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Improving Teacher Performance through Competency Improvement, Teacher Certification, and Leader Member Exchange

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Abstract

The purpose of this study was to analyze the effect of Competency Improvement, Teacher Certification, and Leader Member Exchange on the Performance of Vocational High School Teachers in Malang City. The method used in this study was quantitative descriptive. The research population is all vocational school teachers in Malang City, East Java Province with a total population of 679 teachers. The determination of the number of samples as many as 162 samples using random sampling technique. Analysis of the data in this study uses multiple linear regression analysis using SPSS version 25. Based on the results of data analysis and discussion that has been carried out, this study can be concluded that: *First*, partially there is a positive and significant influence between teacher competence on teacher performance. *Second*, partially there is a positive and significant influence between Teacher Certification on Teacher Performance. *Third*, partially there is a positive and significant influence of *Leader Member Exchange* on Teacher Performance. *Fourth*, simultaneously there is a positive and significant influence between Teacher Competence, Teacher Certification, and *Leader Member Exchange* on the Performance of Vocational High School Teachers in Malang City.

Keywords

Teacher performance, competence, teacher certification, leader member exchange

Background of the problem

The 21st century professional teachers are teachers who are able to produce quality educational institutions because educational institutions are required to meet the standards of their functions and roles in preparing human resources (HR) to enter the world of work (Jan, 2017; Ovenden-Hope et al., 2018; Yue, 2019; Tutunis & Duygu, 2020; Zaragoza, et al., 2021). The demands of the international

world are also quite heavy where teachers must be able to organize a learning process that is based on the four pillars of learning proposed by the UNESCO International Commission for education which consists of *learning to know*, *learning to do*, *learning to live together*, and *learning to be*. The same is required for vocational school teachers in Indonesia through Law Number 14 of 2005 concerning Teachers and Lecturers and Government Regulation Number 17 of 2007 concerning teacher qualifications and competency standards.

"Vocational education (further, SMK) is secondary education that trains students specifically for work in certain fields" according to Article 18 paragraph (3) of the Law of the Republic of Indonesia Number 20 of 2013. Continuation of learning outcomes that are recognized as equal or comparable to SMP/MTs. In general, SMK is intended for students who want to work or start their own business. Learners are taught how to improve their skills. In contrast to secondary schools which are designed to prepare students to enter college and then work, colleges are designed to prepare students to enter the world of work (Mardiyati & Yuniawati, 2015). According to data from the Central Statistics Agency (BPS) for the 2017/2018 academic year, the number of SMKs is far more than SMA, namely 13,710 SMKs compared to 13,710 SMAs. Vocational High School graduates do not rule out the possibility to continue their studies to college, even though the number is very large (Ariesky, 2013; Hacimusalar & Karaaslan, 2020).

Vocational Schools consist of departments that study specific matters and organize educational programs that are tailored to the types of existing employment opportunities (Scharmman, 2001). In its development, SMK graduates are able to cover the global labor shortage (Horslen et al., 2021). Therefore, the long-term effects and sustainability of SMK in terms of technology and the development of appropriate methods should continue to be explored for a better future of SMK development (Delcker & Ifenthaler, 2021; Justus Uchenna & Ohaeri, 2020).

According to data from BPS, SMK graduates have the largest open unemployment rate at all levels of education in 2019-2020, compared to high school graduates. With this track record, the long-term sustainability of Vocational Schools in the digital era 4.0 is very dependent on the competence of teachers so that SMK graduates are increasingly competent. According to this study, teacher performance evaluation (PK Guru) is a formative experience for teaching professionals as a means to evaluate each item of a teacher's main work activity in the context of career growth, rank, and position (Ibrahim & Benson, 2020; Mariani et al., 2021).

Furthermore, Teacher PK is an important factor for teacher initial training, teacher professional development, school management, and the promotion of reflexivity and critical regulation, as it plays a central role in education systems and reforms around the world, contributes to the improvement of teaching practice, and is thus considered a important factors for teacher initial training, teacher professional development, school management, and the promotion of critical reflexivity and regulation. self-awareness among teachers and administrators (Abelha et al., 2021).

Teacher performance appraisal as part of learning activities must be able to provide information that can help teachers improve their teaching abilities in order to help students achieve optimal educational development. In Indonesia, PK Guru is carried out in schools by the Principal. If the principal cannot implement it himself because the number of teachers assessed is too large, then the principal can appoint a teacher coach or coordinator of continuous professional development (CPD) as assessors (Chang, et al., 2013).

According to the literature, vocational school instructors can meet academic demands by broadening their professional expertise (Schempp, 2016). Teaching in multicultural cultures, 2) teaching to build meaning, 3) teaching for active learning, 4) teaching and technology, 5) teaching with new perspectives on talent, 6) teaching and choice, and 7) teaching and accountability are seven issues for 21st century teacher (Susanto, 2010). To address this problem, academics are looking at the impact of teacher certification and competence on teacher performance.

The majority of the latest literature studies investigate only one variable, but not both simultaneously, especially the moderating variable Leader Member Exchange. For example, research conducted by Asmarani et al., (2021) found a positive and significant relationship between professional competence and teacher performance productivity in Madrasah Aliyah Negeri 1 Batang Hari. Where the value of r is 0.826, which states that there is a strong relationship between professional competence and teacher performance productivity. In addition, several findings related to teacher performance focused on assessment regulation and policy development (Dandalt & Brutus, 2020), monitoring and evaluation (Ibrahim & Benson, 2020; Abelha et al., 2021), teacher training and implementation (Tumusiime, et. al., 2021; Mito, et al., 2021; Bone, et. al., 2021), and teacher performance management (Waeyenerg, et. al., 2020). Research with the same theme of moderating of the Leader Member Exchange investigated the negative effect of school leadership supervision on individual/member creativity. In this study, the theory of creativity components, cognitive evaluation theory, and social exchange theory were used to test the mediation of Leader Member Exchange (Meng, et. al., 2017).

According to the literature, teacher certification status is very important because it can hinder students' progress if they do not have certification in their field of study (Goldhaber & Brewer, 2000). Teacher certification also has a positive impact on teacher performance. Standardized examinations are used to test students' abilities in the non-cognitive part of education and to assess the components of vocational students' academic knowledge (Bowers, 2011).

Long underestimated due to lack of achievement, Private Vocational Schools are starting to climb, showing their abilities and achievements both in the academic and professional worlds. Researchers found that East Java

had the highest number of SMKs, with a total of 2,137 SMKs. According to BPS, private SMKs in East Java Province, namely Malang City, have a higher number of students than public SMKs, but their success is still far below that of public SMKs.

According to the Central Statistics Agency, Malang City has 56 vocational schools, including 13 state vocational schools with 966 teachers and 43 private vocational schools with 679 teachers spread across five sub-districts. It is difficult for private vocational schools to compete and help achieve national education goals through teacher performance because the number of private vocational school teachers is far more than public vocational schools. In the digital era 4.0, private vocational school instructors are increasingly active in creating new innovations in curriculum management and improving ICT development in order to improve vocational academic competencies.

Another influencing factor is the Regulation of the Minister of Industry No. 3 of 2017 concerning Guidelines for the Guidance and Development of Competency-Based Vocational Schools that Link and Match with Industry, which was issued in response to the increasing demand for labor in the Indonesian manufacturing industry. In the city of Malang, most of the private vocational high school teachers are not qualified; only 42% of teachers are certified. Since most instructors (58%) do not have a Teacher Training Program (PPG), they do not meet professional teacher standards.

On the other hand, private vocational school teachers in Malang City are facing a polemic in the midst of the PPKM policy because they have more practical subjects than high school in general. This is because generally SMK graduates are intended for work purposes or to create jobs. Based on the background of the problems that have been stated, the researchers took the title of the study, "Building Optimal Teacher Performance in Schools through Competence Improvement, Teacher Certification, and *Leader Member Exchange* (LMX) for Vocational Teachers in Malang City".

Novelty in this research is to use the variables of competence and teacher certification, and teacher performance, in addition to the variable LMX with the latest theories and phenomena used.

Research questions

- 1) Is there an influence between Teacher Competence towards Leader Member Exchange Private Vocational School Teacher in Malang City?
- 2) Is there an influence between certification Teacher against Leader Member Exchange Private Vocational School Teacher in Malang City?
- 3) Is there an influence between Teacher Competence on the Performance of Private Vocational High School Teachers in Malang City ?
- 4) Is there an influence between Teacher Competence, Teacher Certification and Leader Member Exchange on the Performance of Private Vocational High School Teachers in Malang City?

LITERATURE REVIEW

Teacher Performance

Ralph Pine originally proposed performance theory in his essay *Essays Performance Theory* in 1977. Subsequently, Richard Schechner refined the performance theory given by Pine in 1988. Performance, according to Lawler, et. al., (1995), is a consequence of multiplying efforts (efforts)) with ability and role perception. Performance = Effort x Ability x Role Understanding, according to the formula. The value of the award (Value of Reward) and a person's impression of the likelihood of getting an award have an impact on the amount of effort a person expends in a certain scenario (Perceived effort reward probability). Performance is more likely to convey the notion of success as a result of a job and one's contribution to the business (Ruky, 2002).

The teacher's hard work, talent, or success, as well as the drive to complete assignments, are all examples of performance. As a result, performance always indicates the success of individuals or organizations in achieving goals or objectives. The results of a person's work over a certain period of time are measured against various criteria, such as standard targets, targets, or predetermined criteria (Soeprihanto, 1996). Instructor performance should be improved by both teachers and principals, who are equally motivated to do so.

Teachers are operational determinants of educational attainment because of their performance at the institutional, instructional, and experiential levels (Surya, 2000). Teacher performance refers to the capacity of the teacher to carry out activities that require him to maintain a constant focus on the learning process in the school and be responsible for the pupils under his supervision by improving student learning achievement.

The following characteristics are found in teachers who are successful in implementing the curriculum: developing teaching programs, implementing teaching-learning procedures, and assessing student learning outcomes (Asnawir & Usman, 2002). The effectiveness of teachers is seen in the teaching and learning process, which can be seen from student learning achievements. Students will learn more effectively if the teacher performs well.

Sedarmayanti (2011) states that the term performance comes from the word *Performance which* comes from the root word *to perform* which has the meaning of doing, running, carrying out. The meaning of the word *performance* is a noun (*noun*) where one of the meanings is " *thing done* " (something that has been done). Performance translation of *performance* means action, execution of work, work performance, implementation of efficient work. Performance appraisal is a system used to assess and find out whether an employee has carried out his work as a whole or the actual achievements achieved by someone. Performance (job performance) is the result of an employee's work during a certain period starting with a series of benchmarks that are directly related to one's duties and the criteria set. Kasmir (2016) states that performance is the appearance of

individuals and work groups of personnel. Performance is the result of work and work behavior that has been achieved in completing the tasks and responsibilities given within a certain period. Performance is a function of ability (A), motivation (M) and opportunity (O).

Teacher Competence

There is no universally agreed definition of competence. Mulder (2001) conducted a literature study and developed a detailed definition. The contrast between 'competence' and 'competence' is first and foremost. According to Mulder, competence is a broad notion that includes the capacity or talent of a person or organization, while specific competence is part of competence. Competence (plural competencies) is a more limited and atomistic notion to describe a particular talent (McConnell, 2001).

For example, Spencer and Spencer (1993); Parry (1996); and Mulder (2001) developed a definition of competence based on a survey of hundreds of definitions: 'competence is the capacity of a person or organization to achieve a certain level of performance.' Individual competence, he added, consists of integrated action skills that comprise a group of knowledge structures, cognitive, interactive, emotional, and, if necessary, psychomotor skills, attitudes, and values needed to perform tasks, problem solving, and broader abilities, citing various authors. to perform a specific function, such as a job, organization, position, or role.

When assessing the dimensions of competence, keep in mind that these dimensions cannot be seen directly, but appear in the way people behave in certain scenarios (Spencer & Spencer, 1993). Competencies can also be built at a certain level, such as beginner, advanced, or expert. Mulder (2001) highlights the existence of competence in both the individual (personal competence) and the system (systemic competence) (system or team competence). Finally, competency components can be transferred from one setting to another to some extent (Thijssen, 1998, 2001). When assessing individual competence, a variety of questions can be asked.

What criteria are used to make assertions about competence? What are the theoretical assumptions and concepts that underlie competency assessment? It is important to use descriptive interpretive models and appropriate explanations when responding to such questions (Shepard, 1993). There is no clear and broad-based scientific framework for determining what constitutes competent teaching from which an assessment to assess teacher competence can be obtained (Haertel, 1991). There are various frameworks, the content of which is largely determined by the underlying vision of professional performance (Dwyer, 1994, 1998) as well as the theoretical approach taken (Reynolds, 1992).

Although all separate conceptions of teaching cover some aspects of teacher competence, none of them fully describes or explains what competent teaching is. Looking back at the definition of competence described above, it is necessary to have a unified comprehensive teaching concept, competence that considers all the different elements of teacher competence, namely, teacher nature, teacher

knowledge, teacher behavior, teacher thinking, situation-specific decision making, and learning activities. Resulting from Roelofs and Sanders (2003) have developed a performance competency model to assess fair teacher competence for the aspects of competent performance described above. The model follows the general definition of competence described by Mulder (2001).

Teacher Certification

Teacher certification is the process by which prospective educators obtain a license to teach in a particular subject after completing the required courses, degrees, exams, and other requirements. An educator who has been certified by an authorized source, such as a government, higher education institution, or private organization or source, is known as a certified teacher. This teacher certification enables instructors to teach and assess in pre-school, primary, secondary, and post-secondary education in the country, school, topic area, or curriculum where required. While many authorization bodies insist on a student's teaching experience before granting teacher certification, the process varies by country (Goldhaber & Brewer, 2000).

A teaching qualification is one of several academic and professional degrees that can be used to become a certified teacher. Postgraduate Certificate in Education (PGCE), Postgraduate Professional Diploma in Education (PGDE), Diploma in Education and Training Level 5 (DET), Professional Postgraduate Certificate in Teaching & Learning (PgCTL) Level 6, and Bachelor of Education are examples of teaching qualifications in various jurisdictions. While governments and higher education institutions are the most common providers of teacher certification, there are a number of private organizations that also do so, such as the National Council for Professional Teaching Standards in the United States and the Center for Teacher Accreditation (CENTA) in India (Darling-Hammond, et. al., 2001).

Although indications of whether a teacher is "certified" have been included in certain analyzes of the "educational production function", only a few quantitative studies have directly examined the relationship between licensure and student performance. Students taught by qualified instructors in mathematics outperform students taught by certified teachers in other subjects, according to Hawk, et. al., (1985). Rudner (1999) found that homeschooled students who had at least one parent with a state-issued teaching certificate performed no better than those whose parents did not have permission. Licensing is intended to provide a minimum level of teacher quality or expertise in schools (NCTAF, 1996), and there are various processes through which state policies can impact the quantity and type of people who end up teaching in the classroom. Many states, for example, require that prospective teachers pass a standardized test or have a certain grade point average before enrolling in a teacher education program.

More stringent exams administered to teacher applicants in Massachusetts recently revealed that many do not meet the state's criteria. About half of those who take the exam fail (Ferdinand, 1998). There is some evidence to suggest that

these assessments can be used to predict teacher performance. Strauss and Sawyer (1986), utilizing statewide data from North Carolina, found that school district teacher average performance on the National Teacher Examination increased with school district average success on standardized assessments. In Texas, where teachers must pass certification exams, Ferguson (1998) found that school districts with higher average teacher performance on examinations had higher student performance in mathematics. This finding is important because it implies that state licensing laws may have an impact on student outcomes. However, there is no guarantee that they will. As stated earlier, most states that require teachers to pass competency exams have minimal barriers. As a result, it is likely that states have little impact on teacher quality in the classroom because they do not screen substandard applicants.

In addition, many states have recently overhauled their certification policies, and most are excluding existing teachers from the new requirements. Given the long tenure of teachers, it may take years for changes in state certification policies to have a major impact on students. In addition to exams, states may impose standards for accreditation of schools of education at colleges and universities that offer teacher training programs. These standards can have an impact on the type and rigor of the courses offered. Most states require prospective teachers to take general courses in English, humanities, social sciences, and mathematics. But states vary as to whether they require teachers to have specific courses related to pedagogy or subject matter. For example, the required number of units in pedagogy varies from 6 semester units in Texas to 36 in some states (Feistritz & Chester, 1998). Some states require an education major, while others prohibit educational degrees from meeting the requirements for an initial teaching license (Strauss et. al., 1998).

Finally, states may require graduates from educational programs to pass tests of basic skills, basic knowledge, content knowledge, or pedagogy. Many, such as NCTAF, believe that participation in educational programs is the primary avenue by which teachers acquire the necessary skills. to help diverse learners master challenging subjects and course content. However, not all teachers obtain standard certification. Some obtain "emergency" licenses that allow immediate teaching and are used by districts to fill short-term vacancies. And, increasingly, states have developed various "alternative" certification routes, perhaps the most famous of which is 'Teach for America' in just a 6 year period, from 1986 to 1992, the number of states allowing alternative certification jumped from 18 to 40 (Shen, 1997). These alternative routes vary widely, but generally allow individuals who wish to teach, such as former Peace Corps Volunteers, liberal arts college graduates, and retired military personnel, to start in the classroom without first completing a formal teacher education program (Feistritz & Chester, 1998). . The move has been controversial with some in educational institutions. For example, NCTAF takes the position that many of these alternative licensing routes are "gaps" that should be closed. His claim is that the existence of alternative routes of entry to teaching that allow districts to employ "unlicensed" personnel is a symptom of a teacher shortage and is a significant problem.

Leader Member Exchange

In terms of organizational effectiveness, Goldhaber & Brewer (2000) argue that integrating human and organizational resources is very important in all businesses. Due to the fact that personnel in the service industry interact with clients on a daily basis, this integration is critical. In this case, the level of responsibility of the manager or leader is very important. Managers/organizational leaders can adopt a leadership style and act in a "Task Oriented (Job)" or "Employee (Relation) Oriented" manner. The leadership style that a person adopts has a significant impact on their relationship with their workforce.

The LMX is a well-known theory that investigates endogeneity and exogeneity. Within the framework of leader-member exchange, LMX encodes human resources as in-group and out-group. Managerial leadership style has a significant influence on the interaction between leaders and subordinates. As a result, subordinates perceive their circumstances as belonging to the inner or outer group.

The concept of leader-member interaction is based on Gouldner's (1960) theory of 'reciprocity'. Leader-member interactions, according to Blau (1964), arise from "social exchange." Leader-member interaction is defined by Liden, et. al., (1997) as the quality of the interaction between subordinates and superiors. The leader-member interaction theory is unusual among leadership theories because it focuses on the interrelationships between leaders and followers. Leader-member interaction theory examines the relationship between leaders and followers, as well as how they influence each other in the organization and their interdependence (Graen & Uhl-Bien, 1995).

The concept of a vertical binary connection was originally offered as a basis for leader-member interaction theory (Graen & Uhl-Bien, 1995). The majority of current research on leader-member interactions is based on social communication theory (Dulebohn, et. al., 2012). The interaction between leaders and members is a consequence of the succession of relationships between superiors and subordinates. Both superiors and subordinates have expectations of what they can get from each other and what they have to give back. Meeting agreed-upon expectations successfully allows both parties to form a high-quality communication connection (Wang et al., 2019). Followers are considered as active participants who regard the leader as a resource in this process and hence give authority to the leader to achieve goals that benefit the leader (Hollander, 1992).

The quality of bilateral relations suggested by leader-member exchanges varies, and they are classified as either high quality or low quality. In high-quality relationships, subordinate members are referred to as in-group members, whereas in low-quality relationships, they are referred to as out-group members (Dansereau & Haga, 1975). The exchange of valuable resources and regular engagement in activities outside of formal requirements describe high-quality bilateral partnerships, whereas low-quality bilateral connections are primarily focused on formal commercial interactions (Liden & Maslyn, 1998). The efficiency of the relationship between the leader and his followers, not the features or behavior of an individual leader, is also important for good leadership (Haslam & Platow, 2001).

Ivancevich et al., (2006) say that LMX is an approach that recognizes the absence of consistent behavior from superiors to all subordinates. Superiors build bonds and personal relationships with each of their subordinates. O'Donnell, et. al., (2021) describe how superiors and subordinates develop mutually influencing relationships and negotiate the roles of subordinates within an organization. LMX does not only look at the behavior of their superiors but emphasizes the quality of the relationship between superiors and subordinates.

Teacher Competence and Teacher Performance

When measuring competency dimensions, it should be noted that they: cannot be observed directly, but are manifested in performance in certain situations (Spencer & Spencer, 1993). In addition, competencies can be developed to a certain level, for example beginner, advanced, and expert. Mulder (2001) emphasizes that competence may exist in the individual (personal competence) and the system (system or team competence). Finally, aspects of competence can to some extent be transferred from one situation to another (Thijssen, 1998, 2001). Various questions can be asked when measuring individual competence. How are statements about competence derived? What theoretical assumptions and ideas underlie competency measurement? In answering this type of question, it is important to use descriptive interpretive models and adequate explanations (Shepard, 1993). There is no strong and broad-based scientific framework for what constitutes competent teaching from which conclusions can be drawn to assess teacher competence (Haertel, 1991). There are various frameworks, the content of which largely depends on the underlying vision of professional performance (Dwyer, 1994, 1998) and on the theoretical approach adopted (Reynolds, 1992).

Several studies have shown that teacher competence is related to teacher performance, this proves that the importance of competence in improving performance is more effective and efficient (Abadi & Sutipto, 2021; Asmarani et al., 2021; Putra et al., 2021; Windasari & Yahya, 2021; Yenti & Sumarmin, 2020; Zaragoza et al., 2021)

Teacher Certification and Teacher Performance

The objectives of teacher certification according to Subini (2021) are: Determining the feasibility of teachers in carrying out their duties as learning agents and realizing national education goals Improving the process and quality of education outcomes Improving teacher dignity Improving teacher professionalism Stimulating teachers to continue to compete and improve skills so that they become good teachers quality.

Mulyasa (2005) suggests that "certification is the provision of a competency certificate or certificate as an acknowledgment of a person's ability to do a job after passing the competency test." The teacher certification program is "a program that contains the process of providing educator certificates for teachers." Teachers who

have participated in the certification program and are declared to have passed will receive a professional teacher certificate as professionals. Broadly speaking, the teacher certification program is divided into two: a. Certification program for existing teachers (in-service teachers). b. Certification program for teacher candidates.

From what has been described, it proves that the importance of teacher certification is to improve skills so that they become quality teachers. This of course is closely related to teacher performance. Several researchers have suggested that teacher certification has an effect on teacher performance (Buffalo, 2021; Franky & Savira, 2021; Hasan, 2019; Hasanah et al., 2017; Kusumawardhani, 2017; Rusilowati & Wahyudi, 2020; Tjabolo, 2020)

Leader Member Exchange and Teacher Performance

Ivancevich et al., (2006) explained that LMX is an approach that recognizes the absence of consistent behavior from superiors to all subordinates. Superiors build bonds and personal relationships with each of their subordinates. O'Donnell et al., (2012) explain how superiors and subordinates develop relationships that influence each other and negotiate the roles of subordinates in an organization. LMX does not only look at the behavior of their superiors but emphasizes the quality of the relationship between superiors and subordinates.

LMX is certainly very related to teacher performance, this is of course very crucial with the relationship between superiors and subordinates. As research has been done by several researchers which state that LMX affects teacher performance (Ahyanuardi et al., 2018; Comstock et al., 2021; Meng et al., 2017; Mosley et al., 2020; Nuraeni et al., 2020; Patoni, 2020).

METHOD

Research Design

The design of this research is a quantitative research with a correlational approach. The correlational approach was chosen because the researcher wanted to see the effect of exogenous variables on endogenous variables and variables, either directly or indirectly through intervening variables. In relation to the research hypothesis test, this research is a verification research, because it is intended to verify the results of data analysis from the field with the results of relevant previous studies through hypothesis testing.

Population and sample

The research population was all private vocational school educators in Malang City, East Java Province with a total population of 679, spread across all sub-districts. Determination of the number of samples using the formula for the number of indicators (18) multiplied by a number between 5-10, and in this study multiplied by 9, so that a sample of 162 samples was obtained. The sampling technique used proportional *random sampling* in which the sample members from the population were taken randomly according to the proportions of each sub-district.

Table 1. Quantity Sample Power K . SM Educator Malang City Private

No	districts	Number of Educators	Sample
1	Kedungkandang	110	26
2	Breadfruit	105	25
3	Klojen	130	31
4	Starfruit	157	37
5	Lowokwaru	177	42
Amount		679	162

Research Instrument

The data collection tool uses a questionnaire which was developed with reference to the theory developed by previous researchers by taking into account the dimensions and indicators. Data analysis used SPSS version 25.0 statistical test. Coa instrument test data were analyzed with validity and reliability tests . After all instrument items are valid and all variables are reliable, then proceed with fieldwork. The questionnaire distribution data that has been entered is tested with the classical assumption test to see the feasibility of the data before being used for hypothesis testing. Test the hypothesis by using multiple regression test.

Test the validity of the questionnaire in the instrument

Table 4. Teacher Competency Validity Test Results (X1), Teacher Certification (X2) and *Leader Member Exchange* (X3) and Teacher Performance (Y)

No	Variable	r _{count}	r _{table}	Sig	Description
1.	Teacher Competence (X1)	0.784	0.1533	0.000	Valid
		0.806	0.1533	0.000	Valid
		0.809	0.1533	0.000	Valid
		0.839	0.1533	0.000	Valid
2 .	Teacher Certification (X2)	0.755	0.1533	0.000	Valid
		0.467	0.1533	0.000	Valid
		0.672	0.1533	0.000	Valid
		0.593	0.1533	0.000	Valid
3 .	<i>Leader Member Exchange</i> (X3)	0.545	0.1533	0.000	Valid
		0.707	0.1533	0.000	Valid
		0.39	0.1533	0.000	Valid
		0.288	0.1533	0.000	Valid
4	Teacher Performance (Y)	0.603	0.1533	0.000	Valid
		0.631	0.1533	0.000	Valid
		0.806	0.1533	0.000	Valid
		0.809	0.1533	0.000	Valid
		0.839	0.1533	0.000	Valid
		0.723	0.1533	0.000	Valid

From the table above, it can be seen that each statement item has $r_{count} > r_{table}$ and is positive with a value of $sig < 0.05$. Thus, the statement items are declared valid.

The reliability test of the questionnaire is in the instrument

Table 4. Teacher Competency Reliability Test Results (X1), Teacher Certification (X2) and *Leader Member Exchange* (X3) and Teacher Performance (Y)

No	Variable	Cronbach's Alpha	Critical Value	Description
1	Competence Professional Teacher (X1)	0.876	0.6	Reliable
2	Leadership Quality (X2)	0.745	0.6	Reliable
3	<i>Leader Member Exchange</i> (X3)	0.813	0.6	Reliable
4	Teacher Performance (Y)	0.722	0.6	Reliable

From the table above, the results of the analysis above are found *that the cronbacchs alpha value* for the x1 variable is 0.876, x2 is 0.745, x3 is 0.813, and y is 0.722. So it can be concluded that the items of the research instrument are reliable, because they are greater than 0.6.

Table 2. Contents - Instrument Grid

No	Variable	Indicator	Scale
1.	Competence Professional Teacher (X1)	1. Academic Qualification	interval
		2. Competence	interval
		3. Physically and mentally healthy	interval
		4. Have the ability	interval
2 .	Teacher certification (X2)	1. Competency in the field of study	interval
		2. Understanding the characteristics of students	interval
		3. Educational learning	interval
		4. As well as professional development	interval
		5. Educator personality	interval
3 .	Leader Member Exchange (X3)	1. Affection	interval
		2. Loyalty	interval
		3. Contribution	interval
		4. Respect Professional	interval
4.	Teacher Performance (Y)	1. Work quality	interval
		2. Speed / accuracy of work	interval
		3. Initiative at work	interval
		4. Work ability	interval
		5. Communication	interval

RESULTS

Classic assumption test

Table 5. Kolmogorov-Smirnov Test. One-Sample Normality Test Results

Variable	Significance	Description
Variable X1	0.145	Normal
Variable X2	0.185	Normal
Variable X3	0.655	Normal
Y variable	0.435	Normal

From the normality assumption test table above, it can be explained that all significance values for the normality model are greater than 0.05 so it can be concluded that the normality assumption is met.

Table 6. Linearity Test Results

Variable	F	Significance	Description
X1 against Y	9,227	0.000	Linear
X2 against Y	7,261	0.001	Linear
X3 against Y	8,275	0.000	Linear

From the table for testing the linearity assumption above, it can be explained that the entire significance value for the linear model is less than 0.05. So, it can be said that the assumption of linearity of the structural model has been fulfilled.

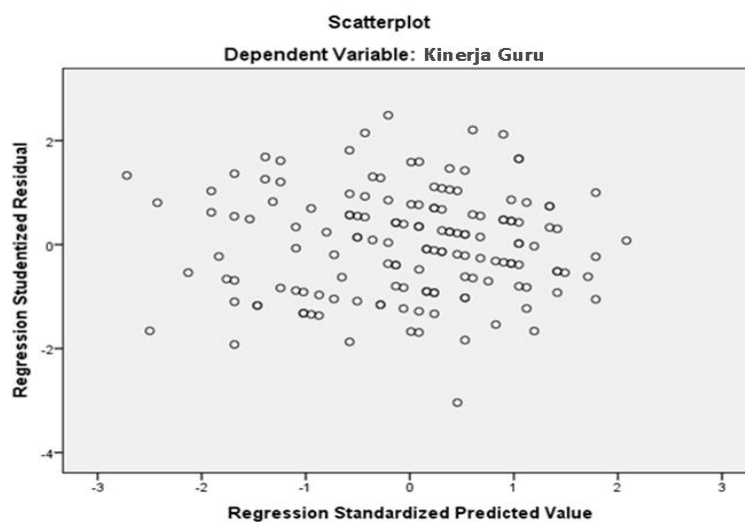


Figure 1. Heteroscedasticity Test Results Equation 1

From the picture above, the graph can be seen that the dots spread randomly, do not form a clear pattern, and are spread both above and patterned, the number 0 (zero) on the Y axis, then there is no heteroscedasticity.

Hypothesis testing

H1: There is an effect of Teacher Competency on Teacher Performance

Variable	T	Sig t	Description
Teacher Competence (X1) → Teacher Performance (Y)	5.514	0.000	Significant

$t_{table} = 1.65431$
 Adjusted R Square = 0.567
 R Square = 0.594

The relationship is declared to have a positive and significant effect if the value of t_{count} is greater than t_{table} and the significant value of t is less than 0.05. Based on the table above, the influence of the variable Teacher Competence (X1) individually/partially on Teacher Performance (Y). Based on the table above, it can be seen that the t_{count} for the Teacher Competency variable (X1) is = 5.514 on Teacher Performance (Y) this means $t_{count} 5.514 > t_{table} 1.65431$ with a sig value of $0.000 < 0.005$ then there is a positive and significant effect on Teacher Competence (X1) on Teacher Performance (Y)

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.567, this means that the variation of the Teacher Competency variable (X1) is partially able to explain Teacher Performance (Y) by 56.7% while the remaining 43.3% is influenced by other variables that are not included in this research model.

H2: There is an effect of Teacher Certification on Teacher Performance

Variable	T	Sig t	Description
Teacher Certification (X2) → Teacher Performance (Y)	7,537	0.001	Significant

$t_{table} = 1.65431$
 Adjusted R Square = 0.467
 R Square = 0.492

From the regression results, it was found that the influence of teacher certification (X2) individually/partially on teacher performance (Y). Based on the table above, it can be seen that the t_{count} for the Teacher Certification variable (X2) is = 7.537 on Teacher Performance (Y) this means that t_{count} is $7.537 > t_{table} 1.65431$ with a sig value of $0.001 < 0.005$ then there is a positive and significant effect on Teacher Certification (X2) on Teacher Performance (Y).

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.467, this means that the variation of the Teacher Certification variable (X2) is partially able to explain Teacher Performance (Y) by 46.7% while the remaining 53.3% is influenced by other variables that are not included in this research model.

H3: There is an influence of *Leader Member Exchange* on Teacher Performance

Variable	T	Sig	Description
<i>Leader Member Exchange</i> (X3) → Teacher Performance (Y)	3,436	0.000	Significant

$t_{table} = 1.65431$
 Adjusted R Square = 0.513
 R Square = 0.582

The relationship is declared to have a positive and significant effect if the value of t_{count} is greater than t_{table} and the significant value of t is less than 0.05. Based on the table above, the influence of the *Leader Member Exchange* (X3) variable individually/partially on Teacher Performance (Y). Based on the table above, it can be seen that the t_{count} for the *Leader Member Exchange* variable (X3) is = 3,436 on Teacher Performance (Y) this means $t_{count} 3,436 > t_{table} 1.65431$ with a sig value of $0.000 < 0.005$, then there is a positive and significant effect on *Leader Member Exchange* (X3) on Teacher Performance (Y).

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.513, this means the variation of the *Leader Member Exchange variable*. (X3) is partially able to explain Teacher Performance (Y) by 51.3% while the remaining 48.7% is influenced by other variables that are not included in this research model.

H4: There is a joint influence of Teacher Competence, Teacher Certification and Leader Member Exchange on Teacher Performance

Variable	F	Sig	Description
Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) → Teacher Performance (Y)	9,648	0.000	Significant

$f_{table} = 3.05$
 Adjusted R Square = 0.784
 R Square = 0.813

The relationship is declared to have a positive and significant effect if the t_{count} value is greater than f_{table} and the t-significant value is less than 0.05. Based on the table above, the influence of the variable Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) simultaneously on Teacher Performance (Y). Based on the table above, it can be seen that f_{count} is 9.648 $> t_{table} 3.05$ with a sig value of $0.000 < 0.005$ then there is a positive and significant effect on Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) on Teacher Performance (Y).

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.784, this means that the variations in the variables of Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) are simultaneously able to explain Teacher Performance (Y) of 78.4% while the remaining 21.6% is influenced by other variables that are not included in this research model.

DISCUSSION

The Influence of Teacher Competence on the Performance of Vocational High School Teachers in Malang City

From the results of the regression of H_1 indicates there is a positive and significant influence on the influence of the individual/partial Teacher Competence variable (X1) on Teacher Performance (Y). This can be seen in the $t_{\text{arithmetic value}}$ of $5.514 > t_{\text{table}} 1.65431$ with a sig value of $0.000 < 0.005$ which means that there is a positive and significant effect on Teacher Competence (X1) on Teacher Performance (Y)

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.567, this means that the variation of the Teacher Competency variable (X1) is partially able to explain Teacher Performance (Y) by 56.7% while the remaining 43.3% is influenced by other variables that are not included in this research model. From the results of the analysis above, it shows that the higher the increase in competence of teachers, the higher the performance of effective teachers in Malang City.

When measuring competency dimensions, it should be noted that they: cannot be observed directly, but are manifested in performance in certain situations (Spencer & Spencer, 1993). In addition, competencies can be developed to a certain level, for example beginner, advanced, and expert. Mulder (2001) emphasizes that competence may exist in the individual (personal competence) and the system (system or team competence). Finally, aspects of competence can to some extent be transferred from one situation to another (Thijssen, 1998, 2001). Various questions can be asked when measuring individual competence.

How are statements about competence derived? What theoretical assumptions and ideas underlie competency measurement? In answering this type of question, it is important to use descriptive interpretive models and adequate explanations (Shepard, 1993). There is no strong and broad-based scientific framework for what constitutes competent teaching from which conclusions can be drawn to assess teacher competence (Haertel, 1991). There are various frameworks, the content of which largely depends on the underlying vision of professional performance (Dwyer, 1994, 1998) and on the theoretical approach adopted (Reynolds, 1992).

From the results of data analysis and theory that has been carried out, this research is in line with several previous studies that have been carried out which show that teacher competence is related to teacher performance, this proves that the importance of competence in improving performance is more effective and efficient (Abadi & Sutipto, 2021; Asmarani et al., 2021; Putra et al., 2021; Windasari & Yahya, 2021; Yenti & Sumarmin, 2020; Zaragoza et al., 2021).

Teacher Certification on Teacher Performance SMK in Malang

From the results of the regression of H_2 shows partially there is a positive and significant influence between Teacher Certification (X_2) individually/partially on Teacher Performance (Y). This can be seen from the t_{count} value of $7.537 > t_{table}$ 1.65431 with a sig value of $0.001 < 0.005$ which means there is a positive and significant effect on Teacher Certification (X_2) on Teacher Performance (Y).

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.467, this means that the variation of the Teacher Certification variable (X_2) is partially able to explain Teacher Performance (Y) by 46.7% while the remaining 53.3% is influenced by other variables that are not included in this research model. From the results of the above analysis shows that the higher the increase in teacher certification, the higher the performance of good teachers in the city of Malang.

Based on the objectives of teacher certification according to Subini (2021: 59) are: Determining the feasibility of teachers in carrying out their duties as learning agents and realizing national education goals Improving the process and quality of education outcomes Improving teacher dignity Improving teacher professionalism Stimulating teachers to continue to compete and improve skills so that they become qualified teacher.

In addition, Mulyasa (2005) stated that "certification is the provision of a competency certificate or certificate as an acknowledgment of a person's ability to do a job after passing the competency test." The teacher certification program is "a program that contains the process of providing educator certificates for teachers." Teachers who have participated in the certification program and are declared to have passed will receive a professional teacher certificate as professionals. Broadly speaking, the teacher certification program is divided into two: a. Certification program for existing teachers (in-service teachers). b. Certification program for teacher candidates.

From what has been described, it proves that the importance of teacher certification is to improve skills so that they become quality teachers. from the results of the analysis that has been carried out this research is in line with research that has been carried out by previous researchers who stated that teacher certification has an effect on teacher performance (Buffalo, 2021; Franky & Savira, 2021; Hasan, 2019; Hasanah et al., 2017; Kusumawardhani, 2017; Rusilowati & Wahyudi, 2020; Tjabolo, 2020).

Leader Member Exchange on Teacher Performance SMK in Malang

The results of individual/partial data analysis of H_3 show that there is a positive and significant influence between *Leader Member Exchange* (X3) on Teacher Performance (Y). This can be seen from the t_{count} value of 3,436 > t_{table} 1.65431 with a sig value of 0.000 < 0.005 which means that there is a positive and significant effect on *Leader Member Exchange* (X3) on Teacher Performance (Y). This shows that the higher the increase in the *Leader Member Exchange*, the higher the improvement in the performance of SMK teachers in the city of Malang.

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.513, this means that the variation of the *Leader Member Exchange* (X3) variable is partially able to explain Teacher Performance (Y) by 51.3% while the remaining 48.7% is influenced by other variables that are not included in this research model.

Ivancevich et al., (2006) explained that the LMX is an approach that recognizes the absence of consistent behavior from superiors to all subordinates. Superiors build bonds and personal relationships with each of their subordinates. O'Donnell et al., (2012) explain how superiors and subordinates develop relationships that influence each other and negotiate the roles of subordinates in an organization. LMX does not only look at the behavior of their superiors but emphasizes the quality of the relationship between superiors and subordinates.

LMX is certainly very related to teacher performance, this is of course very crucial with the relationship between superiors and subordinates. This study is in line with research conducted by several researchers who state that LMX has an effect on teacher performance (Ahyanuardi et al., 2018; Comstock et al., 2021; Meng et al., 2017; Mosley et al., 2020; Nuraeni et al., 2020; Patoni, 2020).

Teacher Competence, Teacher Certification, and Leader Member Exchange on Teacher Performance SMK in Malang

From the results of data analysis of H_4 indicates there is simultaneously a positive and significant influence between the variables of Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) simultaneously on Teacher Performance (Y). This can be seen in the $f_{\text{calculated}}$ value of 9.648 > t_{table} 3.05 with a sig value of 0.000 < 0.005, this means that there is a positive and significant effect on Teacher Competence, Teacher Certification, and Leader Member Exchange on the Performance of Vocational High School Teachers in the city of Malang.

The results of the regression calculation can be seen that the coefficient of determination (*adjusted R square*) obtained is 0.784, this means that the variations in the variables of Teacher Competence (X1), Teacher Certification (X2), and Leader Member Exchange (X3) are simultaneously able to explain Teacher Performance (Y) of 78.4% while the remaining 21.6% is influenced by other variables that are not included in this research model. From the results of this data analysis, it shows that in improving the performance of SMK teachers, especially in Malang City, it is also necessary to pay attention to improving Teacher Competence, Teacher Certification, and Leader Member Exchange.

CONCLUSION

Based on the results of data analysis and discussions that have been carried out, this research can be concluded that: *First* , partially there is a positive and significant influence between teacher competence on teacher performance. *Second* , partially there is a positive and significant influence between Teacher Certification on Teacher Performance. *Third* , partially there is a positive and significant influence of LMX on Teacher Performance. *Fourth* , simultaneously there is a positive and significant influence between Teacher Competence, Teacher Certification, and LMX on Teacher Performance.

Novelty in this research is to use the variables of competence and teacher certification, and teacher performance, in addition to the variable *Leader Member Exchange* with the latest theories and phenomena used.

The limitation of this research lies in the method of determining the location of the research which is only carried out in the city of Malang and has not reached the regencies or cities in the entire province of East Java. Likewise, the variables used are only limited to the variables of Teacher Competence, Teacher Certification, and Leader Member Exchange and Teacher Performance, not touching other interesting variables. Future researchers should be able to carry out further research by exploring various variables that are predicted to really have a significant contribution in the formulation of policies related to education.

References

- Abadi, K., & Supto, IH (2021, February). Improving the Competence of Teachers in Maritime Vocational Schools in Indonesia. In *4th International Conference on Research of Educational Administration and Management (ICREAM 2020)* (pp. 7-10). Atlantis Press
- Abelha, M., Jesus, P., Fernandes, S., Albuquerque, AS, & Vidal, A. (2021). Teacher Performance Appraisal as a Formative Experience: A Case Study in Two Teachers' Training Schools in Benguela, Angola. *Africa Education Review* , 1-25.
- Admodiwirio, Soebagio. (2000). Indonesian Education Management. Jakarta: Ardadizyajaya.
- Ahyanuardi, A., Hambali, H., & Krismadinata, K. (2018). The Effect of Pedagogic and Professional Competence of Post-Certification Vocational High School Teachers on Teacher Commitment to Implementing the Learning Process. *Invotek: Journal of Vocational Innovation And Technology* , 18 (1), 67-74.
- Akdemir, A. (2013). Yönetim Stratejic. TC Anadolu niversitesi Yayını, No. 2681, Açıköğretim Fakültesi Yayını No. 1647.
- Ariesky, P. (2013). Comparative Study of Student Learning Outcomes From Vocational High School to Senior High School in the Study Program of Building Engineering Education Department of Civil Engineering, Faculty of Engineering, State University of Padang. *Cived: Journal of Civil Engineering and Vocation* , 1 (1), 75-82.

- Asmarani, A., Sukarno, S., & El Widdah, M. (2021). The Relationship of Professional Competence with Teacher Work Productivity in Madrasah Aliyah. *Nidhomul Haq: Journal of Islamic Education Management* , 6 (2), 220-235.
- Asnawir and Usman, M. Basyirudin, (2002). Learning Media. Jakarta: Ciputat Press.
- Atwater, L., & Carmeli, A. (2009). Leader-member exchange. Feelings of energy, and involvement in creative work. *The Leadership Quarterly*, 20, 264-275.
- Barnawi & Arifin, M. (2021). Ethics and the Educational Profession. Yogyakarta: Ar-Ruzz Media.
- Beijaard, D.; Verloop, N. Assessing teachers' practical knowledge. *Studies in Educational Evaluation*, Vol. 22, No. 3, 1996, p. 275-286.
- Bellon, JJ; Bellon, EC; Blanks; MA (1992). Teaching from a research knowledge base. New York: MacMillan,
- Berliner, DC Learning about and learning from expert teachers. *International Journal of Educational Research*, Vol. 35, 2001, p. 463-482.
- Blau, P. (1964). Exchange and power in social life New York, Wiley.
- Bond, L. et al. (2000). The certification system of the National Board for Professional Teaching Standards: a construct and consequential validity study. Greensboro, NC: University of North Carolina, Center for Educational Research and Evaluation.
- Bone, AA, Rachman, A., & Mashudi, I. (2021). The Teacher Performance Appraisal System In Improving Teachers Performance In Limboto District. *Governance: Journal of Public Administration* , 4 (1), 30-40.
- Bowers, AJ (2011). What's in a grade? the multidimensional nature of what teacher-assigned grades assess in high school. *Educational Research and Evaluation* , 17 (3), 141-159. <https://doi.org/10.1080/13803611.2011.597112>.
- Breland, JW, Treadway, DC, Duke, AB & Adams, GL (2007). The interactive effect of leader-member exchange and political skills on subjective carrier success. *Journal of Leadership & Organizational Studies*, 13(3), 1-14. <https://doi.org/10.1177/10717919070130030101>
- Brophy, J.; Good, TL (1986). Teacher behavior and student achievement. In Wittrock, MC (ed.). *Handbook of research on teaching*, 3rd ed., p. 328375. New York: MacMillan.
- Brophy, Jere E. and Evertson, Carolyn. (1976). *Learning From Teaching: A Developmental Perspective*. Boston: Allyn & Bacon.
- Brower, HH, Schoorman, FD & Tan, HH (2000). A model of relational leadership: The integration of trust and leader-member exchange. *Leadership Quarterly*, 11 (2), 227-250. [https://doi.org/10.1016/S1048-9843\(00\)00040-0](https://doi.org/10.1016/S1048-9843(00)00040-0).
- Bruner, JS (1963). *The process of education*. Cambridge: Harvard University Press
- Buffalo, GR (2021). *A Critical Race Narrative Analysis of New York City Early Childhood Teachers' Constructions of Teacher Certification and Teaching Quality* (Doctoral dissertation, Teachers College, Columbia University).

- Cascio, WF (2012). Global performance management systems. In *Handbook of Research in International Human Resource Management, Second Edition* . Edward Elgar Publishing.
- Chang, MC, Al-Samarrai, S., Shaeffer, S., Ragatz, AB, De Ree, J., & Stevenson, R. (2013). *Teacher reform in Indonesia: The role of politics and evidence in policy making* . World Bank Publications.
- Comstock, M. , Supovitz, J. and Kaul, M. (2021), "Exchange quality in teacher leadership ties: examining relational quality using social network and leader-member exchange theories", *Journal of Professional Capital and Community* , Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JPC-01-2021-0002> .
- Creemers, HPM (1992). *Effectieve instructie: een empirische bijdrage aan de verbetering van het onderwijs in de klas*. 's-Gravenhage: Instituut voor Onderzoek van het Onderwijs
- Daft, RL (2011). *Leadership*. Florence: Cengage Learning.
- Dandalt, E., & Brutus, S. (2020). Teacher performance appraisal regulation: A policy case analysis. *NASSP Bulletin* , 104 (1), 20-33.
- Danielson, Ch.; McGreal, TL (2000). *Teacher evaluation to enhance professional practice*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Dansereau Jr, F., Graen, G., & Haga, WJ (1975). "A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process." *Organizational behavior and human performance*, 13(1), 46-78.
- Darling-Hammond, L., Berry, B., & Thoreson, A. (2001). Does teacher certification matter? Evaluating the evidence. *Educational evaluation and policy analysis* , 23 (1), 57-77.
- Decoster, S., Camps, J., & Stouten, J. (2014). The mediating role of LMX between abusive supervision and work behaviors. *American Journal of Business*, 29, 61-75.
- Delcker, J., & Ifenthaler, D. (2021). Teachers' perspective on school development at German vocational schools during the Covid-19 pandemic. *Technology, Pedagogy and Education* , 30 (1), 125-139. <https://doi.org/10.1080/1475939X.2020.1857826> .
- Ministry of National Education. (2010). *Guidelines for the implementation of Teacher Performance Assessment*. Jakarta: Director General of PMPTK.
- Doyle, W. *Academic work*. Review of Educational Research, Vol. 53, 1983, p. 159-1999.
- Duarte, NT, Goodson, JR & Klich, NR (1994). Effects of dyadic quality and duration on performance appraisal. *Academy of Management Journal*, 37(3), 499-521. <https://doi.org/10.2307/256698> .
- Duke, DL; Stiggins, RJ (1990). Beyond minimum competence: evaluation for professional development. In Millmann J.; Darling-Hammond L. (eds.). *The new handbook of teacher evaluation. Assessing elementary and secondary teachers*, p. 116-132. Newbury Park, CA: Sage,

- Dulebohn, JH, Bommer, WH, Liden, RC, Brouer, RL, & Ferris, GR (2012). "A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future." *Journal of management*, 38(6), 1715-1759.
- Dunkin, HJ and Biddle; BJ (1974). *The Study of New York*: Holt; , Rinehirt'and Winston.
- Dwyer, CA Criteria for performance-based teacher assessments: validity, standards, and issues. *Journal of Personnel Evaluation in Education*, Vol. 8, No. 2, 1994, p. 135-150.
- Dwyer, CA Psychometrics of Praxis III: Classroom performance assessments. *Journal of Personnel Evaluation in Education*, Vol. 12, No. 2, 1998, p. 163-187.
- Franky, F., & Savira, R. (2021). The Influence of Teacher Certification and Competency Programs on Teacher Performance. *MANAGE: Scientific Journal of Management* , 7 (1), 17-32.
- Frederiksen, JR et al. Video portfolio assessment of teaching. *Educational Assessment*, Vol. 5, No. 4, 1998, p. 225-298.
- Friedel, CR, & Rudd, RD (2009). Relationships between students' engagement and the dissimilar cognitive styles of their undergraduate instructors. *Career and Technical Education Research*, 34(1), 21-45. doi:10.5328/CTER34.1.21.
- Goldhaber, DD, & Brewer, DJ (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis* , 22 (2), 129-145. <https://doi.org/10.3102/01623737022002129>.
- Goldhaber, DD, & Brewer, DJ (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational evaluation and policy analysis* , 22 (2), 129-145.
- Gouldner, A.W. (1960). "The norm of reciprocity: A preliminary statement." *American sociological review*, 161-178.
- Graen, GB & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6(2), 219-247.
- Graen, GB, & Uhl-Bien, M. (1995). "Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective." *The leadership quarterly*, 6(2), 219-247.
- Gu, Q., Tang, TLP, & Jiang, W. (2015). Does moral leadership enhance employee creativity? Employee identification with leader and leader-meber exchange (LMX) in the Chinese context. *Journal of Business Ethics*, 126, 513-529.
- Hacimusalar, Y., & Karaaslan, O. (2020). Assessment of sleep quality of patients with panic disorder and generalized anxiety disorder during remission: a case-control study. *Archives of Clinical Psychiatry (São Paulo)*, 47(1), 19-24. <https://doi.org/10.1590/0101-6083000000224>

- Haertel, EH New forms of teacher assessment. In Grant, G. (ed.). Review of research in education. Washington, DC: American Educational Research Association, 1991, p. 3-29.
- Hasan, M. (2019). The effect of teacher professional competence on the performance of state high school economics teachers in Gowa Regency. *Economix* , 5 (2).
- Hasanah, D., Syamwil, R., & Sudana, IM (2017). Impact of Professional Certification and Accounting Competency Certification on the Performance of Vocational Accounting Teachers. *Journal of Vocational and Career Education* , 2 (1).
- Hasibuan, AA (2017). Professional development management in improving teacher performance. *Tanzhim* , 1 (01), 122-137.
- Haslam, SA, & Platow, MJ (2001). "The link between leadership and followership: How affirming social identity translates vision into action." *Personality and Social Psychology Bulletin*, 27(11), 1469-1479.
- Hasley. (2001). *Humane and Organizational Approaches to Personnel Development*. Jakarta: Mount Agung.
- Heller, JI; Sheingold, K.; Myford, CM Reasoning about evidence in portfolios: cognitive foundations for valid and reliable assessment. *Educational Assessment*, Vol. 5, No. 1, 1998, p. 5-40.
- Hollander, EP (1992). "The essential interdependence of leadership and followership." *Current Directions in Psychological Science*, 1(2), 71-75.
- Horslen, LC, Kotova, S., Hankins, V., Sandoz, J., Wang, M., Sade, RM, & Handy, JR (2021). CHEST Watch: A High School Outreach Program. *Seminars in Thoracic and Cardiovascular Surgery* , 33 (2). <https://doi.org/10.1053/j.semtcvs.2021.07.013>.
- Humphrey, D., Wechsler, M., & Hough, H. (2008). Characteristics of effective alternative teacher certification programs. *Teachers College Records* , 110 (1), 1-63.
- Ibrahim, K., & Benson, M. (2020). Monitoring & Evaluation Of Teacher Effectiveness, A Case Of Teacher Performance Appraisal & Development Tool In Public Secondary Schools In Nyandarua South Sub-County, Kenya. *Advances in Social Sciences Research Journal* , 7 (1), 320-329.
- Ivancevich, et al. (2006). *Organization*, seventh edition, translator Gina Gania. Jakarta: Erlangga
- Jan, H. (2017). Teacher of 21st century: Characteristics and development. *Research on Humanities and Social sciences* , 7 (9), 50-54.
- Justus Uchenna, O., & Ohaeri, J. U. (2020). Using data from schizophrenia outcome study to estimate the time to treatment outcome and the early-response cut-off score that predicts outcome at week 16. *Archives of Clinical Psychiatry (São Paulo)*, 47(3), 65-70. <https://doi.org/10.1590/0101-60830000000234>
- Kagan, DM Ways of evaluating teacher cognition: inferences concerning the Goldilocks principle. *Review of Educational Research*, Vol. 60, No. 3, 1990, p. 419-469

- Kane, MT An argument-based approach to validity. *Psychological Bulletin*, Vol. 112, No. 3, 1992, p. 527-535
- cashmere. (2016). *Human Resource Management (Theory and Practice)*. Jakarta: Raja Grafindo Persada.
- Kreitner, R. & Kinicki, A. (2005). *Organizational behavior*. Jakarta: Salemba Empat.
- Kusumawardhani, PN (2017). Does teacher certification program lead to better quality teachers? Evidence from Indonesia. *Education Economics* , 25 (6), 590-618.
- Lamberi, Busro & Indrafachrudi, Sukarto. (1983). *Introduction to Educational Leadership for Teacher Position Growth in the Context of Educational Innovation*. Surabaya: National-Effort.
- Latham, USA; Gitomer, DH; Ziomek, R. What the tests tell us about new teachers. *Educational Leadership*, Vol. 56, No. 8, 1999, p. 23-26
- Lawler, EE, Mohrman, SA, & Ledford, GE (1995). *Creating high-performance organizations*. San Francisco: Jossey-Bass.
- Liang, S.-K., Ling, H.-C. & Hsieh, S.-Y. (2007). The mediating effects of leader-member exchange quality to influence the relationships between paternalistic leadership and organizational citizenship behaviors. *Journal of the American Academy of Business*, 10(2), 127-137.
- Liden, RC, & Maslyn, JM (1998). "Multidimensionality of leader-member exchange: An empirical assessment through scale development." *Journal of management*, 24(1), 43-72.
- Liden, RC, Sparrowe, RT, & Wayne, SJ (1997). "Leader-member exchange theory: The past and potential for the future." *Research in personnel and human resources management*, 15, 47-120.
- Locke, EA, & Latham, GP (1990). *A theory of goal setting & task performance* . Prentice-Hall, Inc.
- Luthans, F. (2008). *Organizational behavior*. New York: McGraw-Hill.
- Mangkunegara, AP, & Prabu, A. (2000). *Human Resource Management*, Bandung: PT. Rosda Karya .
- Mardiyati, BD, & Yuniawati, R. (2015). View metadata, citations and similar papers at core.ac.uk. *EMPATHY, Journal of the Faculty of Psychology Vol. , 3 (1)*, 274-282.
- Mariani, M. M. d. C., Lellis, V. R. R., Novaes, R. A. C. B., Schwartzman, J. S., Teixeira, M. C. T. V., & Carreiro, L. R. R. (2021). Voluntary and Automatic Orienting of Attention in Children with Attention Deficit Hyperactivity Disorder. *Archives of Clinical Psychiatry (São Paulo)*, 48(3), 155-161. <https://doi.org/10.15761/0101-60830000000298>
- Maslyn, JM, & Uhl-Bien, M. (2001). Leader-member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality. *Journal of applied psychology* , 86 (4), 697.
- McClane, WE (1991). The interaction of leader and member characteristics in the leader-member exchange (LMX) model of leadership. *Small Group Research* , 22 (3), 283-300.

- McConnell, EA Competence vs. competency. *Nursing Management*, Vol. 32, No. 5, 2001, p. 14
- Medley, DM (1977). Teacher Competence and Teacher Effectiveness. A Review of Process-Product Research. *One Dupont Circle, Suite 610, Washington, DC 20036*. <https://eric.ed.gov/?id=ED143629>
- Meng, Y., Tan, J., & Li, J. (2017). Abusive supervision by academic supervisors and postgraduate research students' creativity: The mediating role of leader-member exchange and intrinsic motivation. *International Journal of leadership in education* , 20 (5), 605-617.
- Messick, S. (1996). Validity in performance assessments. In Phillips, GW (ed.). Technical issues in large-scale performance assessments. Washington, DC: US Department of Education, Office of Educational Research and Improvement.
- Mito, EA, Ajowi, JO, & Aloka, PJ (2021). Teacher Training and Implementation of Teacher Performance Appraisal and Development Policy in Public Secondary Schools in Kenya. *Asian Basic and Applied Research Journal* , 6-16.
- Moekijat. 2010. Human Resource Management, ninth printing. Bandung: Forward Mandar.
- Mosley, C., Broyles, T., & Kaufman, EK (2020). Leader-member exchange, cognitive style, and student achievement. *Journal of Leadership Education* Vol. -, pp. 50-69. DOI: 10.12806/V13/I3/R4.
- Mulder, M. (2001). Competentieontwikkeling in organizations: perspectieven en praktijk. The Hague: Elsevier bedrijfsinformatie.
- Mulyasa, E. (2005). Become a Professional Teacher. Bandung: PT. Youth Rosda Karya.
- Nome, N. (2018). Reviewing and Understanding Teacher Performance. *Luxnos Journal Vol* , 4 (2).
- Nuraeni, NA, Affandi, I., & Heryani, A. (2020). The effect of teacher certification policy implementation, teacher competence on teacher performance at MTs Al-Muqowamah Singapore, Tasikmalaya. *Naturalistic: Journal of Educational Research and Learning* , 4 (2a), 562-568.
- O'Donnell, M. , Yukl, G. and Taber, T. (2012), "Leader behavior and LMX: a constructive replication", *Journal of Managerial Psychology* , Vol. 27 No. 2, pp. 143-154. <https://doi.org/10.1108/02683941211199545>
- Othman, R., Ee, FF, & Shi, NL (2010). Understanding dysfunctional leader-member exchange: Antecedents and outcomes. *Leadership and Organization Development Journal*, 31(4), 337-350. doi: 10.1108/01437731011043357.
- Ovenden-Hope, T., Blandford, S., Cain, T., & Maxwell, B. (2018). RETAIN early career teacher retention programme: Evaluating the role of research informed continuing professional development for a high quality, sustainable 21st century teaching profession. *Journal of Education for Teaching* , 44 (5), 590-607.
- Pan, W., Sun, LY, & Chow, IHS (2012). Leader-member exchange and employee creativity: Test of a multilevel moderated mediation model. *Human Performance*, 25, 432-451.

- Parry, SB The quest for competencies. Training, July 1996, p. 48-56
- Patoni, P. (2020). Influence of Leader Member Exchange, and Information Technology Expertise on Junior High School Teacher Performance in Purwakarta Regency. *Eqien: Journal of Economics and Business* , 7 (2), 52-61.
- Pelkmans, A. (1998). Evaluatie van leraren en schoolleiders. Wageningen: Leerstoelgroep Agrarische Onderwijskunde, Landbouwniversiteit Wageningen.
- Peterson, KD (2002). Teacher evaluation: a comprehensive guide to new directions and practices. Thousand Oaks, CA: Corwin Press
- Pierce, JL & Newstrom, JW (2006). Leaders and the leadership process: Readings, self-assessments and applications. New York: McGraw-Hill.
- Reynolds, M. What is competent beginning teaching? A review of the literature. *Review of Educational Research*, Vol. 62, No. 1, 1992, p. 1-35.
- Robbins P. Stephen, (1996), Organizational Behavior, Indonesian Edition. Jakarta: Prehallindo
- Robbins, SP & Judge, TA (2007). Organizational behavior. New Jersey: Pearson Education.
- Roelofs, EC; Sanders, P. Beoordeling van docentcompetenties. In Mulder, M. et al. (eds.). *Bevoegd, maar ook bekwaam?* Groningen: Wolters-Noordhoff, 2003, p. 277-299
- Roelofs, E., & Sanders, P. (2007). Towards a Framework for Assessing Teacher Competence. *European journal of vocational training* , 40 (1), 123-139.
- Rosemphine, Barak. (1971). Teaching lehvators_and fltudent Achievement. Windsor, Berkshire., ik, National Foundation for Educational Research in England and Wales.
- Ruky, Ahmad S.(2002). Performance Management System. Jakarta: PT Gramedia Pustaka.
- Rusilowati, U., & Wahyudi, W. (2020, March). The Significance of Educator Certification in Developing Pedagogy, Personality, Social and Professional Competencies. In *2nd Social and Humanities Research Symposium (SoRes 2019)* (pp. 446-451).
- Rusyan, AT (2016). *Build Quality Teachers* . Gilang Saputra Perkasa.
- Rüzgar, N. (2018). The effect of leaders' adoption of task-oriented or relationship-oriented leadership style on leader-member exchange (LMX), in the organizations that are active in the service sector: A research on tourism agencies. *Journal of Business Administration Research* , 7 (1), 50-60.
- Ryan, RM, & Deci, EL (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.
- SAMANI, MM, & SAMANI, DMM (2010). Japanese Society for the Promotion of Science. <http://www.kopertis3.or.id/html/wp-content/uploads/2010/08/ronpaku.pdf>
- Sarimaya, Farida. (2008). Teacher Certification: What, Why and How?. Bandung: Yrama Widya.

- Scharmann, L. (2001). High School Students' Perceptions of Evolutionary Theory. *Electronic Journal of Science Education* , 6 (2).
- Schempp, PG (2016). Constructing Professional Knowledge: A Case Study of an Experienced High School Teacher. *Journal of Teaching in Physical Education* , 13 (1), 2-23. <https://doi.org/10.1123/jtpe.13.1.2> .
- Sedarmayanti (2011). Human Resource Management, Bureaucratic Reform and Civil Service Management.: Bandung, Refika Aditama.
- Shepard, LA Evaluating test validity. In Darling-Hammond, L. (ed.). Review of research in education. Washington, DC: American Educational Research Association, 1993, p. 405-450.
- Siagian, Son. P. (1997). Administrative Philosophy. Jakarta : PT. Holy mountain
- Simons, PR (1990). Competentiegerichte leeromgevingen in organizations en hoger beroepsonderwijs. In Schlusmans, K. et al. (eds.). Competentiegerichte leeromgevingen. Utrecht: Lemma.
- Soeprihatno, J. (1996). Performance Assessment and Employee Development, First Edition, Second Printing, Yogyakarta : BPFE.
- Spencer, LM; Spencer, SM (1993). Competence at work: models for superior performance. New York: Wiley.
- Stodolsky, SS Classroom observation. (1990). In Darling-Hammond, J.; Millmann, L. (eds.). The new handbook of teacher evaluation: assessing elementary and secondary school teachers, p. 175-190. Newbury Park, CA: Sage
- Subini, Nini. (2012). Beware, Don't Be a Karbitan Teacher. Jakarta: PT Buku Kita.
- Surya, M. (2000). Teacher Management in Education Decentralization. Bandung.
- Susanto, D. (2010). Strategy to increase the capacity of social capital and the quality of human resources to accompany community development. *Journal of Development Communication* , 8 (1).
- Suyatno, H., & Pd, M. (2008). Teacher certification guide. *Jakarta: PT Macanan Jaya Brilliant* .
- Thijssen, JGL (2001). Personele flexibiliteit in strategic perspective: de betekenis van employability voor organizations en individual. In Poel, RF; Kessels, JWM (eds.). Human resource development: Organiseren van het leren, p. 103-116. Alphen aan den Rijn: Samsom.
- Thijssen, JGL Hindernissen voor competentie management. *Opleiding & Ontwikkeling*, Vol. 11, No. 10, 1998, p. 17-23.
- Tierney, P., Farmer, SM, & Graen, GB (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52, 591-620
- Tom, AR; Valli, L. Professional knowledge for teachers. In Houston RW (ed.). Handbook of research on teacher education. New York: MacMillan, 1990, p. 372-392.
- Tumusiime, P., Mwalw'a, S., & Okemasime, K. (2021). Principals'implementation Of Teacher Performance Appraisal And Development (Tpad) Tool And Teachers'performance In Public Secondary Schools In Kikuyu Constituency. *African Journal of Emerging Issues* , 3 (4), 1-22.

- TÜTÜNİŞ, Birsen & Duygu YALMAN. "Teacher Education and Foreign Language Teacher Professionalism in The 21st Century". *International Online Journal of Education and Teaching (IOJET)*, 7.3 (2020): 1168 - 1176.
- Uhlenbeck, A. (2002). The development of an assessment procedure for beginning teachers of English as a foreign language. Leiden: ICLON Graduate School of Education
- Van Waeyenberg, T., Peccei, R., & Decramer, A. (2020). Performance management and teacher performance: The role of affective organizational commitment and exhaustion. *The International Journal of Human Resource Management* , 1-24.
- Verloop, N. (1992). De leraar: reviewstudie uitgevoerd in opdracht van PROO. The Hague: NWO/PROO.
- Vermunt, J.; Verschaffel, L. Process-oriented teaching. In Simons, PRJ; van der Linden, J.; Duffy, T. *New learning*. Dordrecht: Kluwer, 2000, p. 209-225.
- Volmer, J., Spurk, D., & Niessen, C. (2012). Leader-member exchange (LMX), job autonomy, and creative work involvement. *The Leadership Quarterly*, 23, 456-465
- Wang, H.-J., Le Blanc, P., Demerouti, E., Lu, C.-Q., & Jiang, L. (2019). "A social identity perspective on the association between leader-member exchange and job insecurity." *European Journal of Work and Organizational Psychology*, 28(6), 800-809.
- Wibowo, R. (2010). *The effect of students' perceptions of the teacher certification program on interest in becoming a teacher and learning achievement (a case study of 2007 undergraduate students of Accounting Education, Faculty of Economics, State University of Malang)* (Doctoral dissertation, State University of Malang).
- Windasari, W., & Yahya, MZ (2021). Does Compensation Important? The Effect of Compensation on Teachers Performance in Vocational High School. *Journal of Education: Journal of Research Results and Literature Studies in the Field of Education, Teaching and Learning* , 7 (1), 42-49.
- Xu, E., Huang, X., Lam, CK, & Miao, Q. (2012). Abusive supervision and work behaviors: The mediating role of LMX. *Journal of Organizational Behavior*, 33, 531-543
- Yenti, T., & Sumarmin, R. (2020). Teaching performance assessment at Senior High School in implementation of teacher competency standards. *International Journal of Progressive Sciences and Technologies* , 23 (1), 284-289.
- Yue, X. (2019). Exploring effective methods of teacher professional development in university for 21st century education. *International Journal of Innovation Education and Research* , 7 (5), 248-257.
- Yukl, G. (2006). *Leadership in organizations*. New Jersey: Pearson Education.
- Zaragoza, MC, Díaz-Gibson, J., Caparrós, AF, & Solé, SL (2021). The teacher of the 21st century: professional competencies in Catalonia today. *Educational Studies* , 47 (2), 217-237.
- Zumwalt, K. (1996). Simple answers: Alternative teacher certification. *Educational Researcher* , 25 (8), 40-42.