

## Scientific Parental Studies of FITK Lecturer State Islamic University of North Sumatra Medan

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### ABSTRACT

Scientific development within UIN North Sumatra Medan must lead to efforts to create Wahdatul Ulum. However, on the other hand, the map of lecturer distribution from recruitment patterns to lecturer transfers and rotations still experiences many obstacles, this is because there is no integrated policy, where authority can be exercised completely by the Faculty of Science, Tarbiyah and Teacher Training, FITK UIN North Sumatra, Medan. This research aims to describe the scientific parental knowledge of lecturers at FITK, North Sumatra State Islamic University, Medan. This type of research uses research and development (RnD). This research concludes that the results of product effectiveness testing in website-based scientific parental application development research are  $0.001 \leq 0.05$ . This means that these results show that using this media will be more effective and practical to use. This shows that the product resulting from research into the development of website-based scientific parental application media, namely the "scientific parental information system", is effective in increasing lecturers' scientific parental knowledge.

**Keywords:** Lecturer, Scientific Parental, Islamic Education.

### ABSTRAK

*Pengembangan keilmuan di lingkungan UIN Sumatera Utara Medan harus mengarah pada upaya penciptaan Wahdatul Ulum. Namun di sisi lain peta penyebaran dosen dari sejak pola rekrutmen sampai mutasi dan rotasi dosen masih banyak mengalami kendala hal ini dikarenakan belum adanya kebijakan yang terintegrasi, di mana otoritas dapat dilakukan secara utuh oleh Fakultas Ilmu Tarbiyah dan Keguruan FITK UIN Sumatera Utara Medan. Penelitian ini bertujuan untuk mendeskripsikan tentang parental keilmuan dosen FITK Universitas Islam Negeri Sumatera Utara Medan. Jenis penelitian ini menggunakan research and Development (RnD). Penelitian ini menyimpulkan bahwa hasil dari uji efektivitas produk pada penelitian pengembangan aplikasi parental keilmuan berbasis website adalah  $0,001 \leq 0,05$ . Artinya hasil ini menunjukkan bahwa dengan menggunakan media ini akan lebih efektif dan praktis digunakan. Hal ini menunjukkan bahwa produk yang dihasilkan dari penelitian pengembangan media aplikasi parental keilmuan berbasis website yaitu "sistem informasi parental keilmuan", efektif untuk meningkatkan parental keilmuan dosen.*

**Kata kunci:** Dosen, Parental Keilmuan, Pendidikan Islam.

## A. INTRODUCTION

The scientific arrangement based on Wahdatul Ulum is an effort to remind that the historical roots in Indonesia must be saved and must be made into traditions (Sahrin, *et.al.*, 2021; Zebua, *et.al.*, 2022). In the Scientific Tradition of Muslim Scientists in the Archipelago, Khairiyah (2020) explains that; This study discusses the writing traditions of Indonesian Muslim scientists from the kingdom era to the contemporary period. Using a historical approach, the researcher proposed findings that the main actors in the spread of Islamic teachings were the ulama who expressed their ideas in written works.

Some of these works are in the form of manuscripts in various branches of knowledge such as Sufism, Fiqh, Tauhid, history and even science. The existence of these manuscripts illustrates the high intellectual quality of Indonesian Muslim scientists (Zulmuqim, *et.al.*, 2023). The phenomenon of writing among Muslim scientists (ulama) apparently did not stop at just one period. Muslim scientists who were born later also consciously continued the traditions instilled by their predecessors (Suprayogo, 2011). That the lecturers or teaching staff at UIN North Sumatra Medan have very heterogeneous scientific backgrounds both from scientific disciplines, higher education, competencies to the subjects taught.

In recent years, the lecturers accepted at UIN North Sumatra Medan have been very diverse, in this case a variety of scientific disciplines, this is because UIN already has faculties or study programs that require lecturers from general scientific disciplines. In senate deliberation activities there are always discussions that lead to a scientific consortium (direct involvement of researchers in the Education, Learning and Human Resources commission of the UIN North Sumatra Medan Senate). This is because the knowledge of senate members has not yet been spread.

Departing from the situation above, the scientific data or map is certainly related to the lecturer's knowledge. The lecturer's knowledge will be directly related to undergraduate, master's and doctoral study programs which are integrated with his career. To the point where my eyes are taken care of, as well as professional development, certification of lecturer expertise and so on. That a scientific development concept is needed that is able to provide convenience for professional development for lecturers, study programs and at the UIN North Sumatra Medan institution.

## B. METHOD

The focus of discussion in this research is the development of parental science to support *wahdatul 'ulum* in the FITK environment of the North Sumatra State Islamic University, Medan. This research uses a development-based descriptive study or what is known as research and development (R&D) (Sugiyono, 2016). This research stage consists of a cycle developed by Dick & Carry regarding research and development research (Assingkily, 2021). The five main stages can be described as follows:

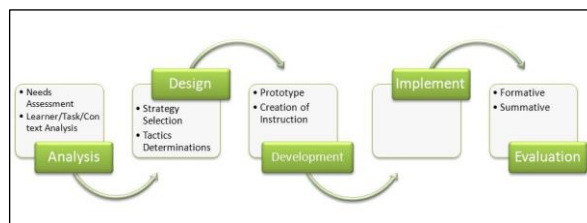


Figure 1. Research Stages

The research was conducted for the first year with all lecturers at UIN North Sumatra Medan as subjects. However, the research sample will be determined using purposive sampling, namely 50 lecturers with specified characteristics.

## C. RESULTS AND DISCUSSION

### 1. *Parental Scientific Description of FITK Lecturer, North Sumatra State Islamic University, Medan*

The Faculty of Tarbiyah and Teacher Training (FITK) is one of eight faculties at the State Islamic University (UIN) North Sumatra, Medan. This faculty manages eleven undergraduate programs in various scientific fields, three master's programs and one doctoral program, as well as one professional program, namely Teacher Professional Education. Founded in 1968, to be precise on October 12 1968, FITK now has 7,801 students and 178 lecturers. From this data, 82 have doctoral degrees, 19 of whom have the title of professor or professor.

Lecturer data per year continues to increase, in line with increasingly improving academic achievements, especially among lecturers, whether by participating in educational qualification programs, certification or other skills. We traced lecturer data based on educational level at FITK UIN North Sumatra Medan as follows:

Table 1. FITK Lecturer Data  
based on Education Level

No	Level of education	Total	%
1	Masters	96	53,93
2	Doctor	82	46,07
Total		178	100,00

Source: <https://fitk.uinsu.ac.id/profil-dosen/>

Of the 82 doctors above, there are 19 Professors who are part of the FITK lecturers. Meanwhile, it is known that some of the lecturers who hold Master's degrees are currently undertaking or completing doctoral programs, both at UIN North Sumatra Medan and at other universities.

Furthermore, as many as six lecturers at UIN North Sumatra Medan provided information regarding their scientific parents. This is considered important because this research provides qualitative data about scientific parents spread across several scientific disciplines among lecturers. To provide an overview of the six lecturers, we identified the lecturer's name, undergraduate, master's and doctoral education history, then the scientific major they held. In the next section, we explore the scientific figures chosen by lecturers, who have been role models over the years, and close with their views on scientific parents. This discussion can be understood as explained in the following interview excerpt;

First, to Dr. Asnil Aidah Ritonga, M.A. He is an alumnus of a bachelor's degree in Islamic Religious Education, a master's degree in Islamic Education, and a Doctorate in Islamic Education. As for scientific parents, he admitted that he was amazed by the figures of Al-Ghazali and Fakhruddin al-Razi. The following is an excerpt from an interview with him about scientific parenting;

*“The integration of science needs to be improved, especially general study programs must integrate the Koran and al-Hadith. Training is needed for lecturers to be serious about developing knowledge and applying it to students, because they are still partial”.*

Next, an interview was held with Dr. Zulheddi, M. A. He is an alumnus of a Bachelor of Aqidah, Master of Tarbiyah, and Doctor of Tarbiyah, specializing in Arabic language expertise. As for scientific parents, he admitted that he was amazed by the figures of Yusuf Al-Qardawi and Abdul Mu'ti. The following is an excerpt from an interview with him about scientific parenting;

*“Science at UIN North Sumatra Medan is very based on the Qur'an, such as memorizing. There needs to be a policy regarding memorization and consistency in*

*implementing policies. Because science is indeed developing, but cannot be separated from the roots from which the science comes, this needs to receive serious attention among policy makers”.*

The facts above show that lecturers' journeys to gain formal knowledge from undergraduate programs, then master's programs to doctoral programs are very varied. That some lecturers have linear knowledge from undergraduate to doctorate but there are also those who don't, and consistent linearity is not the main thing.

The choice of scientific discipline that has been involved so far is tied to a teaching decree, both from lecturer certification and available courses, but in general this is closely related to undergraduate and also master's science majors. Very little knowledge is obtained from the doctoral program to become their choice of major in science.

As for the scientific figures they admire, of course this does not immediately appear among lecturers, from the findings of this research it appears that this figure has been the choice until now. Whether they were influenced when they were studying in a bachelor's, master's or doctoral program, their answer was more about efforts to maintain the knowledge they had and had little contact with the study program during their doctoral education.

In the final part, the lecturers still have a view that scientific parents in the UIN North Sumatra Medan environment really need to receive serious attention. Not just a scientific consortium but also a learning process that provides direction for students to follow. This lecturer's awareness certainly needs to receive a positive response from policy makers.

### ***Program Development***

We realize that this research is an effort to provide a solution to efforts to make it easier for lecturers to develop their scientific knowledge. For this reason, it is hoped that the development of a web-based application program will be able to provide a solution to this. The author realizes that this research is an effort to provide a solution to make it easier for lecturers to develop their scientific knowledge. For this reason, the development of web-based application programs is expected to be part of the solution.

We tried to provide five level classifications in developing this program application. This is of course a modification of various theories regarding research and development of previous theoretical studies. The five steps that we have developed are of course explained in more detailed activity stages, as follows:

1. Analysis

In the analysis stage there are several steps, namely first, analyzing needs. The need for lecturers is to increase scientific professionalism, this is important because at all times lecturers are required to convey knowledge to students. This need is considered important because lecturers have completed formal education and then they must always update the knowledge they have (Latif, 2021).

The responsibility of institutions, both at the study program, faculty and especially university levels, is to facilitate both scientific consortiums and professional associations. For this reason, scientific parenting is a necessity, where increasing the quality of science for the professionalism of lecturers cannot occur naturally (Nasution, 2015).

Second, analyze the lecturer's situation. Administratively, lecturers are those who have a master's or second degree formal education level. Some of them have doctoral degrees because they have completed third-degree programs. The choice to determine a doctoral study program is absolute, because the knowledge it will carry is part of the professionalism of the lecturer (Abdullah, 2018).

Efforts to increase the professionalism of lecturers must continue to be made, one of which is providing parental knowledge. Among the lecturers at FITK UIN North Sumatra, in accordance with the HR roadmap, they always receive support for registration efforts and completion of doctoral programs.

## 2. Design

In the design stage there are several steps, namely (1) selection strategy. The criteria for developing programs are of course based on academic matters. Three things that form the basis for consideration of selection strategies are; Firstly, lecturers are human resources who are the center of higher education development, in themselves they are the foundation for making changes, developing and improving the quality of higher education. Both applications are mobile, up to date and technological media or instruments that are part of the administration of a university. Thirdly, scientific development is obtained if the lecturer completes a doctoral program, where professionalism related to the subject being taught is relatively permanent (Asari, 2008).

With the considerations above, the strategy for selecting scientific parental applications is given to web-based lecturers with doctoral degrees. However, this application can also be accessed offline. (2) Related development techniques. The development of web-based applications regarding parental science was carried out in three scientific disciplines, namely; hadith science (sanad), HR science, and computer science.

These three scientific disciplines were discussed and used as the basis for conducting FGD 1 and FGD 2 which presented experts in their respective fields.

Of course, development was carried out on several lecturers, and then the actual lecturers, namely 50 lecturers with doctoral degrees within the FITK UIN North Sumatra, Medan. (3) Development, including first, prototype. The application prototype developed for the development of scientific parental applications was developed in such a way (Asari, *et.al.*, 2020). Of course the application can be accessed on this page;

Table 3. Web Address of Lecturer Scientific Parental Application

No	Nama	Alamat
1	Dosen	<a href="https://parentalkeilmuan.000webhostapp.com/">https://parentalkeilmuan.000webhostapp.com/</a>
2	Admin	<a href="https://parentalkeilmuan.000webhostapp.com/admin/login">https://parentalkeilmuan.000webhostapp.com/admin/login</a>

The two web addresses above are open access, which is expected to make things easier for lecturers and anyone who will take a test to find out their scientific parents. This application product development is only for lecturers who have completed a third degree program or doctoral program (Yuslem, 2019). In developing this application prototype, we tried to explain in this report several important parts. In this case it can be conveyed in four main pictures, namely as follows:



Figure 2. Initial appearance of the application

In this display there are instructions on how the lecturer enters the program, then fills in the questionnaire form, then follows the program instructions. Arriving at the questionnaire formula menu, in this case the lecturer is asked to fill in the identity of at

least four things, namely; name, email address, scientific field, and educational background.

For this display, we tried to remain consistent with a simple system regarding the expertise of the lecturers who will fill in the formula. For further information, see the following image.

The screenshot shows a web browser window with the URL 'parentalkeilmuan.000webhostapp.co...'. The page title is 'Sistem Informasi Parental Keilmuan'. The main heading is 'Formulir Kuisisioner'. The form contains the following elements:

- Form field for 'Nama \*' (Name)
- Form field for 'Email \*'
- Form field for 'Bidang Keilmuan \*' (Scientific Field)
- Form field for 'Latar Belakang Pendidikan \*' (Educational Background)
- Question: 'Apakah mata kuliah pada SK ASN bapak/ibu hari ini sesuai dengan bidang keilmuan S3?' (Are the courses in the SK ASN of your father/mother today suitable for the S3 field of science?)
- Radio buttons for 'Sesuai' (Suitable) and 'Tidak sesuai' (Not suitable)

Figure 3. Initial appearance of the application

In the picture above, it appears that the questionnaire forum is then filled in by the lecturer, after the new identity enters several question menus related to the lecturer's scientific parents. As for the results of this filling, five levels will be obtained related to the scientific parental position of the lecturer. As an initial example can be seen in the following image:

The screenshot shows a window titled 'Hasil Kuisisioner'. It displays the following information:

- Nama : mardianto
- Email : mardianto@uinsu.ac.id
- Bidang Keilmuan : teknologi pendidikan
- Pendidikan : S2 S3 linier
- Skor 100**
- Level 1**
- Barakallah lanjutkan terus transmisi keilmuan saudara
- Riwayat Jawaban Pengguna
- Apakah mata kuliah pada SK ASN bapak/ibu hari ini sesuai dengan bidang keilmuan S3?  
Sesuai
- Apakah mata kuliah yang diampuh sesuai dengan keilmuan?  
Sesuai

Figure 4. Display of Level 1 Questionnaire Results

We developed five levels of results from lecturers' scientific parents. Of course, the program development aims to provide levels to lecturers who have different parental levels. An example of level 5 is as follows.



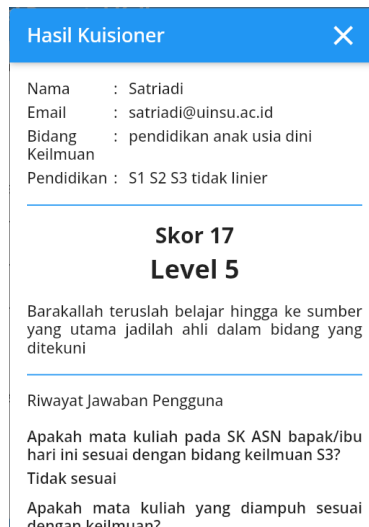


Figure 5. Display of Level 5 Questionnaire Results

Next, (4) Development criteria. This research determines application development criteria in accordance with application development, namely; Firstly, the application will be developed in accordance with the demands and needs of the development results carried out some time in the future. Second, the application will be developed in relation to the university's HR program, especially in relation to the scientific consortium within the UIN North Sumatra Medan environment.

### 3. Implementation

First, application to lecturers. This research determined 50 lecturers with doctoral program education levels within the FITK UIN North Sumatra Medan. For lecturers, access can be used according to the web address provided. The results of filling in 50 lecturers can be seen as in the previous discussion.

Second, general application. The follow-up program for this web-based application will then be developed further, especially for the wider FITK and UIN North Sumatra Medan environment. We also provide access to anyone outside of lecturers who cares about scientific parents for this matter.

### 4. Evaluation

First, evaluate the process. Evaluation of the program is intended to provide feedback from the program provided to lecturers, as well as leaders at the faculty or university level. The aim of the lecturer is to find out the level of practicality and usefulness of this program, whether it helps or not. For institutions, both at the faculty and

university level, the aim is to determine the usefulness of the program, especially in relation to developing lecturer professionalism, and also efforts to develop the function of scientific consortiums.

We did this by providing an evaluation form, the results showed that the lecturers stated that there was value in using and helping their scientific introduction program. Likewise, the application is considered sufficient and simple to be used mobile. Meanwhile, the institution has not done much, because this program should be developed further, especially for a larger sample.

Third, evaluate the results. This development research is not final, in the larger planning of our research road map, this is the first step for further scientific parental exploration and development. For this reason, several advantages of the application will be developed more widely, especially in connection with the scientific consortium of lecturers. Meanwhile, the weaknesses will be corrected and refined, especially updating the application so that it can be used on simpler platforms.

#### **D. CONCLUSION**

Based on the description above, it is concluded that the results of product effectiveness testing in website-based scientific parental application development research are  $0.001 \leq 0.05$ . This means that these results show that using this media will be more effective and practical to use. This shows that the product resulting from research into the development of website-based scientific parental media applications, namely the "scientific parental information system", is effective in improving lecturers' scientific parentalism. This is viewed from four aspects, namely first, the scientific parents of FITK lecturers at the North Sumatra State Islamic University, Medan, have been known since the lecturers took part in the doctoral program, where the determination of the study program they choose is related to the courses taught. Second, scientific parenting can be traced through three things, namely; Lecturers, Baboon Books, and Diplomas. Third, lecturers generally hope that scientific knowledge will continue to be developed as part of efforts to search for sources of knowledge. Fourth, efforts to develop scientific parents can be done by developing application media.

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