEQ and, this time, associate it with career personal efficacy (CPE). This study investigates aspects of the undergraduate course experience that can boost the graduates' career personal efficacy. Yet, from a vocational point of view, it is also critical to investigate a concept like self-efficacy since it can be beneficial to include it in models that predict future career choices or other factors connected to the workplace. Thus, a recent body of research has accumulated on what we will refer to as career self-efficacy [23]. For instance, self-efficacy is a construct that has appeared in recent literature as related to the learning styles of the prospective teachers [24], engagement, job satisfaction, and emotional exhaustion [25], in teaching reading [26], gender and academic achievement [27], university life stress and smartphone addiction of students [28], and student career path, majorship and academic performance [29].

In literature, teacher self-efficacy refers to an individual's belief in his capability to carry out teaching tasks [30]. In the case of teacher education programs, the teacher self-efficacy of graduates is mostly shaped during their academic and pre-service teaching internship periods. Thus, the study presumes that the level of career personal efficacy depends on the graduates' course experience. Hence, this paper highlights analyses to the following general questions: i) which aspect of their course experience might have affected their career personal efficacy?; ii) what model of the course experience predicts the level of the career personal efficacy?; and iii) what recommendations could be generated to enhance the career personal efficacy of the graduates? So, to find possible data as the basis to enhance the career personal efficacy of the graduates, this paper analyzes the domains of the course experience of the teacher-education graduates about their career personal efficacy. The paper adopted the domains of course experience (CE): good teaching, generic skills, clear goals and standards, appropriate workload, academic environment, and appropriate assessment [10]. Further, the study explains a statistically significant variance in the graduates' career personal efficacy after accounting for all other predictors (domains).

2. METHOD

The study employed a quantitative survey research design, which aims to assess students' course experience covering the six domains. The study determined if these domains can explain a statistically significant variance in the respondents' career personal efficacy. It examined the relationship between the course experience of the graduates in the program and their self-efficacy as employed teachers.

2.1. Instruments

There are three parts in the survey questionnaire used as an instrument in the study. First, the demographic questionnaire was created to determine the information of the respondents regarding their

gender and age. Employment status was also included. However, this data was only used to monitor the respondents and was not included as a control variable.

Moreover, Part II is the CEQ [10]. The domains of the CEQ that were used in the study as constructs are good teaching, generic skills, clear goals and standards, appropriate workload, academic environment, and appropriate assessment. It consists of 30 items to which respondents were asked to position a level of agreement or disagreement. All items are coded on a scale of 1 to 5, where 1 (strongly disagree) is the lowest and the highest is 5 (strongly agree). We noted that the reliability was acceptable as shown by the Cronbach alpha values [31], [32]: good teaching (0.88), generic skills (0.77), clear goals and standards (0.76), appropriate workload (0.69), academic environment (0.72), and appropriate assessment (0.70). Also, both exploratory and confirmatory factor analysis revealed the CEQ is valid in terms of construct, criterion, discriminative, and convergent validity [10], [33].

Lastly, the third part of the instrument was a questionnaire on CPE. The instrument measuring personal efficacy is a 12-item questionnaire [34]. In this questionnaire, graduates were asked to think about their practices as teachers or employees. They were also assured that their responses were confidential. The graduates made a response to each question on a 6-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). An overall Cronbach's alpha coefficient of 0.84 was found in the analyses of items. The instrument was divided into three categories, each with a matching alpha value: statements about stress management (0.85), statements about skill development and mobilization (0.81), and statements about information and effort (0.74). The analysis indicates that the instrument has strong internal consistency [35].

2.2. Research locale and participants

The respondents who participated in the survey are the 70 graduates of the college of education in a certain university for the past six years. A general rule of thumb based on the concept of power was used to determine the sample size. Regression analysis generally requires at least 50 individuals [36]. Further, for regression equations utilizing six or more predictor variables, an absolute minimum of 10 participants per predictor variable is appropriate [37]. Hence, taking the six domains of the course experience as predictor variables, the study considered a minimum of 60 participants. There were 72 participants who joined the survey. However, the researchers chose to take into account each of the 70 graduates who took part in the data collection process, taking into account the bare minimum. The data coming from the two participants were considered outliers among the data.

2.3. Data gathering procedure

The questionnaire was made available online. The respondents were invited to visit the website and participate in answering the survey. The process was done through the aid of Google Forms. This method lessened the difficulty of tracing the respondents' location. Also, the respondents were given a consent form informing them that they would participate in a survey. They were also assured that their responses would be treated with utmost confidentiality. Participants answering the items and submitting the instrument indicated their willingness to participate in the survey.

2.4. Data analysis

The research used descriptive statistics in analyzing the data. This includes the mean and the standard deviation. Multiple-linear regression was employed to determine the dependent variable's predictors on the account of the domains. Hierarchical multiple regression (HMR) was used to determine which domains can explain a statistically significant variance in career personal efficacy. Here, the researchers identified the best domain that could best predict efficacy. Performing the regression analysis also involves correlation analysis r and the analysis of variance (ANOVA). The items in the questionnaire that were stated negatively were reversely coded. Also, outliers in the data that were found to be extremely low were excluded from the data analysis.

3. RESULTS
3.1. Profile

Tables 1 and 2 summarize the demographic characteristics of the sample as to gender and age. Table 1 shows that there are 33 or 47.14% of the respondents are male and 37 or 52.86% are females. There are more females than males among the respondents. As presented in Table 2, among the 70 respondents, there are 18 or 25.7% whose age is 22. On the other hand, the age with the least frequency of 1 (1.4%) is 26 next to 20 with a frequency of 6 (8.6%). It can also be seen in the table that the mean age is 22.43 years, with an SD of 1.49.

Table 1. Profile of the respondents as to gender

Gender	F	%
Male (1)	33	47.14
Female (2)	37	52.86
N	70	100

Table 2. Profile of the respondents as to age (in years)

Age	F	%
20	6	8.6
21	15	21.4
22	18	25.7
23	13	18.6
24	11	15.7
25	6	8.6
26	1	1.4
Mean	22.43	
SD	1.49	
N	70	100

3.2. The course experience and the career personal efficacy

In this study, the extent of the respondents' evaluation of their course experience was also determined. Table 3 reveals that the highest evaluation among the six domains of the course experience is the generic skills (4.390). This is followed by academic environment (4.333) and good teaching (4.088). On the other hand, the mean for appropriate assessment is only 2.768 (SD=0.941). The mean of self-evaluation for the outcome variable, CPE, is 5.327, and the standard deviation is equal to 0.412. This would mean a very high perception of their CPE with responses varying on the average of 0.412.

Table 3. Summary of evaluation of the course experience

Domains	Mean	SD
Good teaching	4.088	0.412
Generic skills	4.390	0.578
Clear goals and standards	4.032	0.536
Appropriate workload	3.043	0.477
Academic environment	4.333	0.643
Appropriate assessment	2.768	0.941

3.3. Relationship of course experience and career personal efficacy

Table 4 shows the correlation results for the dependent and independent variables. In the table, it is revealed that CPE is positively correlated to all predictor variables except the appropriate assessment and age. Moreover, CPE has a statistically significant relationship (at 0.01) with good teaching, generic skills, clear goals and standards, and academic environment. It is also clear that among the predictor variables, clear goals and standards has the highest correlation value (0.526) significant at 0.01. Another extreme result is when appropriate assessment is correlated with the other variables. Here, appropriate assessment is negatively correlated with all the other variables. In the positive value, 0.735 which is significant at 0.01, is the highest correlation value found between good teaching and academic environment.

Table 4. The correlation table for the dependent and independent variables

Domains	1	2	3	4	5	6	7	8	9
Career personal efficacy	1.000								
Good teaching	0.465*	1.000							
Generic skills	0.437*	0.580	1.000						
Clear Goals and Standards	0.526*	0.414	0.420	1.000					
Appropriate workload	0.216	0.372	0.124	0.338	1.000				
Academic environment	0.493*	0.681	0.735	0.565	0.256	1.000			
Appropriate assessment	-0.210	-0.286	-0.157	-0.423	-0.314	-0.190	1.000		
Gender	0.162	0.166	0,179	0.032	0.107	0.166	-0.205	1.000	
Age	-0.057	-0.019	-0.173	-0.45	0.094	-0.092	0.045	-0.025	1.000

[1]CPE, [2]GT, [3]GS, [4]CGS, [5]AW, [6]AE, [7]AA, [8]S, [9]A. *Significant at α=0.01

The predictors of the CPE were determined through several steps by hierarchical regression analysis. The domains of the CE were tested if each factor could add a statistical amount of variation prediction to the outcome variable (CPE). There are seven models: i) gender and age as the control variables; ii) gender, age, and good teaching; iii) gender, age, good teaching, and generic skills; iv) gender, age, good teaching, generic skills, and clear goals and standards; v) gender, age, good teaching, generic skills, clear goals and standards, and appropriate workloads; vi) gender, age, good teaching, generic skills, clear goals and standards, appropriate workloads, and academic environment; and vii) gender, age, good teaching, generic skills, clear goals and standards, appropriate workloads, academic environment, and appropriate assessment.

In Table 5, gender and age accounted for only about 2.9% of the variance in the CPE. In model 2, if good teaching was added as a predictor, then the model can explain 22.6% of the variance. Furthermore, when generic skills is added to the previous model there is an increase to 26.3%. Also, an increase of 37.3% can be achieved if clear goals and standards is added to the model. However, if appropriate workloads is added the ability of model 4 to predict CPE will not be affected. Thus, adding appropriate workloads in the model would not contribute to increasing the percentage of explained variation in the CPE accounted for by model 4. As desired, an increase of up to 37.4% of variance would be explained if academic environment is added to the model. A consistent result can be found if appropriate assessments could also be considered as a factor. Based on the results in Model 7, appropriate assessments including all six domains, account for about 37.7% of the variance. It is also noted that although the computed R^2 is less than 50%, which is generally true when predicting human behaviors [38], the predictor variables can still provide information about the response in the CPE. The ANOVA results also show that all models are tested statistically significant at α=0.05. These results mean that all models can have the ability to predict the CPE except for gender and age (p=0.373).

Table 5. Model summary of R^2 and ANOVA test of significance results

Model	R^2	ANOVA Sig.
1	0.029	0.373
2	0.226	*0.001
3	0.263	*0.000
4	0.373	*0.000
5	0.373	*0.000
6	0.374	*0.000
7	0.377	*0.000

*Significant at α=0.05

In Table 6, it is shown that the R^2 change in model 1 is 0.029. Also, it is not statistically significant at α=0.05 which means that gender and age do not account for an additional amount of the variance in CPE. In model 2, the R^2 change equal to 0.197 is statistically significant with a p-value of 0.000<0.05. Even if gender and age have been controlled for, good teaching still explains an additional 19.7% of the variance in the CPE. This change of R^2 from models 1 to 2 as shown is statistically significant as well. Moreover, there is a significant change (0.110) from models 3 to 4. On the other hand, although there is an R^2 change from models 2 to 3 and from 4 to 7, those changes are not statistically significant at 0.05.

Table 6. Model summary of R squared and ANOVA test of significance results

Model	R^2 change	Sig. F change
1	0.029	0.373
2	0.197	*0.000
3	0.037	0.076
4	0.110	*0.001
5	0.000	0.847
6	0.001	0.758
7	0.003	0.606

*Significant at α=0.05

From the previous table, all models except the control variables, can significantly explain the amount of variance in CPE. However, in Table 7, we can see the model's regression coefficient and the test of significance. The table revealed the extent each of the independent variables contributes to the final model. It can be seen in the table that although model 2 can be a significant predictor, only good teaching is statistically significant with p=0.000. Model 3, as has been seen earlier, is statistically significant. However, among gender and age, good teaching, and generic skills, only good teaching (Beta=0.314; p=0.020) accounted for the unique variance in CPE.

Table 7. Standardized coefficients and the domain's individual test of significance

Model	Domains	Beta	Sig.	Model	Domains	Beta	Sig.
1	Gender	0.161	0.186	6	Gender	0.090	0.387
	Age	-0.053	0.663		Age	-0.008	0.936
2	Gender	0.086	0.435		Good teaching	0.206	0.164
	Age	-0.046	0.673		Generic skills	0.107	0.490
	Good teaching	0.450	*0.000		Clear goals and standards	0.369	*0.005
3	Gender	0.066	0.543		Appropriate workload	-0.022	0.850
	Age	-0.007	0.947		Academic environment	0.055	0.758
	Good teaching	0.314	*0.020	7	Gender	0.101	0.343
	Generic skills	0.242	0.076		Age	-0.012	0.910
4	Gender	0.090	0.379		Good teaching	0. 218	0.148
	Age	-0.010	0.923		Generic skills	0.106	0.498
	Good teaching	0.215	0.092		Clear goals and standards	0.396	*0.005
	Generic skills	0.136	0.294		Appropriate workload	-0.013	0.913
	Clear goals and standards	0.377	*0.001		Academic environment	0.040	0.828
5	Gender	0.091	0.375		Appropriate assessment	0.062	0.606
	Age	-0.008	0.937				
	Good teaching	0.223	0.099				
	Generic skills	0.132	0.321				
	Clear goals and standards	0.383	*0.002				
	Appropriate workload	-0.022	0.847				

*Significant at α=0.05

Moreover, when clear goals and standards come in the model, as observed from models 4 to 7, it becomes the only statistically significant predictor among all other predictors. Also, we can see that the predictor with the highest beta coefficient is the clear goals and standards. This would mean that clear goals and standards is the sole factor that contributes to the final model.

4. **DISCUSSION**
     The salient findings revealed that this study provides several implications for the curriculum. First, Table 3 reflects the respondents' experience during academic hours when they were taking their undergraduate courses. The highest mean (generic skills) implied that the course provided more skill-building activities than the conventional lecture method. The existing outcomes-based curriculum reduces the time for a conventional type of classroom atmosphere. Consequently, this allows teachers to give students performance- and project-based activities. These are the avenues for the students to develop their generic skills in preparation for the field of work [39]–[41]. Also, skill-based activities would develop higher-order thinking skills like applying, evaluating, and creating, giving less focus on practicing and developing skills in remembering facts [42]. On the other hand, too many skill-building activities could burden students' workload and are ineffective due to a lack of emphasis on cultivating students' independence [43].

     Next, we found academic environment and good teaching to have a high mean of agreement among the participants. According to Muhibbin *et al*. [44], the school environment positively and significantly impacts emotional intelligence. Also, cognitive skills are essential in getting a job, while emotional intelligence helps in promotion [45]. So, if most of the teachers with high levels of self-efficacy are often promoted, then the academic environment has a vital role in this relationship. Further, a high mean in the domain good teaching indicates excellent teaching practices of the instructors in terms of timely and effective feedback [46], excellent lectures, and rapport with the respondents [47]. It is also evident that appropriate assessment has the lowest mean=2.768 (SD=0.941), the weakest among the possible predictors. The respondents probably perceived that assessments emphasizing recall of information were rarely used in teaching, implying that students have yet to experience the surface approach of teaching. A surface approach is embodied by the goal of not getting a failing score and fulfilling minimum course requirements.

     Furthermore, different forms of assessment use a surface approach that involves recalling unimportant procedural knowledge and instilling anxiety. It also sends contradictory or cynical messages about rewards, overcrowded curriculum, and lacks interest in and background knowledge of the subject matter [48]. In addition, for college students having a maximum of 21 units every semester equivalent to seven subjects with the laboratory units excluded, is a very hefty workload if they receive too many requirements from each of these subjects. This is one of the negative experiences in the course. According to Diseth *et al*. [48], inappropriate workload and recall-oriented assessment are also sources of a surface approach. Further, a very high perception of their career personal efficacy suggests that the graduates believe they are prepared enough to take part effectively when faced with a task in their workplace, like handling challenging or disruptive student behavior [49].

Further, the findings in Table 4 suggest that if the respondents were given a task and instructed clearly about how they would accomplish it and know the output of the job, they would likely finish it effectively. Similarly, Ratsimbatoha and Rafidinarivo [42] agree that goal-oriented instruction allows the students to learn the concepts and skills expected of them and affords them to engage in these activities. Furthermore, these graduates were not exposed to assessments that require recalling ability during their undergraduate education. From the correlation results, it follows that recalling or memorizing facts does not give more account to their career personal efficacy. In addition to these, age was found to be inversely correlated with the CPE. This would suggest that the new graduates considered as young teachers in the field strongly believe they can do a specific task given to them. Naturally, young teachers who landed in the first or second job are more idealistic and aggressive than their seniors. Akman [50] suggests that the verbal interactions between administrators and these young teachers about their performance or success contribute to their self-efficacy beliefs. This is because of the clear goals waiting ahead of them–tenure and fast promotion. In this connection, this scenario also explains the findings that clear goals and standards is a good predictor of career personal efficacy. Thus, it is important to give the learners a clear understanding of the expectations for their performance, especially as it relates to interaction with the teachers, the content of the course, and peers [51].

A noticeable result (R^2) in Table 5 shows that adding appropriate workload in model 4 will not affect the percentage of explained variation in CPE. Thus, whatever the students' experience on time load, mental effort, and psychological stress [52] in the course cannot statistically explain the change in the CPE. Recent studies include the test on students' academic workload as a variable concerning other variables under the same course time frame, such as internship work stress, mental and physical health, and perceptions of the teaching and learning environments [53]–[55], but did not focus on the variables related to their post-course belief or behaviors.

Moreover, Table 6 shows that gender and age do not account for an additional amount of the variance in CPE. Thus, the differences in age and gender among respondents are not the factors in the change of CPE. Other factors related to gender or age could explain the variance in the CPE. For example, the study by Aurah [27] investigating the relationship between self-efficacy and gender found that the effect size was small; gender explained approximately 2% of the variance in the linear combination of the dependent variables. Moreover, although gender had a small effect, there is, however, evidence of a difference in the means where the self-efficacy is higher among females than males. The researchers accounted for confidence to explain the difference in the level of self-efficacy between males and females. Another study regarded a teaching approach (ICT) as a factor that can explain the changes in self-efficacy between male and female teachers and found that the approach did not make a difference between the two groups' self-efficacy [56].

Correspondingly, this study investigated some factors linked to gender and age that might explain the change in CPE. The results in Tables 5 to 7 suggest that good teaching and clear goals and standards are the best factors among the domains of CE that can best predict CPE. Similarly, a study on predicting academic achievement using CE explained that, for instance, exam-failing students scored lower on the course experience components of appropriate workload and appropriate assessment, but not on the elements of good teaching or clear goals and standards. As a result, these students might have easily understood what was required of them (clear goals and standards); instead, they might struggle more with the study load and the assessment process [48]. Also, Yin and Ke [57] found that clear goals and standards positively relate to engagement. The relationship implies that the students will engage more in the activity if they know what to achieve. On the other hand, the study of Balkar and Alev [58] concluded that teachers who firmly embrace professional efficacy are more likely to show effectiveness in their work, increasing their professional engagement. This domino effect contributes to teachers' job satisfaction. If good teaching and clear goals and standards are experienced by the undergraduate students positively, they will likely improve their self-efficacy, yielding high job satisfaction. For example, including teacher efficacy scale in the study of Çevik increases the model by 34% [59], implying teacher efficacy also affects teachers' job satisfaction. Hence, it is on a positive note that with the current university standards in delivering its courses, the employment rate of the graduates will most probably increase.

5. CONCLUSION

The study focused on what domains of the course experience model predict career personal efficacy among teacher education program graduates. The findings suggest that setting clear goals and standards is one key predictor for the graduates' career personal efficacy. Although teacher education institutions (TEIs) closely follow the policies, standards, and guidelines (PSGs) set by the Philippine Commission on Higher Education (CHED) by subjecting their programs to strict compliance evaluations, these PSGs are often not cascaded well to the students. Thus, students often ignore what is expected of them in their academic and internship periods. Hence, TEIs should make sure that the competencies and attributes expected of their

students are properly communicated and well-understood. Furthermore, instructors should give importance to setting clear goals and standards at the course level at the beginning of the term or semester so that students have a clear understanding of what is expected of them. This sets the students on the right track, which can eventually significantly improve their efficacy.

In addition, good teaching is also a good predictor of career personal efficacy. This implies that when students experience excellent support from the teaching staff in making things clear and understandable during the teaching and learning process, their career efficacy could also increase. This can be done by teachers' careful lesson planning. Instructional activities should be designed to support the student's efforts to achieve intended learning outcomes. Adequate and timely feedback can help students determine how they are doing in a course. This gives the student the necessary boost and breaks their frustration cycle amplifying their efficacy.

Hence, we recommend that administrators look into these two domains of the course experience. Further studies can be conducted in these domains focusing on specific and practical ways administrators can increase their graduates' career personal efficacy. These could be instrumental in producing high-quality and competitive graduates who are highly sought-after in the teaching field.

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