



Widyaiswara Competence in Industrial Revolution 4.0 Toward Indonesia Unggul

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Abstract

This study described competencies that should be developed by Widyaiswara in industry 4.0 toward Indonesia Unggul. The method used in this study was qualitative descriptive method. This primary data was obtained from the questionnaire shared in Google form. The analysis of descriptive data is done by several stages i.e reduction, display, and conclusion. Research show the competence should be developed by Widyaiswara, Creativity and innovativity skills become the top level of respondent expectation by Widyaiswara (93%). The criteria of Indonesia Unggul that can be applied by widyaiswara in reaching high expectation standard of respondent, is concerning on the discipline and time management (88%). National Board for development and Empowerment human resources of health and state administration agency of Indonesia as governing board of widyaiswara need to advocate and enhance the professionalism and hold an active participation in accelerating the competence of widyaiswara to face the challenge in Industrial Revolution 4.0 toward Indonesia Unggul.

Keywords: *Competency; Widyaiswara; Industrial Revolution 4.0*

Introduction

Currently the world is facing the fourth industrial revolution known as the industrial revolution 4.0. This revolution is an era of disruptive innovation, where this era is developing very rapidly, resulting in the creation of new patterns of increasing human resources and targets and replacing existing technology. This digital era does not only have an impact on the industrial sector but also affects all aspects of human life in the world without exception to the world of education (Vaidya et al., 2018).

Widyaiswara is required to change and develop his competence in facing the big challenges of the 4.0 Industrial Revolution era because there are only two choices, namely change or lag behind and die. The education and training era influenced by the 4.0 industrial revolution is called Diklat 4.0 which is characterized by the use of digital technology in the learning process known as the cyber system and is able to make the learning process take place continuously without space boundaries and without time limits (Alaloul et al., 2018).

Human resource development is a challenge in itself for the Indonesian nation when looking at data released by the World Bank, where in 2018 the World Bank stated that the quality of Indonesian human resources was ranked 87 out of 157 countries. Meanwhile, in the same year, Business World explained that the competitiveness ranking of Indonesian human resources was ranked 45 out of 63 countries. This ranking is still inferior to the two neighboring countries, namely Singapore and Malaysia, which are respectively ranked 13th and 22nd (<https://www.setneg.go.id>).

Widyaiswara's current condition is far from ideal. For example, widyaiswara mastered the principles of leadership and organizational development but had no experience being a leader; widyaiswara mastered the principles of curriculum development, but did not master curriculum development well; widyaiswara mastered various methods / principles of training, but did not have experience and did not master the methods / principles of training in that field well; widyaiswara mastered the principles of teaching and evaluating, but did not have experience as a teacher and was unable to properly conduct evaluations to measure success in that field; etc. Professionalism is still normative (Mundiarsih et al., 2018).

Previous research explained that widyaiswara's competence in responding to the challenges of the Fourth Era was by developing scientific literacy which was still very low. Life skills to create a Superior Indonesia require comprehensive competence for all professions, including widyaiswara. (Science & Millennials, 2019). The digital era is both an opportunity and a challenge for widyaiswara in carrying out their professional roles to participate in realizing Superior Indonesia (April et al., 2019).

Based on Law No. 5 of 2015 on ASN, apparatus training is important. Where so far what has happened is that training for the apparatus is very rarely accepted by the state civil apparatus, and some have even served 26 (twenty six) years of service as the state civil apparatus for only 1 (one) time undergoing training. This is very different from other countries such as Singapore, which in 1 (one) year of training for its apparatus is 100 (one hundred) hours. This also happens to widyaiswara, this results in the need for widyaiswara upgrades related to materials that are able to get constraints (Mundiarsih et al., 2018).

Widyaiswara's competence in the future will be a priority in building a widyaiswara profession. However, currently widyaiswara rarely gets the opportunity to take part in training related to substantive material that is his specialty. This is because the budget for human resource development in education and training institutions has not been directed towards widyaiswara activities, but still tends to be structured. During the year it does not mean that a widyaiswara has the opportunity to take part in training. This is an obstacle in building the competence of widyaiswara in the regions. Where the specialization related to the competence that is built is not clear for each lecturer. This condition causes the provision of material to training participants is not optimal (Arjita et al., 2018).

Human Resources Education and training apparatus, including widyaiswara, are ideally required to have a vision and mission, orientation, goals and strategies to achieve the objectives of holding education and training. As an apparatus engaged in education and training, they are also required to have mastery of high technology (high tech), high thought, high touch, and high trust. This condition is important for widyaiswara to build professionalism as an ideal widyaiswara (Kiptyah, 2020)

Perkalan No. 8 of 2008 states about the basic competencies that widyaiswara must have, namely; learning management competence, personality competence, social competence and substantive competence. There are six other competencies that are expected to answer the era of the industrial revolution 4.0 in order to create a superior Indonesia, namely; First, Critical Thinking and Problem solving (critical thinking skills and problem solving). Second, Communication and collaborative skills (communication and collaboration skills). Third, Creativity and innovative skills (creative thinking skills

and innovation). Fourth, Information and communication technology literacy. Fifth, Contextual learning skills. Sixth, Information and media literacy (<https://www.kompasiana.com>).

Widyaiswara in answering the Industrial Revolution 4.0 must also be distracting because the disruption does not only apply to the business world, but also affects HR development strategies in the form of training or training. The phenomenon of disruption has an impact on major changes in various fields, to changes in business fundamentals (Khasali, 2018). Starting from the structure, costs to the culture, and even the ideology of an industry.

Deans for Impact, an organization consisting of senior educators and cadres of educators - new educators, published a report "Practice with Purpose" which contains mandatory principles for educators to apply in the disruptive era. In essence, nowadays an educator must really understand the times, continue to learn, and train the teaching muscles that are in them so that they can be better. The term is deliberate practice.

Widayaiswara must hold the principles in this distracting era as follows; 1) Push Beyond Comfort Zone (Out of comfort zone), 2) Works Toward Well Defined, Specific Goals (Work with clear targets or achievements) 3) Focus Intently on Impactful Activities (Focus on providing activities that are meaningful and impactful), 4) Receive and Respond High Quality Impact (Receive and provide quality feedback) 5) Develop Mental Model of Expertise (Form a mental model of an expert) (<https://arrayrahmawan.net>).

The industrial revolution 4.0 demands repositioning of widyaiswara's roles and competencies to a new pattern in the educational process, namely becoming a lecturer at 4.0 by carrying out innovative disruption through breakthroughs and improvisation in developing the basic competencies that they already have; learning management competence, personality competence, social competence and substantive competence in order to be ready to create a superior Indonesia. The competencies as stated in Perkaln No. 5 of 2008 are synthesized with the principles of the disruptive era and widyiswara development techniques (Miller, 2015).

Previous research only emphasized exploring Widyaiswara's competence in the context of increasing achievement (Arjita et al., 2018), efforts to increase competence with scientific literacy (Science & Millennial, 2019), professional skills (Titin Karnasih, 2020), or limited to widyaiswara development strategies (Mundiarsih et al., 2018) without examining the relation to the role of widyaiswara in realizing Superior Indonesia. Because it is important to carry out further research with the theme "What is the role of lecturers in responding to the Industrial Revolution 4.0 through developing their competence in realizing a superior Indonesia?"

The results of the research are expected to contribute to the improvement of widyaiswara's competence as well as to provide provisions for widyaiswara to master their competences in realizing a superior Indonesia in placing Indonesian widyaiswara as world class.

Methods

This research use descriptive qualitative approach. The focus is to comprehensively examine the role and development of widyaiswara competencies in the era of the Industrial Revolution 4.0 both in skill development or the principles of disruption in realizing Superior Indonesia. Some of the variables included in the research locus were the phenomenon of the Industrial Revolution 4.0, the development of six widyaiswara skills in the 4.0 Industrial Revolution era, the five principles of disruption that widyaiswara must have in order to play a role in realizing a Superior Indonesia.

The informants or data sources of this research are; Health lecturers throughout Indonesia, non-health lecturers throughout Indonesia, structural officers, educational practitioners / lecturers, staff / employees of government training institutes. Primary data, namely data obtained from the results of respondents' answers either closed or open subjectively to aspects of the research through a questionnaire using the Google Form application. Samples were taken randomly with a time limit from 30 July to 7 August 2020. Secondary data were obtained from the data recap of the Education and Training Institute or others related to research data sources as well as data sources from Pusbin JF Bangkom LAN RI.

The research instrument in this study consisted of: Questionnaire via Google Form, Google Form data recap and data recap folder. The answers to the questionnaires from respondents that are automatically encapsulated in the system are converted into excel tabulations for further processing or analysis. The data analysis technique is inductive, for the formation of abstractions based on parts of the data that have been collected, then grouped based on the information obtained from the data that has been obtained to finally become the conclusions of the research. Descriptive analysis is carried out through stages of reduction, display and conclusion drawing / verification (Miles and Huberman, 2018).

Results and Discussion

Number and Proportion of Respondents

The number of respondents who were confined through the Google Form application in this study were 152 respondents. In general, the percentage of respondents is proportional, except for respondents who represent Structural / Echelon Officials. The percentage details of respondents are as follows;

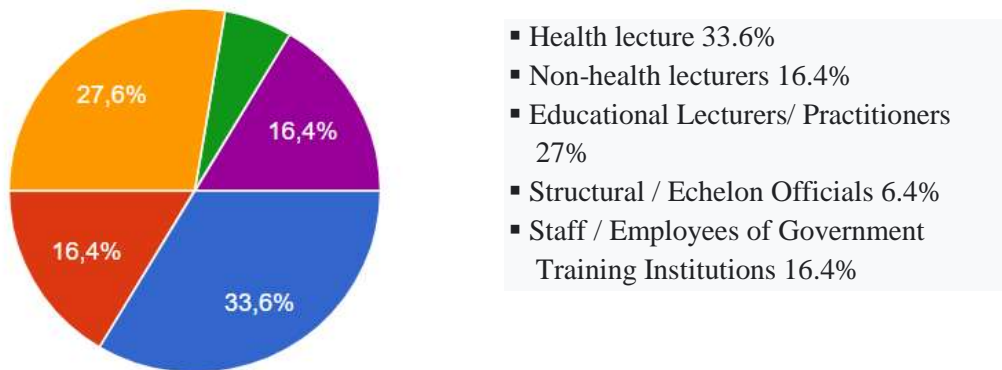


Figure 1. Distribution of Percentage of Respondents

The number of lecturers' respondents reached 50% of the total respondents consisting of 33.6% (51 people) health lecturers and 16.4% (25 people) non-health lecturers. This number is very representative in answering the research objectives because the main object in the research is lecturers, especially health lecturers. The percentage of health lecturers was 2.05 times higher than that of non-health lecturers, meaning that the collected data provided answers to the results of the study twice as large.

The second largest percentage after the Health Widyaistara respondents were lecturers as many as 42 people (27.6%). This number is very positive because the lecturers' duties are similar to those of widyaistara in the role of educating, teaching and training. All lecturers are lecturers at Poltekkes spread all over Indonesia from various substance competencies of different subjects or disciplines.

The staff or employees of the Government Training Organizing Institutions as supporters of the continuity of Dikjartih and the development of Government Training Institutions are 25 people (16.4%). This number is quite representative of the data informants in this study because they are evenly distributed from each region and the contribution to the study is not the main data source.

As many as 9 respondents (5.9%) of the Structural / Echelon Officials were policy makers related to the development and role of lecturers towards a superior Indonesia. The percentage of 5.9% is considered quite representative in providing data information in this study, because the role of the Structural / Echelon Officials is not directly related to the objectives and objectives of the study but is important in completing the data and contribution of recommendations from the research results.

The high, medium and low standards of respondents' expectations on the Likert scale are determined by the quantitative value of the multiplication of the Likert scale value range with the number of respondents divided by the total number of respondents and made in the form of a percent. The determination standards are as follows;

Table 1. Standards for Determining the Qualifications of Respondents

NO	LIKERT SCALE	SCALE AND PERCENTAGE		N %	STANDART
		SCORE	%		
1	1	152	20	= 20	Very Less
2	2	304	40	$20 < N \leq 40$	Less
3	3	456	60	$40 < N \leq 60$	Moderate
4	4	608	80	$60 < N \leq 80$	High
5	5	760	100	$80 < N \leq 100$	Very High

Research Results

Competency Development

Overall, the recapitulation of the percentage of respondents' expectations regarding widyaiswara competency development can be seen in the table below:

Table 2. Standards and Ranking of Lecturer Competency Development

No.	Competency Type	%	Standard	Rating
1	Critical Thinking and Problem solving	91	Very High	IV
2	Communication and collaborative skill	92	Very High	II
3	Creativity and innovative skill	93	Very High	I
4	Information and communication technology literacy	91.6	Very High	III
5	Contextual learning skill	87	Very High	VI
6	Information and media literacy	90	Very High	V

The table above provides information that the respondents' expectations about widyaiswara competency development are all at very high standards. Creativity and innovative skills, are the greatest competencies that are expected to be owned and developed by respondents' widyaiswara in answering the Industrial Revolution 4.0 to create a Superior Indonesia, which is a percentage value of 93% and then followed by the development of competency in Communication and collaborative skills with a percentage value of 92%, Information and communication technology literacy percentage of 91.6% and followed by the development of other competences. Overall, the six competencies in the table above are expected to be owned and developed by widyaiswara as an effort to answer the era of the Industrial Revolution 4.0 to welcome Indonesia Excellence.

Disruption Innovative

A summary of the percentage of respondents' expectations about disruption innovative that Widyaiswara must do can be seen in the table below:

Table 3. Standards and Ranking of Innovative Disruption Principles

No.	Disruption Innovative	%	Standard	Rating
1	Push Beyond Comfort Zone	85	Very High	IV
2	Works Toward Well Defined, Specific Goals	91	Very High	I
3	Focus Intently on Impactful Activities	91	Very High	I
4	Receive and Respond High Quality Impact	90	Very High	II
5	Develop Mental Model of Expertise	89	Very High	III

The table above provides information that the respondents' expectations about the principles of disruption that must be carried out by widyaiswara are all at very high standards, meaning that the five principles of disruption in the face of the 4.0 Industrial Revolution to welcome Superior Indonesia are expected to be implemented by widyaiswara.

The principle of disruption of Works Toward Well Defined, Specific Goals (Working with clear targets or achievements) and Focus Intently on Impactful Activities (focus on providing meaningful and impactful activities) are the highest ranks expected by respondents to be owned by widyaiswara with a percentage of each 91%. The keywords for this principle are clear goals and meaningful and impactful activities. The breakthroughs and improvisations carried out by widyaiswara both in the role of training and the development of Government Training Institutions must be principled with clear objectives of activities and have a direct meaningful impact. All activities carried out by widyaiswara must be planned and measured, both in learning or developing Government Training Institutions.

Indonesia is Excellent

Recap of the percentage, standards and ranking of respondents' expectations regarding the criteria for Superior Indonesia that can be played by widyaiswara can be seen in the table below:

Table 4. Standards and Ranking Criteria for Superior Indonesia

No.	Criteria for Superior Indonesia	%	Standards	Rating
1	Low Unemployment Rate	71	High	VIII
2	High Per Capita Income	68	High	IX
3	Low Birth Rate	72	High	VII
4	Advanced Science and Technology	86	Very High	III
5	Good Education System	87	Very High	II
6	Economic Sector Supported by Industry and Services	75	Tinggi	VI
7	Have a Discipline and Timely Culture	88	High	I
8	High Life Expectancy	80	High	V
9	Low Crime Rate	61	High	X
10	Make the Most of Natural Resources	81	Very High	IV

The table above provides information that not all of the respondents' expectations regarding the role of widyaiswara in realizing a superior Indonesia are very high. There are only 4 criteria towards Superior Indonesia where the respondents' expectations are very high, namely;

1. Have a Discipline and Timely Culture (88%)
2. Good Education System (87%)
3. Advanced Science and Technology (86%)
4. Make the Most of Natural Resources (81%)

The other six criteria are of high standard with the lowest percentage of 61% and the highest 80%.

In more detail, the percentage of research variables can be seen in the image below:



Figure 2. Percentage and Correlation Between Research Variables

The picture above provides information about the roles and competencies that should be developed by widyaiswara in responding to the Industrial Revolution 4.0 in realizing a Superior Indonesia. The six competencies that widyaiswara must develop are all of a very high standard. Creativity and innovative skills are ranked first in the respondents' expectation standards to be developed by Widayiswara, and Contextual learning skills are the lowest respondents' expectation standards, but the percentage is still in a very high category at 87%. Responding to the era of the Industrial Revolution 4.0, the disruption that needs to be done by widyaiswara, the expectations of all respondents are of a very high standard. The highest standard is Works Toward Well Defined, Specific Goals and Focus Intently on Impactful Activities with a percentage of 91%. The lowest respondent's expectation standard is Push Beyond Comfort Zone disruption with a percentage of 85%.

Discussion

Indonesia is Excellent

In contrast to Competency Development and Desruptive Innovation, respondents' expectations on the Superior Indonesia criteria do not have a percentage of respondents' expectations of more than 90%. This condition is for several reasons; Superior Indonesia can be realized through a collaborative work system from various parties, widyaiswara is one of the existing sub-systems. Desruptive Innovation often develops due to ecosystem conditions that require changes to occur. The academic literature still pays less attention to the role of ecosystem development and evolution in relation to innovation even though innovation and desruption have developed everywhere (Si et al., 2020).

Several countries have become developed and superior, all starting from mainstreaming education in all sectors and optimizing roles collaboratively. Japan, for example, to build a world-class education system they brought in education experts from America, Germany and other countries. Foreign teachers are paid 600 Yen / month, whereas the Chancellor of the University of Tokyo is only paid 400 Yen / month. The Education Budget they spend on Education costs is 30% more than their total state budget. This is Japan's effort to increase the country's HDI in order to create a world-class superior country.

The collaboration system, especially in the era of the fourth revolution, is a necessity, because without adequate networking, not many jumps in achievement can be generated by anyone, either an individual or an institution (Titin Karnasih, 2020).

Principles of disruption of Works Toward Well Defined, Specific Goals (Working with clear targets or achievements) and Focus Intently on Impactful Activities (focus on providing meaningful and impactful activities) are the highest rankings expected by respondents with a percentage of 91% each, indicating that widyaiswara must be clearer and more focused and have an impact in carrying out the functions of the education, so that the role in realizing Superior Indonesia is not limited to the level of theory or concept alone. Goal and objectives of integrated marketing communications are important in realizing all success. Focus on achieving goals and integrated communication are important keys in realizing the progress of the nation (Muhammedrisaevna et al., 2020).

Widayiswara competence as stipulated in Perkaln No. 5 of 2008 is the basic basis that must be possessed, namely; educational competence, personality competence, social competence and substantive competence. This is an ideal condition which is the minimum ability of a widyaiswara in building professionalism. Learning management competence, namely the ability that widyaiswara must have in conducting teaching preparation to teaching activities in class related to teaching and learning activities including: planning, compiling, implementing and evaluating learning, which includes abilities; making GBPP / Design of Learning and Training courses (RBPMMD) and SAP / Learning Plans (RP). All of these activities lead to the principles of disruption of Works Toward Well Defined, Specific Goals (Working

with clear targets or achievements) and Focus Intently on Impactful Activities (Focusing on providing meaningful and impactful activities) to produce quality and superior quality training (Muhammedrisaevna et al. ., 2020).

Widyaiswara Competence

The high expectation of respondents on efforts to increase competence and innovative disruption for widyaiswara shows a correlation that if widyaiswara has increased competence and disruption in carrying out their duties and functions, then the role of widyaiswara in realizing Superior Indonesia will be even higher. There is a high need for the development of trainers' competencies in terms of knowledge, skills and attributes because the trainer's competency level is still at an average level (Prajugjit & Kaewkuekool, 2020).

As stipulated in the Regulation of the Minister of State Apparatus Empowerment No. 22 of 2014 and Bureaucratic Reform number 14 of 2019, that the main task of Widyaiswara is not only to educate, teach and train (dikjartih), but also evaluate and develop education and training at Government Training Institutions, through the development of six Widyaiswara's competence to respond to the era of the Industrial Revolution 4.0 based on the five principles of disruption, the criteria for Superior Indonesia can be realized by Widyaiswara. The four criteria for Indonesia Unggul that can be played by widyaiswara with very high standards from the expectations of the respondents, namely; 1) Have a Discipline and Timely Culture 2) A Good Education System, 3) Advanced Science and Technology, 4) Make Maximum Use of Natural Resources.

The results of this study are in line with previous research which explains that widyaiswara's competence is needed, especially with regard to soft skills (character) and cognitive or professional competences that have an impact on the realization of the improvement of the nation and towards a superior Indonesia (Alaloul et al., 2018).

Conclusion

Widyaiswara has an important role in realizing a Superior Indonesia through developing basic competencies with several other competencies and implementing disruptive principles as an effort to answer the challenges of the 4.0 Industrial Revolution era based on a priority scale to realize Superior Indonesia.

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