



Technology-based *pragmagogy* competency assessment to measure teachers' ability in classroom management

Muhammad Rohmadi^{1*}, Memet Sudaryanto², Harun Joko Prayitno³, Hasan Zainnuri¹

¹Universitas Sebelas Maret, Indonesia, ²Universitas Jenderal Soedirman, Indonesia,

³Universitas Muhammadiyah Surakarta, Indonesia

*Corresponding Author: mamad_r76@staff.uns.ac.id

ABSTRACT

Teachers' ability to manage their classrooms is reflected in their language teaching skills. In light of this relationship, this study aims to (1) develop an online assessment model to measure teachers' pragmagogy competence in Indonesia and (2) measure teachers' ability to respond to pragmagogy-related stimuli. This study used a Design and Development (D & D) approach to answer the problem formulation determined during the model design, development, and evaluation. The sample included 3,150 primary, secondary, and advanced Indonesian teachers. The model was validated for functionality, reliability, usability, efficiency, maintainability, and portability. This study explained the formulated pragmagogy construction through exploratory factor analysis. Stress testing and installation testing were used to broaden the application's reach. Based on the initial analysis, the online assessment model concludes that the teacher's pragmagogy ability can determine their knowledge, skills, and attitudes. Teachers' pragmagogy competence can be determined through pedagogic knowledge as the framework for roles and figures in the form of thinking, reflective and emotional intelligence, ability in instructional communication patterns, and other aspects realizing pragmagogic competence. The pragmagogy measurement application examine the various approaches chosen by teachers to maximize the teaching-learning process in the classroom including interactive, responsive, persuasive, implicative, locution, illocution, perlocution approaches. This application can help to describe teachers' pragmagogical competencies in classroom management that are engaging and enjoyable for their students.

Keywords: pragmagogy, measurement, management, pragmatic, pedagogy

Article history

Received:

23 February 2023

Revised:

16 March 2023

Accepted:

25 May 2023

Published:

10 Oktober 2023

Citation (APA Style): Rohmadi, M., Sudaryanto, M., Prayitno, H., & Zainnuri, H. (2023). Technology-based pragmagogy competency assessment to measure teachers' ability in classroom management. *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan*, 42(3), 652-665. DOI:<https://doi.org/10.21831/cp.v42i3.52599>

INTRODUCTION

The success of education in producing quality graduates is closely associated with teachers' competencies as one of the learning determinants in and outside the classroom. On the other hand, learning success is essentially linked to the teachers' confidence in positioning themselves as learning designers. Teachers play an extensive role in measuring students' competencies through fair and reliable assessments. The assessment results as measured by the teachers are not only about the scores obtained but also: (1) how is the learning situation in and outside the classroom? (2) how is the students' confidence in completing the tasks given by their teachers? and (3) how is students' self-confidence used to measure attitude achievement?

Every learning process designed by teachers is a pedagogic competence that must be sustainable in its development. This competence arises from the teachers' knowledge and experience. The knowledge possessed by the teacher comes from the process of realizing curiosity

and independent learning that any information is used as a reflection of good learning quality (Jung, 2011; Pianta & Hamre, 2009). Experience is also essential in constructing teachers' pedagogic competence. It provides space for teachers to explore their potential to overcome obstacles during teaching and develop it further. Several factors affect teachers' experience which include curriculum changes, team teaching formation, infrastructure, students' characteristics, learning competition climate, government policy demands, and other factors such as learning design and annual evaluation results. Teachers must continue to improve their soft skills in learning to improve sensitivity during the teaching-learning process.

Often, teaching-learning problems are not the only variable affecting teachers' adeptness in delivering materials through various learning techniques. Student's condition also influences the success of the pedagogic practices designed by the teachers. Teachers, therefore, should have the necessary soft skills to support students in active learning and help them achieve the targeted learning objectives. In addition, motivation fostered by teachers can have a significant effect on the students' psychological condition. The learning process requires motivation because otherwise they would not be able to engage in meaningful learning activities (Christophel, 1990; Martin, 2008). This proposes the idea that the tasks given to the students do not always necessarily fulfill their needs. That something interests one student does not necessarily mean that it will interest another, especially if it does not meet their needs.

The ability to motivate is an essential aspect that a teacher should have. Motivational sentences are not only to be delivered while students are engaging with the material. Instead, teachers should design learning activities in which motivation is integrated into the materials while providing suitable stimuli for achieving the desired learning outcomes (Kidwell, 2017). Education should try to generate intrinsic motives by igniting and developing students' interest in relevant fields of study (Grouws Kristin J & Cebulla, 2000). For example, informing students of the instructional objectives at the beginning of the learning process can motivate them to succeed in achieving those objectives.

In the interest of pragmatic pedagogy, teachers' ability to manage teaching-learning activities can be seen from the concepts of coexistence, implicature, presupposition, utterances, locution, illocution, perlocution, text, context, and the context of the conversation (Rohmadi, Sadhhono, et al., 2021). As a subject of learning, teachers often make statements that elicit various reactions from their students. This reaction is a form of acknowledgment that may affect the students' psyche during the teaching-learning process. This discussion sparks a need for research on the development of digital pedagogic competency measurement to improve the quality of teaching and achieving learning goals, in which measurable teachers' competencies become the basis of the program.

Pragmology as a study of language usage in learning can map teachers' pedagogic competence in Indonesia. This is especially important in Indonesia where teachers are expected to continuously develop their professional competence, but often neglect their communication skills in the classroom. Pragmology is a communicative approach in the learning process, especially in the way teachers use language to deliver explanations of the materials. Pragmology can measure teachers' utterances regardless the object of the language study (Kidwell, 2017; Martínez-Flor & Usó-Juan, 2006). The teacher-student interaction process is a two-way relationship which fosters a better understanding of concepts and materials. Interactions in teaching-learning activities demand that both parties have the same goals and preferences. To achieve this, teachers must design their lessons properly. A quality lesson plan needs to cover seven categories: (a) planning based on clear objectives, (b) having a unified plan, (c) logical, (d) sustaining continuity, (e) brief and clear, (f) flexibility, and (g) stability.

Good planning positively impacts the teaching and learning process, making it active, creative, innovative, and enjoyable. Lesson planning is the first step in preparing for a learning activity. Good implementation in the learning process follows good lesson planning. It is crucial to consider the characteristics of the students to increase the teacher's competencies in the teaching-learning activity. However, the learning objectives cannot be met without effective classroom management, beginning with the use of constructive language. Therefore, this study

examines the teachers' language usage, pragmagogy competence, and classroom management, as realized through pragmatic interaction analysis without violating related maxims.

METHOD

This study was conducted using a design and development (D & D) approach to address the problem formulation that was identified at the beginning of the study. It involves a systematic study of the design, development, and evaluation processes as a series of stages to establish an empirical basis for creating new or improved products and models. The design measures perceptions of pedagogical aspects that teachers must possess (Richey & Klein, 2014). The measurement process was carried out through a computer-based assessment to produce stable and valid data. The instrument was validated through expert judgment and confirmatory factor analysis. The theoretical construction elaborates on educational research and teacher pragmatics understanding during learning at elementary, junior, high, and vocational high school levels. Test results that are valid, reliable, and fit to the model are expected to accurately measure teachers' skills in self-management and language acquisition during teaching-learning activities (Retnawati, 2016).

The sample of the study was 5500 teachers from across Indonesia selected through random cluster sampling, with the sampling procedure carried out by (1) selecting teacher clusters in the western, central, and eastern parts of Indonesia and (2) selecting each school in a district randomly to determine which teachers in the school who would be included in the sample. Additionally, the sample was selected based on a qualification system to ensure that the teachers had a shared vision of self-management and the language mastery used in the classroom. All these steps taken resulted in 3150 participants qualified as samples in this study. Based on the KMO and Bartlett's test, the sampling adequacy value is 0.875; indicating a relatively high value of adequacy of the sample.

Table 1. KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.875
Bartlett's Test of Sphericity	Approx. Chi-Square	11709.171
	df	66
	Sig.	.000

The development stage involved (1) creating a web-based pragmagogic assessment application using a variety of multimedia to measure teachers' abilities, (2) testing the application's effectiveness as an assessment medium for students, and (3) describing abilities by creating analytical rubrics to assess teachers' pragmagogy competencies. The assessment instrument consists of 40 items with ten assessment indicators. An explanatory factor analysis (EFA) test was conducted to test each of these factors' eigenvalues (Emerson, 2017). Based on the results of the exploratory factor analysis, four dimensions of pragmagogy were formulated, which consist of (1) ability to understand meaning, (2) learning mastery, (3) speaking competence, and (4) instructional skills. The design of the assessment process in the application can be seen in Figure 1.

Qualitative validation was carried out through theories triangulation and data sources, namely focused group discussions (FGD), to determine teachers' pragmagogy competence and review the suitability between construct indicators and the results of measurements. Qualitative data analysis techniques consisting of data collection, data display, conclusion drawing/verifying, and data conditioning were used to analyze the data within the interactive analysis framework. The application system was developed through functionality, reliability, usability, efficiency, maintainability, and portability tests.

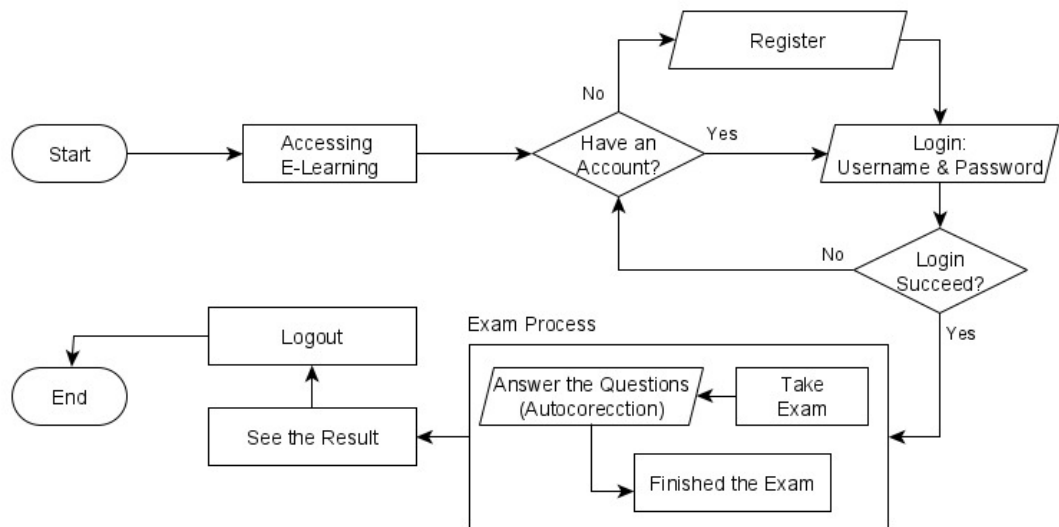


Figure 1. Design of the Assessment Process in the Application

FINDING AND DISCUSSION

Finding

Pragmatics is a research construction in which good classroom and learning management needs to prioritize the use, optimization, and management of acceptable language to optimize the attainment of goals and objectives. This study involved the development of a web-based means of assessment to determine how teachers manage their classrooms through an interactional approach. In teaching-learning activities, teachers use words to demonstrate their competence. Measurements of such competence are expected to reflect the teachers' ability to manage the class and select proper utterances to engage students with the materials they will learn.

Assessment in teaching-learning activities requires teachers to identify their students' learning needs to be realized as learning activities that can measure attitudes, knowledge, and skills. Students are to show intention and willingness to interact with their peers as well as teachers during the teaching-learning process. Teachers have a crucial role as learning catalysts and sources, as their values and attitudes must set an excellent example for their students.

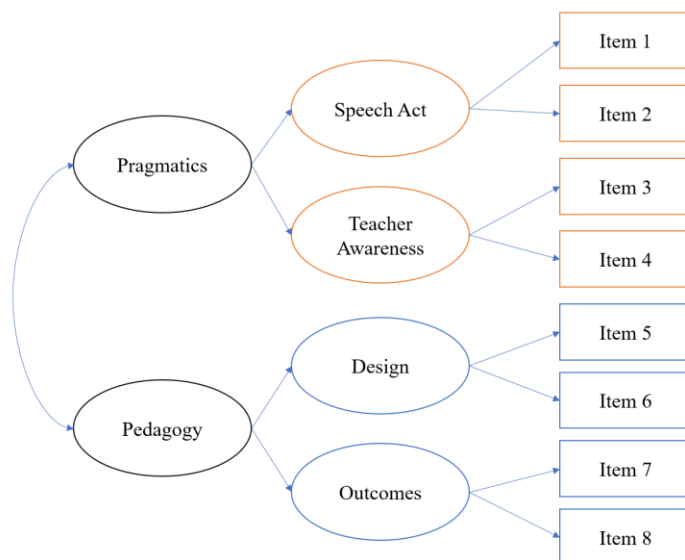


Figure 2. Design of Pragmatics and Pedagogy

Students' acknowledgment of their teachers' competencies is often associated with the teachers' ability to speak, express their opinion, and explain the material in class. Students would expect friendly and kind teachers who understand them and constantly motivate them. Teachers' charisma as an educator and learning facilitator is one of the benchmarks that teachers must consider (Van Den Dool & Kirschner, 2003). With pragmagogy, teachers would be able to predict and diagnose utterances during the class and consider a strategy in utilizing gestures, words, phrases, and even sentences. Pragmagogy competence is also one of the indicators of a good teacher's ability, which includes being a professional teacher with a good personality and social values.

The measurement of pragmagogy ability is established based on the teacher's ability to express themselves effectively in the classroom. The theoretical construction that is formulated based on the pragmagogy approach includes language relevance, language meaning mastery, classroom mastery, and competence in managing the teaching-learning process. Teachers must master an essential skill: the ability to adapt the language to suit the students' needs properly. Mobile-based evaluation of each test question can be customized to a certain time set and randomized. This sets a rhythm for teachers to work on pragmagogy perception questions, encouraging honesty and focus on questions. There would be no opportunity for discussions with other teachers in the process of mapping their abilities, so that cheating during pragmagogy competency measurements is minimized. After completing the test, the evaluation score would appear, diminishing correction errors and ensuring fast and accurate results.

There was a time limit in the process of doing the test. The test could not be accessed when the specified time duration had run out, and consequently the system would not grade the answers. After students completed the questions at the end of the test, they would be offered to choose between two buttons, a 'back' button and a 'send' button. They could have opportunities to return to certain previous questions using a 'back' button. Meanwhile, the 'send' button would send the answers to the system to be assessed. This research also developed an online media to facilitate the measurement. The development of a website-based assessment instrument began with an assessment/analysis to understand the condition of the teaching-learning process in schools and what was needed in the process of development, including materials, technology (hardware and software), and task analysis necessary to develop learning media according to the needs. The design process was then carried out based on the results of the assessment/analysis.

Following the design, the development was then mapped onto a storyboard as a rough layout of the website-based assessment instrument for then to be realized in the form of an actual website (Barkaoui, 2016). The next stage was implementation by generating online website-based assessment instruments used directly by users.

Components of the website-based assessment instrument were then designed with six main menus: (1) the homepage being the main page or the initial page; (2) a menu page containing rewards, messages, networking, assignments, multimedia, teacher profiles, readings, about, and instructions; and (3) assessment as carried out through tasks and multimedia features. Teachers can communicate through networking features and messages containing developer information and a form to send messages to developers if they need help. The test participants must log in first so that the data can be identified with the participants' personal information such as (1) name, (2) school level, (3) province, and (4) district. Teachers' information is used for sampling and reducing data errors. Each data is documented in the form of a data code for confidentiality.

The teachers' information as the primary data in the research was systematically organized so that double data would not occur when the teachers give more than one response and/or do not answer certain questions. The instrument was designed in several forms including multiple-choice, matching, case studies, scales, and short essays. The varied forms of questions ensured that teachers were not answering questions randomly as each response could reflect the theoretical construction of the pragmagogy being measured.

This information system was a distributed system where the interface components of the system were distributed on an Internet network. In the could phase, the requirements for the new system and the technology options that could be used were prepared. Then, in the physical design

phase, the team would recommend the software, hardware, and user interface design for the new system.

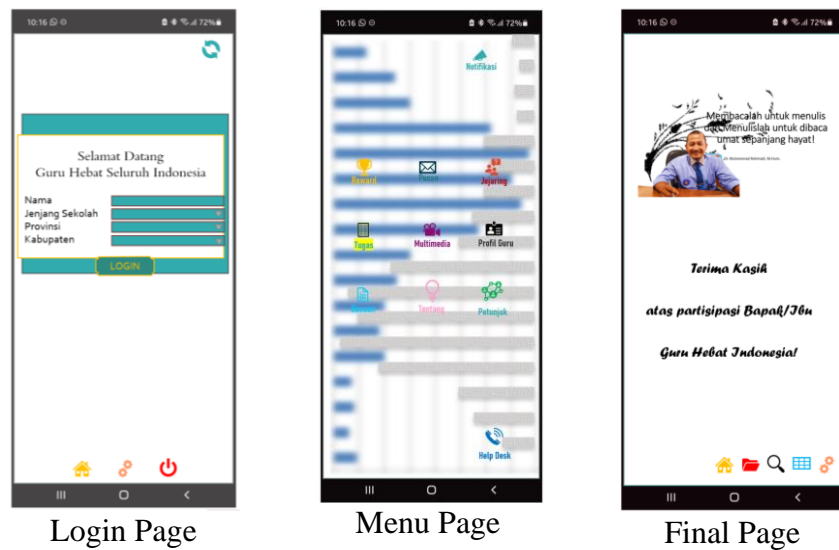


Figure 3. User Interface Design

The researchers conducted a literature study related to the problems being studied, needs measurement, and preparation for formulating a research framework. Creating the application started with preparing an online storyboard assessment of pragmagogy. The next step was creating storyboards which were then validated by learning media experts to display multimedia, text, and symbols that teachers easily understand. The experts also provided an overview and discussion to present a design of the question forms that the teachers should complete.

After the storyboard was developed into the envisioned program, the previously validated content was installed into the application system. The contents which the teachers completed reflected the art of teaching that they performed daily. Multimedia online-based assessment can be interpreted as a collection of pages that display text data information, still or moving image data, animated data, sound, video, or a combination of all of them, both static and dynamic, which form a series of interrelated buildings. Each of them was connected by networks (hyperlinks).

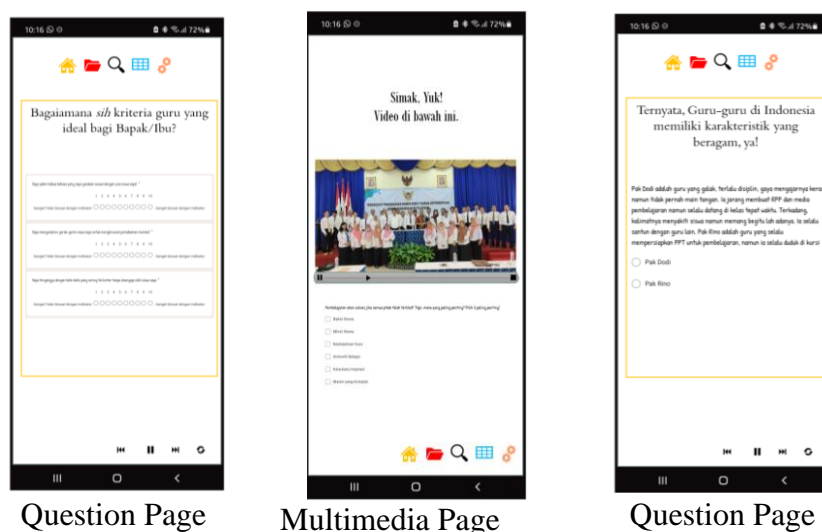


Figure 4. Application's Interface for Assessment

The testing system was conducted by stress testing and installation/launch testing. Stress testing was done using the Webserver Stress Tool application. The results obtained were that the

site could accept at least ten users simultaneously, and exchanging information depended on the internet connection. Installation/launch testing was done by opening a website-based assessment instrument in different browsers, both desktop-based and mobile-based. The results obtained were website-based assessment instruments that could be opened in various browsers without significant errors. Acceptance testing consisted of two processes, namely alpha testing and beta testing. In this study, alpha testing could be referred to as the validation stage by media experts and material experts. At the same time, the teachers could refer to beta testing as a product feasibility test. At this stage, there was also a feasibility test on media design and visual communication aspects. The expert validation stage of the assessment instrument involved education and language experts in pragmatics and included a focused group discussion. Experts evaluated and tested the quality of the website-based assessment instruments in two aspects, the software engineering aspects, especially its usability and functionality, as well as the visual communication aspects.

Ability Measurement

The data in this study were teachers' responses at the elementary, junior high, and senior high school levels. Each teacher responded to the questions by providing their thoughts on the effectiveness of pedagogic knowledge aspects, including the manifestation of knowledge, skills, and attitudes, the ability to think reflectively and be emotionally intelligent, instructional communication patterns, and the means to realize pedagogic competence. (Busato et al., 2000; Greenstein, 2012). The questions were multiple-choice, matching, short-answer questions, and case-based questions that required references.

Table 2. Data Distribution of Teachers' Response

Criteria	Percentage	Yes	No
Elementary School Teachers	60%		
Junior High School Teachers	20%		
Senior High School Teachers	20%		
Teachers' ability to answer the questions and master the online system	88%	√	
Teachers' ability to answer inversion questions	60%		√
Teachers utilize learning experiences to improve attitudes in the classroom.	50%		√
Teachers plan the learning activities by understanding the students' linguistic characteristics	45%		√
Developing the varied learning resources to increase students' enthusiasm for learning	75%	√	
Teachers' analysis of learning situation			
1. Giving reinforcement in regulating students' seating position			
2. Adjusting learning materials and strategies			
3. The suitability of teaching materials and methods	80%	√	
4. Ability to stimulate curiosity			
5. Treating the students as the learning subject			
6. Ability to instil students' confidence			
7. Good time management delivery			
8. Fostering character, understanding, readiness to learn, and objectivity towards students.			

The data is observed from the assessment in the developed application. Based on the data distribution, teachers' ability was measured using multi-method means to gauge the teachers' tendency to meet the pragmatic criteria/construction through locution, illocution, and perlocution. In terms of pedagogical measurement, this study analyzed the learning design planned by the teachers and the output generated in the form of sentences during the teaching-learning process. Through the measurements, some data that can be obtained include (1) teachers' perceptions

regarding the use of words in learning, (2) selection of words/sentences in constructing a lesson plan, (3) observations on students' attitudes and understanding on their teachers' communication skills. The ability measurements demonstrated the teachers' ability to respond to the stimuli related to the construction of pragmagogy.

Discussion

Teaching in schools that prioritize competence as an inventive step prepares students to face future challenges. The focus of teaching has shifted from educators to students, giving them the primary role in the class. Nevertheless, teachers are still needed to promote students' creative and communicative abilities by assessing their attitude, knowledge, and skill competencies. Pragmatics, as a context-based linguistic science, plays a direct or indirect role in teaching (Abbot-Smith et al., 2020; Bardovi-Harlig, 1996). Successful teaching depends on effective and straightforward two-way communication (De Fina & Georgakopoulou, 2011; Pasquier & Chaib-draa, 2005). Teachers' mastery of the language will spark students' curiosity about the complete scientific conception. Their mastery of pragmatics and their commitment to quality teaching will be evident to their students.

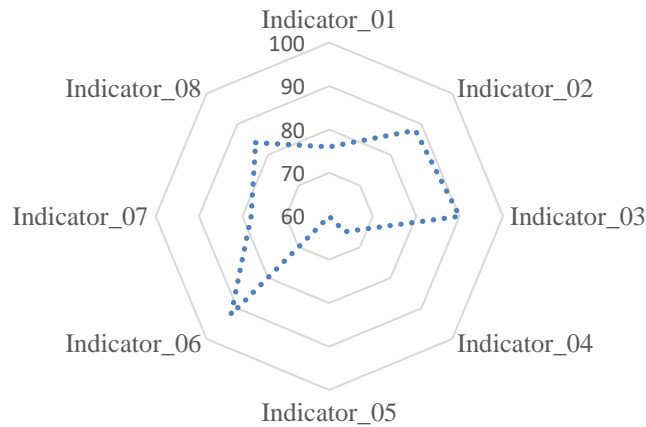


Figure 5. Indicators of Instrument

The instrument was developed based on pedagogical and pragmatic constructions, producing 40 items on 10 test indicators on exploratory factor analysis testing. The factors measured in this study consisted of speech acts, teachers' awareness, learning design, and outcomes. The use of speech strategies affects pedagogic mastery, with the learning design determining the speech strategies selected by the teacher. The research measurement involved unidimensional analysis assessed through exploratory factor analysis and visualized through the screen plot below (Furr, 2011; Sudaryanto et al., 2019b).

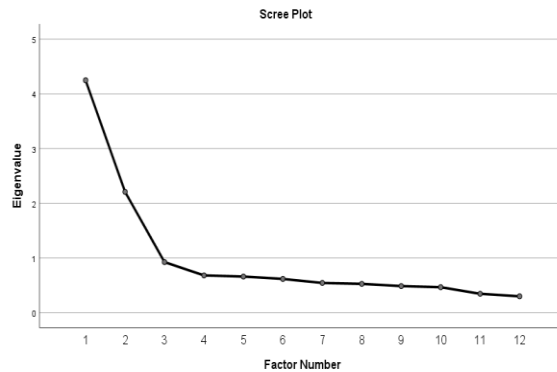


Figure 6. Screen Plot of Unidimensional Analysis

The screen plot shows that the teachers' ability to design effective speech for learning reflects the teachers' understanding of the students' characteristics and potentials, mastery of

learning theories and principles of learning, curriculum development, learning activities, and assessment and evaluation of learning outcomes. Based on this analysis, improvement on teachers' *pragmagogy* abilities balances with effective classroom management (Ainley, 2012). Through applications developed based on assessment needs, measuring competence was a complex task for obtaining consistent and reliable data. The application used in this study was developed by taking into account the needs of researchers and good application development standards. Application development was generally evaluated by functionality, reliability, usability, efficiency, maintainability, and portability (Utomo et al., 2020). Media experts and users conducted the assessment; all teachers were the research sample. The comparison of assessments between the experts and the users can be seen in Figure 7.

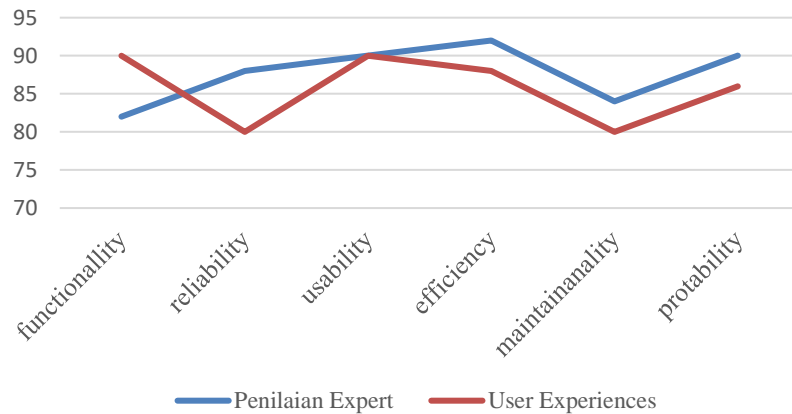


Figure 7. System Evaluation

Functional testing is primarily concerned with the execution of the process, ensuring that each feature in the application is working well in accordance with the users' needs. The focus is not on the source code but rather on the business processes. This type of testing can be performed manually or automatically through automated testing. The tests are carried out with users/clients to evaluate how easy it is to use the application for various groups of users, using a prototype. Usability testing aims to identify application usability issues from the start so that improvements can be made before the design is implemented. However, errors can occur during this test, such as taking too long to learn the design process or waiting for the design to be correct, which can be time-consuming and costly.

Software reliability refers to the probability of failure-free software operation for a specified period in a specified environment. It is an important factor affecting system reliability. It differs from hardware reliability because it reflects design perfection rather than manufacturing perfection (Attwell, 2007). The complexity of software is a major challenge in achieving optimal software reliability. Although researchers used two related models, software reliability is not a function of time. The modeling technique for software reliability reached perfection, but before using the technique, we must carefully select a suitable model according to our case (Sudaryanto et al., 2019a). Measurement in software was still in its infancy. No suitable quantitative method has been developed to represent software reliability without excessive limitations. Various approaches can be used to improve software reliability. However, balancing development time and budget with software reliability is challenging. Efficiency is related to how quickly the user can reach the product's goal. To achieve a good user experience, it is essential to ensure that the product is helpful, compatible with user needs, easy to use, and visually appealing. This will lead to efficient performance, allowing users to achieve their goals quickly and enjoyably.

Table 3. Needs Analysis

Analysis Method	Aspect Finding	Functionality
Response to critical discourse	Teachers struggle with confidence when answering questions, often appearing unsure or hesitant in their responses. They also appeared to manipulate their language when presenting information, and might forget their previous answers when pressed for further clarification. While teachers may have a strong grasp on lesson plans, their ability to effectively translate that knowledge into meaningful learning experiences is not reflected in the learning practices.	Diagnosis: <ol style="list-style-type: none"> 1. Teachers were always worried if their performance was considered bad 2. Teachers were always required to have good performance, but they were not supported by soft skill training such as public speaking 3. Teachers seemed to cover up the education form and learning system in schools so that the interviews did not take place naturally and as they were.
Document Analysis (lesson plan and learning video)	Weak verbal skills of teachers in the classroom require the correct forms to be demonstrated, especially when choosing words or gestures so that they do not harm their students. Holistic classroom mastery has not been achieved: teachers tend to perform well in the initial stages of teaching. The language, word choice, and sentence structure employed by teachers are often not easily comprehensible to students. Nevertheless, the teacher's ability to formulate learning objectives through their speech strategies in a lesson demonstrates their competency.	Diagnosis: <ol style="list-style-type: none"> 1. The learning procedure is set to match the lesson plan, but teachers who were not used to being monitored during learning make it seem stiff 2. Teachers often suddenly tried to find words when getting questions/statements from students. 3. Teachers did not analyze learning procedures: checking the learning progress of the students toward achieving the learning goal. Instead, their priority was still focused on delivering the material.

Teachers need to realize that understanding the meaning of language is essential in education, communication, and interaction (Prayitno, et.al., 2022). Students need to understand the meaning of words, their grammatical relationships, and the connections between what is being said and what has been previously stated. Meanwhile, a teacher's speech in the classroom could contain meanings that cannot be communicated easily. The expressive way of speaking demonstrated by the teacher in class also plays a role in the varied ways the students learn in Indonesia. (Bandura, 2001; Zyoud, 2016). However, not all students respond favorably to language expressions that are not directly related to the learning context. Pragmatics, which involves the expression of one's inner emotions such as sadness, happiness, anger, irritation, and disappointment, is an important aspect in studying the function of language in this context.

As part of the needs analysis, it is essential to look at the teachers' perspective in which utterances have become a psychological burden for students.

Every utterance has a purpose. Teachers must be observant in fulfilling the communication requirements to achieve the purpose of their speech, by being aware that the lexical content of every utterance has to follow the context. Teachers' utterances during the teaching-learning process must adapt to the language context that is in harmony with social values in the classroom. These conditions can change depending on the interlocutors (students) are different, and therefore, teachers' adaptability in producing linguistic rules in the classroom is required to make sustainable improvements. One of the most visible impacts of this adaptability is teacher's ability in classroom management, especially in understanding the characteristics of their students (Greenstein, 2012). These competencies are determined by language skills, designing materials according to the students' competencies, and developing outcome-based learning plans. Teachers are indeed expected to have the ability to construct sentences, select appropriate words, deal with varying sentence lengths, and use a variety of language expressions to interact with students in the classroom.

Table 4. Teachers' perspective

Speech act	Teachers' ability to use language to deliver messages.	Teachers realize and deliberately design learning activities so that their utterances or speech is a communication goal that students must understand. Teachers can realize that their speech act contains a message, but they do not know they have full command and control in a lesson. Finally, the speech acts used in effective learning are less varied.
Locution	Literal meanings or statements made by teachers are expressions without biases.	Teachers often use elocutionary as a mutter. The teacher realizes that they often do illocutionary actions when in class. Frequently, students are unable to provide feedback. In an interview the teacher also clarified [<i>sekadar menyampaikan uneg-uneg</i> -- just conveying thoughts] and student responses [<i>kami tidak tau harus menanggapi seperti apa</i> -- we have no idea how to respond] an example in learning the emergence of locutions is [<i>capek banget ya, kerjaan numpuk semua</i> -- very tired, the works are all piled up]
Illocution	Utterances are the act of stating speech/words and containing a purpose.	When interacting with students, this can be seen in several contexts in the form of questions, expressions, complaints, responses, etc.
Perlocution	A message interpreted by the locutor carries an influence and impact on the interlocutor's actions.	Teachers understand the perlocution obtained from the learning interaction. In the perlocutionary act, the teachers also stated that they needed a response or reaction to their statement.

Every utterance they make reflects their competencies and every material presented leads to and constructs the students' learning experience. As students respond to the stimulus provided by their teacher, it is the teacher's responsibility to analyze, evaluate, and determine the most appropriate stimulus (Bootzin & Stevens, 2005). Teachers can determine students' responses in the form of approval, rejection, or other reactions that show a varying degree of enthusiasm. Each response given by students is shown through (1) students' word choice, (2) movements or gestures during the teaching-learning process, and (3) level of engagement reflecting understanding, interaction, and motivation during the teaching-learning process.

Teachers have the ability to analyze and use implicatures to gain insight into the learning process of their students (Sudaryanto et al., 2020). These implicatures can reveal important data, such as (1) the characteristics of students based on their learning environment, (2) the influence of other students on attitudes and responses during the teaching-learning process, (3) and the display of interest in learning through spontaneous responses that may be deemed intolerable by the teacher. With various approaches, teachers are also required to instill the concept of interaction and collaborative communication in the classroom. When students are faced with these language concepts from the start, they would gain the same level of understanding and references in the language they use. The competence of the teacher is crucial in managing such learning situations, which can build trust between the teacher and their students.

Based on the sociopragmatic analysis used to review the research results, teachers often have a high level of confidence to influence their students. However, it is not always well received by students who may be indifferent to the stimulus given by the teacher (Leech, 2014; Ryabova, 2015). Students tend to place more importance on the opinions of their peers compared to their teachers'. Nevertheless, teachers continue to strive to improve their students' skills and knowledge through various methods attributed to pragmatics. Some efforts made by teachers to improve these aspects of pragmatics include (1) providing motivational sentences in the form of elaboration, (2) determining assignments and instructional approaches, (3) providing reinforcement for students to create trust in their teachers, and (4) providing communication space among students, as well as between students and teachers.

Teachers' control is a manifestation of implicature in understanding the learning context by considering (1) students' psychology, (2) learning environment, (3) availability of facilities that support the teaching-learning activities, (4) study time, (5) students' goals, and (6) the teachers' own limitations. By intentionally creating communication that adheres to the maxims, teachers can ensure that everyone benefits from their interactions (Douven & Krzyzanowska, 2019; Rohmadi, Ulya, et al., 2021; Taguchi, 2011). This, in turn, can help them construct theories that align with their academic goals and create the desired learning environment.

From these cases, pragmagogy measurement applications can help teachers evaluate the effectiveness of their communication strategies and identify opportunities for improvement. One area that teachers often struggle with is adapting to different situations. For example, some teachers may prioritize being perceived as unpleasant, but having comprehensive standards in teaching. This shows that communication skills do not always follow good pedagogical skills.

One of the crucial aspects that teachers need to master is to achieve maximum results by considering learning outcomes as they develop into better understanding, necessary skills, and good attitudes that meet set indicators. To achieve ideal learning, teachers must possess the ability of pragmagogy, which involves collaboration of understanding and shared perceptions between teachers and students to achieve learning objectives. For example, one of the findings showed that the teacher could easily influence students through conveying kind words. On the other hand, teachers convey their words unconsciously that detailed learning designs are needed to map the use of pragmagogy competence which would improve their confidence in front of their students.

CONCLUSION

Teachers can enhance their competencies in teaching-learning activities by planning according to their students' characteristics and prioritizing rhetorical abilities in the classroom. The language mastery of teachers, including word choice, sentence length, and language variety, plays a significant role in interacting with students in the classroom. Every utterance can reflect a teacher's competencies, and their materials guide and construct memory in students' learning experience. The application for measuring the ability of pragmagogy used to measure teachers' competencies as shown in this study can reach its optimum potential as it contains aspects of functionality, reliability, usability, efficiency, maintainability, and portability.

Based on this application, teachers' competency scores may exceed the score of 80, indicating excellent teaching skills. However, the teachers' ability in pragmagogy still leaves some room for improvement. They still need to improve their ability to use language in the classroom to motivate themselves. Teachers need to emphasize the pedagogical knowledge considering the subjects are the students who require their full attention. The data that reflects the pragmagogy ability of 3150 teachers who took the test showed that high pedagogical mastery needs to be balanced with rhetorical skills through adequate pragmatic competence.

REFERENCES

- Abbot-Smith, K., Williams, D., & Matthews, D. (2020). 'What's new for you?': Interlocutor-specific perspective-taking and language interpretation in autistic and neuro-typical children. *Research in Autism Spectrum Disorders*, 70, 101465. <https://doi.org/10.1016/j.rasd.2019.101465>.
- Ainley, M. (2012). Students' interest and engagement in classroom activities. In *Handbook of research on student engagement* (pp. 283–302). Springer.
- Attwell, G. (2007). Personal Learning Environments - the future of eLearning? *Lifelong Learning*.
- Bandura, A. (2001). Social Cognitive Theory of Mass Communication. In *Media Psychology*. https://doi.org/10.1207/S1532785XMEP0303_03.
- Bardovi-Harlig, K. (1996). *Pragmatics and Language Teaching: Bringing Pragmatics and Pedagogy Together*.
- Barkaoui, K. (2016). What Changes and What Doesn't? An Examination of Changes in the Linguistic Characteristics of Ielts Repeaters' Writing Task 2 Scripts. In *IELTS Research*

- Reports. <https://www.ielts.org/for-researchers/research-reports/online-series-2016-3>.
- Bootzin, R. R., & Stevens, S. J. (2005). Adolescents, substance abuse, and the treatment of insomnia and daytime sleepiness. *Clinical Psychology Review*. <https://doi.org/10.1016/j.cpr.2005.04.007>.
- Busato, V. V., Prins, F. J., Elshout, J. J., & Hamaker, C. (2000). Intellectual ability, learning style, personality, achievement motivation and academic success of psychology students in higher education. *Personality and Individual Differences*, 29(6), 1057–1068.
- Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education*. <https://doi.org/10.1080/03634529009378813>.
- De Fina, A., & Georgakopoulou, A. (2011). Analyzing narrative: Discourse and sociolinguistic perspectives. In *Analyzing Narrative: Discourse and Sociolinguistic Perspectives*. <https://doi.org/10.1017/CBO9781139051255>.
- Douven, I., & Krzyzanowska, K. (2019). The semantics–pragmatics interface: An empirical investigation. In *Further Advances in Pragmatics and Philosophy: Part 2 Theories and Applications* (pp. 81–100). Springer.
- Emerson, R. W. (2017). Exploratory factor analysis. In *Journal of Visual Impairment and Blindness*. <https://doi.org/10.1177/0145482x1711100313>.
- Furr, R. M. (2011). Scale Construction and Psychometrics for Social and Personality Psychology. In *Scale Construction and Psychometrics for Social and Personality Psychology*. Sage Publication, Inc. <https://doi.org/10.4135/9781446287866>.
- Greenstein, L. (2012). Assessing 21st century skills: A guide to evaluating mastery and authentic learning. *Assessing 21st Century Skills: A Guide to Evaluating Mastery and Authentic Learning*.
- Grouws Kristin J, D. a & C., & Cebulla, G. &. (2000). Improving Student Achievement in Mathematics. In *International Academy of Education*.
- Jung, I. (2011). The dimensions of e-learning quality: from the learner's perspective. *Educational Technology Research and Development*, 59(4), 445–464.
- Kidwell, T. (2017). Understanding Culture: A Literature Review Comparing Three Cultural Pedagogies. *Register Journal*, 10(2). <https://doi.org/10.18326/rgt.v10i2.221-233>.
- Leech, G. (2014). The Pragmatics of Politeness. In *The Pragmatics of Politeness*. <https://doi.org/10.1093/acprof:oso/9780195341386.001.0001>.
- Martin, A. J. (2008). Enhancing student motivation and engagement: The effects of a multidimensional intervention. *Contemporary Educational Psychology*, 33(2), 239–269.
- Martínez-Flor, A., & Usó-Juan, E. (2006). A Comprehensive Pedagogical Framework to Develop Pragmatics in the Foreign Language Classroom: The 6Rs Approach. *Applied Language Learning*, 16(2), 39–63.
- Pasquier, P., & Chaib-draa, B. (2005). Agent communication pragmatics: the cognitive coherence approach. *Cognitive Systems Research*, 6(4), 364–395. <https://doi.org/10.1016/j.cogsys.2005.03.002>.
- Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, Measurement, and Improvement of Classroom Processes: Standardized Observation can Leverage Capacity. *Educational Researcher*. <https://doi.org/10.3102/0013189X09332374>.
- Prayitno, H.J., Markhamah, Nasucha, Y., Huda, M., Ratih, K., Ubaidullah, Rohmadi, M., Boeriswati, E., Thambu, N., Prophetic Educational Values in the Indonesian Language Textbook: Pillars of Positive Politeness and Character Education, *HELIYON*, <https://doi.org/10.1016/j.heliyon.2022.e10016>.
- Retnawati, H. (2016). Proving Content Validity of Self-Regulated Learning Scale (The comparison of Aiken index and Expanded Gregory Index). *REiD (Research and Evaluation in Education)*, 2(2), 155–164. <https://doi.org/10.21831/reid.v2i2.11029>
- Richey, R. C., & Klein, J. D. (2014). *Design and development research: Methods, strategies, and issues*. Routledge.
- Rohmadi, M., Sadhono, K., & Sudaryanto, M. (2021). A Creative Library Management in Digital Era in Indonesia from Psychopragmatic Perspective. *Webology*, 18(Special Issue on

- Information Retrieval and Web Search), 332–343.
- Rohmadi, M., Ulya, C., Wulansari, K., Putri, U. R., & Sudaryanto, M. (2021). Comparative Study of Persuasive Directive Speech on Printed and Digital Media Advertising. *MICOSS 2020: Proceedings of the 1st MICOSS Mercu Buana International Conference on Social Sciences, MICOSS 2020, September 28-29, 2020, Jakarta, Indonesia*, 41.
- Ryabova, M. (2015). Politeness Strategy in Everyday Communication. *Procedia - Social and Behavioral Sciences*, 206, 90–95. <https://doi.org/10.1016/j.sbspro.2015.10.033>
- Sudaryanto, M., Mardapi, D., & Hadi, S. (2019a). Multimedia-Based online Test on Indonesian Language Receptive Skills Development. *Journal of Physics: Conference Series*, 1339(1). <https://doi.org/10.1088/1742-6596/1339/1/012120>
- Sudaryanto, M., Mardapi, D., & Hadi, S. (2019b). Applying Item Response Theory In Validating An Indonesian Language Proficiency Test. *First International Conference on Advances in Education, Humanities, and Language*, 32–41. <https://doi.org/10.4108/eai.23-3-2019.2284880>
- Sudaryanto, M., Ulya, C., Rohmadi, M., & Kuhafeesah, K. (2020). *Inter-rater Assessment on Listening Media for Foreign Language Speakers*. <https://doi.org/10.4108/eai.9-11-2019.2295064>
- Taguchi, N. (2011). Teaching pragmatics: Trends and issues. *Annual Review of Applied Linguistics*, 31, 289–310.
- Utomo, M. N. Y., Sudaryanto, M., & Saddhono, K. (2020). Tools and strategy for distance learning to respond COVID-19 pandemic in Indonesia. *Ingénierie Des Systèmes d'Information*, 25(3), 383–390.
- Van Den Dool, P., & Kirschner, P. (2003). Integrating the Educative Functions of Information and Communications Technology (ICT) in teachers' and learners' toolboxes: a reflection on pedagogical benchmarks for ICT in teacher education. *Technology, Pedagogy and Education*, 12(1), 161–179.
- Zyoud, M. M. (2016). Theoretical Perspective on How To Develop Speaking Skill. *An International Multidisciplinary Journal*.