COLLEGIAL LEADERSHIP TO RAISE ENVIRONMENTAL AWARENESS: A MODEL DEVELOPMENT AT VOCATIONAL HIGH SCHOOLS[*]

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Abstract

This research is intended to develop a collegial principal's leadership model in improving the environmental awareness in vocational high schools (SMKs). This research method is a qualitative method for designing models with the Borg and Gall Research and Development (RandD) concept. The results showed that according to experts' and practitioners' perceptions and opinions, the implementation of collegial leadership of

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principals was demonstrated by participatory and collaborative actions. Collegial leadership has actions in developing power devaluation, environmental awareness, human resources empowerment, joint leadership, and joint decision development. Organizational development and implementation are demonstrated by developing collegial leadership's vision and mission to all stakeholders. The collegial leadership vision includes accountable and transparent financial management, environmental management, human resource management, and systematic management strategy supervision to improve academic quality.

Keywords: academic environment, collegial leadership, environmental awareness, environmental management, vocational high school

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1. Introduction

Environmental awareness implies being conscious of the natural environment and creating choices that aid the earth instead of hurting it. Some ways to raise ecological awareness contain: utilizing safe and non-toxic building supplies, recycling, preserving energy and water, activism, and so forth. Globalization in the 21st century has a significant influence on the field of human resource management. In the face of increasingly fierce competition, highly needed human resources are creative and innovative, and quality. How ready is Indonesian HR to compete at the global level? In 2012, there were only around 4.3% of the skilled workforce in every 1.000 Indonesian workers (Asian Productivity Organization, 2012). Compared to Singapore (34.7%), Malaysia (32.6%), and the Philippines (8.3%), that number is far less. In 2011-2012, Indonesia was ranked 46th globally (Schwab, 2011). This index shows the productivity of a country, both in terms of natural resources to human resources. Indonesia was also lost to Thailand, ranked 38th, Brunei Darussalam 28th, Malaysia 25th, and Singapore 2nd. The data shows that graduates' competitiveness is far from expectations, both at home and abroad (Kharismawati, 2013).

In the 21st century, this nation has at least four main characteristics. These characteristics include socio-economic dependence, the emergence of industrial countries that will change their culture. Efforts must be made to have qualified human resources who master skills and knowledge. Human resources must support development in all fields and opportunities to face challenges to anticipate global competition. The success of activities in the open market is determined by productivity and its driving capital, namely the use of science and technology, management of its resources, including reliable or high-quality human resources. Schools' vision in improving quality has an education strategy, including internalizing values, integrating learning values, and cultural values (Suyatno et al., 2019). Competency elements consist of personality, mastery of knowledge, skills, abilities, attitudes, and behavior at work according to expertise. Competencies include technical competence, knowledge, expertise, conceptual competence, and competence to live in a dependency ability (Roozitalab et al., 2017).

The map of government planning in SMK and SMA's ratio in 2010 was 50:50 and 70:30 in 2015. Until 2013, there were 10,957 active SMKs throughout Indonesia, consisting of 2,874 State Vocational Schools and 8,083 Private Vocational Schools (Direktorat Pembinaan SMK, 2013). Following the central government's policy, the Sragen government is also competing to establish SMKs at the sub-district level. Sragen Regency only consists of 20 districts, but the number of SMKs in 2011 has reached 47 SMKs while the number of high schools is maintained as many as 24 public and private high schools. Based on the data, SMKs in Sragen has increased the number of SMKs to 47 from 39 schools consisting of 36 private schools and 11 public schools (BPS Kab. Sragen, 2011).

The consequence of this phenomenon is a flood of interest in prospective students to enroll in SMK. It was clear that the increasing trend in the number of vocational students from 2007 was only 17,553 until 2011, reaching 22,252. There is an increase in the number of 5000 students. The

addition of only 300 teachers will make it difficult to achieve ideal school management and services. There has been a decrease of 2,000 students. The relatively fixed number of teachers and facilities will make it easier to provide services in developing student work skills (Ridlo et al., 2018). An unbalanced ratio like this requires a specific strategy in managing existing human resources. The emergence of a higher number of SMKs than high schools, which are not matched by an increase in its managers' quality, is the same as this country just pursuing quantity compared to the quality of schools. The result is that the quality of SMK graduates is low. Principals 'and teachers' perceptions need to be examined because it is an essential aspect of increasing school capacity (Park and Ham, 2016).

In terms of management, vocational schools have not been well-led to prepare the children's future through formal schools (Widodo, 2008). Education in this era is facing developments that require renewal in its structure (Qaralleh, 2021). The challenge faced by the world of education today is the community's high demand for quality schools. However, on the other hand, most SMK principals face obstacles in maximizing human resources. These constraints are caused by weaknesses in the managerial capacity and leadership of the school principal. At school, principals are the primary determinant in improving school quality. Also, school principals are a central point in increasing the success of various academic and non-academic achievements (Djarwati, 2011). Principals are emphasized to practice leadership and instructional skills in managing the school (Fred and Singh, 2021). There is evidence of a significant relationship between excellent empowerment practices and organizational commitment among academic staff (Muda and Fook, 2020). The principal's strength is the key to educational institutions' success in maintaining and improving school performance (Usman, 2015). Increasing the number of vocational students is not proportional to graduates' quality because the quality of school management is below standard. Central Bureau of Statistics data shows open unemployment in 2009 was 17.26% of SMK graduates, 14.31% of high school graduates, 12.59% of University graduates, 11.21% of Diploma graduates, 9.39% of junior high school graduates, and under 4.57% elementary schools. There are still many graduates who have not been able to enter the formal workforce (Roesminingsih, 2008). The amount of unemployment in Indonesia is still huge. In August 2012, reaching 7.2 million people high school and vocational high school graduates contributed the most to the unemployment rate. The unemployment rate based on the level of graduation from education is as follows: Vocational High School 10.42%, Senior High School 7.92%, Junior High School 4.75%, Diploma I/II/III 5.99%, University 5.67%, and elementary school and lower with 2.41% (Zabihi et al., 2011).

There are still many SMK management that uses the one-person show model system. Potential teachers in schools need to find a model to get the active role of all human resources. Technical and vocational education continues to experience changes in response to changing demands and needs. Changes cannot be made because there are differences between the starting point, market share, needs, and demand. However, this can be overcome by technical and vocational education that is flexible and responds differently.

Management of education must also be under leadership that can adapt to all situations. Adaptive and value-based leadership is needed to enhance the potential of schools (Notman, 2017). The problem in achieving a superior school is the school leadership competency, which is still below the standard. The principal must have high innovation power (make changes and renewal) to face a fierce competition between SMKs at the national level to trust stakeholders. The principal must strengthen his leadership and have a clear vision of producing graduates ready to work to face labor competition at the international level (Jumintono et al., 2018). In a situation of global change and rapid development of science and technology, the principal must be able to empower and, at the same time, utilize existing human resources well. Leadership values about shared vision, shared values, participation, high trust, teamwork in schools are still considered very low. Principals need to adopt instructional leadership to increase teacher functional competence (Ismail et al., 2018). Leadership is needed to create high-quality learning environments in schools. Therefore, all human

resources actively participate. Ideal conditions like this have become very important for further research. Schools need leadership that can increase participation, the collaboration of all stakeholders both inside and outside the school. Principal's transformational leadership is indirectly related to collegial support, professional and teacher self-efficacy (Thomas et al., 2020). The leadership style facilitates teachers to do their work (Norazmi Bin Nordin et al., 2019).

The formulation of this study's problem is (1) how are the principal's collegial leadership model and its application? (2) how is the principal's managerial model applied? (3) how is collegial leadership development? Moreover, (4) how is the effectiveness of the principal's collegial leadership model? The entire problem formulation was reviewed in the principal's efforts to improve the school's academic environment's quality, as seen from experts' and practitioners' assessments. This research's expected outcome is the collegial leadership model of the school principal in improving the school's academic environment quality. This model has modifications to combine its functions as a leader and manager (Singh, 2005). This model provides an overview and interaction of the four pillars of collegial or collective leadership to serve stakeholders and customers (students). The principal's leadership's effectiveness significantly influences the quality of schools and school graduates quality (Al Rasyid et al., 2020). The principal's collegial leadership model is translated into implementing managerial functions and implementing a leadership model. This model involves a strategy to improve the quality of the school's academic environment. The principal's collegial leadership application in improving the school's academic environment's quality requires technical guidance. This research is expected to contribute knowledge to the government, namely the PSMK directorate and provincial and district/city education offices, and detailed exploration for researchers and vocational high school leaders (principals and vice-principals).

2. Research method

The research method used is the Research and Development (RandD) concept of Borg and Gall. To get the model design done with qualitative research. Data collection was carried out through in-depth interviews, including observation, documentation, and questionnaires. This research involved four public and private vocational schools in Sragen, namely SMK N 2 Sragen, SMK N 1 Sragen, SMK N 1 Gondang, and SMK Muhammadiyah 2 Sragen. Qualitative data analysis is the process of searching for and formulating data obtained systematically, compiling patterns, selecting, and concluding them (Sugiyono, 2016). Purposive and snowball sampling techniques determined research informants. The validity of the data was tested by the triangulation technique of the Miles and Huberman model. Triangulation is used to obtain accurate data, eliminate overlapping findings, find out the convergence of research findings, find new perspectives, and expand the scope of studies (Creswell, 2014)—research scheme in Fig 1.

Test the model design's validity through two stages using practitioner's and experts' opinions in their respective fields. A good model has the following characteristics: simple, applicable, relevant, controllable, adaptable, and communicable (Marrelli et al., 2005)—phase I testing used a test of 11 practitioners and seven experts. Phase II testing uses a test of 13 practitioners and seven experts. The model's effectiveness test uses a questionnaire with a Likert scale given to 50 heads and deputy heads of public and private SMKs. Then, the Likert scale is used to determine the application of collegial leadership. This scale is used to measure the level of trust, commitment, support, loyalty, and job satisfaction among 50 heads and deputy heads of the community and private vocational schools in Sragen. The stages of research and development start with gathering information (research information). They were continued with product planning and design, developing initial products, testing/validating initial products in the field. They were revising products to compile main products, testing/validating products in the data primary: final product revision, and dissemination of results to the public. Model testing is one of the critical stages in

implementing R and D because it will determine the model's suitability for researchers. Through this trial, it will also be known whether the product model being developed can achieve the objectives or not. The test subject must have expertise capacity that is reliable both academically, theoretically, and scientific practices. Model testing is carried out in two stages: the expert judgment stage and the model effectiveness test stage.
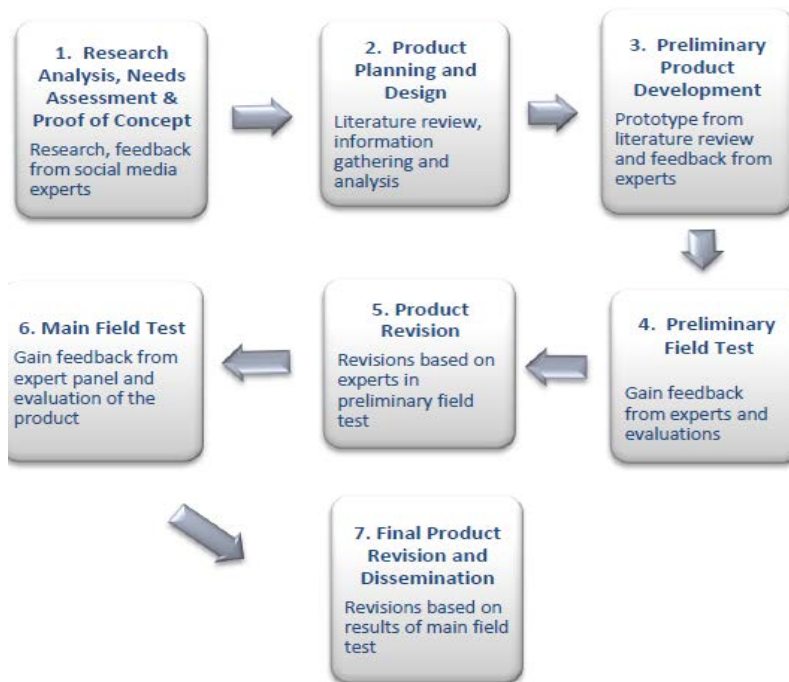

Fig. 1. Research and development procedure (Gall et al., 2006)

The expert assessment stage is carried out in two stages: Phase 1 and Phase 2, namely by asking several people (experience in the field of leadership) to assess the model that has been developed. The Delphi technique is used in phase 1 and phase 2 to agree on problem-solving (models) between several experts (panelists) based on an intuitive approach. The trial steps are carried out by determining collegial leadership models from before. Determine panelists based on expertise. Prepare instrument items based on model variables. Refine the model to be returned and send back the repaired model for review.

The researcher invites panelists to clarify and discuss the proposed revisions' answers and notes so that consensus is reached and make a report. The model effectiveness test is a phase 3 trial intended to test the model's effectiveness in its use. Respondents for Phase 3 trials are people who have expertise in the field of applying leadership models (practitioners) in SMK. The model effectiveness test uses a questionnaire that contains the opinions/perceptions of respondents about the effectiveness of the proposed model because the model has not been applied to the actual implementation. The trial procedure for developing a model is illustrated in Fig 2.

Fig 2. illustrates the process of testing the collegial leadership model carried out in these three stages and the target outputs obtained in each stage. Phase 1 and 2 trials consisted of 18 people consisting of 7 researchers, experts, leadership observers, and 11 prominent practitioners. The Phase 3 trial consisted of 50 public and private vocational leadership practitioners. Fifty

teachers/education personnel come from 10 public and private vocational schools to see the impact of leadership, loyalty, support, and teacher/education personnel commitment.
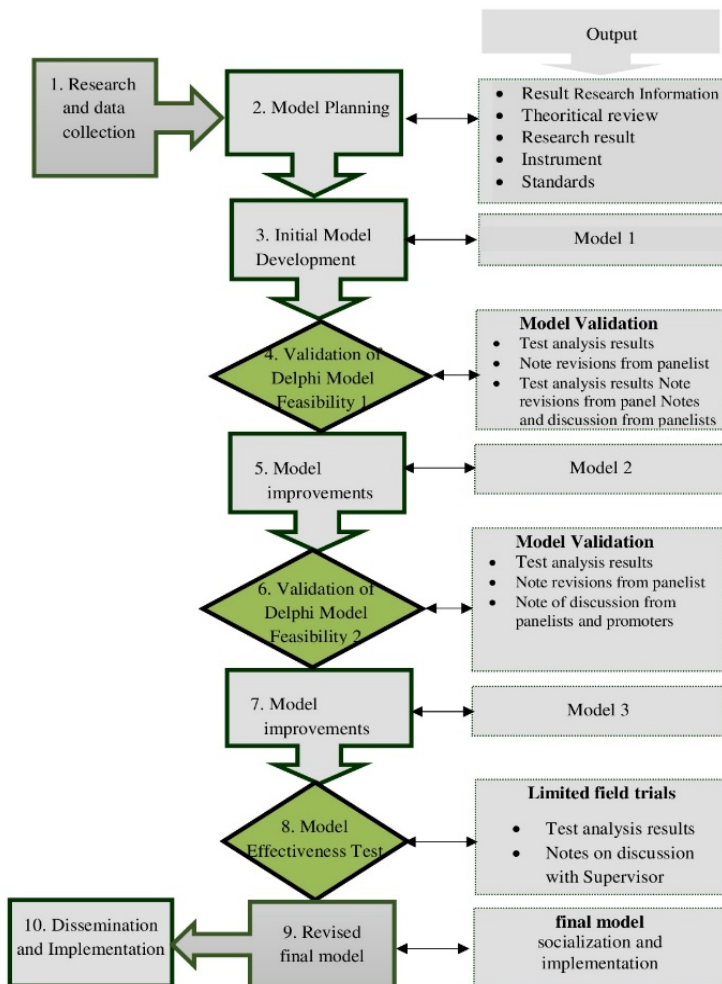

Fig. 2. Trial procedure for developing a collegial leadership model

3. Results and discussion

From the description of research data on four vocational school cases in the Sragen regency, a recapitulation of collegial leadership implementation data can be formulated, which is also the result of developing leadership models based on research findings. With collegial leadership, the headmaster uses available resources to create a quality academic. Commitment, loyalty, trust, and willingness to support school policies must be owned by the teacher and the school's human resources. The principal continues to maximize his role as an educator, manager, leader, inspirator, motivator, innovator, and communicator for school stakeholders (students). The principal develops and utilizes all available school resources to achieve goals effectively and efficiently.

For this reason, a school principal must have a strong work ethic, have the courage to optimize school resources to achieve educational goals, and can build information networks with stakeholders. The Principal increases the quality of the school's academic environment by strengthening and increasing competencies. The quality of the academic environment is expected to meet and improve educational infrastructure. For principals, the academic environment quality is an essential part of improving graduates' quality because a quality academic environment will benefit the school in trust, commitment, loyalty, support, and satisfaction of existing teachers and employees.
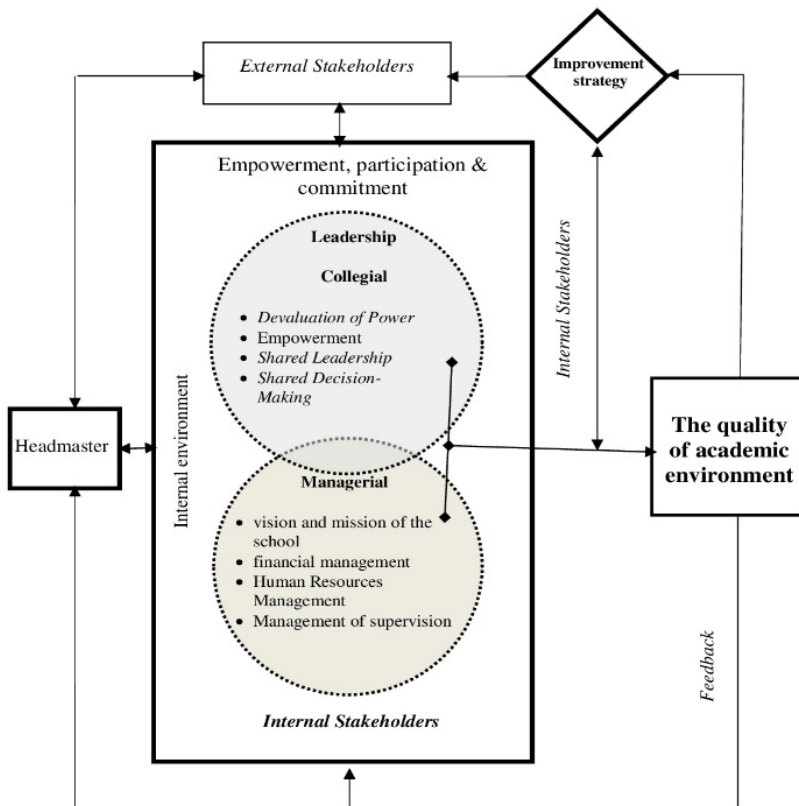

Fig. 3. Early models of school principal's colleague leadership

Figure 3 explains the collegial leadership model of school principals in improving the quality of school academics. The implementation of leadership includes aspects of the principal's role as a leader, and the Principal implements several managerial functions. Leadership is directed at efforts to achieve school academic quality. Academic quality is expected to be able to provide high commitment and enthusiasm. Teachers with high levels of participation and can share ideas and share their knowledge. The results of the trial/validation of the Phase 1 model were carried out through a Focus Group Discussion (FGD) by seven experts and 13 leadership practitioners. From the results of the Phase 2 Trial/Validation model, it is obtained an important note from the panelists that can be used further to enhance the feasibility of the model, including a) the location of the internal components of the stakeholders and external stakeholders is not firm, background differences should be made; b) the use of broken lines and continuous lines in all drawings is

explained, or all continuous lines are used; c) the principal of the school as a leading center should be given a thick line; d) the focus of each diagram is too broad/inconsistent and needs less elaboration; e) the use of diagrams on the margins of the diagram can cause confusion if necessary delete it; and f) the use of different types of lines or symbols can lead to different understandings. Fig 4 explains the results of the revision of the principal's collegial leadership model.
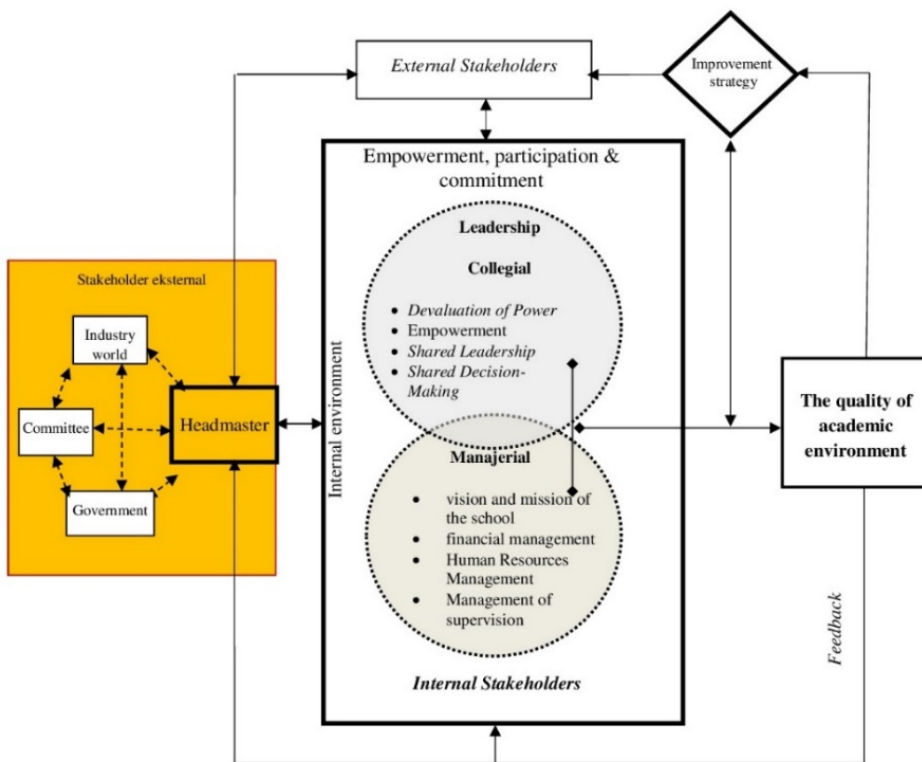

Fig. 4. The second model of school principal's collegial leadership

The model effectiveness test product uses a Likert scale questionnaire given to 50 heads and deputy heads of public and private SMKs in Sragen regency. The final revision of the collegial leadership model based on testing the model's effectiveness can be seen in Fig. 5.

Collegial leadership in improving the academic quality of schools includes the principal's function as a leader and at the same time as a manager. As the principal, the principal carries out the collegial leadership model by developing an evaluation of power, developing empowerment, developing shared leadership, and developing participative-collaborative decision-making. As a manager, the principal takes collegial action in developing the vision and mission of the collegial leadership of the school, human resource management, financial management, and supervisory management. The principal builds collegiality in the environment of external stakeholders. The headmaster explores ideas interactively with the industrial world of business, experts, school assemblies, government, and school committees as material for decision making in private schools. Clearly, the picture above explains the principal's collegial leadership model in improving school academics' quality. The implementation of leadership includes aspects of the principal's role as a leader. The Principal implements several managerial functionsLeadership is directed at efforts to

achieve the school's academic quality. Academics who have high commitment or enthusiasm, teachers and employees, have critical power and can exchange ideas or share knowledge.
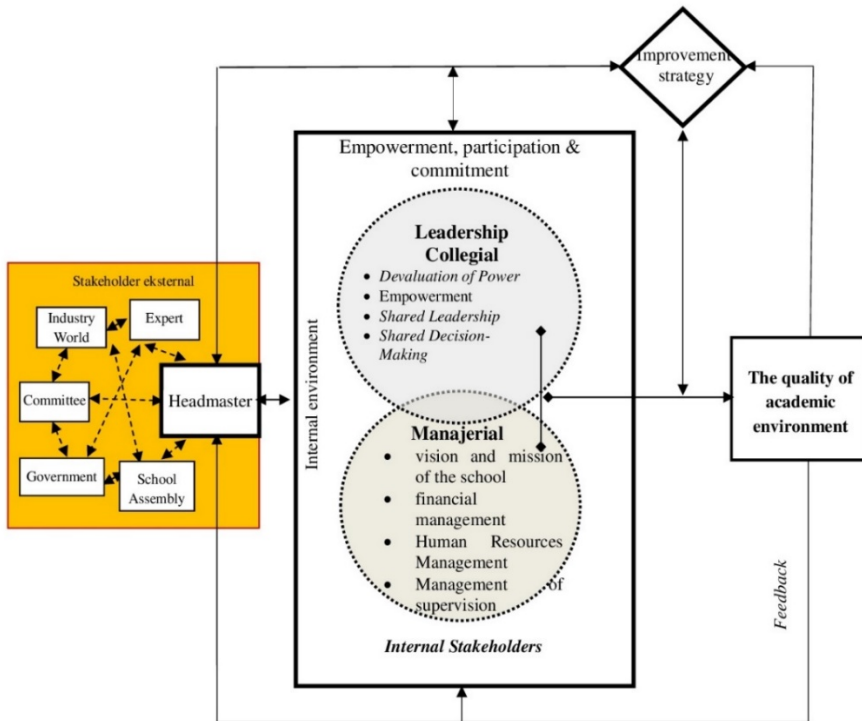

Fig. 5. The final model of the principal's collegiate leadership

Figure 5 shows a component of the strategy model for improving the principal's academic environment's quality. The headmaster explores ideas interactively with the business world of industry, experts, school assemblies, government, and school committees as material for decision making in internal schools. The top school guarantees school programs' implementation, especially the academic environment, with strategies that include: 1) repairing and preparing school infrastructure; 2) implementing organizational communication between departments, 3) upgrading existing human resources. From this strategy, the school principal determines a program consisting of physical and non-physical schools and builds on the school's existing human resources condition. The program details are ultimately expected to improve the quality of the school's academic environment. The explanation above can be easily understood in Fig 6. Research findings from the four vocational school cases in Sragen show school principals' collegial performance with many similarities. The unique feature of collegial leadership starts from realizing that the principal is not a superman who can do everything. Collegiality is about sharing and taking responsibility for one's actions to form a shared leadership framework (Singh, 2005). It is not correct to say that the principal is the absolute authority in managing school resources.

The collegial model leadership forms the basis of delegated leadership. The collegial model leadership is how someone and their responsibilities give obligations. Without the active involvement of all teachers and employees, schools cannot develop and advance in line with the community's expectations and the government, and the business / industrial world. The principal's collegial leadership in improving the school's academic environment's quality can be identified

from its collegial nature. These characteristics include vision, values, high trust, participation, developing and encouraging teamwork, and accountability. A strong collegial vision and insight foster enthusiasm and growth of new ideas and solutions. The principal is highly committed to developing and advancing school human resources, has high self-confidence to realize innovative ideas, motivates and inspires school residents.
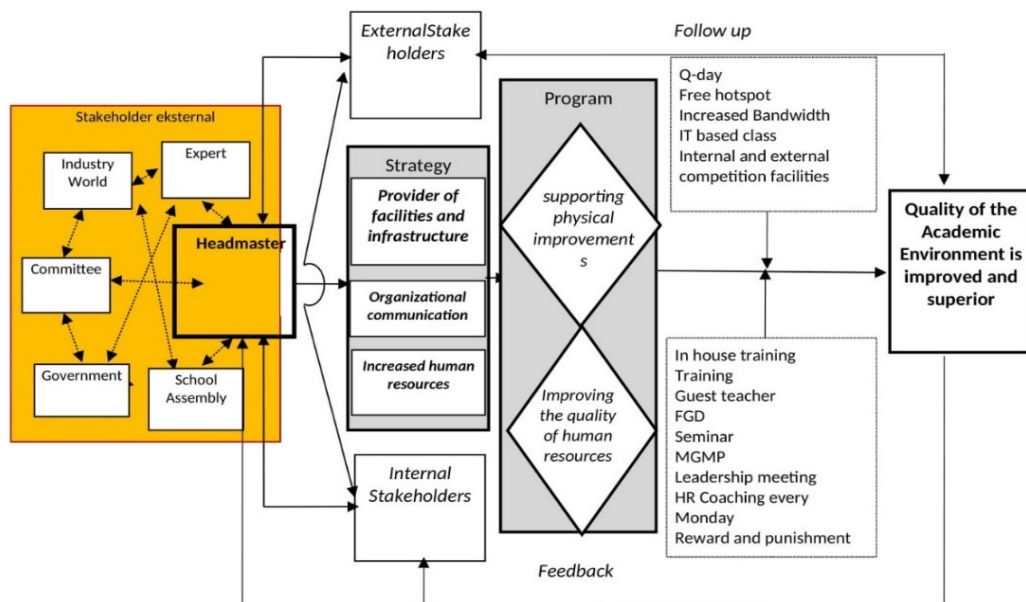

Fig. 6. Academic environmental quality improvement strategy

Although transformational leadership patterns inspire the principal's leadership practices with the principle of empowerment. The principle has actions in individual influence, intellectual stimulation, inspirational motivation, and individual consideration. Various transformational leadership studies prove to positively influence the effectiveness of improving teacher performance and achieving school goals (Dardiri, 2011). However, in the era of global competition and the rapid advancement of science and technology, transformational leadership is not enough because, in transformational leadership, school principals' orientation is more focused on empowering efforts to improve the quality of learning (Dardiri, 2011). At the same time, SMK is an education that prepares graduates to enter the workforce, so leadership is needed to quickly hear the industry's needs. The industry will be the most critical part in determining the direction of education in schools.

Colleague principals always use their role to act creatively and productively in making educational innovations to improve the quality of education. The principal's actions can inspire the loyalty and commitment, and perseverance of subordinates' work, always providing insight into the school's mission's importance. Arouse the pride of the school community so that it grows high respect and trust. The principal can appreciate the various potentials of his staff. The principal will always provide guidance, attention, coaching, and training for everyone individually and in groups. Their colleagues and subordinates will consider such leaders as productive and satisfying leaders. The principal always encourages subordinates to develop their competence in improving their performance. The collegial leadership implementation model can be implemented and improve the

school's academic environment. Principal leadership needs to increase staff involvement in decision-making, open access to school education, and build collaborative relationships inside and outside the school (Winingsih and Sulistiono, 2020).

The findings of the research show that there are four aspects of managerial implementation in improving the quality of the school's academic environment, namely: a. development of collegial leadership vision and mission; b. financial management development; c. they are developing human resource management; and d—development of supervision management. The development of collegial leadership's vision and mission is the beginning of the awareness that the principal is not a superman who can do everything. Once the principal is in power, he is the greatest, the smartest, and the most correct in running the school. Awareness of how to utilize the full potential of school human resources and available resources must be an essential priority in managing schools. A leader with a vision of the future and firm is needed to manage vocational schools. The leader's vision of the future includes building organizational values, developing commitment, empowering all organization components, building a strong collaboration with the industry, being transparent in financial management, and providing services for all organization components. The principal must know about developing and improving teaching and school leadership (Plaatjies, 2019).

Financial management is the basis of building good trust from above in a balanced relationship with school principals' subordinates. Transparent management with high accountability is the main factor that stimulates the active participation of all school stakeholders. If financial management is unclear and closed, then leaders cannot advance schools. The development of human resource management is the most critical factor in moving the wheels of the organization. Excellent human resources must support good infrastructure. Strengthening human resource capacity in schools is an absolute top priority in school organizations, especially for school administrators, from the school principal to other structural officials. They are at the forefront of pushing other human resources' capacity to develop properly following school facilities' development. The quality of the academic environment will develop well if accompanied by excellent facilities and qualified human resources quality.

The development of supervision management is a factor where the principal can assure that the organization's wheels are going according to plan. Guaranteed implementation of these school programs becomes very strategic because it will guarantee that the facilities and resources used can effectively and efficiently implement school programs. Thus, the principal's skills in building the collegial leadership's vision and mission, ensuring transparent financial management, increasing human resource capacity, and developing supervisory management can ensure the school's academic environment's improved quality.

The analysis shows that the proposed model has a very feasible category to apply and can be used as a guideline for schools to improve the school's academic environment. The top school guarantees school programs' implementation, especially the academic environment, with strategies that include: a) repairing and preparing school infrastructure; b) carry out organizational communication between departments; c) upgrading the existing human resources. The school principal determines a program consisting of school physical and non-physical facilities and strengthening the existing school human resources from this strategy. In the capacity as a principal, programs that can be used are as follows: 1) Procurement of training in schools by inviting experts and experts (in-house training); 2) Include school human resources in training, seminar, or workshop to improve competence; 3) Bring in guest teachers, mostly from industry and entrepreneurs who can provide enlightenment for students and teachers; 4) encourage FGDs and MGMPs to give input and improve teaching patterns in their respective fields; 5) Organize organizational communication in a regular, systematic and continuous way to ensure that programs do not friction and collision occur between programs; 6) the school head can apply reward and punishment in a balanced way to build a spirit of competition between existing HR.

While the improvement of physical facilities can be in the form of 1) procurement of free hotspots and additional school bandwidth so that existing human resources can access information via the internet easily and quickly; 2) Prepare total IT-based classes as piloting capable, fun, and passionate learning; 3) the principal prepares a special fund to provide rewards and stimuli for human resources who can achieve high achievements in their respective fields. Schools can guarantee the quality of a well-developed school academic environment and, in the end, be able to improve the quality of school graduates through these facilities and programs.

Table 1 summarizes the trial data analysis results for collegial school principal leadership models' effectiveness in improving the quality of the academic environment. The variables used are the model's simplicity, the feasibility of the model's practicality, and its effectiveness. From Table 1, it is known that the average score of the collegial leadership model effectiveness variables to improve the quality of the academic environment is as follows: a) For the model variables to be easily understood, functional categories with an average of 87.13 (between 80-89.99); b) For practicality and feasibility models, the model used as a reference obtained a good category with an average score of 86.28 (between 80-89.99); and c) For the category of model effectiveness in improving the environment the first category is obtained with a score of 89.34 (between 90-99.99).

Table 1. Average score for the effectiveness of the principal's collegiate leadership model

Leadership variable	Average Score		
	Ease of understanding	The practicality of feasibility is used	Effectiveness of improving the environment
The principal collegial leadership model	82.00	81.00	86.14
Implementation of leadership functions	87.94	87.00	89.48
Devaluation of power	86.50	86.50	89.86
Empowerment	87.50	87.83	89.71
Shared leadership	91.25	88.00	88.43
Shared decision making	86.50	85.67	89.93
Implementation of managerial functions	87.75	87.04	89.52
Collegial leadership's vision and mission	89.75	87.00	88.86
Financial management	89.00	84.67	89.93
HR Management	84.50	89.17	88.79
Supervision Management	87.75	87.33	90.50
Strategies for improving the academic environment	86.50	85.67	91.29
Average Score	87.13	86.28	89.34

Table 2 shows the results of the analysis of experimental model data on job satisfaction, support, and commitment and loyalty of teachers and education personnel towards school principals' collegial leadership. The average scores are as follows: (1) The collegial leadership performance of principals is high with an average score of 82.36; (2) The commitment and loyalty of teachers to the leadership of school principals are in the high category with a score of 82.31; (3) The job satisfaction of teachers and education staff reaches high categories, namely a score of 82.16; (4) The trust of teachers and education personnel towards the collegial leadership of school principals is included in the high category with an average score of 82.55; and (4) Teacher support in the principal's policy in the high category with an average score of 83.50.

Table 2. Average score of commitment and loyalty, belief, support, and satisfaction of teachers / education personnel to the collegiate leadership of school principals

Variable	Average score	Standard	Category
Principal collegial leadership performance	82.36	80-89.99	High
Teacher commitment and loyalty	82.31	80-89.99	High
Teacher job satisfaction	82.16	80-89.99	High
Teacher trust in schools	82.55	80-89.99	High
Teacher support on the principal's policy	83.50	80-89.99	High

4. Conclusions

The implementation of existing school leadership on average for principals encourages consensus for decision making. The majority cultivate a shared vision and values but have not yet fully built trust between human resources. Lack of growing participation and a reliable work team. The school managerial function's implementation has not yet fully built on the collegial leadership vision and mission.

There is still a lack of transparent and accountable financial management, and the school's human resources are not optimally empowered. The supervisory function is only formalistic inherent naturally in a school principal. Leadership to improve the quality of the school's academic environment developed is collegial leadership with consensus decision-making culture, the habit of sharing vision and values; the creation of participation and mutual trust between teachers; and a reliable work team. According to experts and practitioners, the collegial leadership model developed is practical, helpful, and efficient. Data shows 54.5% stated strongly agree, 39.5% stated agreed and complete to be understood and followed, and only 6% stated that they did not agree and were incomplete to understand and follow. Ease variables implemented as guidelines stated only 6% said they disagreed and were incomplete, 42.7% agree and complete, and 51.3% expressed strongly agree and very complete. The effectiveness variable improving the academic environment's quality is stated only 2.5% disagree and incomplete, 37.7% agree and complete, and 59.9% strongly agree and very complete.

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