

Resilience in Academic Research: The Role of Personal and Extraneous Antecedents

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Abstract

This research aims to prove the existence of antecedents in the intention to conduct research leading to professional commitment. The gap in the current practice is the need to increase Indonesia's academic rank in the world due to a decrease in various indicators. As for previous studies, limited information on professional commitment by researchers is found especially in Indonesia. Researchers propose personal and external related variables; personal variables include Attitude toward Behaviors, and Perceived Behavioral Control; whereas external related variables include Subjective Norm, Institutional Support and Research Related Policy. Study to 235 academicians in Indonesia produce a conclusion that perceived behavioral control is the only variable in TPB that is the antecedent toward the intention. Meanwhile, external related variables fail to show its significance, with the exception of Research Related Policy, showing the need in finding other extraneous variables in the future. Intention to do research can impact researcher's professional commitment.

Keywords: Professional Commitment, Research Intention, Research Commitment, Lecturer Management, Perceived Behavioral Control.

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INTRODUCTION

Research is a cornerstone in determining the quality of higher education institutions [1-3]. The output of academic research, which is in the form of article publications in journals and citations through h-index are the benchmarks in determining the quality of these institutions [4, 5]. The success in creating high-quality publications would also provide the university and researchers the prestige, funding and determining how productive the academic institution is in comparison to others [6]. Research publications can also bring positive consequences to lecturers since hiring and professional development of these academicians are usually based upon these criteria [4]. Consequently, many universities would provide various teaching programs and encourage faculty members to increase their skills to do academic research. In the end, the intention of and commitment by these academicians to produce research publications would be the keys to achieving all these benefits for the researchers

themselves and for academic institutions. Ajzen [7] argues that strong-willed people are willing to try and plan to exert in order to be able to perform a certain behavior. Having an intention is the antecedent of behaviour [8], which can be argued in this research as an antecedent of commitment. Also, committed personnel in any organization would provide positive aftermath in terms of retention, performance, personal well-being, and even to students' performance [9].

Looking at the nature of research itself, it is well noted that in order to achieve the intention and commitment to do research on campuses, the commitment that needs to be developed is not on organizational, but professional commitment. Arguments from Vandenberg and Scarpello [10], quoted by Deepak [11] explain that professional commitment is a person's belief and acceptance of values attached to his or her occupation, alongside a willingness to want to be part of the occupation. Wallace [12] as quoted by Zohdi *et al.*, [13] also stated

that having a professional commitment means having a sense of career identity and enthusiasm to be part of the profession, also a high sense of responsibility towards the profession. Hence, by having a professional commitment to the profession of academicians, commitment to research as part of the job is naturally developed as well.

Studies in regard to commitment have been produced by numerous authors. Yet, these studies are having different focuses compare to this particular research. The first focus of this research is on professional commitment to do research while most studies focusing on organizational commitment. Whereas the second focus of this research is on the sample chosen which is lecturers, while most studies focusing on staff in education sectors in general and in other industries. Upon the first focus, various research on organizational commitment can be seen from the conclusion from Farid [14] that did research on how organizational commitment matters in public universities in Malaysia, yet not on the professional commitment to the task of research itself. Tikare [15] also did research on Organizational Commitment in four different industries in India. Simatupang and Saroyeni [16] provide a study on organizational commitment in Cenderawasih University Rectorate, Indonesia; which is not the focus of this research. For the second focus, research on commitment in commercial based firms is available through research by Hegazy and AqylAlmaizar [17] on social workers and Teo [18] on the commitment by workers in the hospitality industry. Additionally, the understanding that having the intention to do research and committed to this action can also be decided by uncontrollable

factors such as policies on international, national and institutional levels [3] is rarely found in any other study. Therefore, it is clear that due to the lack of research on professional commitment for lecturers to do research, studies upon this matter are necessary.

The importance of professional commitment also can be experienced in Indonesia's academic institutions. These high academic institutions have been promoting research as one of the cornerstones in developing high-quality education. To do so, various activities promoting the importance of research especially to lecturers have been aplenty. Dimyanti through Indonesia's Ministry of Research and Technology known as Ristekdikti [19] mentions why research is critical for Indonesia's development as it can bring a positive contribution to Indonesia's competitiveness. Furthermore, he also mentions various steps taken by the government to support the research landscape in the country, such as providing more autonomy through decentralization for universities in conducting research. Muhammad Nasir, Indonesia's Minister of Research and Technology also urges lecturers to not only teach, but can create research based on their own competency [20]. The government also provides support for these lecturers through training and workshops and even scholarships.

Witnessing these actions by Indonesia's government to accommodate researchers, the outcome should be undeniably positive. Yet, reality speaks otherwise. Indonesia is currently rank 48 in the world based on Scimago Journal and Country rank [21], which is under its neighbors of Singapore, Malaysia, and Thailand. The table below shows the comparison.

Table-1: Country's Research Ranking by Various Research Indicators

Rank	Country	Total Documents	Citable Documents	Citations	Self-Citations	Citations per Documents	H index
32	Singapore	292560	269110	5656862	632326	19.34	535
34	Malaysia	286411	274464	2107306	533423	7.36	281
44	Thailand	178133	168248	2043065	318580	11.47	311
48	Indonesia	110610	106501	600569	113900	5.43	214
68	Philippines	32326	29460	468403	46024	14.49	224

Source: Scimago Journal and Country Rank (2019) [21]

The table shows that Indonesia's current rank in the world based on five common research indicators are still quite far behind countries in South East Asia. This fact is an indication that work by Indonesia's government and higher education institutions is not yet able to create a globally competitive nation. Moreover, still using Scimago Journal and Country Rank [21], Indonesia's contribution to research in the world is only 2.87% and international collaboration dropped to 18.22% in 2018 compared to 47.54% five years ago in 2013. Another research from QS World University Ranking places Indonesia's universities in lower ranks (QS World University Ranking, 2019). The QS World Ranking methodology is based on academic reputation

(40%), which count research and teaching reputation, citations per faculty (20%), faculty/student ratio (20%), employer reputation (10%), and international faculty ratio/international student ratio (10%). None of Indonesia's universities is ranked top 5 in South East Asia. The highest rank university in Indonesia by 2020 is the University of Indonesia (rank 296), followed by Gadjah Mada University (rank 320), Bandung Institute of Technology (rank 331), and so forth. Whereas Singapore's National University of Singapore and Nanyang Technological University Singapore are able to compete for rank 11 in the world. Malaysia's Universiti Malaya is rank 70, and Thailand's Chulalongkorn University is rank 247.

Considering both the research and phenomenon gaps in the area of professional commitment as a researcher, it is imperative that research upon this matter is necessary to be conducted in Indonesia. Researchers are focusing on the academician's decision to have intention to do research and be committed to it through personal and external related variables using Theory of Planned Behavior, concept of Institutional Support and Research Related Policies.

LITERATURE REVIEW

Theory of Planned Behavior (TPB) as developed by Ajzen [23] argues that intention to do certain actions is based on three variables which are behavioral beliefs, normative beliefs, and control beliefs [24]. The theory has been widely used in multi-disciplinary subjects, including psychology and management. It is based on the Theory of Reasoned Action by Ajzen and Fishbein [25-27, 7, 28, 29]. Behavioral beliefs are the person's probability to perform a certain action that can produce a certain result which is based on the subjective value of that outcome [29]. Normative beliefs are the person's action based on understanding that other person (known as normative referent) wants the person to perform a certain behavior. As for control beliefs, it is argued that a person will perform certain behavior based on information, mental, and physical skills and abilities and various other internal factors possessed by this person in order to overcome external factors outside of the control. As the control beliefs are increasing, the likelihood to perform the behavior would increase. Braun and Turner [24] conclude that behavioral beliefs lead to the creation of attitudes towards the behavior; control beliefs to perceived behavioral control; and normative beliefs to subjective norms.

Institutional support can be gained by researching how workplace environments play a great extent in determining the perception of this type of support [30]. Various theories have been the foundation of this understanding [31] starting from the famous Hawthorne effect by Elton Mayo, Affective Events Theory by Weiss and Cropanzano, Person-Environment Correspondence Theory or Theory of work Adjustment by Dawes and Lofquist. All of the theories, regardless of their differences, conclude that the working environment can influence productivity, performance, and commitment.

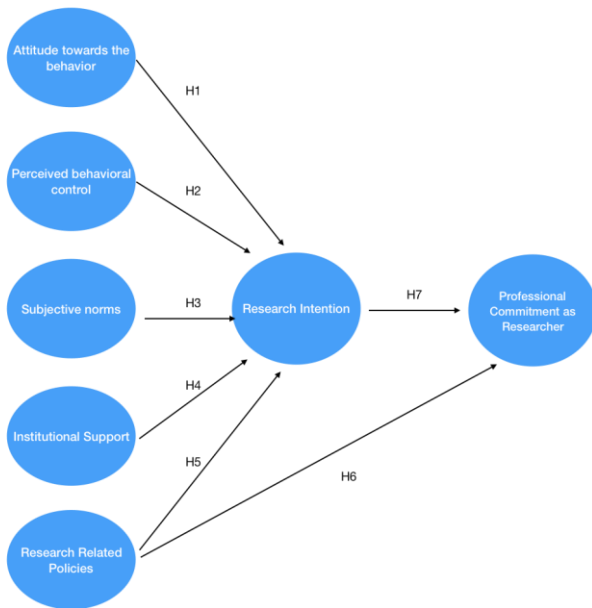
Research intention could be defined as the willingness to publish research articles in a journal in which the probability would increase unless being rejected [32, quoted by Moksness [33]. Various studies already prove that intention would be the antecedent of behavior that would follow it [34-36, 8].

Moghdam *et al.*, [3] explain in detail the importance of understanding environmental factors

besides individual circumstances that could bring effect to the productivity of research. They categorized the environmental factors into three levels: global, local, and university policy. Global policy is dealing with policies on a global level which include university ranking system and database and publisher policies. Local policies deal with the system created by national governing bodies in relation to research in the country. Lastly, university policies, as the name implies, considering how universities in which researchers reside implement various policies related to research and publications by its researchers. Thus, the presence of these policies will be tested on how it can impact intention to research and directly to professional commitment as researcher.

Professional commitment as a researcher is rarely studied but similarities in the concept can be found in teacher or educator. Research by Raja [37] found that professional commitment is a work-related outcome and a highly committed person will show acceptance to the values, tasks, and work-ethics required by an organization in which the person is working for. Moreover, according to Vandenberg & Scarpello [38], quoted by Shoaib and Khalid [39], professional commitment is about how someone accepts his professional line of work and willingness to stay with the profession. Ibrahim and Iqbal [40] classify professional commitment to the affective, continuance, and normative professional commitment. Affective professional commitment is in regards to how someone has emotional identification and attachment to the organization and its aims [41]. Continuance professional commitment is about commitment to doing a certain line of activity [42]. Normative professional commitment is a sense of responsibility towards the organization by doing attend works regularly to even believing in organizational goals [43]. In this study, the professional commitment will use research as the object rather than the organization.

Building on the understanding of both theoretical reviews above, researchers propose a new research model to be tested in this particular research. The proposed model is as follows:



Building on the construct above, hypothesis for this research are:

- H1: There is an impact of attitude towards the behaviour to research intention
- H2: There is an impact of perceived behavioural control to research intention
- H3: There is an impact of subjective norms to research intention
- H4: There is an impact of institutional support to research intention
- H5: There is an impact of research related policy to research intention
- H6: There is an impact of research related policy to professional commitment by researcher
- H7: There is an impact of research intention to professional commitment by researcher

METHOD

Data Collection Technique

Data for this research is collected using both offline and online methods. For the offline method, the questionnaire is distributed using researcher networks to universities across Indonesia. The online method is by using online form distributed through email of researchers gathered through online forums for academicians.

Population and Sample

The target population for this research is researchers across campuses in Indonesia with unknown numbers. Therefore, to decide the numbers of samples

for the research, the method that is chosen is by Smith [44] quoted by Suliyanto [45]. Confidence level decided to be 95%, thus resulting in 96.04 or 100 researchers as minimum numbers of sample. Through implementation of data collection technique, the total number of samples for this research is 235 respondents. The method in choosing the sample is by using a purposive sample, in which the researchers that are eligible to fill in the questionnaire must have at least one research article already published on national (Indonesia) and/or international level indexed journal.

Measurement

Attitude towards the behaviour, perceived behavioral control, and subjective norm questions are developed by modifying Ajzen [46] TPB's measurement combined with Flowers, Freeman, and Gladwell's [47] creation. The determinants of institutional support based on a model developed by Iqbal, Nasir, and Ali [48], which are supervisor support, adequate workload, physical work environment, incentives and recognition plans, and good relations with co-workers. Meanwhile, research-related policies created based on Moghdam *et al.*, [3] 's model. Research intention is developed based on a scale created by Olsen [8] on researchers' intention to publish their research, however, this particular research modifies it based on the intention to do research. The scale for professional commitment is based on Ibrahim and Iqbal [40] scale on affective, continuance, and normative professional commitment for teachers, yet modified for researchers in this research. For all of these variables, likert scale of 1-5 (1: strongly disagree to 5: strongly agree) is used.

Data Analysis Technique

Data of the research is analyzed using SmartPLS software. The validity will be tested using convergent and discriminant validity. Convergent validity minimum score is 0.70 while discriminant validity is based on Fornell-Larcker criterion in which the square root of AVE from the AVE value in the construct must result in a value that exceeds the AVE itself [49]. For reliability testing, composite reliability is applied and the rule of a minimum score is 0.6 [49]. Hypothesis testing is using probability value and t-test [50], and R squared to determine the percentage of impact for each variable.

FINDINGS AND DISCUSSIONS

The first finding for this research is the description of sample in the following table.

Table-2: Sample Description

Category		Respondents (n=235)	Percentage
Working Location	Jakarta and its greater area	49	20.85%
	Java beside Jakarta	69	29.36%
	Sumatra	58	24.68%
	Borneo	21	8.94%
	Sulawesi	21	8.94%
	Bali	5	2.13%
	Other islands	12	5.10%
Years of Experience as Researcher	1-3 years	35	14.89%
	4-6 years	47	20.00%
	7-10 years	28	11.91%
	>10 years	125	53.20%
Academic Rank	No Academic Rank	23	9.79%
	Instructor (Asisten Ahli)	90	38.29%
	Assistant Professor (Lektor)	89	37.87%
	Associate Professor (Lektor Kepala)	1	0.43%
	Professor (Guru Besar)		
Published Paper in National and/or International Accredited journal	1-3 publications	119	50.64%
	4-6 publications	46	19.57%
	7-10 publications	30	12.77%
	>10 publications	40	17.02%

Source: Research Data

Convergent validity test using outer loading has the minimum value of 0.50 for each indicator. The result shows all 6 indicators accepted for attitude towards behavior, 7 for perceived behavioral control, 3 for subjective norms, 9 for research related policies, 3

for researcher intention, and 9 for professional commitment as researcher. AVE result with a cut off value of 0.5 shows all variables can be used for this research.

Table-3: AVE Result

Variable	AVE	Validity
Attitude towards behavior (ATB)	0.543	Valid
Perceived behavioral control (PBC)	0.541	Valid
Subjective norms (SN)	0.504	Valid
Research related policies (RRP)	0.538	Valid
Researcher intention (RI)	0.602	Valid
Professional commitment as researcher (PCR)	0.573	Valid

Source: Research Data

As for the discriminant validity, result in the following table also shows the acceptance of all variables used.

Table-4: Discriminant Validity Result

	ATB	IS	PBC	PCR	RI	RRP	SN
ATB	0.737						
IS	0.335	0.748					
PBC	0.542	0.179	0.735				
PCR	0.574	0.330	0.524	0.757			
RI	0.455	0.178	0.621	0.502	0.776		
RRP	0.502	0.538	0.350	0.503	0.386	0.734	
SN	0.361	0.246	0.241	0.313	0.214	0.359	0.710

Source: Research Data

Composite reliability results also provide researchers with decision to use all variables as the

value for each variable shows good and acceptable reliability.

Table-5: Composite Reliability Result

Variable	Composite Reliability	Reliability
Attitude towards behavior (ATB)	0.840	Good
Perceived behavioral control (PBC)	0.889	Good
Subjective norms (SN)	0.627	Acceptable
Research related policies (RRP)	0.913	Good
Researcher intention (RI)	0.818	Good
Professional commitment as researcher (PCR)	0.922	Good

Source: Research Data

Coefficient determination or R square result enable the interpretation that construct of research intention explained by the independent variables by 42.5%. Meanwhile, professional commitment by researcher explained by the research intention variable by 36.4%. The remaining percentage is explained through other variables which are not part of this research.

Table-6: Coefficient Determination Result

Construct	R Square
Research Intention	0.425
Professional commitment by researcher	0.364

Source: Research Data

Moreover, the result for path analysis provide both support and rejection of hypothesis.

Table-7: Path Analysis

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
ATB -> RI	0.103	0.106	0.085	1.216	0.224
IS -> RI	-0.044	-0.025	0.059	0.750	0.454
PBC -> RI	0.510	0.509	0.069	7.360	0.000
RI -> PCR	0.361	0.362	0.068	5.297	0.000
RRP -> PCR	0.364	0.369	0.079	4.586	0.000
RRP -> RI	0.179	0.169	0.079	2.263	0.024
SN -> RI	0.001	0.014	0.058	0.020	0.984

Source: Research Data

As presented by the P Values, PBC control is the only variable in TPB that can provide impact to research intention (P Value = 0.000). Besides PBC, RRP can influence both RI and PCR (0.024 and 0.000 respectively). On the contrary, ATB and SN as parts of TPB fail to influence RI (0.224 and 0.984). IS also unable to show its significance in explaining RI (0.454).

DISCUSSIONS

The result shows two variables in TPB cannot provide impact to research intention. According to Armitage and Conner [51] and Sommer [52], it is quite common that ATB and SN to be the least impactful variables in creating a certain behavior. One of the strongest arguments upon this finding is the role of past behavior in predicting intention and behavior [53, 54]. Argument by Sniehotta, Pesseau and Araujo-Soares [55] support this notion since they mentioned that the need to retire the current model of TPB is necessary and new falsifiable hypotheses to explain behavior is needed. They also mention that TPB theory is indeed can be implemented in various cases, yet with knowingly insufficiencies as well. Researcher also tries to enrich the theory by trying to use other constructs such as moral norms and past behaviors [52]. Another example of this understanding is through research by Wibowo, Suhud and Wibowo [56] that tries to see how motivation as a predictor and predicted variable in TPB

theory. The reason behind rejection of ATB to RI and SN to RI are possibility derived from answer to the questions in both variables. In ATB, the questions include 'Doing research brings benefits to me', 'Doing research is a good step for my career', 'Doing research is a enjoyable act for me', etc. For SN, the questions include 'People that I believe is important for my career think that I need to do research', 'My colleagues think that I need to do research, 'I do research because my colleagues are doing it'. Due to the fact that more than half of the sample for this research published only 1-3 journal articles, the possibility of not having developed positive attitude towards research and not engaging significantly with their peers in terms of discussion in regards to research and publications might be the issue.

Meanwhile, acceptance of the relationship of PCB to RI present in Utami [57], Foltz, Newkirk, and Schwager [58], and Tommasetti [59]. Classic research such as Armitage and Conner [51] lay the ground that this variable the antecedent of intention. The possible reason behind it could be due to the nature of this variable and indicators that focusing on self-worth as a researcher. Statements given include 'I believe I can do research', 'I am the one deciding when to do my research', 'As an academician, I have the knowledge to do research', and many others, all testing samples believe in him/herself. Having more than 50 percent of respondents already work as researchers for more than

10 years, with meaningful twelve percent work experience of 7-10 years, the self-worth is no doubt to be high among the samples.

The rejection of path IS to RI is quite uncommon due to other research in various contexts showing acceptance of this notion. Chonomona and Molio 2014 for instance, provides a conclusion that institutional support can increase commitment by teaching profession. Jais and Mohamad [60] also show the same result when using teachers as a sample. The opposite of this research can also be seen in Putri and Sofyandi [61] study, which is the closest to this particular research. They did a study on 200 samples of lecturers in private universities and found that Institutional Support does influence research intention to publish. Yet, it is crucial to note that the research they did only count for private universities and mostly in Java island, while this research scope is larger in types of university (both state-owned and private) and areas in which the questionnaire is distributed. Nevertheless, the inconclusiveness of the finding especially in the Indonesia academic research landscape is still present. The finding can be rooted back to statements given for this research, include 'My supervisor care for my research', 'My workloads are adequate in providing me time to do my research', 'My physical working space supports me in doing research'. These statements are seen as not in accordance with the reality facing these researchers. The samples of this research might see that with or without support from their institutions, they will still do research in order to fulfil their personal needs as a researcher. Thus, institutional support is not deemed necessary.

RRP shows impact to RI is proven to be accepted in this study. Thus, it supports Moghdam *et al.*, [3] proposition that university, local, and global policies can influence the intention to publish research. On the global level, Young [62] also presents the fact that the intention, creation, and dissemination of knowledge can be achieved by having the right policies in practice. The author's research shows how the European Union tries to adapt and innovate, even influence research policies in countries that are part of it in an attempt to achieve this aim. On the local level, implementation of policies in research proven to be effective in determining dissemination of knowledge from the research conducted by Stack, Ordorika, and Llyod [63]. Their research highlights the impact of policies from Brazil and Mexico to research. Policies from Brazil are relatively strong in the attempt for the country to achieve its competitive advantage, especially in the knowledge economy. It means that these policies able to contribute to researchers doing more research, thus being committed to their job.

Meanwhile, Mexico's policy that opens up their domestic market to patents, also able to foster the development of research in the country. At the

university level, research from Wichian, Wongwanich, and Bowarnkitiwong [64] displayed a result that university-related policy did impact research productivity eventhough not as strong as individual-related factors such as age, academic position, etc. They did research to 300 faculty members from 16 state-owned institutions in Thailand, which is closely assembled sample characteristics of this particular study. Another research on university policy impact on research publications can be read through Negash, Lemma, and Samkin [65]. Their research shows that university-related policies, added with resources such as leadership and research infrastructure, can play a significant impact on their samples which are accounting lecturers from Anglophone Sub-Shara Africa. The impact is in the form of a higher number of publications, meaning the intention and commitment are also present.

Deriving from these studies, the conclusion to be drawn is that the presence of impact in this study is in accordance with research from other places in the world. Statements given for this variable include 'My university rank globally makes challenge me to do research', 'Indonesia's government regulations in regards with research make me want to do research', 'Relationships between my campus to the industry makes me want to do research', and many others. Since the result shows that research-related policy can create intention and commitment, it shows the potential of external related variables can still lead to the creation of the dependent variables.

The acceptance of RI to professional commitment as a researcher is as suspected due to numerous previous studies. It starts from Armitrage and Conner's [51] research which showcase the influence of intention to behavior. Moreover, studies from Cho and Huang [68] presents the argument that intention to leave or in the positive nature of the word, commitment to stay, will lead to professional commitment to stay by professionals. It is mention by them that when professionals have a strong commitment, then it will lower the impact on intention to leave.

Rehman *et al.*, [67] also provide a conclusion that intention would lead to a certain action. Widyastuti [68] also demonstrates that a higher level of professional commitment could bring a negative effect to the intention to leave; which means there is a stronger intention to do a job. Upon this research, it is proven RI could influence PCR through questions such as 'I have sense of belonging with my career as researcher', 'I have a responsibility in doing research', 'Research need dedication from the researcher'.

CONCLUSION AND RECOMMENDATIONS

In reference to all of the explanations above, the antecedent of researcher commitment in Indonesia is driven by research intention through the existence of

perceived behavioural control and research related policies. Agreement to these variables means that researchers with opportunity to control their own research project would most likely develop the intention and commitment as researcher. In the case of research-related policies acceptance as one of the antecedent, it shows that larger scope policies (non-supervisor or peers related) can still influence intention and commitment. As for intention leading to professional commitment, it is already proven to be a common theory in practice, including for researchers in Indonesia.

Three recommendations can be given for this research. Firstly is that this research could be a solid foundation in doing further studies on variables that can lead to intention and commitment to do research. As the researcher already concludes, extraneous variables are rejected to be the antecedent except of research related policies. Yet, the R squared of these variables are not strong enough to predict intention and commitment. Therefore, wider studies in terms of new variables are required in the future. Secondly, the researcher recommends that more samples are added to represent more of the population. Thirdly, Multi Group Analysis (MGA) could be added that differentiate researchers based on their lecturers' ranks: Instructor (Asisten Ahli), Assistant Professor (Lektor), Associate Professor (Lektor Kepala), and Professor (Guru Besar).

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