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## Survey and Analysis on the Status Quo of Occupational Risk Perception of Teachers in Public Vocational Colleges in an Underdeveloped Area

### Di Tang\*

International College, Krirk University, Bangkok 10220, Thailand

\*Corresponding author: Di Tang, ediepig@163.com

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Abstract: This paper selects the teachers of public higher vocational college (College A) in underdeveloped areas to participate in the analysis, and conducts a questionnaire survey using the occupational risk perception questionnaire of higher vocational teachers. A total of 223 higher vocational teachers were selected to participate in the survey in order to understand the status quo of occupational risk perception of higher vocational teachers. The survey results show that the Cronbach's α coefficient of occupational risk perception scale for higher vocational teachers is 0.846, and the Kaiser-Meyer-Olkin (KMO) is 0.871. The education legal liability risk, workload risk, and career development risk are the highest average occupational risk perception of higher vocational teachers. In conclusion, the occupational risk perception scale of higher vocational teachers compiled in this study has good reliability and validity. The occupational risk perceived by teachers in public higher vocational colleges is relatively high.

Keywords: Public higher vocational college teachers; Occupational risk; Risk perception

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### 1. Introduction

The advent of the information age of education and the prevalence of new media have made the working situation of teachers more complicated, their words and deeds are more easily scrutinized by public opinion, and the professional risks of teachers have become increasingly prominent. The current academic research does not focus enough on the overall occupational risk perception ability of vocational education teachers, and there is also a lack of systematic research on the occupational risk of vocational education teachers. Schools need to consider sorting out the content of occupational risk of higher vocational teachers, analyzing teachers' occupational risk perception ability, risk event prevention, and management ability, and putting forward management countermeasures to ensure campus safety.

This paper uses risk perception theory and related psychometric paradigm scale research to compile a risk perception scale with occupational characteristics of higher vocational teachers, investigate and analyze the current situation of occupational risk perception of higher vocational teachers, and provide a basis for the

research on risk perception of vocational education teachers.

## 2. Research objects and methods

## 2.1. Survey objects

Using the convenience sampling method, 223 teachers were selected from a public higher vocational college (hereinafter referred to as College A) in an underdeveloped area of Guangxi Zhuang Autonomous Region to conduct a questionnaire survey. The surveyed teachers independently completed the online questionnaire anonymously. A total of 223 questionnaires were distributed, and 223 valid questionnaires were recovered, with an effective recovery rate of 100%.

#### 2.2. Methods

The research method used was questionnaire, which includes collecting the basic information and occupational risk perception of higher vocational teachers. The basic information are gender, age, teaching experience, professional title, highest education, position, etc. For the occupational risk perception of higher vocational teachers, teachers' occupational risk is divided into seven dimensions according to the actual work situation of teachers. Firstly, according to the nature of work, it is divided into teaching risk and non-teaching risk. The contents are education legal liability risk, educational technology liability risk, career development risk, workload risk, health risk, and campus safety risk [1].

With reference to the Doctor Occupational Risk Perception Scale compiled by Zhang Xingxing and the division of seven dimensions of occupational risk for higher vocational teachers, the questionnaire for occupational risk perception for higher vocational teachers was revised in combination with the actual work situation <sup>[2]</sup>. The questionnaire has a total of 41 items. The Likert 5-level scoring method is used to evaluate the respondent's perception level with a positive scoring model. The higher the score, the greater the teacher's occupational risk perception. Lastly, SPSS statistical software was used for data analysis.

## 3. Findings

## 3.1. Reliability and validity tests

#### (1) Reliability test

This study used Cronbach's  $\alpha$  coefficient to test the internal consistency of the questionnaire, and the results show that the overall reliability of the questionnaire is 0.846, which shows that the questionnaire in this study has good reliability.

## (2) Validity test

Using the methods of Kaiser-Meyer-Olkin (KMO) value and Bartlett sphericity test to measure the structural validity analysis, the analysis shows that the KMO value of the scale is 0.871, and the significance of the Bartlett sphericity test is p < 0.05, indicating that the data validity of the scale is very good.

# 3.2. Analysis of the situation of the survey sample of higher vocational teachers' occupational risk perception

According to the analysis of the survey results, the proportion of men and women is equal, female respondents accounted for 50.67%, while male respondents accounted for 49.33%. Since there are many engineering and technical majors in vocational colleges, the proportion of male teachers is higher than that in basic education, which is in line with the actual situation of College A. Judging from the age of the survey respondents, 28.7% of them were

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between 20–30 years old, 28.7% were between 31–40 years old, 22.4% were aged 41–50, and 22.4% were aged 51 and above. Based on the analysis of the teaching experience of the survey respondents, 24.67% of the respondents have teaching experience ranging from 5 to 10 years at most, which is in line with the age distribution, followed by 23.77% of new teachers who have less than 5 years of teaching experience, and experienced teachers with more than 31 years of teaching experience accounted for 10.76%. According to the professional title of the survey respondents, the ratio of people with unassessed professional titles, junior professional titles, intermediate professional titles, and senior professional titles is 17:19:38:26. Only 2.42% of the surveyed subjects had an educational background of postgraduate degree, which is in line with the reality of the shortage of highly educated talents in College A, and the proportion of highly educated talents for vocational education teachers is relatively low.

## 3.3. Descriptive analysis of occupational risk perception survey of higher vocational teachers

Based on Table 1, the following analysis can be drawn.

- (1) Teaching risk: the overall level is moderately low

  The average value of this aspect is 2.219, indicating that teachers' overall perception of teaching risks is at a moderately low level. Teachers of College A are more worried about teaching work than the application of new teaching skills (professional skills) or the improvement of personal skills. They are also worried about not being able to keep up with the pace of learning. Plus, they worry about the uncertainty of new emergencies happening in the classroom [3].
- (2) Education legal liability risk: the level of concern is the highest, especially the pressure from Internet public opinion
  - The average value of this aspect is 3.134, which shows that the teachers' perception of the risk of educational legal responsibility is at a moderately high level, and it is also the risk with the highest average among the seven aspects of teacher's occupational risk. The teachers of College A think that social public opinion is too demanding on teachers or schools, which is in line with the current status of Internet public opinion.
- (3) Educational technology liability risk: the overall level is moderately high, especially the leakage of private information
  - The average value of this aspect is 2.900, indicating that the overall risk of the teachers' liability for educational technology is at a moderately high level <sup>[4]</sup>. The highest concern is the leakage of private information when communicating with parents or students through social software. From this, it can be found that the teachers of College A are most worried about personal privacy security, and the teachers' overall awareness of the responsibility risk of educational technology has generally increased.
- (4) Career development risk: the overall level is moderately high, with low career satisfaction. The average value of this aspect is 3.107, indicating that the teachers have a moderately high level of career development risk. Teachers in College A generally believe that the work of higher vocational teachers is not easy. Moreover, the average satisfaction level of teachers in College A with their current jobs is moderate and slightly low, indicating that a large number of teachers are dissatisfied with their current jobs and will resign, which is consistent with the high frequency of personnel turnover in College A. The degree of worrying about job promotion is relatively high, which shows that teachers have insufficient confidence in the future development of College A.
- (5) Workload risk: the proportion of non-teaching events is relatively high, with increasing difficulty of work
  The average value of this aspect is 3.024, indicating that the teachers' perception of workload risk is
  at a moderately high level. Teachers of College A believe that non-teaching tasks account for a large

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- proportion of the overall work, and most of them think that since work affects their lives, they have insufficient time to spend with family and friends.
- (6) Health risks: the overall level is moderately low, with increased personal cyberattacks

  The average value of this aspect is 1.893, indicating that the teachers' perception of health risks is at
  a moderately low level. Teachers of College A have a relatively low probability of having physical
  injuries, and the highest probability of being insulted and abused. In addition, the probability of being
  threatened and intimidated, and personal cyberattacks is also very close, which shows that it is more
  difficult than implementation. Real life or online direct physical attacks, and verbal attacks are riskier.
- (7) Campus safety risk: the sense of school safety is relatively high, and the risk is moderately high. The average value of this aspect is 3.008, indicating that the teachers' perception of campus security risks is at a moderately high level. Teachers are worried about the overall environment of the school. The school system, the guidance of the leaders, the guarantee of logistics, and the cooperation of colleagues can all make higher vocational teachers have a higher sense of security [5].

## 4. Main results and discussion of the occupational risk survey of higher vocational teachers

There are many factors that cause occupational risks for higher vocational teachers, including salary incentives, workload, performance appraisal, professional title evaluation, career planning, training, fairness of evaluation system, social recognition and expectations, and many other aspects. According to the survey results, the factors that teachers generally agree with are:

- (1) The workload of teachers is too heavy and the job satisfaction is low

  Most teachers believe that teachers have long working hours and excessive non-teaching tasks. At the
  same time, teachers need to continuously learn new teaching skills and improve professional quality
  through self-study, training, and enterprise training. In addition, as a public vocational college in an
  underdeveloped area, the government cannot guarantee more school-running funds, and the lowincome level of teachers has significantly affected the job satisfaction of teachers.
- (2) The profession of teachers cannot achieve work-life balance

  The object of education is changing, and students are developing and dynamic, thus education is complex. Teachers need to have firm and lofty ideals, maintain a good conscience and work hard to manage the classroom and students, but there is no guarantee that every student will get the same feedback on the results. Under the conflict between reality and ideal, teachers are prone to psychological gap <sup>[6]</sup>. In order to fulfill the society's moral and professional requirements for teachers, teachers suppress individual and family needs, and start a vicious cycle. Psychological imbalances lead to negative work attitudes, and teachers cannot complete their tasks well.
- (3) It is difficult to obtain the support and cooperation of parents

  In the context of emphasizing home-school cooperation, education is no longer just a matter of the school, but also requires the cooperation of parents. However, the reality is that it is difficult to empathize with the different standpoints of the parents and school. When parents have different educational concepts or doubts, it is difficult for parents to empathize and they even become hostile to teachers. As teachers engaged in education and teaching work, they need to be able to actively explore human nature, and conduct long-term research on the methods and skills of getting along with students' parents.

Table 1. Statistics on the mean values of each aspect of teachers' occupational risk perception in College A

Q1 (Blamed by parents of students for punishing students)  Q2 (Talked or held accountable by the school for classroom man Q3 (Worried about being complained by students/parents)  Q3 (Worried that the teaching task will not be completed if the a Q5 (Worried that the teaching task will not be completed if the a Q6 (Worried about elassroom emergencies not being dealt with Q7 (The teacher/school is required to fully bear the compensuit Q10 (Social opinion puts pressure on teachers or students)  Q10 (Social opinion puts pressure on teachers or students)  Q11 (Social opinion is too harsh on teachers or students)  Q12 (Communication with students/parents)  Q13 (Word stress in communicating with students/parents)  Q14 (Communication stress with students/parents)  Q15 (Expressed pressure to communicating with students/parents)  Q16 (Stress for effective messaging with students/parents)  Q17 (Balanced pressure on parties communicating with students/parents)  Q18 (Satisfaction with current job)  Q20 (Giving up due to a big difference from the ideal job)  Q21 (Job promotion question)  Q23 (Non-teaching tasks occupy a high proportion of working to Q24 (Lean't adapt to the increase in work difficulty)  Q24 (Lan't adapt to the increase in work difficulty)  Q25 (Lask of time to spend with family and friends)  Q36 (Has been threatened or intimidated)  Q37 (Has been threatened or intimidated)  Q38 (Been physically attacked)  Q38 (Been physically attacked)  Q39 (Has suffered personal attacks on the Internet)  Q41 (Ability to respond to campus crisis incidents)		Aspects	Ifems	Average value	Average
Teaching risk  Education legal liability risk  Educational technology liability risk  Career development risk  Workload risk  Teaching Security Risks		•		1 408	
Teaching risk  Education legal liability risk  Educational technology liability risk  Vorkload risk  Workload risk  Campus Security Risks			O2 (Talked or held accountable by the school for classroom management issues)	1.130	
Teaching risk  Education legal liability risk  Educational technology liability risk  Career development risk  Workload risk  Teaching risk  Campus Security Risks			Q3 (Worried about being complained by students/parents)	2.314	
Education legal liability risk by risk  Career development risk  Workload risk  Health risk  Campus Security Risks	Teaching risk	Teaching risk	Q4 (Concerned about the learning application of new teaching skills/professional competencies)	2.803	2.129
Education legal liability risk  Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks			Q5 (Worried that the teaching task will not be completed if the application of information technology is not good)	2.435	
Education legal liability risk  Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks			Q6 (Worried about classroom emergencies not being dealt with accurately and in a timely manner)	2.686	
Education legal liability risk  Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks			Q7 (The teacher/school is required to fully bear the compensation cost after the student has an accident and causes personal injury)	2.372	
Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks		Education legal liability risk	Q10 (Social opinion puts pressure on teachers or students)	3.466	3.134
Educational technology liability risk  Career development risk  Workload risk  Health risk			Q11 (Social opinion is too harsh on teachers or schools)	3.565	
Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks			Q12 (Communication with students/parents through social software will lead to the leakage of private information)	2.946	
Educational technology liability risk  Career development risk  Workload risk  Health risk  Campus Security Risks			Q13 (Word stress in communicating with students/parents)	2.897	
ty risk  Career development risk  Workload risk  Health risk  Campus Security Risks		Educational technology liabili-	Q14 (Communication stress with students/parents)	2.906	000 6
Career development risk  Workload risk  Health risk  Campus Security Risks		ty risk	Q15 (Expressed pressure to	2.910	7.300
Career development risk  Workload risk  Health risk  Campus Security Risks			Q16 (Stress for effective messaging with students/parents)	2.910	
Career development risk  Workload risk  Health risk  Campus Security Risks			Q17 (Balanced pressure on parties communicating with students/parents)	2.830	
Career development risk  Workload risk  Health risk  Campus Security Risks			Q18 (Satisfaction with current job)	2.565	
Workload risk Health risk Campus Security Risks	NI S. I. I. S. I. I.		Q19 (Giving up due to a big difference from the ideal job)	2.619	2 1 0 2
	Non-teaching risk	Career development risk	Q20 (Ease of work)	4.081	3.10/
			Q21 (Job promotion question)	3.161	
			Q23 (Non-teaching tasks occupy a high proportion of working time)	2.946	
		Woodelood wiels	Q24 (I can't adapt to the increase in work difficulty)	2.668	2 0 2 4
		WOINIOAU IISN	Q25 (Unable to balance work and life)	3.126	3.0 <i>c</i>
Q36 (Has been threatened of Q37 (Has been insulted and Q38 (Been physically attace Q39 (Has suffered personal Q41 (Ability to respond to			Q26 (Lack of time to spend with family and friends)	3.354	
Q37 (Has been insulted and Q38 (Been physically attact Q39 (Has suffered personal Q41 (Ability to respond to			Q36 (Has been threatened or intimidated)	1.951	
Q38 (Been physically attac Q39 (Has suffered personal Q41 (Ability to respond to		Usolek mist		2.081	1 903
Q39 (Has suffered personal Q41 (Ability to respond to		Health Hon	Q38 (Been physically attacked)	1.556	6661
Q41 (Ability to respond to			Q39 (Has suffered personal attacks on the Internet)	1.982	
		Campus Security Risks		3.008	3.008

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(4) The society has a biased perception of the profession of teachers

With the explosion of Internet information and the emergence of headline parties, once negative information is transmitted on the Internet, even if it is proved innocent later, it will be difficult for everyone to know. In recent years, teachers have been attacked by public opinion many times, they are not easily forgiven even if they make only minor mistakes. Once malicious negative public opinion is spread, the damage to teachers' personal and professional development cannot be underestimated. Most of the current society still agrees with teachers, but there are still some deviations <sup>[7]</sup>. With the transmission of information, many parents' awareness of rights protection has become higher, and their requirements for school education have also increased, but they have become less patient with teachers. This is undoubtedly a challenge to the teaching profession.

### Disclosure statement

The author declares no conflicts of interest.

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