Widyaiswara Competency Development at the Center for Human Resources Development for Electricity, New, Renewable Energy and Energy Conservation

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Abstract: Widyaiswara is a training human resource who has a very important role for the training unit in the cycle of education and training. At the Human Resource Development Center for Electricity, New Energy, Renewable Energy and Energy Conservation (PPSDM KEBTKE). Competency development for Widyaiswara in the KEBTKE PPSDM unit is not optimal and still requires increased development. This study aims to analyze the implementation of competency development, competency factors that influence development, and formulate a development strategy that suits the needs of Widyaiswara in supporting the performance of the KEBTKE PPSDM Organization. This study uses descriptive qualitative research methodology by using research instruments in the form of interview guidelines and supporting documents. The results of this study indicate that Widyaiswara PPSDM KEBTKE requires an increase in work experience competencies through non-classical training in the form of internships can increase real experience in the field, develop skills, and improve the quality of work experience.

Keywords: Competency, PPSDM KEBTKE, Widyaiswara

A. Introduction

In today's highly competitive world, the role of human resources is very important. The way people live and work is influenced by globalization trends and technological advances. Facing the era of disruption 4.0, it is very important for employees to prepare themselves to recognize and conquer technology that enables opportunities in the fields of energy, economics, social and personal development.

The role of human resources (HR) is becoming increasingly crucial in facing global change, especially in the context of the era of disruption 4.0 (Emmanuel et al., 2023). Globalization and technological advances have changed the way people live and work significantly to face challenges such as (1) the era of disruption 4.0 bringing drastic changes in technology so that they can utilize them as new opportunities in various sectors, including energy, economic and social (Ellitan, 2020). (2) new skills in the field of technology can increase work productivity with various training and development

to master digital tools and platforms to achieve higher efficiency (Li, 2022). (3) adaptation to change to increase the ability to adapt quickly to change. (4) improving personal skills is very important for the ability to think critically, creatively, as well as good communication and collaboration skills (Mohiuddin et al., 2022). (5) balance between humans and technology: even though technology is developing rapidly, the role of humans remains important. Emotional skills, ethics and understanding the social context are irreplaceable factors in dealing with the complexity of global problems (Dwivedi et al., 2023) (Manullang & Waspodo, 2023). (6) sustainable energy and economic empowerment in the context of energy and economics, the use of environmentally friendly technology can play a key role in order to contribute by developing sustainable solutions and innovating in utilizing resources efficiently (Tavares et al., 2022). (7) continuous education and development by prioritizing regular continuous education and development and lifelong learning is a necessity to remain relevant amidst constant change (Korinek et al., 2021).

By understanding and adopting an active role in facing change more effectively in the era of disruption 4.0, creating new opportunities and contributing to sustainable development (Anderson, 2017). Human resource development is not just education, training, coaching, recruitment, system changes, opportunities and rewards (Han & Stieha, 2020). However, they must also increase their creativity and change their fixed mindset to a growth mindset. This is necessary to provide superior, creative and innovative human resources who are ready to adapt and revolutionize themselves to rapid technological developments. They must also be ready to face the onslaught of the industrial revolution 4.0 towards the Society 5.0 era.

The human factor plays an essential role in industrial processes and will continue to do so in the near future, despite the new solutions and technologies aiming to replace human labor. Creating sustainable production systems is possible if employees' competencies are properly developed. Human "participation is necessary to implement crucial Industry (Kowal et al., 2022). (Chayanopparat et al., 2016) states "Human resource development is closely related to the country's development because human resources are as the center of development in all dimensions". Human resources are the center of development in all dimensions.

This is confirmed in (Prabawati et al., 2018) who explain that human Resources (HR) is a very important factor in an organization so that human resources are required to have the ability, skill or competence in order to be able to carry out the vision and mission of the organization. Competence includes a number of attributes attached to the individual which is a combination of knowledge, skills, and behaviors that can be used as a means to improve performance. Concerned about the demands of human resources that should have the knowledge, skills or abilities, it is necessary for the development of human resources in public organizations.

This means that Human Resources (HR) is a very important factor in an organization so that human resources are required to have the ability, skills or competence to be able to carry out the organization's vision and mission. Competency includes a number of attributes inherent in individuals which are a combination of knowledge, skills and behavior that can be used as a means to improve performance. In connection with the demands of human resources who must have knowledge, skills or abilities, it is necessary to develop human resources in public organizations.

The Center for Human Resources Development for Electricity, New Renewable Energy and Energy Conservation is a work unit that implements the financial management pattern of the Public Service Agency (BLU) based on the Decree of the Minister of Finance of the Republic of Indonesia No. 965/KMK.05/2017 concerning the establishment of PPSDM KEBTKE at the Ministry of Energy and Mineral Resources as a Government Institution which implemented the Public Service Agency Financial Pattern on December 28 2017, As an organization that has an important role, PPSDM KEBTKE is required to always improve the quality, training process and competency certification accompanied by efforts to increase its relevance in the context of global competition. It is hoped that in the future, PPSDM KEBTKE will become an *entrepreneurial and center of excellence* for human resource development that is able to align itself with leading training institutions on the Asian continent and even the world, both in terms of the quality of technical graduates in the KEBTKE field and the quality of the process of providing training, certification and community services, so that can spur the growth of the ESDM sector.

Departing from this background and expectations, it is very important for PPSDM KEBTKE to have professional and competent education and training human resources. Based on Indonesian Government Regulation number 101 of 2000 concerning Education and Training for Civil Servant Positions, training personnel consist of: Widyaiswara, Management of Government Training Institutions and other training personnel. Widyaiswara is a training and training human resource which has a very important role for the dikat unit, in this case PPSDM KEBTKE, because Widyaiswara is an *engine position* in a HR Development unit, so the performance achievements of Widyaiswara are the biggest part in increasing organizational performance achievements. Widyaiswara, according to the duties of his position, has a very important role in the cycle of implementing education and training programs. "To optimize the performance of implementing the training program, the teaching and learning students involved in the entire process cycle must always pay attention to the suitability of their competencies." (Regulation of the Head of the State Administrative Institute Number 13 of 2011 concerning general guidelines for the implementation of technical training).

The HR development center as a training unit is obliged to ensure the quality of its courses so that their competencies always comply with the competency requirements in the program and title of the training being held. This requires that the training unit

provide competency development programs that are appropriate to current and future gaps and competency needs. So that student career development can improve and *be in-line* with organizational goals.

"Training institutions are required to improve the quality of their infrastructure by maximally utilizing information technology, empowering and developing the quality of students as teaching staff at training institutions as well as developing innovative and visionary training programs." (Nidjam, 2019). In forming ASN through various trainings organized by PPSDM KEBTKE the important role of widyaiswara is very clearly visible. Because the professionalism of Widyaiswara is a necessity so as not to be left behind by developments in technology and information which continue to move forward at all times.

Widyaiswara as educators, teachers and trainers is one of the main pillars of the ASN competency development process, therefore improving the scientific quality and development of Widyaiswara competency is a necessity. Widyaiswara is required to have conceptual, analytical and technical abilities so that the message or training material delivered is not only a transfer of knowledge, but is expected to influence thought patterns, skills *and* attitudes *and* behavior *as* well as morality of training participants (Pariq, 2021) can only be implemented.

Students are willing to learn to adapt technological advances to increase competence in carrying out learning in accordance with the demands of the times (Widyastika & Jannah, 2017). Therefore, strengthening the role of Widyaiswara is absolutely necessary, especially in order to improve the quality of human resources towards accelerating development in the energy sector. In the training process, Widyaiswara's competency is often linked to the quality of its training services. The more competent the Widyaiswara is, the more quality the training process is expected to be. Apart from that, Widyaiswara's competency has a big influence on the satisfaction of training participants so it must continue to be developed in a more planned and sustainable manner.

Previous research related to the development of the Widyaiswara profession found that coaching and competency development by the institution was one of the external supporting factors that influenced the Widyaiswara's competency. (Rahayu, 2022), (Handani & Sunarti, 2022). "Forms of Widyaiswara's professional development include: seminars, workshops, internships, training, scientific meetings, writing scientific papers using the *understudy on the job method, job rotation, and Coaching-Counseling*" (Harahap & Pogo, 2023). In 2022, an evaluation will be carried out on the implementation of education and training at the center for the development of Electricity Resources, New, Renewable Energy and Energy Conservation, including an evaluation of the Widyaiswara. From the evaluation carried out, information was obtained regarding the problem of students with grades below standard in 2022. The results of the Widyaiswara evaluation in February 2022, carried out on 16 HR

development activities: 10 Industrial Training, 5 ASN Training and 1 Webinar, where there is still the performance of 1 (one) Widyaisawara person who is below the minimum value of 86 .00.

The results of the Widyaiswara evaluation in September 2022, carried out on 22 HR development activities: 15 Industrial Training, 6 ASN Training and 1 Community Training as a whole are shown in table 1.2, where 1 (one) Widyaiswara with very good criteria, 15 (fifteen) People with good criteria and 1 (one) Widyaisawara person who is below the Standard score with Fair criteria. The results of the Widyaiswara evaluation in October 2022, carried out on 21 HR development activities: 13 Industrial Training and 8 ASN Training, as a whole appear in table 1.3, there are 4 (four) Widyaiswara with very good assessment criteria, 10 (ten) Widyaiswara with good criteria and there is still 1 (one) Widyaisawara who is below the standard score with sufficient criteria.

The results of the Widyaiswara evaluation in November 2022, carried out on 43 HR development activities: 32 Industrial Training, 8 ASN Training, 2 Community Training and 1 Webinar, overall shown in table 1.4, there are 7 (seven) Widyaiswara with very good assessment criteria, 14 (fourteen) people with good criteria and 1 (one) person with sufficient criteria. From the 2022 Widyaiswara performance evaluation picture described above, it can be seen that there are a total of 4 (four) people or 16% of Widyaiswara out of a total of 25 Widyaiswara who received a score of Adequate in the February, September, October and November periods, so they need refreshment, development and improvement of competence and for improving individual performance which can ultimately improve unit/organizational performance.

B. Methods

This research uses a qualitative method approach, qualitative itself is used as an effort to produce continuous information from informants. This research uses descriptive research, Which more specific to the description of results interview and suite documentation. Through qualitative methods, it is easier for researchers to obtain information directly from informants through interviews and documentation. This research was conducted to analyze the development of case study widyaiswara competencies at the Center for Human Resources Development for Electricity, New, Renewable Energy and Conservation, Energy.

This research uses techniques for interpreting various data from interviews and documentation which are then combined with the aim of forming an understanding and then compiling a report based on the interpretation in a structured report (adminlp2m, 2020). This process is carried out after the researcher combines a set of data from the various techniques that have been carried out.

The researcher took the object of research in the Center for Human Resources Development, Electricity, New, Renewable Energy and Energy Conservation, which

is located on Jalan Poncol Raya No. 39, Ciracas, East Jakarta. Data collection techniques in achieving the final research objectives can be in the form of: In preparing this thesis. In collecting information for this research, 2 (two) methods were used, namely interviews and documentation.

C. Results and Discussion

Implementation Development Competence

Plan Development competence Widyaiswara is A description beginning about effort for fulfillment need competence widyaiswara in a way systematic and sustainable. Activity this must be done by organization in time certain for increase knowledge, skills and a person's attitude or behavior widyaiswara related implementation task his position.

Development Through Education

Education with various program have role important in increase quality widyaiswara and units' organization in a way whole, through education a widyaiswara prepared for own provisions For Ready know and develop method think in a way systematically so that you can solve problem that will be faced in carry out his task. Matter This looks on pattern it works and on will eventually guarantee its performance the more increasing, Author digging information related importance development competence through education to level furthermore which more tall. Related development competence through education informant 2, stated: "For equality of sides thinking with other directorates, as well with other ministries, we must declare that our WI is an expert in its field. Wrong the only one with depicted with background education,". Informant 3 who is Coordinator group Work maintenance and management of infrastructure facilities development Source Power man say that: "If according to I anyway Certain need. Because right for the S3 it doesn't only more he can choose field his knowledge more Specific. But also the S3 process itself too make something that person has ability For think and also do his task in matter This is his dissertation. That's right form a process which forge person the for can think analyst analytical like that yeah. Analytical and also customized with theory manufacture".

Through interview the can concluded that Development competence through education Still required Because Education have role important in increase quality Widyaiswara. (Gunawan et al., 2021) in study previous discuss For reach Power To use And results To use Which as big as possible need held implementation education And training. Through education a Widyaiswara prepared for own supplies to be ready know and develop method think in a way systematically so that you can solve problem that will be faced in carry out his task (Rosmayati et al., 2021). Matter the

looks on pattern it works and on will eventually guarantee employee performance the more increase.

Plan Development Competence Through Education

Development competence through education need planned units' organization to align with target and objective organization. Explanation related plan This explained by informant 2: "Actually we when for roadmap, roadmap Wrong HR development the only one is planning enhancement education. From the five -year roadmap explained return in plan need task study annual Well, there is a number of Which indeed from the side evaluation Ye, assessment performance Which become appreciation for employee that's a plus with need organization. Which important anyway need organization yeah, that main new Which second is from assessment performance employee the".

Conclusion of the interview second informant abov that the KEBTKE HR Development Center is in plan development competence through education, starting with compile roadmap development education for five years forward. Roadmap used as road map can give information and instruction related direction and development strategy, who, what, how, where, and when of development done. This road map can used as reference when developing so that roadmap becomes very important Because can explain plan program in a way systematic and structured.

Monitoring And Evaluation Education

Monitoring and evaluation is a process of a cycle of implementing development activities that will provide information regarding assessing whether there are obstacles in the process, whether the mechanism is working as expected and so on. To find out the extent to which monitoring and evaluation is carried out on developers through education, the author conducted an interview with informant 2, who explained: "In terms of monitoring for certain things, it will be carried out by the HR Bureau. For evaluations, for example after the what, that's not our time yet. We haven't done that yet." Furthermore, informant 3 stated: "Monev to medium. If you're from the HR Bureau, as far as I know, you'll come to the Third College or University. But as for what it means, if I look at it, it doesn't exist yet."

Monitoring of Competency Development through learning assignments is carried out by the Personnel Bureau, KESDM. where study assignment participants are asked to report on the progress of their study assignments every semester, if there are grades that are less or below standard, a joint discussion will be held between the Personnel Bureau, PPSDM KEBTKE and study assignment participants to ask for information on the obstacles and difficulties they face. Furthermore, up to now There has not been an evaluation of competency development through education (learning assignments). *Benefit development Education* It is hoped that the benefits of competency development through education will not only be beneficial for the waidyaiswara themselves but should also have an impact on the overall performance of the organization. The author conducted an interview regarding the benefits of competency development through education, the question asked to informant 2 was "For example, if the doctoral degree is very specific and supports ESDM, of course it really supports the organization's activities. But once again, it's not just the science, but also the way of thinking and all forms of theory and all kinds of things. How he does his dissertation is different. "That's a different soft skill, which is certainly useful for the organization in other ways besides the science itself." When confirmed with informant 8, as the Functional Official of Widyaiswara Ahli Madya, he said that: "Actually, how big it is is probably very big for the organization. Because in the first place, perhaps from a staffing perspective, the number of employees at a higher level will increase. Maybe you don't know if you calculate the staffing assessment, maybe you have more. On the other hand, of course it will definitely provide benefits to the organization, especially for example, I am a WI, of course when we carry out our functional duties, we carry out training, which is very useful, especially since the knowledge we gain can be passed on to the participants. If you go to your own organization, apart from being a WI, maybe you can also make suggestions or ideas for developing the organization as well."

From the results of interviews conducted, it is clear that the benefits of competency development through education are very large to support organizational activities, not only in terms of knowledge, but also the mindset related to suggestions and ideas for the organization's future development and progress. Previous research (Gunawan et al., 2021) examined that Human Resource development is very fundamental for organizations, both in the micro and macro sense that resources have a very valuable role as the main driver that determines organizational effectiveness based on the abilities, skills and expertise of the resources. human power .

Development Through Training

Competency Development Plan through Training

Training is a systematic and planned effort to change and develop knowledge, skills and attitudes through learning experiences in order to increase performance effectiveness. This allows a Widyaiswara to gain the ability so that he or she can carry out tasks or work adequately and realize the potential they have. The researcher conducted interviews with several informants regarding how Widyaiswara's competency development plan was implemented, whether a competency gap analysis had been carried out previously, regarding this matter, informant 2 stated: "We haven't yet done a human resources assessment looking at the gap in question, for example starting from the evaluation. "Wi, there is a training evaluation, there are recommendations or input that are not just for the widyaiswara." Meanwhile,

informant 5 explained: "I try to answer in accordance with the scope of my duties. Coincidentally, in our field of evaluation and quality assurance, we regularly carry out evaluation activities of Widyaiswara or teachers for each exercise held. "There we actually got a lot of input regarding the performance of Widyaiswara who was teaching, especially teachers from PPSDM KEBTKE."

From informants 2 and 5 it can be concluded that a competency gap analysis has not been carried out to assess the type of training needs that must be programmed for Widyaiswara. One of the plans for developing Widyaiswara's competency is seen from the results of the Widyaiswara performance evaluation carried out by the evaluation and program working group. From the results of this evaluation, it only captures a small part of the training needs needed to improve Widyaiswara competency. A competency gap analysis is still needed so that overall Widyaiswara training development needs can be mapped well and accurately.

Forms of Development

To find out the form of development through training carried out at the KEBTKE HR Development Center, the author conducted interviews with several informants regarding this matter. The results of the interview regarding the form of development carried out within the KEBTKE HR Development Center were described by informant 3, who explained that: "If we are the organizers, then only ASN training is scheduled at the beginning of the year and we as organizers because we have a budget make it more possible for WI to propose training- new training that meets brand needs." In line with this, informant 4 explained: "We provide training, certification, inclusion at home and abroad. Internships are a policy that is very necessary with the competence of new policies, NZE or what we don't have yet, for example sea waves, we don't know anything yet. Most of us understand it only from the references we read, but for operations to see, you should have an internship with who have the current technology, for example regarding the conversion of electric motors, well, Wi, we are here on site first with external teachers, Wi we should currently be doing a lot of internships related to the potentials that are being developed to replace fossil generators with non-fossil ones." Informant 7 also explained the same thing: "There has been a lot of development in technical training, some soft skills have also been held via the apparatus, actually it's been good, but in my opinion, there's been a lot of training. "Non-training is what's lacking, internships are actually for our needs, sometimes it's just reading, which is different from seeing in the field." Informant 8 explained more directly: "So far it's still training/training, actually WI also needs an internship/OJT or maybe taking part in long training, short courses, so far it's still trainings that takes a week or two at most, so the development still not enough".

From the explanation of interviews with informants 3, 4, 7 and 8, it can be concluded that, so far Widyaiswara functional officials have only received development in the form of classical training, namely: scheduled training which has been determined at

the beginning of each year to be followed, training which is a proposal from Widyaiswara. themselves, certification, domestic and foreign participation, technical training related to electricity, new, renewable energy and energy conservation, apart from that they also receive training in the form of legal, commercial and soft skills training, seminars, workshops and technical guidance. Currently, non-classical training has not been carried out, this is due to the lack of guidelines governing its implementation and also the budget, which is always the biggest challenge in competency development. Such non-classical training ideally requires a long period of time, at least one month for employees outside the work location, so it will have an impact on the costs incurred for activities, achievements and performance assessments of the Widyaiswara, the Widyaiswara's income related to remuneration and also on the Widyaiswara's teaching hours achieved.

Development through coaching and mentoring has not yet been carried out but is felt to be very necessary as an effort to regenerate and transfer skills from senior Widyaiswara to juniors where later senior Widyaiswara are expected to help their juniors so that they can recognize, maximize and even be able to explore their potential, the same as with coaching Mentoring is also needed as an effort to accompany, guide and supervise senior Widyaiswara to their juniors so that they are able to optimize the potential that exists within them so that they can maximize individual performance which ultimately can improve organizational performance.

Apart from coaching and mentoring, another type of development that is no less important to improve Widyaiswara's competency is an internship. Internships can provide very significant operational experience which can increase real experience in the field, develop skills, improve relationships in a professional environment, improve personal quality, open insight, increase self-confidence and provide experience to improve competence by optimizing personal potential.

Training Monitoring and Evaluation

To assess the success of the development program, management must carry out an evaluation of the development activities that have been carried out, because the evaluation process is the life cycle of HR development activities, which has the function of controlling the process and results of program activities, so that a systematic, effective and effective development process can be guaranteed. efficient. Evaluation is also an effort by management to obtain information regarding the results of the development program, and use this information to assess whether the development has achieved the expected goals and has had an impact on Widyaiswa's performance. Apart from that, evaluation can be used to review the development programs. Regarding the implementation of the evaluation at the KEBTKE HR Development Center, the researcher conducted an interview with informant 2 who is the Head of the General Department, who is responsible for fulfilling employee

competency development needs, explaining that: "We have to admit that we have not done it and it seems like we should plan a form for the evaluation. later, okay?" This was confirmed by informant 3 who stated that: "As far as I know, there are none, even though at that time it was already an ISO finding, yes, and if I'm not mistaken, there are instruments, yes, questionnaires exist, but as far as I know they have not been implemented." Informant 5 also expressed a similar opinion, regarding the implementation of the Widyaiswara development evaluation: "We only take photos, ideally those who do it are staff who have the authority to develop HR and have a pattern."

From the results of the interview above, it can be concluded that the development evaluation at the KEBTKE HR Development Center has not been carried out and does not yet have guidelines or SOPs that can be used as a reference in conducting development evaluations. For management, evaluation can be used to get feedback from participants which is very helpful in deciding which policies will be taken to improve the development program. The feedback obtained includes participant reactions, participant learning outcomes, changes in workplace behavior and the results obtained.

There is a lot of literature on evaluation models developed by experts. Usually the evaluation model is created based on the interests of personal parties, institutions agencies that have an interest in the training program being implemented. Evaluation of HR development is required to be objective and transparent, so standards and criteria in evaluating HR development are very important (Wibowo & Hartono, 2022). One evaluation model that is quite popular is the Kirkpatrick model which is better known as the Kirkpatrick Four Levels Evaluation. This model is a well-known tool for evaluating workplace training sessions and adult education programs (Reio et al., 2017). This method uses a four-stage system to collect information on a given training session, and then analyze it. Analysis determines whether the session was meaningful to participants and whether the session produced the desired results Professionals in training, human resources, and management benefit from in the workplace (Albaar & Paristiowati, 2020).

Benefits of Training Development

The success of an organization really depends on the performance of the employees involved in it. Therefore, the role of the Widyaiswara Functional Position is very important in improving organizational performance (Dahlia, 2023). Because high performance is able to provide maximum results for improving organizational performance. One way to increase productivity and high performance is through good HR (Human Resources) development. There are many benefits from HR training and development. According to informant 4, who is the coordinator of planning and standardization of human resource development, stated that: "It is evident from the performance of the assessors, our assessors are predominantly internal, rarely external

assessors, we still get gold, 3 years we get gold, what does that mean? Apart from that, our service needs are the same as others, and Wi's performance as an assessor on average gets all A's in the test assessment. For example, for example, in the past they used to write modules at random, sometimes the language went back and forth, sometimes everyday language was included, after they took training in writing scientific papers and so on, finally the writing became good, usually the editor changed a lot, now the way they write is good., there was a scientific oration that they participated in, it was good to explain." This is also in accordance with the statement of informant 8 who is an Associate Expert Widyiaswara PPSDM KEBTKE, explaining: "Yes, ma'am, of course it is very important and because apart from that for WI for organizational performance, we are BLU too, yes, that is required of us. can be very influential in the organization." The same thing was said by informant 2, who said: "Good, good, even support for improving organizational performance, development is not only for him but also for the organization." From the results of interviews with informant 2, informant 4 and informant 8 above, it can be concluded that competency development through training has a good impact on increasing Widyaiswara's competence, this can be seen from the increasingly improved performance of Widyaiswara, so that by increasing the performance of Widyaiswara the benefits are felt for improving the performance of the organization/central unit. KEBTKE HR Development. Through competency development, Widyaiswara can easily become a person who is ready to contribute and realize the organization's goals.

D.Conclusion

Based on the results of research and discussion that has been carried out at the Centre for Human Resources Development in Electricity, New Energy, Renewable Energy and Energy Conservation, it can be concluded that the Widyaiswara Competency Development carried out so far has not met the competency needs due to minimal operational experience in the field. Lack of work experience is one of the obstacles to Widyaiswara's competence. The strategy for developing Widyaiswara Competence which is very priority to be carried out is internship/work practice. Because internships/work practices are a form of development that produces a clear competitive advantage for the organisation and allows for the achievement of organizational goals.

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