



A Study on Vocational School Teachers' Satisfaction in Deli Serdang North Sumatera Indonesia

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Abstract

This study explores the influence between individual characteristics, job characteristics and career development with job satisfaction of teachers in vocational schools at the Deli Serdang Province of North Sumatera, Indonesia. The sample size of this study was obtained using the proportional random sampling which further resulting a total number of 186 teachers who were found having the expected qualification in Mechanical Engineering subject. The hypotheses tests based on the path analysis on the research model revealed that individual characteristics, job characteristics and career development. The results showed that : 1) Individual characteristics directly influence the career development of vocational teachers in Deli Serdang, 2). Job characteristics directly influence the career development of teachers of vocational schools in Deli Serdang, 3). Individual characteristics directly influence the job satisfaction of vocational teachers in Deli Serdang, 4). Job characteristics directly influence the job satisfaction of teachers of vocational schools in Deli Serdang and 5). Career development directly influence the job satisfaction of teachers of vocational schools in Deli Serdang.

Keywords: Individual Characteristics; Job Characteristics; Career Development and Job Satisfaction.

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1. Introduction

Teacher job satisfaction is an important issue in the field of education. This is shown for the last three decades, many studies have attempted to identify the sources of satisfaction of teachers for primary and secondary school teachers [for example, 1, 2, 3 and 4]. According to the majority of these studies, teacher satisfaction is clearly related to levels of intrinsic motivation associated with entering the profession because of the love for teaching and the love for children. In contrast, teachers viewed job dissatisfaction as principally contributed to by work overload, poor pay and perceptions of how teachers are viewed by society. Therefore, Shiuan-Ying Huang, et.al, [5] stressed the importance of efforts to improve the job satisfaction of teachers to strengthen teaching and learning process in an actual class. Maintenance teacher job satisfaction is necessary so as not to cause work stress [6, 7]. Thus, the teacher's job satisfaction if not taken seriously, it would be affecting the quality of learning.

It can be argued that teacher satisfaction refers to a teacher's affective relation to his or her teaching role and is a function of the perceived relationship between what one wants from teaching and what one perceives it is offering to a teacher. Teacher job satisfaction is also affected by certain factors which are derived from both internal and external conditions of teachers [8]. More specifically, according to Seniwoliba [9] factors relating to the individual psychological conditions such as individual satisfaction, working conditions, pride, and motivation are considered key to the internal factors of the individual to maximize their performance. Externally, the job satisfaction of teachers may be reflected in workplace conditions, social relationships between teachers, peers and stakeholders and training related to the availability of useful work to maintain the professionalism of the teacher [10, 6, and 11]. Along these lines, Maeroff [12] described teachers' "sense of empowerment" as a major way "to make teachers more professional and to improve their performance". The power Maeroff referred to "the power to exercise one's craft with confidence and to help shape the way that the job is to be done".

A teacher's sense of identity and belonging is influenced by many factors, not least their experiences, relationships and work environment [13]. Teaching can be done by a novice doctoral student and by a senior lecturer or professor who has taught for decades [14]. The career paths are varied and divergent. In addition, a career is determined by valuations and possibilities with respect to academic work and culture. The career development involves employees to relate their efforts and the world of their work in fashioning their individual work identity [15]. Career teachers' perception of personal impact and influence on students and student learning is a greater predictor of teacher retention than working conditions alone [16]. Those individuals making an early career commitment to teaching will also likely remain teachers over time. Job satisfaction for career teachers is often intrinsic to the nature of the work of teaching. Career teachers find great job satisfaction in the affective rewards of teaching, such as helping students learn [17]. More importantly, the author emphasize the influences on and outcomes of career development are one aspect of socialization as part of a broader process of human development in establishing their existence as a social actor in a professional institution. Put another way, the career development will satisfy the individuals need to be acknowledged within a particular social circumstance.

2. Theoretical Framework

Extant literature suggests that individual job satisfaction is determined by individual characteristic, and job characteristic [see for example 15, 18, 19, 20, 21, and 22]. The basic premise of the relationship between individual characteristic, and job characteristic, with job satisfaction is derived from the trait and factor theory highlighting that the individual is different, and their different capacities may influence their professional occupations [23]. Furthermore, Brown [24] also emphasize that the decision on an occupation from an individual involves the individual desire and expectation on the job thus can make his/her performance become satisfactory. According to Sharf in Patton and McMahon [23], traits are determined by individual characteristics and factors are measured by particular expectation required by an individual to achieve his/her successful job performances. In this study, traits are determined by Individual Characteristics and Job Characteristics. And these traits and factors variables' are partially and simultaneously influence Job Satisfaction.

The Individual Characteristics variable is extracted from Hackman and Oldham theory of job characteristics which focusing on personal characteristics that determine their job [20, 21] Previous studies from Franěk and Večeřa [18] and Hickson and Oshagbemi [25] reveal that personal characteristics such as age, tenure, gender, educational level, and strong work ethics of an individual are factors that influence individual perceiveness on his/her job satisfaction.

The job characteristics model has been used as a platform for managers in designing jobs that will further satisfy the individual needs [26]. The authors also highlight that job characteristic proxies of the Hackman and Oldham's consisting of autonomy, feedback, skill variety, task identity, and task significance influence the job satisfaction. When employers are suited with the appropriate autonomy, relevant feedback, sufficient skill variety, clear task identity and significance; they will be more firm psychologically. Thus, it is important for employees being occupied with these characteristics as it will affect their perceiveness on the job they are attached with, increasing their responsibly and significantly enhancing their vision on every task they should be working [21]. Furthermore, the employee will be more satisfied with their job and in turn, it will reduce the employee absenteeism and turnover [26].

According to [18] and [26], the efforts on employee development contribute to the employee commitment to the organization improving the work productivity and likewise reducing absenteeism and turnover intentions. This study measures the career development based on the argument modified within [27], underlining five major factors. They are: (1) skills development; (2) the development of career maturity; (3) the sufficient knowledge of the individuals on their job; (4) the employees' expectation on their career development, and; (5) emotional responses, and; (6) the relevancy between employees' job, knowledge and skills with their existing career development.

However, in conducting their educating duties, the teachers face many challenges that influence their efforts in achieving the objectives as earlier mentioned. These challenges are vary among educators which also influenced by particular factors coming from both internal and external conditions of the teacher [8]. More specifically, according to Semiwoliba [9], Filak and Sheldon [28] and Tietjen and Myer [29]; factors related to the individual

psychological condition e.g. individual satisfaction, work condition, pride, and motivation are considered as the determinants for internal factors of individual to maximize their performance. Externally, the teachers' career development can be reflected in the workplace condition, the social-relationship among the teacher, colleagues and stakeholders, and the provision of job related training that beneficial to maintain teacher's professionalism [30].

The school atmosphere is a unique condition as this is the place where various social interests are integrated. The characteristic of this social interactions also varies across educational levels, from elementary to post-graduate, or educational systems, between general and vocational schools. The arguments to decide which side to be more emphasized have been remained unsolved [31]. For instances, such schools establish their particular role in different societies. In a more details, these authors illustrate that the Germany's system – which involves fully vocational schools as well as those mixing vocational and general education – is highly regarded and consisted over half of the country's upper secondary students. In other countries, however, vocational schools serve as markers of a students' lower socioeconomic status: in Hungary, 54% of pupils in vocational schools were from the bottom socioeconomic quartile, and in South Korea the figure is 52%. In other countries still, these schools are simply treated as a last port for students who are unable to succeed in more academic environments. As the consequence, these phenomena underline the creativity of the teachers involved within particular educational systems to maintain the broader success of their students.

Given, however, that most of these international studies on teacher satisfaction have been conducted in developed countries, one realizes the need, in the available literature, for similar research in developing countries as well. The evidence available from educational systems in developed countries identifies a complex picture in which job satisfaction is closely related to the other key factors of the complexities of work and life in general within a particular social context.

As described in the previous section, the basic premise of this study underlines that individual characteristic, and job characteristic, on job satisfaction of educational workers, particularly on teachers in the vocational schools. It is derived from the trait and factor theory complemented with the Hackman and Oldham's job characteristic models to further rationalize the research framework of this study. If there are aspects of the job characteristics can be met by each teacher then so they will feel satisfied with his work. So it can be assumed that the characteristics of the job are one of the strategic factors that may affect the job satisfaction of teachers.

The influence of individual characteristics consisting of age, years of service, level of education, gender and work ethic on job satisfaction may occur because teachers carry out the work according to his ability, level of education, as well as the work experience that impact on teachers' skills and abilities to do the job with well that will accelerate the achievement of the goals of the school. Based on the description, the characteristics of strong individuals can encourage a person to behave in the work that will have an impact on job satisfaction of teachers. As the educator, a teacher plays an important role in building and developing students' intellectual capacity for their future needs. As this young generation will take the lead to continue the development of the nation, providing them with a high-quality learning process must be taken into consideration by respective bodies in the relevant government structure. Accordingly, the capability of teacher, like any other profession,

needs to be continuously upgraded to fit with the most current condition and stakeholders' needs, hence reserving them with a pride as an educator. They will also grant a respect from the stakeholders valuing the teacher's professional job as a cornerstone in the development of a nation.

In general, though, studies have found variations in the job satisfaction levels of teachers, depending on certain individual and school characteristics. Recent national and international studies carried out in a number of countries have drawn attention to the degree of job satisfaction among teachers. In general, it has been found that context seems to be the most powerful predictor of overall satisfaction. However, given that most of the international studies on teacher satisfaction have been conducted in developed countries, one realizes the need in the available literature for similar research in developing countries as well.

Hence, the description illustrates that the work of teachers is a collection of daily activity is done in order to achieve educational goals. Teachers are required to work with to provide the best service to students, parents, and community. One of the factors that support teachers to work with the best is job satisfaction. The job satisfaction has been a pivotal issue in defining the organizational effectiveness. It reflects an individual feelings' towards work that affects both the individual's and organization performances [32]. The lack of clarity on what constitutes job satisfaction has meant that different authors have used different definitions and different operationalization of the concept, leading to findings that are thus not comparable.

The vocational school atmosphere is a unique condition as this is the place where various social interests are integrated. The characteristic of this social interactions also varies across educational levels, from elementary to post-graduate, or educational systems. The study analyzes how these motives influence the level of satisfaction held by the Cypriot teachers. The findings showed that, unlike other countries in which this questionnaire was used, Cypriot teachers chose this career because of the salary, the hours, and the holidays associated with this profession [33]. Vocational teachers' work is based on two main competences: teaching competence and competence related to a specific work-life vocational practice. Vocational teachers' management of the interplay between vocational education and working life is considered essential to their work. Because this interplay is a fundamental part of teaching a vocational subject, vocational teachers face special demands [e.g., 34, 35, and 36].

The arguments to decide which side to be more emphasized have been remained unsolved [31]. For instances, such schools establish their particular role in different societies. In a more details, these authors illustrate that the Germany's system – which involves fully vocational schools as well as those mixing vocational and general education – is highly regarded and consisted over half of the country's upper secondary students. In other countries, however, vocational schools serve as markers of a students' lower socioeconomic status: in Hungary, 54% of pupils in vocational schools were from the bottom socioeconomic quartile, and in South Korea the figure is 52%.

In other countries still, these schools are simply treated as a last port for students who are unable to succeed in more academic environments. As the consequence, these phenomena underline the creativity of the teachers involved within particular educational systems to maintain the broader success of their students.

The Indonesian education system has also faced quite challenges in equipping the students for the successfulness of their further academic paths. In particular, Hendayana and his colleagues [37] highlight the disproportion number of qualified teachers between secondary schools (including vocational schools) and primary schools as one of the major concern affecting the low quality in the teaching process. Accordingly, Daniel [38] emphasizes that the importance on teachers' training to improve teachers' performances to strengthening the teaching and learning process in the actual classrooms. Thus, it will further create the dynamic growth and elevate the knowledge index of local students in the Asian region. Thus, research into teacher satisfaction is becoming more and more important given not only that a growing number of teachers leave the profession but also that dissatisfaction is associated with decreased productivity [39].

3. Material and Method

3.1. Research Model

As mentioned earlier, job dissatisfaction among teachers, if not addressed seriously, will further affect the education of the young generation.

To the best of the author's knowledge, very limited studies have been demonstrated the influence of individual characteristic, job characteristic, and career development on job satisfaction of educational workers, particularly on teachers in the vocational schools. Given the importance of the study, this research aims to analyze the influence of individual characteristic, job characteristic, and career development on the job satisfaction of vocational school teachers in Deli Serdang Province of Sumatera Utara, Indonesia. This study provides significant insights resulted from different type of organization intensifying the important of valuing individual characteristic, job characteristic, and career development to increase job satisfaction of vocational school teachers.

More specifically, the purpose of this study was:

- Direct influence of individual characteristics on career development vocational high school teachers in Deli Serdang.
- Direct influence of job characteristics on career development vocational high school teachers in Deli Serdang
- Direct influence of individual characteristics on job satisfaction vocational high school teachers in Deli Serdang.
- Direct influence of job characteristics on job satisfaction vocational high school teachers in Deli Serdang
- Direct influence of career development on job satisfaction vocational high school teachers in Deli Serdang

Figure 1. Provides a visualization of the relationship between individual characteristic, job characteristic and career development with job satisfaction.

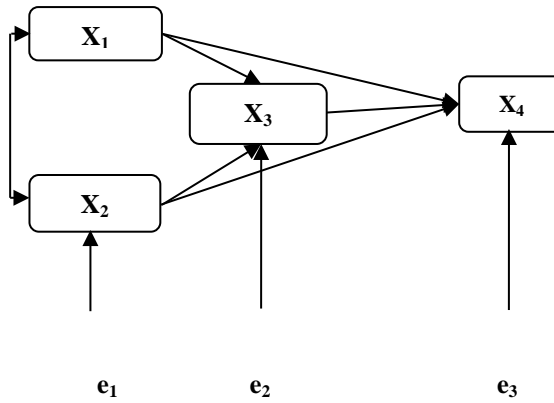


Figure 1: Research Model

Description: X₁: Individual Characteristics, X₂: Job Characteristics,

X₃: Career Development, X₄: Job Satisfaction

For the purpose to explain the objective of study set earlier on, this study develops three major hypotheses focusing on the direct relationship between all independent variables (individual characteristics, job characteristics and career development) and job satisfaction. The overall hypotheses are described as follows:

Hypothesis 1. The individual characteristics *directly* influence the career development.

Hypothesis 2. The job characteristics *directly* influence the career development.

Hypothesis 3. The individual characteristics *directly* influence the job satisfaction.

Hypothesis 4. The job characteristics *directly* influence the job satisfaction.

Hypothesis 5. The career development *directly* influence the job satisfaction

3.2 Population and Sample

The sampling frame used in this study was obtained from the Directorate of Elementary Teachers Education [40] focusing on total number of vocational school teachers from state and private vocational schools in the Deli Serdang Province of North Sumatera, Indonesia. The population of this study was all teachers who are specialized on the subject of Mechanical Engineering Skills amounting 176 teachers in total. Determination of the sample size in this study is based on a formula Slovin namely: $n = N / \{1 + (Nxe^2)\}$, n = sample size, N = population size and e = the degree of error [41]. The sample size of this study was gathered based on the proportional random sampling which further resulting a total number of 122 teachers who were found having the expected qualification.

3.3 Data Collection Techniques

For the purpose of data collection, a questionnaire was developed as the main instrument of this study and distributed to all samples. All of items questioned within the instruments were constructed relevant to research objectives, research questions, and literature review references. The research questionnaires consist of number of Likert-scaled queries following the four variables within this study: individual characteristics, job characteristics, career development and job satisfaction

3.4 Data Analysis Techniques

To test the hypotheses, this study used a path analysis method. According Specht [42], the path analysis approach is suitable to determine the magnitude and significance of the causal relationship between the observed variables (see Figure 1. Research Model). The author also underline that the path analysis is more powerful to measure the causal relationship using the mediating variable(s) in a single model without segregating several regression tastings. The testing result will estimate the structure of the main path from the independent variable(s) to a dependent variable. The main path will be indicated from a standardized regression coefficient, demonstrating whether there is a direct effect or indirect effect occurred within the research model. A Specht’s Goodness of Fit Estimate was used to examine that the model fits the data based upon how well the model reproduces the observed correlation matrix. The author suggests a perfect fit would give a *Q* of one; less than perfect fits yield *Q*'s less than one.

4. Findings And Discussion

4.1 Findings

Summary results of the calculation of the correlation coefficient, path coefficient and the significance path tabulated in Table 1 as follows:

Table 1: Summary Calculation Results Correlation Coefficient, Paths Coefficient and Significance.

No Hypothesis	Correlation Coefficient	Paths Coefficient	$T_{observes}$	Significance	Status
1	$r_{31} = 0,560$	$\rho_{31} = 0,144$	2,228	0,000	Significance
2	$r_{32} = 0,757$	$\rho_{32} = 0,667$	10,325	0,000	Significance
3	$r_{41} = 0,614$	$\rho_{41} = 0,210$	3,443	0,001	Significance
4	$r_{42} = 0,713$	$\rho_{42} = 0,232$	3,003	0,003	Significance
5	$r_{43} = 0,755$	$\rho_{43} = 0,462$	6,333	0,000	Significance

Based on the results of path analysis is used to test the hypothesis as presented in the above Table 1 it can be seen that all path coefficients between exogenous variables to endogenous variables is significant, so it was concluded that all the proposed research hypothesis is accepted, namely: (1) The individual characteristics *directly* influence the career development, (2) The job characteristics *directly* influence the career development,

(3) The individual characteristics *directly* influence the job satisfaction, (4) The job characteristics *directly* influence the job satisfaction, (5) The career development *directly* influence the job satisfaction

Thus, the hypothesis testing results found that all paths between exogenous variables with mean endogenous variables, so it can be concluded that the proposed model perfect fit with the data shown by the empirical model as presented in Figure 2.

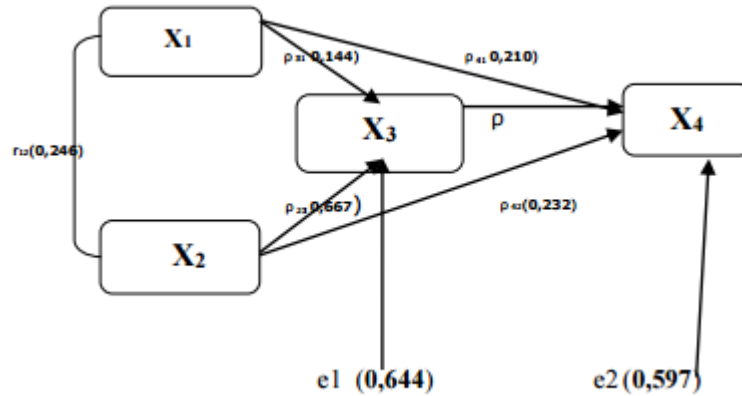


Figure 2: Empirical Model Relationship between Research Variables.

Description: X₁: Individual Characteristics, X₂: Job Characteristics, X₃: Career Development,
X₄: Job Satisfaction

Direct and Indirect Effect

Furthermore, a summary of the results of the calculation of the effect of exogenous variables proportional to the endogenous variables are presented in Table 2 and Table 3.

Table 2: Summary of Direct and Indirect Effects of Individual Characteristics (X₁), Career Development (X₃) on Job Satisfaction (X₄)

Variable	Effects		Indirect to X ₄ through by:			Total effects
	Direct to					
		X ₁	X ₂	X ₃		
X ₁	0,210	-	-	0,067	0,277	
X ₂	0,232	-	-	0,308	0,540	

Based on Table 2 it appears that:

1. The direct effect Individual Characteristics (X_1) on Job Satisfaction (X_4) of 0.210. While the indirect effect Individual Characteristics (X_1) through the Career Development (X_3) on Job Satisfaction (X_4) amounted to 0,067. Thus, large total direct and indirect effects Individual Characteristics (X_1) through the Career Development (X_3) on Job Satisfaction (X_4) is equal to 0.277. This means that 27.7 percent of teacher's job satisfaction can be explained by the variables individual characteristics and career development.
2. The direct effect of job characteristics (X_2) on Job Satisfaction (X_4) of 0.232. While the indirect effect Individual Characteristics (X_2) through the Career Development (X_3) on Job Satisfaction (X_4) amounted to 0,308. Thus, large total direct and indirect effect of job characteristics (X_2) through the Career Development (X_3) on Job Satisfaction (X_4) is of 0.54. This means that 54 percent of job satisfaction of teachers can be explained by the variables characteristics of employment and career development.

4.2 Discussion

Hypothesis testing results indicate that individual characteristics, job characteristics, and career development individually and simultaneously affecting job satisfaction of teachers vocational teachers in Deli Serdang. Overall the findings of this study are consistent with the findings of Franek and Večeřa [18], Samad [19], Chen et al [22] and Hickson and Oshagbemi [25] highlighting that the demographic of individuals, job characteristics variables and variable career development is considered as determinant significant for employee satisfaction. It can be concluded that the greater the gap in individual characteristics, job characteristics, and career development; the higher the level of job dissatisfaction and turnover intentions lead to higher employment.

Accordingly, the findings of this study confirm the traits and factor theory highlighting the differences in individual preferences and capacities that influence their perceiveness on the satisfactory of their professional occupations [23, 24]. Traits are signified from the internal attributes of individual characteristics, and Factors are derived from external drives as reflected in job characteristics and career development. The results of this study which found that job characteristics include task significance, task identity, task variation, autonomy and feedback effect on job satisfaction of teachers, supported by research Khahan Na-Nan and Peerapong Pukkeeree [43], Olorunsola [43], Morris and Venkatesh [44], Scott *et.al* [45] and Thomas et. Al [46], which states that the characteristics of the job shown to affect the job satisfaction.

This implies that teacher job satisfaction depends on whether or not the requirements are met as well as whether there is justice in the working conditions in schools. These findings are consistent with the results of research conducted by Okpara [47] and Koustelios [48] which states that the effect of individual characteristics on job satisfaction. As well as with the results of research Graham and Messner, It was found that American midwestern principals were generally satisfied with their current job, colleagues/co-workers and level of responsibility. However, they were less satisfied with their pay, opportunities for advancement, and fringe benefits.

So that job satisfaction had to be built by establishing communication between teachers and principals. As

found by Goris [49] that satisfaction with communication received weak support as a moderator of the individual-job congruence model; nevertheless, it received strong support as a main predictor of both performance and satisfaction. For example, upward communication might have favorable and unfavorable consequences on satisfaction with communication. Thus, dealing with communication satisfaction may necessitate the adoption of a contingency approach.

Theoretically individual characteristics consisting of age, years of employment, education level, gender and work ethic brought someone into the teachers' work situation made him have different abilities with others to maintain and improve the work. It is appropriate that put forward by Morris and Venkatesh [44] that if the characteristics of the employee shows a good attitude and behavior, especially in labor relations and human, can strengthen the ability and motivation to work, that will create a better performance. Furthermore, that the values reflected in the characteristics can be learned for the value of the individual, group and organizational values that are believed to affect job satisfaction.

The study's findings reinforce the enactment Expectancy theories and models have been created Porter & Lawler [50], in explaining the individual characteristics influence on job satisfaction of teachers. Means that if the individual characteristics are developed in accordance with the expected tends to lead to job satisfaction, and vice versa. Implicit in these findings also reinforce the enactment of the theory of fulfillment (need fulfillment theory), and the theory of justice (equity theory). This implies that teacher job satisfaction depends on whether or not the requirement is met and whether there is any justice in the working conditions in the school.

This is coherent with the results Khahan Na-Nan and Pukkeeree [51], Bhatti, Syed and Shaikh [52], which uses models to study the effects of job characteristics and job satisfaction and finding job characteristics has positive significance that directly affect job satisfaction. Further research is also supported by Baffour and Achemfour [53], Sarsono and Santoso [54] and Audra Bianca and Susihono [55] found that career development significantly affect job satisfaction.

Relevant to this study, the career development program facilitates vocational teachers to maximize their individual job satisfaction. It can be done through several activities e.g. job transfer to a different location, peer assistance and continuous educational training; to refresh and elevate teachers' knowledge, skills, ability, and experience. Therefore, these programs can increase teachers' satisfaction in committing on to their existing professional job. The findings from this study also underline the importance on minimizing the gap among personal characteristics and improving the clarity of job assigned relevant to teachers' competencies through proper and continuous career development. Thus, it can maximize teachers' commitment and motivation to achieve the goals of their respective educational institution. Respectively, it will also assist the accomplishment of the general objectives of national educational system.

5. Conclusions

The results of this study are; 1) Individual characteristics directly influence the career development of

vocational teachers in Deli Serang, 2). Job characteristics directly influence the career development of teachers of vocational schools in Deli Serdang, 3). Individual characteristics directly influence the job satisfaction of vocational teachers in Deli Serdang, 4). Job characteristics directly influence the job satisfaction of teachers of vocational schools in Deli Serdang and 5). Career development directly influence the job satisfaction of teachers of vocational schools in Deli Serdang.

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