Analysis of Offering Master of Education Program in Shandong University of Technology

Yan Zhang

Doctor of Philosophy (PHD) Management, LimKoKwing University of Creative Technology, Malaysia

Liuxiang0486@gmail.com

Abstract

This paper presents a new demand for offering the Master of Education program that has been developed at Shandong University of Technology. The paper presents the attitude of local teachers on this program. The paper addresses the aspirations and goals of the students entering the Master of Education program and how those goals relate to prospective career change. Entering students desire to attain integration of areas, teaching skills, improved competencies, and nearly all seek to enhance career opportunities, the paper concludes by examining what the key challenges are for the Master of Education Program and similar new based degrees.

Keywords

Master of Education Program, Shandong University of Technology, teachers.

1. Introduction

Shandong Department of Education implements the new standard for those who want to teach at public or private schools in Shandong Province which stipulates that teachers whose teaching certification in 2015 or later will have to complete a master's degree before their second permission to update. Therefore, the teachers will need five to seven years completing a master's degree before they get the initial license to teach. Under the circumstances, a case study called Master of Education Program is put forward to explore a solution on teaching in private or public schools to cope with changing situations.

2. Research Objectives

The purpose of this research is to give an analysis on teachers' demand to have a master degree, which can contribute to the development of relevant subjects and to the recruitment of students in the Master of Education Program. At the same time, through investigating the local teachers studying situation by using questionnaire, it is concluded that this can be helpful in setting up the curriculum on relevant teaching program and even improve the recruitment. This research is based on the analysis of the status quo of Shandong University of Technology, and then in the region of the questionnaire survey to all the school teachers and related data analysis, it is concluded that the need of the survey results, further study, recommendations related data and theory as well as the limitation of questionnaire questions, and the author also gives advice. The goal of the Master of Arts in Education in Teacher Leadership program is to develop teacher leaders who, by employing continuous reflection of their own practice, will use their expertise to improve student learning and achievement by working in formal and informal ways to augment the professional skills of colleagues, to strengthen the culture of the school through professional learning communities, and to improve the quality of instruction through data-based decision-making.

According to the new standard in 2019, teachers need to complete master degree before obtaining second licensure renewal. In the earlier period, teachers who get only bachelor degree can fulfill their professional development requirements. But due to changes in times, the teaching requirements have been also improved. All plans will be approved and monitored by Local Professional Development

Committed (LPDCs). Shandong University of Technology in Shandong Province is a comprehensive liberal arts institution with professional programs in education, English, chemical, business management, pre-med, pre-law and so on. And this case is about a multistage, communication study of teachers by Shandong University of Technology's Department of Education to determine the viability of starting a Master of Education program for certified teachers working within school districts serving a five-county area. Since the Master of Education program is a new program, it will be another year and a half before the first graduates can be surveyed to find out their end competencies and assess the changes over the full degree course. However, such a challenge is also present for the few other Masters programs in these new areas that have been established; in most cases they have been launched in the past year and a half.

All teachers should have looked to graduate level courses to fulfill their professional development requirements. According to the newly passed Shandong Province Department of Education Teacher Certification Standards, for the first time all professional development activities must be tied to professional development plans customized by local school district goals. All such plans will be approved and monitored by Local Professional Development Committees. So, marketing surveys which is made by education faculty and Shandong University of Technology Center for Professional Development were send to Zibo County, each of the 1600 teachers' hometown. And there are 763 teachers had returned their surveys in March 1, 2019. In this article, the data of questionnaire will be analysis, and some recommendations are given about whether to start a Master of Education Program or not.

3. Research Questions

In order to better understand the knowledge levels, goals, and career motivations of students entering the Master of Education Program, a complete assessment was done of their knowledge competencies, backgrounds, and career aspirations. The results of this assessment are very useful in deepening the understanding of the Master or Education Program and how it can confront its key challenges.

This section of the paper seeks to answer the following questions regarding respondents' knowledge, goals, and career motivation:

1. What are the career/knowledge/competency levels of respondents?

2. What are the goals, degree expectations, career motivations, and career expectations of entering the Master of Education Program?

4. Data Analysis

The survey was conducted for all of the 1600 teachers in the schools in Clark County, among which there are 763 surveys were returned, for a response rate of 83 percent. The very high response rate assures that there is not a significant non-response problem. Analyze the data from this study:

①Descriptive analysis, Table and Graph

Q1 Table 1 Year of teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5 years	198	26.0	26.0	26.0
	6-10 years	120	15.7	15.8	41.8
	11-15 years	127	16.6	16.7	58.5
	16-19 years	53	6.9	7.0	65.4
	20 or more years	263	34.5	34.6	100.0
	Total	761	99.7	100.0	
Missing	System	2	.3		
Total		763	100.0		

The first question is about years of teaching. According to survey, the chart shows the number of respondents on according to their career years, among which the number of teachers with more than 20 years teaching experience is 34.5%, which is the most proportion. The number of teachers with 0-5 years teaching experience is 26%, which is the second proportion and the least proportion is the number of teachers with 16-19 years of teaching experience, at 6.90%. In the chart, it is proved that there are about more than half the total number of teachers who have 0-5 years teaching experience and 20 or more years teaching experience. It can be assumed that the probably potential students are more likely come from these two proportions of teachers.

Q2 Table 2 Professional responsibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	165	21.6	23.3	23.3
	2	181	23.7	25.5	48.8
	3	156	20.4	22.0	70.8
	4	65	8.5	9.2	80.0
	5	12	1.6	1.7	81.7
	6	130	17.0	18.3	100.0
	Total	709	92.9	100.0	
Missing	System	54	7.1		
Total		763	100.0		

The second question is about professional responsibility and subject field of the respondents. It is indicated from this chart that the number of teachers who work on special education and administration are obviously lower than other parts. There are four proportions are around 20%, and there are two have obviously difference with other items. One is 8.50%, and the other is a minimum 1.60% probably. It can be concluded that there is no need to open relative courses in administration. (Finding shows that the potential students will not focus on the administration)

$Q2 Table 3 Subject field

		Responses		Percent of Cases
		N	Percent	
Q2[a]	Art	41	4.8%	8.4%
	Business/Economics	20	2.4%	4.1%
	English	147	17.3%	30.1%
	Languages	51	6.0%	10.5%
	Mathematics	143	16.8%	29.3%
	Music	28	3.3%	5.7%
	PE/Health	58	6.8%	11.9%
	Social	118	13.9%	24.2%
	Science	111	13.1%	22.7%
	Other	133	15.6%	27.3%
Total		850	100.0%	174.2%

Dichotomy group tabulated at value 1.

The chart shows that the number of respondents who choose English subject is the most, about 17.30%, and the second is the number of respondents who choose mathematics, about 16.8%. The

number of respondents who choose the relatively least subjects lies in art, music and business, respectively 4.8%, 3.3%, and 2.4%.

Q3 Table 4 Degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.A./B.S.	108	14.2	14.2	14.2
	B.A./B.S. plus graduate work	244	32.0	32.0	46.2
	Currently in M.A./M.S. program	51	6.7	6.7	52.9
	M.A./M.S	101	13.2	13.3	66.1
	Ph.D. or currently enrolled in Ph.D. program.	248	32.5	32.5	98.7
	M.A./M.S. plus additional graduate work	10	1.3	1.3	100.0
	Total	762	99.9	100.0	
Missing	System	1	.1		
Total		763	100.0		

The graph shows that B.A. / B.S. plus graduate work and Ph. D. or currently enrolled in Ph. D. program are the most, both around 32%. At the same time, these two aspects indicate that there are the largest number of people tends to improve their degree. The graph also shows that the number of respondents who select M.A. / M.S. plus additional graduate work is minimal, only 1.3%.

$Q4 Table 5 Qualities considered to be the most important

		Responses		Percent of Cases
		N	Percent	
COST [a]	Reputation	33	4.5%	4.6%
	Schedule Flexibility	137	18.8%	18.9%
	Cost	177	24.3%	24.4%
	Quality of Instruction	271	37.2%	37.4%
	Closeness to home	86	11.8%	11.9%
	Class Size	2	0.3%	0.3%
	Individual Attention	7	1.0%	1.0%
	Other	15	2.1%	2.1%
Total		728	100.0%	100.6%

a. Dichotomy group tabulated at value 1.

The fourth question is about the qualities which are considered to be the most important in the graduate program. According to the chart, 37.2% of respondents think that a college's quality of instruction is the most important, with 24.30% of respondents are more concerned about the cost. In addition, 18.80% of respondents focus on schedule flexibility, and only 0.30% of people focus on class size.

Q5 Table 6 Possibility of application

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	definitely would apply	172	22.5	23.7	23.7

	might apply	299	39.2	41.2	64.9
	would not apply	255	33.4	35.1	100.0
	Total	726	95.2	100.0	
Missing	System	37	4.8		
Total		763	100.0		

The fifth question is to find out the possibility of the respondents to apply to a master's degree program in education at Shandong University of Technology, if costs were kept competitive. In the system under the condition of missing, according to the chart, if the costs were kept competitive, respondents who choose might apply accounted for 57.70%. The next are those who choose definitely would apply and would not apply. They are 21.20% and 18%, respectively.

Q6 Table 7 Possibility of enrollment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	definitely would apply	162	21.2	21.9	21.9
	might apply	440	57.7	59.5	81.5
	would not apply	137	18.0	18.5	100.0
	Total	739	96.9	100.0	
Missing	System	24	3.1		
Total		763	100.0		

The sixth question tends to find out the possibility of the respondents enroll in graduate causes at Shandong University of Technology to enhance teaching skills without pursuing a master's degree, if costs were kept competitive. According to the chart, if the costs were kept competitive, there will be 21.20% of the respondents made it clear that they will choose to join the Master's degree to improve their teaching skills, and the other 57.7% of the respondents might choose to join the Master's degree.

Q7:

$Q7 Table 8 Reasons for the interests in graduate education

		Responses		Percent of Cases
		N	Percent	
Q7[a]	Professional requirements	129	18.7%	19.0%
	Professional advancement	109	15.8%	16.0%
	Personal satisfaction	38	5.5%	5.6%
	Future requirement	23	3.3%	3.4%
	Career change	7	1.0%	1.0%
	Increased employability	27	3.9%	4.0%
	Additional money	84	12.2%	12.4%
	Keep certification	85	12.3%	12.5%
	Upgrade certification	107	15.5%	15.7%
	Improving skills	76	11.0%	11.2%
	Other	4	0.6%	0.6%
Total		689	100.0%	101.3%

a. Dichotomy group tabulated at value 1.

The seventh question is to seek for the three most important reasons for the interests of the respondents in graduate education. Within the scope of the specific level, all respondents think the most important three things are the professional requirements, professional advancement and upgrade certification, accounting for 18.7%, 15.8% and 15.5% respectively. Among other reasons, career change is the least important reason, only 1%.

Q8:

$Q8 Table 9 Reasons for less interest in graduate education

		Responses		Percent of Cases
		N	Percent	
Q8[a]	Cost	285	21.6%	40.0%
	Family Responsibilities	152	11.5%	21.3%
	Time to complete the degree	113	8.6%	15.9%
	Professional Commitments	46	3.5%	6.5%
	Live too far away	82	6.2%	11.5%
	Too near retirement	108	8.2%	15.2%
	Lack of information	131	9.9%	18.4%
	Already have a master's degree	294	22.3%	41.3%
	Enrolled in master's program	78	5.9%	11.0%
	Other	31	2.3%	4.4%
Total		1320	100.0%	185.4%
Dichotomy group tabulated at value 1.				

The eighth question is to find out the most two important reasons for the respondents giving less interest in graduate education. According to the chart, there are 22.3% respondents already have a master's degree, and there's no need for them to join the program. And the second reason for respondents' not showing interest in graduate education is that they worry about the cost, which has a proportion of 21.6%.

$Q9 Table 10 Possible obstacles to enrollment

		Responses		Percent of Cases
		N	Percent	
Q9[a]	Child/Elder Care	87	8.7%	13.4%
	Financial Need	329	32.8%	50.8%
	Family Commitments	229	22.9%	35.3%
	Travel	91	9.1%	14.0%
	Employment Schedule	219	21.9%	33.8%
	Other	47	4.7%	7.3%
Total		1002	100.0%	154.6%
a. Dichotomy group tabulated at value 1.				

The ninth question is to find the possible obstacles to the enrolling in a master's level or graduate class of the respondents. According to the chart, among the respondents, there are 32.8% respondents choose Financial Need factors as hindering their enrolling in a masters level or graduate class, which is considered the most serious obstacle. And the Family Commitments and the Employment Schedule are the less important consideration in hindering the enrolling, which are 22.9% and 21.9% respectively. In addition to other reasons, only 8.7% of the respondents thought the Child/Elder Care factors affecting apply for master's degree, which is of the least reasons.

Q10:

$Q10 Table 11 Professional development areas

		Responses		Percent of Cases
		N	Percent	
Q10[a]	Enhancing subject matter knowledge	100	14.6%	14.8%
	Using Technology in the classroom	123	18.0%	18.2%
	Child development	29	4.2%	4.3%
	Teaching reading/writing	97	14.2%	14.4%
	Specific learning disabilities	41	6.0%	6.1%
	Teacher Leadership Development	45	6.6%	6.7%
	Developing social skills in students	36	5.3%	5.3%
	Teaching Arts	29	4.2%	4.3%
	Teaching Social Studies	24	3.5%	3.6%
	Teaching English/Language Arts	28	4.1%	4.1%
	Teaching Math	34	5.0%	5.0%
	Teaching Science	19	2.8%	2.8%
	Urban Social Backgrounds	12	1.8%	1.8%
	Moral and Character Development	43	6.3%	6.4%
	Other	25	3.6%	3.7%
Total		685	100.0%	101.5%
a. Dichotomy group tabulated at value 1.				

The tenth question is to find out what professional development areas most interest the respondents. According to the chart, there are 18% of the respondents are interested in using technology in the classroom, which is of the highest proportion. And the second consideration made by respondents are in enhancing the subject matter knowledge and teaching reading / writing are 14.6% and 14.2% respectively.

Q11 Table 12 Time spent on driving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under 10 minutes	190	24.9	26.5	26.5
	10-20 minutes	259	33.9	36.2	62.7
	21-30 minutes	134	17.6	18.7	81.4
	31-45 minutes	78	10.2	10.9	92.3
	46-60 minutes	40	5.2	5.6	97.9
	more than 60 minutes	15	2.0	2.1	100.0
	Total	716	93.8	100.0	
Missing	System	47	6.2		
Total		763	100.0		

The eleventh question is to find out how far the respondents would have to drive to attend the class. The chart indicates that 33.95% of the respondents would have to drive 10 to 20 minutes t attend the class, 24.8% of the respondents would have to drive under 10 minutes, and only 2% of the respondents need more than an hour. There are others may drive 21 to 60 minutes.

Q12:

$Q12 Table 13 Time of courses

	Responses		Percent of Cases
	N	Percent	

Q12[a]	Fall	401	28.4%	60.9%
	Spring	413	29.3%	62.8%
	Summer	597	42.3%	90.7%
Total		1411	100.0%	214.4%
a. Dichotomy group tabulated at value 1.				

The twelfth question is to find out when during the year the respondents would be able to take the graduate courses. According to the chart, most respondents choose the summer class, which accounts for 42.3%.

Q13:

$Q13 Table 14 Time scheduling option

		Responses		Percent of Cases
		N	Percent	
Q13[a]	Fall through Spring: Day	6	0.5%	0.9%
	Fall through Spring: Late Afternoon	326	25.0%	48.4%
	Fall through Spring: Evening	238	18.3%	35.4%
	Fall through Spring: Saturday	123	9.4%	18.3%
	Summer Day	435	33.4%	64.6%
	Summer Evening	175	13.4%	26.0%
Total		1303	100.0%	193.6%
a. Dichotomy group tabulated at value 1.				

The thirteenth question is to be aware of which day and time scheduling option most appeals to the respondents. According to the chart, in the case of respondents choosing only one time, the largest number of respondents chooses Summer Day, accounting for 33.4%. And the least number of respondents chooses Fall through the Spring Day, only accounting for 0.5%.

② Cross Tabulation

Q7 Table 15 Degree

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$Q7[a]	680	89.1%	83	10.9%	763	100.0%

a. Dichotomy group tabulated at value 1.

$Q7 Frequencies

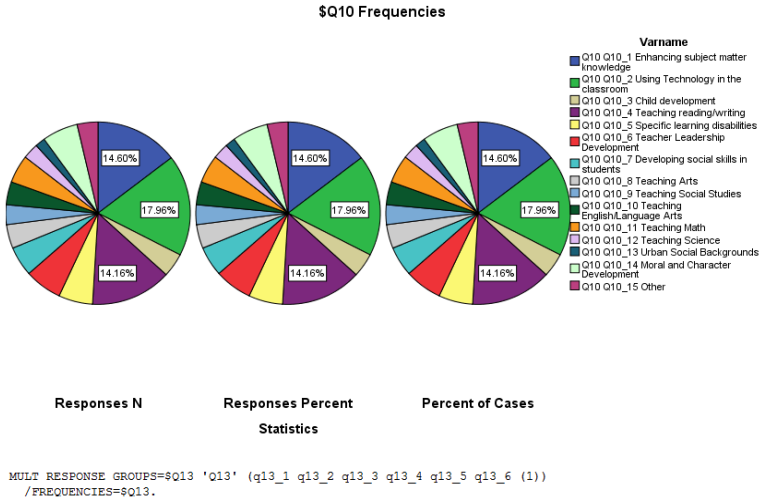
		Responses		Percent of Cases
		N	Percent	
Q7[a]	Q7_1Professional requirements	129	18.7%	19.0%
	Q7_2 Professional advancement	109	15.8%	16.0%
	Q7_3 Personal satisfaction	38	5.5%	5.6%
	Q7_4 Future requirement	23	3.3%	3.4%
	Q7_5 Career change	7	1.0%	1.0%
	Q7_6 Increased employability	27	3.9%	4.0%
	Q7_7 Additional money	84	12.2%	12.4%
	Q7_8 Keep certification	85	12.3%	12.5%
	Q7_9 Upgrade certification	107	15.5%	15.7%
	Q7_10 Improving skills	76	11.0%	11.2%
	Q7_11 Other	4	0.6%	0.6%
Total		689	100.0%	101.3%

a. Dichotomy group tabulated at value 1.

According to the table, there are a lot of people in the respondents having Master degree professional requirements, which is the most important factors, accounting for 18.72%. And the equally important

factors are Professional advancement and Upgrade certification, respectively accounting for 15.82% and15.53%.

Q10 Table 16 Professional development area and the subject

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MULT RESPONSE GROUPS=$Q13 'Q13' (q13_1 q13_2 q13_3 q13_4 q13_5 q13_6 (1))
  /FREQUENCIES=$Q13.
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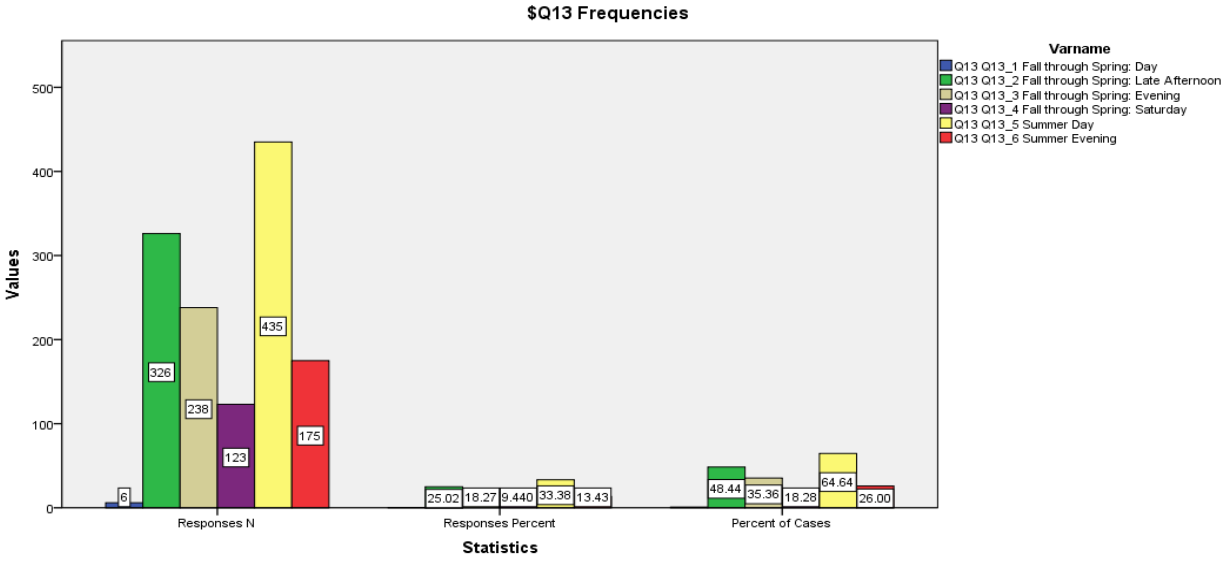
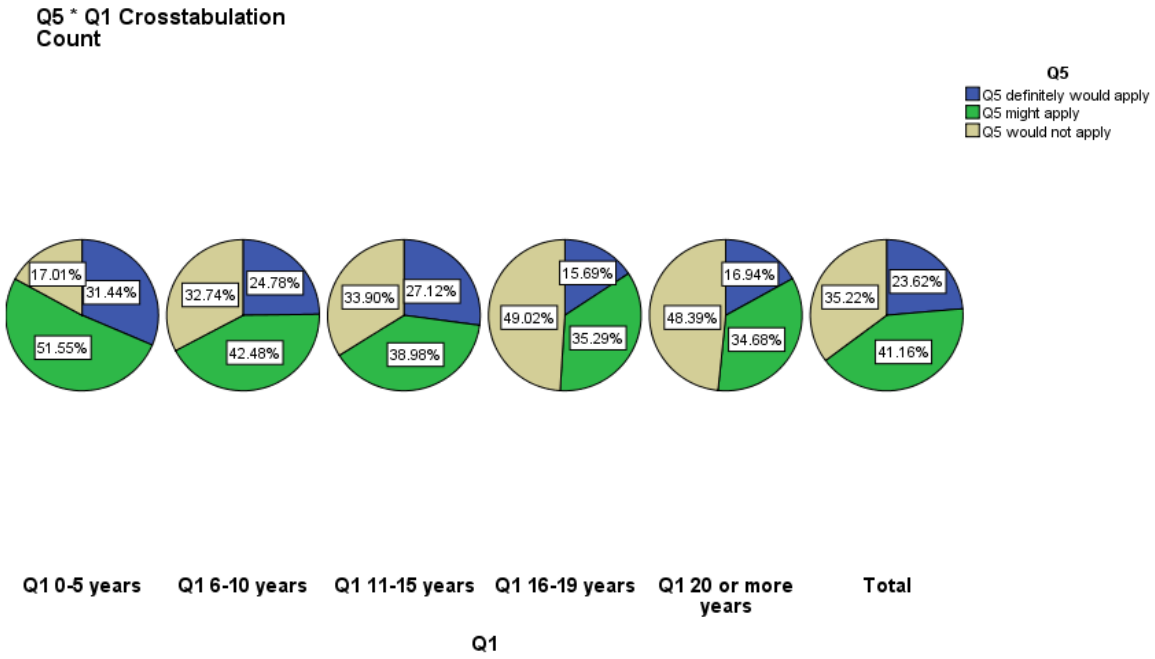
Considering the three charts at the same time, it can be found that in the professional development area, the respondents are mostly interested in using technology in the classroom, enhancing the subject matter knowledge and teaching reading/writing, respectively accounting for 17.96%, 14.60% and 14.16%. And there are less interest in teaching science and urban social backgrounds, only accounting for 1.8% and 2.8% respectively.

Q13 Table 17 Time of courses



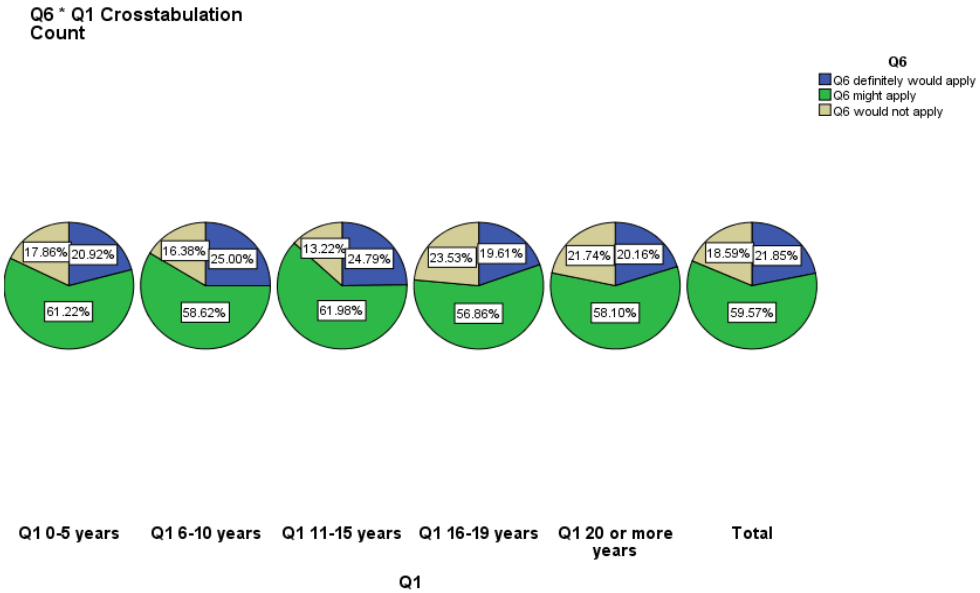
According to the chart, in the case of respondents choosing only one time of taking graduate courses, there are a large number of respondents choose Summer Day, accounting for 33.4%. And the second large number of respondents chooses Fall though Spring Day, accounting for 25.02%. And the least number of respondents chooses Fall through Spring Evening, which is only 9.44%.

Q5*Q1 Table 18 Years of teaching experience and possibility of application



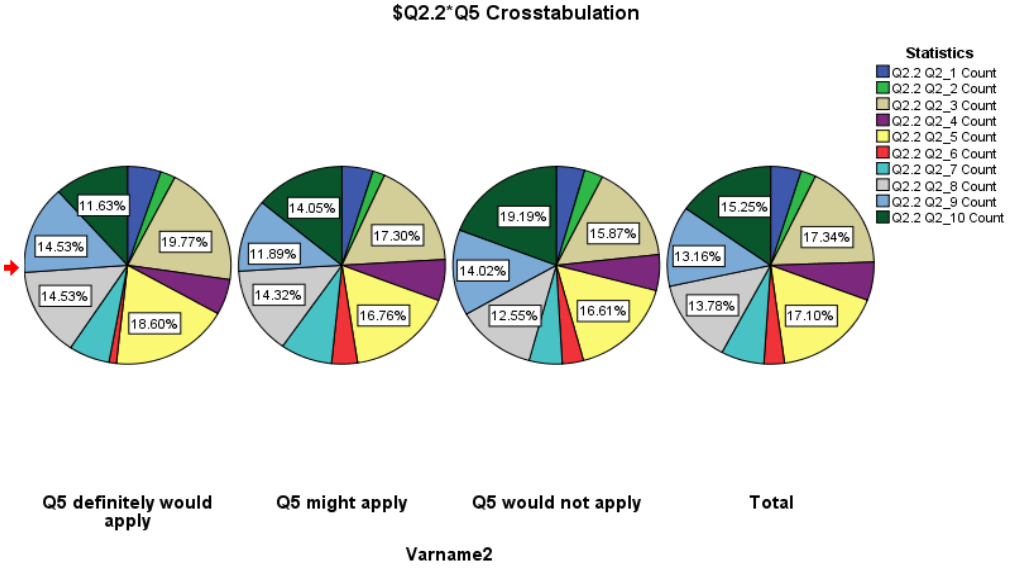
According to the charts, among the respondents who have 0 to 5 years of teaching experience, there are about 31.44% of respondents said that they definitely apply to the program, and there are about half of the respondents might apply to the master's degree. Among respondents who have 6 to 10 years teaching experience, there are 24.78% of the respondents definitely apply to the program and there are nearly half of respondents might apply to the master's degree, which is about 42.48%. And among the respondents who have 16 to 19 years teaching experience, there are the less number of respondents who definitely apply to the master's degree, only accounting for the 15.69%.

Q6*Q1 Table 19 Obstacles of application



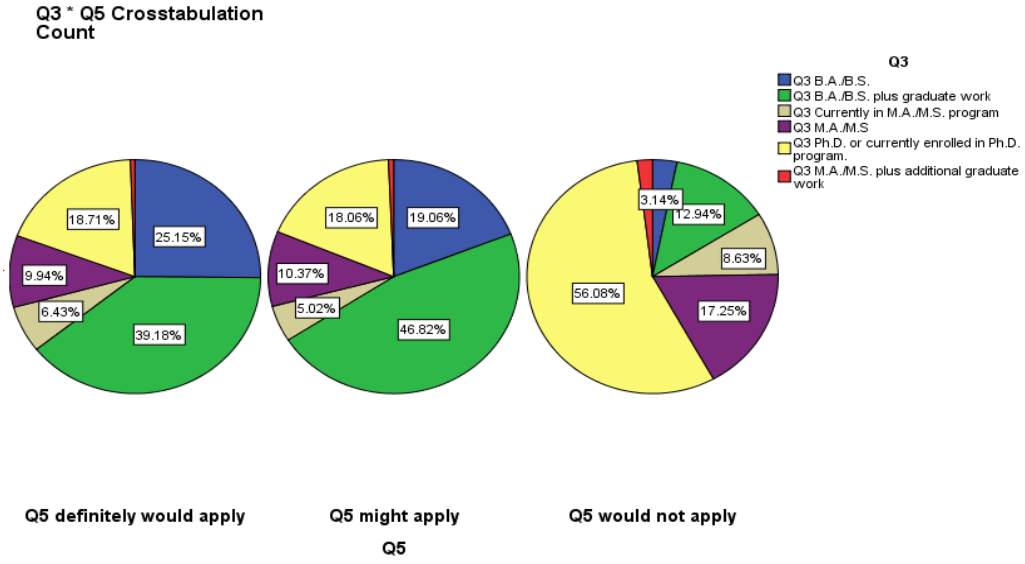
According to the charts, if costs were remained competitive, most respondents in different years of teaching experience might apply to a master's degree in order to improve teaching skills, and there are no obvious differences in each groups.

Table 20 Subject area



According to the charts, in the case of cost competitiveness, the respondents who choose the subject area had no obvious difference in different groups. So, each subject area and cost advantage has no obvious correlation.

Q3*Q5 Table 21 Possibility of application



According to the charts, in the case of costs remain competitive, from the definitely would apply and the might apply diagram, the author comes to the conclusion that respondents with the highest record of formal schooling is B.A. / B.S., B.A. / B.S. plus graduate work and M.A. /M.S. and they would definitely apply or might apply to the master's degree. And the third diagram shows the respondents who will not apply to the master's degree are those who already get Ph. D. or currently enrolled in Ph. D. program, because they have no need to apply to a master's degree.

5. Managerial Recommendations

With respect to creating a master's degree in Master of Education Program, there are 5 tips and related data analysis supported in the following part.

5.1 Consideration of the three most important reasons of getting more interests of the respondents in graduate education Shandong University of Technology

According to the three charts in Table 15, the first important reason that there are a huge number of respondents who would choose to apply to Master degree is to fulfill professional requirements, which accounting for 18.72%. And the second and the third important factors are professional advancement, and upgrade certification, which are 15.82% and15.53% respectively.

In view of teachers' professional requirements, Shandong University of Technology should focus on the teacher's related special teaching skill training and the improvement of specialized knowledge, with training not only in theory, but also in practice, so as to improve teacher's professional attainments.

In terms of career development, it is suggested that Shandong University of Technology establish an information consulting department. The departments need to provide the professional development status with the help of information technology, the analysis of the development prospects in various aspects, and better career development guidance. And through the guidance of professional development, the students can improve themselves.

Concerning upgrade certification, Shandong University of Technology could set up some relevant professional qualifications training courses, based upon the premise that the training be approved by the Shandong education department, which can help teachers to broaden employment channels.

5.2 The construction of the core areas of professional development

According to Table 16, the three charts indicates that in professional development area, the respondents are mostly interested in using technology in the classroom, enhancing the subject matter knowledge and teaching reading/writing, which are in the proportion of 17.96%, 14.60% and 14.16% respectively.

The information-based education should be set up. In the 21st century, multimedia technology has developed rapidly, which makes the educational informationization getting more and more popular. However, this is certainly not the case amongst many of the teachers. Many of them will be under pressure to abandon their attempts to change methodologies in the classroom. With the modern education vigorously promoting information technology and application wide-spreading in the process of teaching, the integration of information technology and courses should be offered and the advantages of information technology should be realized, providing a wealth of knowledge to the development of students' educational environment.

Teacher's professional development cannot leave the growth of the discipline in teaching leadership, and teachers' professional knowledge is disciplines in teaching the foundation of leadership. When they go back as a resource person they need to have an idea on how to transact these ideas, not just pulling out random threads from their training. The problem is that many don't have a systematic plan on how to go about things and then they find that others are not receptive to them. They need to have some theory to support their ideas. Shandong University of Technology can strengthen teacher subject professional knowledge, the promotion of the teacher's teaching planning, execution and reflection forces. Improvement on according to teacher's professional knowledge areas lies to strengthen the professional knowledge of personalized practice operation.

Professional training for teachers in teaching reading and writing should be conducted. Reading and writing are the basic skills of teachers' teaching process. Besides to teaching some theoretical knowledge in the classroom, Shandong University of Technology should allow students in the classroom to learn how to read literatures, which can improve students' reading ability. And some activities in writing especially thesis writing should be instructed, which can improve the students' writing ability.

5.3 Reasonable arrangement of class time

According to Table 17, the chart shows in the case of course time arrangement, the largest number of respondents chooses Summer Day, accounting for 33.4%. And the second largest number chooses

Fall though Spring Day, accounting for 25.02%. The number of choosing Fall through Spring Evening is the least, only 9.44%. According to the survey, Shandong University of Technology should take the student's preferences into consideration, giving reasonable adjustments to cater to students' preferring time in class, which can keep the competitiveness of the master program.

5.4 Target population

According to Table 18 the charts suggest that there are about 31.55% of respondents who have 0 to years of teaching experience claim clearly that they definitely would apply to the master's degree. And nearly half of respondents who have 6 to 10 years of teaching experience might apply to the master's degree, which is accounting for about 42.48%. And the similar situation lies in the respondents who have 16 to 19 years of teaching experience as well as that have more than 20 years' teaching experience of respondents, taking the percentage of 15.69% and 15.69% respectively.

Half of the respondents who have 16 to 19 years and more than 20 years' experience said they would not apply for a graduate degree; therefore, they are not the target population considered as the key object. While in Table 18, most respondents who have 0 to 15 years' experience said they would definitely apply for a graduate degree or may apply for a graduate degree; therefore, Shandong University of Technology should focus on the teachers who have less teaching experience as the target population.

5.5 Different education fields set up on according to the requirements of teachers

Contrasting Table18 and Table 19, in the case of cost competitiveness, the conclusion should be drawn that no matter how many years' teaching experience the respondents have, they should take the various lessons. There are two different situations. One is to meet the need of getting a degree certificate and the other is to get more professional skills and knowledge but with no offering of degree. So, on basis of the different requirement of teachers, Shandong University of Technology can set up different courses. One program is to offer theoretical knowledge and practical course of instruction to students who need degree certificate and another is to offer students who don't need a degree with professional knowledge intensive promotion in a short period of time.

5.6 Reasonable arrangement of the curriculum on according to the teachers with different education level

According to Table 21, the charts indicate that in the case of costs remained competitive, it can be concluded that the respondents with highest record of formal schooling is B.A. / B.S., B.A. / B.S. plus graduate work and M.A. /M.S. and they claimed that they would apply for or definitely might apply for master's degree. And the chart also shows that the highest record of formal schooling is Ph. D. or currently enrolled in Ph. D. program. Respondents of this part will not apply to the master's degree, because they don't need one. Therefore, Shandong University of Technology should take teachers' education level into consideration, setting different course classes. For example, to the students with lower degree and lower working experience, the double training in theory and practice can be provided by Shandong University of Technology; to the students with lower degree but richer teaching experience, Shandong University of Technology can only strengthen the theoretical knowledge training; and to the students with higher degree but less work experience, Shandong University of Technology can provide a lot of practice courses.

6. Limitations

In terms of structure, the limitations of this instrument:

1). The beginning of the questionnaire should include greeting, illustrate and questionnaire number.

2). The second limitations is that the questionnaire design is not very accurate, for some personal information is not clear, and the respondents will affect the accuracy of the questionnaires and data analysis.

3). Questionnaire for respondents is lack of universality, because the research sample is mainly in a county area, and it can't use to represent the whole target population in Shandong Province.

7. Further Improvement

Each of the following ideas will be discussed in greater detail in this section, but one of the things that became clear upon speaking with the teachers and professors at the Master of Education Program was that methodological change is about a lot more than just changing a particular practice. It sometimes requires cultural change and an arsenal of teaching strategies that may or may not be a part of teachers' repertoires. Secondly, the teachers in this case study were far more likely to buy into strategies that they physically saw working or experimented with, and were quick to discard ideas that were not backed up with successful demonstrations.

In terms of the limitations, at first, the beginning part of the questionnaire should including greeting with kind, sincere and polite wording, and clear introduction of research purpose, the investigators' identity, confidentiality, as well as incentive measurements, so as to eliminate the doubts of the respondents and inspire their participation. Second, questionnaire should be designed on according to the respondents with more personal information, such as the individual case of respondents which can appropriate supplementary disciplines or level of education, and so on. And the research should not involve personal private questions, such as name, salary, and so on. Third, the sample choosing should be more valid. At the same time, some downsides and disadvantages need to be weighed. In some cases these new degree programs may be redesigns of current master's degrees. In other cases, they may be programs that create totally new programs, as the Masters of education program does. In either case, we feel it is imperative that more attention be paid to the rapidity of improvement in Masters of education degrees and the new, more expansive demands being placed on professionals in the teacher's education.

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