DEVELOPING MATERIALS OF ENGLISH PHONETICS AND PHONOLOGY FOR ELT DEPARTMENTS AT ISLAMIC HIGHER EDUCATION INSTITUTIONS BASED ON INTEGRATION PARADIGM

Toyyibah
State Islamic Institute (IAIN) Kediri, Indonesia.
E-mail: toyyibah@iainkediri.ac.id

Abstract: Islamic higher education institutions (PTKIs) are mandated to implement science integration. As a non-religious program, ELT Department in PTKIs should respond to this mandate by implementing the science integration in the curriculum. The present article reports the results of a Research and Development study that developed the materials of English Phonetics and Phonology for ELT Departments at PTKIs. Adapting the System Approach of Dick and Carey (2001), the study has developed through the steps of Need Analysis, Developing Preliminary Form of Product, Expert Validation, Revision 1, Field testing, Revision 2, and Final product. The integration of Islamic values with the materials started from designing the course objective which was then elaborated in the learning outcome and the topic. The learning outcomes or the course objectives were also developed by referring to the points of Indonesian national qualification framework for the graduates of undergraduate education level.

Keywords: English Phonetics and Phonology, Integration Paradigm, Islamic Higher Education Institution.

Introduction

Pronunciation is one key aspect that determines the success of communication. Mispronunciation can lead to misunderstanding and in turn to miscommunication. Pennington[1] even said that pronunciation is a much more important and pervasive feature of communication than is generally recognized. He added that pronunciation is the crucial starting point for all spoken language, since thoughts must be articulated in sound in order to be

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[1] Martha C. Pennington and Pamela Rogerson-Revell, *English Pronunciation Teaching and Research, Contemporary Perspectives* (London: Palgrave Macmillan, 2019).

heard and so to become a message that can be communicated to another person.

However, pronunciation errors, caused by various factors, are still a common phenomenon. Mismatches between spelling and pronunciation can be one factor that leads to the difficulty of English pronunciation. Reflected into the department of English education at Faculty of Tarbiyah of STAIN Kediri, in contrast, Toyyibah[2] finds that there are miscellaneous problems with the students' pronunciations during the thesis examination that makes them not outspoken to elaborate their research and less capable in English mastery as their academic concern. Hasan (2014) finds out Sudanese Students of English whose language background is Sudanese spoken Arabic had problems with the pronunciation of English vowels that have more than one way of pronunciation in addition to the consonant sound contrasts e.g. /z/ and /ð/, /s/ and /θ/, /b/ and /p/, /ʃ/ and /tʃ/.

The errors of pronunciation made by learners of English from different language backgrounds are systematic and not accidental (Carter and Nunan, 2001[3]; O'Connor, 2003[4]). In addition to the past works, Yule[5] has studied pronunciation problems and the influence of LI. Many sounds such as /p/ and /b/, /s/ and /θ/, /z/ and /ð/, /tʃ/ and /ʃ/, /v/ and /b/ are confusing e.g. (pit / bit), (thin / sin), (question /action), (very / berry). For the (SSEs) /z/ and /s/ are usually used in the place of /ð/ and /θ/ which result from the interference of Sudanese spoken Arabic. /ð/ and /θ/ exist in some forms of Arabic e.g. (Iraqi, Saudi Arabian, Kuwaiti, etc); however, they do not exist in Sudanese dialect where they are replaced by /s/ and /z/.

It can be highly assumed that the main problem of the speakers of other languages who speak English is substitution of sounds. They substitute the sounds that they do not have in their native language, with other sounds which are close to them in the place of articulation e.g. they replace /p/ with /b/, /θ/ with /s/ etc. Another reason is the mispronunciation of the sounds is the result of the over practice of the first language, a process of

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[2] Toyyibah Toyyibah, "Fossilized Phonological Errors of English Department Students of Stain Kediri," *Realita : Jurnal Penelitian Dan Kebudayaan Islam* 10, no. 1 (2012): 25–36.

[3] David Nunan and Ronald Carter, *The Cambridge Guide to Teaching English to Speakers of Other Languages* (Cambridge: Cambridge University Press, 2001).

[4] J. D. O'Connor, *Better English Pronunciation* (Cambridge: Cambridge University Press, 2003).

[5] George Yule, *The Study of Language* (Cambridge: Cambridge University Press, 2020).

fossilization[6]. Accordingly, Hartina[7] found that mother tongue interference was the main cause of unnatural pronunciation. Wei[8] also postulates that phonological fossilization refers to the repetition of phonological errors which result from the incorrect acquisition of pronunciation of L2, usually affected by L1. According to Hiúmanolu[9], fossilized pronunciation errors are chronic articulation mistakes made by language learners in the acquisition of the phonological system of the target language which continue for a long time and cannot be easily solved.

However, Yani[10] proposed that the most possible source of mispronunciation is even the English classes, as the environment from which EFL learners get input. Their schools become the most influential environment for them. It is a common practice that EFL learners listen and use English words in class during the English lessons. They listen to the sounds of English from their English teachers' talks. Therefore, the most possible source of learners' incorrect pronunciation is their teachers' pronunciation. This means that preparing EFL teachers in order that they have good pronunciation is one effective way to prevent the occurrence of mispronunciation of EFL learners. Developing materials of English Phonetics and Phonology that are appropriate with the needs of EFL teachers is worth conducting.

ELT Departments in Islamic Higher Education Institutions are designed to produce EFL teachers. Since the departments are under the Ministry of Religious Affairs and the students commonly share the same socio-cultural background, i.e. Muslims and have learned Arabic before English, the materials should be made accordingly. Kralova[11] said that a

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[6] E. I. Hassan, "Pronunciation Problems: A Case Study of English Language Students at Sudan University of Science and Technology," *English Language and Literature Studies* 4, no. 4 (2014): 31–44, https://doi.org/10.5539/ELLS.V4N4P31.

[7] Hartina Hartina, "Phonetic Analysis of English Segmental Sounds Produced by The Students of English Education Department at UIN Alauddin Makassar" (diploma, Makassar, Universitas Islam Negeri Alauddin Makassar, 2018), http://repositori.uin-alauddin.ac.id/12841/.

[8] Xueping Wei, "Implication of IL Fossilization in Second Language Acquisition," *English Language Teaching* 1, no. 1 (June 2008): 127–31.

[9] Murat Hişmanoğlu, "The [ɒ:] And [Oɒ] Contrast as a Fossilized Pronunciation Error of Turkish Learners of English and Solutions to the Problem," *Journal of Language and Linguistic Studies* 3, no. 1 (April 1, 2007): 98–115.

[10] Ahmad Yani, "Teachers' Incorrect Pronunciation and Its Impact on Young Learners: (A Review on Linguistic Aspects of EFL Classroom Practices)," in *Proceeding of TEYLIN 2: From Policy to Classroom*, 2017, 179–89.

[11] Zdena Kráľová, "Foreign Language Anxiety," *Undergraduate of Constantine the Philosopher University, Nitra, Slovakia*, 2016.

foreign language competence (including pronunciation competence) cannot be limited to the contrastive analysis of two language systems. Making use of learners' prior knowledge and socio-cultural contexts would be benefecial for them to learn English phonetics and phonology. Anyhow, studies developing materials of English Phonetics and Phonology that is based on the learners' prior knowledge have been overlooked, especially those for Indonesian EFL learners. A great deal of studies on developing ELT materials, such as developing materials for teaching English skills and language components for each level of education, can be found; but none of them is developing materials of English Phonetics and Phonology. On the other hand, among Indonesian EFL learners, students of English Department at universities, institutes and colleges under the Ministry of Religious Affairs, have prior phonological knowledge and socio-cultural background that are in certain extent different from students in other contexts.

Therefore, curriculum, including instructional materials, of non-religious programs at Islamic higher education institutions should be characterized with the integration of the diciplines and religious studies. This is the characteristic that distinguishes Islamic higher education institutions from other higher education institutions[12]. The most current decree of Directorate of Islamic Education[13] under the Ministry of Religious Affairs has answered the questions of how to implement science integration in Islamic higher education institutions.

Responding to the above-illustrated background, this research and development study is intended to develop appropriate materials of English Phonetics and Phonology for English Departments at Islamic higher education institutions. Thus, the problem to be solved through the present study is formulated as the following: "What is the most appropriate material of English Phonetics and Phonology for ELT Departments at Islamic Higher Education?"

As this study is intended to develop instructional materials, Research & Development (R & D) design is applied. This R & D research adapted the procedure in System Approach Model proposed by Dick and Carey (2001)[14],

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[12] Direktorat Jenderal Pendidikan Tinggi Islam, *Panduan Pengembangan Kurikulum PTKI Mengacu Pada KKNI Dan SN-Dikti* (Jakarta: Kementerian Agama Republik Indonesia, 2018).
[13] Direktorat Jenderal Pendidikan Tinggi Islam, *Pedoman Implementasi Integrasi Ilmu Di Perguruan Tinggi Keagamaan Islam (PTKI)* (Jakarta: Kementerian Agama Republik Indonesia, 2019).
[14] Walter Dick, Lou Carey, and James O Carey, *The Systematic Design of Instruction* (Boston: Pearson Education, Inc., 2005).

as elaborated by Borg and Gall[15]. The steps of R&D cycle implemented in the present study were Information Gathering, Developing Preliminary Form of Product, Expert Validation, Revision 1, Field testing, Revision 2, and Final product.

The participants of this study were ELT Department students of IAIN Kediri taking English Phonetics and Phonology. Forty students were selected randomly to be involved at the phase of research and information gathering. The data collected from the preliminary observation and interviews during information collection were analyzed such a way to describe the actual students' needs. The students' needs include the topics and sub-topics of the materials and the learning activities they prefered. The results of this needs analysis were used as the guidance for preparing the developed materials. The product draft was tried out in two out of the six classes of English Phonetics and Phonology supervised by a teacher who was the developer as well.

Phonetics and Phonology in Language Teaching

Phonetics and phonology are branches of linguistics that are dealing with speech sounds of human language. Thus, phonetics and phonology, in a certain respect, are dealing with many of the same things. Brown defined phonetics as the scientific study of all aspects of the spokenform of language.[16] Phonetics deals with speech sounds themselves, how they are made (**articulatory phonetics**), how they are perceived (**auditory phonetics**) and the physics involved (**acoustic phonetics**).[17] Brown added that articulatory phonetics thus describes the way humans use their vocal organs to produce speech sounds. Phonology, on the other hand, describes the way these sounds function in particular languages.[18]

Linguists regularly use these two terms with this contrast in mind, *phonology* to refer to the system and units of linguistic sound that are meaningful for a language and *phonetics* to refer to the physical properties of those units. Meanwhile, the term *pronunciation* tends to have a practical or applied emphasis and so is generally not used by theoretical linguists and

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[15] Meredith Damien Gall, Walter R. Borg, and Joyce P. Gall, *Educational Research: An Introduction*, Educational Research: An Introduction, 6th Ed (Boston: Pearson Education, Inc., 2003).

[16] Adam Brown, *Pronunciation and Phonetics: A Practical Guide for English Language Teachers* (New York: Routledge, 2014), 2, https://doi.org/10.4324/9781315858098.

[17] Mike Davenport and S. J. Hannahs, *Introducing Phonetics and Phonology*, 4th ed. (London: Routledge, 2020), 4, https://doi.org/10.4324/9781351042789.

[18] Brown, *Pronunciation and Phonetics*, 4.

researchers in second language acquisition (SLA), who typically refer to *phonology* (or occasionally *phonetics*) as their area of study. Language teachers generally use the term *pronunciation*, referring to an area of proficiency in language learning or a type of skill in spoken language performance, rather than *phonology*.[19]

Park-Johnson and Shin[20] elaborated phonetics and phonology from the units of language. They used the term "layers". The first layer is phonetics, which is the smallest unit of language. Phonetics is the study of the sounds of languages, which come together to form syllables, words, phrases, clauses, sentences, and paragraphs. It is analogous to the cells in our bodies: they are the building blocks. Every language and dialect has a unique set of sounds, or phonetic inventory, that is used to build the language. The next layer of the language cake is phonology. Many people use phonology interchangeably with phonetics, but there is an important distinction. While phonetics is the study of sounds, phonology is the study of the relationship between these sounds.

Do English teachers need to study linguistics? According to Park-Johnson and Shin, language teachers are basically linguists. It is important form them to be able to recognize and understand the parts of language, i.e sounds, words, phrases, sentences, as well as the relationships between those parts. A language teacher is just like a doctor who would not begin a treatment without understanding how the human body works. They illustrated that knowing the parts of language, not only being able to speak the language, understanding what it is we are using is helpful. In addition, when analyzing errors that the students make, language teachers have to identify the errors and recognize the patterns of occurrence, and then explain the phenomena, not just say "let's practice not making that error." That is a main part of what linguistics is: patterns and tendencies and characteristics of language.

In addition, Ellis proposed that, in second language learning, the influence of linguistic aspects is strong as linguistic difference influences learners' ability to learn the language[21]. On teaching pronunciation, Harmer argues that most teachers make little attempt compared to the teaching of

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[19] Pennington and Rogerson-Revell, *English Pronunciation Teaching and Research, Contemporary Perspectives*, 4.

[20] Sunny K. Park-Johnson and Sarah J. Shin, *Linguistics for Language Teachers: Lessons for Classroom Practice* (New York: Routledge, 2020), 2–4, https://doi.org/10.4324/9781315545462.

[21] Rod Ellis, "Second Language Acquisition, Teacher Education and Language Pedagogy," *Language Teaching* 43, no. 2 (April 2010): 182–201, https://doi.org/10.1017/S0261444809990139.

other aspects such as vocabulary and grammar where the last two aspects get more attention from teachers.[22] Thus for EFL teachers, the mastery of linguistics cannot be separated from the essence of the teaching. More specifically, mastering English phonetics and phonology is crucial for teaching EFL.

Science Integration in Islamic Higher Education Institutions (PTKIs)

Thoughts and ideas about the integration of science emerged mainly because of the belief or idealism that science should be integrated, not compartmentalized into religious science and other sciences or general science. In the literature on the history of science in Islam, the classification of science into only two major disciplines, namely the religious sciences and general sciences, is not found. Among the PTKIs, there are 7 (seven) model of science integration proposed by 7 (seven) Islamic universities, those are: (1) UIN Syarif Hidayatullah: *Interaksi Ilmu Terbuka dan Dialogis;* (2) UIN Sunan Kalijaga Yogyakarta: *Integrasi ilmu yang interdisplinary dan multidisplinary dengan skema pendekatan Jaring Laba-laba; (3)* UIN Maulana Malik Ibrahim: *Integrasi ilmu dengan simbolisasi Pohon Ilmu;* (4) UIN Sunan Gunung Djati Bandung: *Integrasi Ilmu dengan simbol Roda Ilmu dengan prinsip Wahyu Memandu Ilmu;* (5) UIN Alaudin Makassar: *Integrasi Ilmu dengan simbol Rumah Peradaban*; (6) UIN Sunan Ampel Surabaya: *Integrasi Ilmu dengan simbol Menara Kembar Tersambung dengan Jembatan;* and (7) UIN Walisongo Semarang: *Integrasi Ilmu dilambangkan sebagai Intan Berlian Ilmu*.[23] From the seven proposals for the formulation of the integration of UIN science above, it appears that religious knowledge (sourced from the Qur'an and Hadith) is one of the important bases in the development of science, including in other sciences such as natural sciences, social sciences, humanities, medical and health sciences as well as art.

In the field of education and instruction, one of the implementations of science integration is in the formulation of materials, which are then transferred into courses. It is to respond to this policy this R & S study was conducted. EFL students of PTKIs have basically been familiar with phonological processes when study *al-tajwid* of the Holy Qur'an. While the Qur'an as religious text is regarded as sacred, the language of the Qur'an

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[22] Jeremy Harmer, *The Practice of English Language Teaching* (Harlow: Pearson Education, Inc., 2007).

[23] Direktorat Jenderal Pendidikan Tinggi Islam, *Pedoman Implementasi Integrasi Ilmu Di Perguruan Tinggi Keagamaan Islam (PTKI).*

(namely, classical Arabic), like any other natural language, yields to phonological analysis.[24]

Preliminary Research and Information Collection

Observation in the present study comprises observation on students' ability and responses, and class activities during one semester while the product was developed and tried out. The observation was conducted by the researcher who was the teacher of English Phonetics and Phonology as well.In first meeting, after introducing the course outline, the teacher tried to identify students' pronunciation by opening a question and answer session. This question and answer session was intended not only to identify students' pronunciation skills but also to elicit students prior knowledge of English phonetics and phonology as well as their expectations to learn by joining this class. The teacher's questions included:

a. Have you heard the term "phonetics" and "phonology"?
b. Can you guess the root of these terms?
c. Can you guess the meaning of "phonetics" and "phonology"?
d. Have you ever thought about the relation between linguistics and Islam?
e. What do you expect to learn by joining this class?

Some students answered that they have ever heard the terms, but they did not know the meaning. They also did not know that these two terms share the same root "phone". When they were aware of this fact, they could guess that these two terms are related to sound. Meanwhile, no one of the students could answer the question related to the spiritual meanings of phonetics and phonology. They commonly did not have any idea of how linguistics relates to Islam. One student tried to answer, but he was not quite sure, that studying linguistics is part of pursuing knowledge, an activity that every Muslim must do.

Related to teacher's questions on their expectations by joining this class, their elicited answers are as the following:

a. To improve their pronunciation. They also realized that their pronunciation was frequently incorrect.
b. To be native-like, so that they can communicate with English native speakers. Some of them said that they had experienced the fact that they

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[24] A. Effendi Kadarisman, *From Description to Explanation: Essays in Linguistics and Applied Linguistics* (Linguistic Society of Indonesia, 2015), 69–99, //perpustakaanbadanbahasa.kemdikbud.go.id/slims/index.php?p=show_detail&id=26457&keywords=.

were misunderstood when having conversation with an English native speakers. A student shared her experience that in a discussion with an American English teacher volunteer, they did not only have difficulty in understanding the volunteer's English but also their English was scarcely understood. This real experience was then supported by some other students.

c. To know further about "phonetics", "phonology" and also "linguistics". This answer appeared when stimulated with teacher's illustration on linguistics and some of its sub-disciplines. They said that it was really something new for them and were curious to learn this science further.

d. To be a good English teacher. As students of English Language Teaching, being English teacher is certainly the most favourable profession they expect to be. In the class discussion, they conveyed their intention to be good teachers. They were aware that this desire required their good pronunciation. They agreed with the teacher's illustration on the importance of pronunciation and recognized that whatever they will teach later, they basically teach pronunciation. Instructions and explanation in good English should be provided by any teacher. They are the real model for their students. Therefore, they recognized that each of them will be pronunciation teachers.

On the other hand, their pronunciation skills still need to be improved. Pre-test that was then conducted afterwards support this inference.

Results of Pre-Test

Pre-test was intended to measure students' pronunciation skills. This oral test was conducted in the beginning of the semester. Each student was given a list of words and phrases to pronounce. Words and phrases to pronounce in the test contained all marked English sounds and various vowels and diphthongs.

They make many mistakes in pronouncing certain consonants, especially those that are not available in Bahasa Indonesia. The English consonants which are pronounced incorrectly by most students in the observed classes are /ʒ/, /ʤ/, /ʧ/, and /θ/ in all positions, initial, medial and final. They replace these distinctive and unique sounds of English with other sounds which are available in their mother tongue and are therefore easier to pronounce. For example, they substitute /ʤ/and /ʧ/, alveo-palatal affricates, as in the end of the words "judgement" and "research", with /j/ and /c/, alveo-palatal stops, respectively by reducing the friction. It is

because these are the Indonesian sounds which are most similar to English /dʒ/ and /tʃ/. Some of them pronounce both /tʃ/ and /θ/ as /t/, an alveolar voiceless stop which is the closest Indonesian sound. Students having thesis examination have been repeatedly corrected by the examiners and students taking English Phonology have also been trained to pronounce the sounds correctly. However, most of them still make mistakes in their natural production of the sounds.

Some students do not only make mistakes in pronouncing distinctive and unique English sounds but also such universal or unmarked sounds as /g/ and /t/. They substitue /g/ in the word target with /dʒ/, a marked English sound. This can be result of both interlanguage transnfer and overgeneralization. They pronounce /tardʒet/ instead of /target/ because the English word *target* is already borrowed into Bahasa Indonesia and usually pronounced /tardʒet/. This can also be categorized into overgeneralization phenomenon because in English *g* is sometimes pronounced [dʒ] as in *general, gender* and *large*.

Students' Expectations

The other preliminary study to collect information was eliciting what students expect by joining the class of English Phonetics and Phonology and what class activities they prefer. These two sets of information are obtained through two questionnaires. The first contains 17 close questions, while the second comprises 10 points of class activities. Each student was asked to answer the questions based on their own view or experience.

In general, the result shows that practical skills, i.e. being able to speak English with correct pronunciation and being able to pronounce English consonants and vowels correctly, are the most favorable expectations; meanwhile, theoretical knowledge, i.e. to understand what "linguistics" is and to understand the meaning of "language" and its features, are the least favorable ones. In other words, most students expects that they will get practical skills rather than theoretical aspects of English Phonetics and Phonology. It means that student are aware of the fact that pronunciation is important, and they recognize that their pronunciation still needs to improve. On the other hand, they are not aware of the significance of theoretical aspects of this course.

However, students are also very curious about the theoretical aspect of phonetics and phonology, i.e. how sounds are produced. The three next ranks go back to the practical skills, i.e. how to differenciate English

consonants that are similar, to speak English with good stress and intonation, and how to differenciate English vowels that are similar. In short, students think that they need both aspects of knowledge in this course. Both theoretical and practical knowledge are, according to the students, important for them, although they tend to be more interested in practical skills.

The next position are three points of theoretical aspects, i.e to understand the meaning of "phonetics" and "phonology", to understand how consonants and vowels are produced and know the significance of learning English Phonetics and Phonology. Although the expectation that they are able to pronounce English diphthongs correctly is included pratical skill, this expectation only get . This may be because they do not understand yet what diphthong is, they do not know that diphthongs are basically part of vowels.

The other students' expectations related to theoretical aspects take the next position. Another point interesting to discuss is that, although they are students of English Language Teaching, the expectation of being able to apply English Phonology in teaching and learning English is only at the 13th position in the rank.

1. Expert Validation

Expert validation was firstly obtained for research instruments, i.e. questionnaires for needs analysis (students' expectations and class activities) and questions for expert validation of the developed product. The results of this first expert judgement were as presented in the previous sections.

This section presents the results of expert validation of the developed product. After the materials was developed, it was given to an expert of phonetics and phonology to be validated. The questionnaire consists of 29 points of statements, asking the expert's view on the course objectives (3 statements), the topics and sub-topics (4 statements), the content (4 statements), the language (2 statements), the instruction (2 statements), the examples provided (2 statements), the exercises (4 statements), and the book performance (8 statements). The answers provided for the expert contained 5 options. For each statement, the highest score was 5 and the lowest score was 1. Five represented "strongly agree", 4 represented "agree", 3 represented "moderate", 2 represented "disagree" and 1 represented "strongly disagree".

The scores given by the expert were mostly 4 (agree), and some of them were 5 (strongly agree). In terms of objectives, this product has clear

and complete objectives, and also appropriately ordered. The topics and sub-topics were also quite reflected in the objectives.

Accordingly, in the view point of the expert, content was sufficient for each meeting and very suitable fot the objectives. Explanation and illustration provided were also clear and accurate. In addition, materials discusses each theory and practice sufficiently. This enough coverage of theory and practice was in line with the course objectives.

Next, the language used in the developed product was quite clear, understandable and suitable for the language proficiency level of the students. Accordingly, the instruction presented was also clear, focused and specific. The given examples were quite helpful for the students to understand better the instruction. Furthermore, exercises provided at the end of each chapter were clear and appropriate, and promote the students' knowledge of the topics. Besides, the exercises in the product enabled the students to work individually and collaboratively as well.

In terms of book performance, the book size, the choice of font and the use of tables, figures and page number were very good and therefore did not need to be revised. Meanwhile, the book design and the arrangement of the materials were good but needed to be made better.

The total score of the expert validation was 128, while the total of the maximum score was 29X5 = 145. It means that the validity level was: (128/145) X 100% = 88.96 %. The calculation shows that the validity level of the developed product can be categorized as good. The score (88.96%) indicated that the developed product was generally good and elligible to be used as the handbook or instructional materials for English Phonetics and Phonology. However, some parts were revised accordingly. The statement of the objectives were reformulated, more illustrations and examples were provided in order to make the concept presented to be more contextual. Such aspects of book performance as headings and sub-headings as well as the arrangement of the materials were also revised as suggested by the expert and the participants of the focus group discussions.

2. Field testing

The result of the expert's validation as elaborated in the previous section was used as the basis for the revision. The revised product was then tried out to the students of English Phonetics and Phonology. The try out was conducted during the first half of the odd semester in 2020/2021 academic year, i.e. in September and October 2020. The try out was limited

to the first five chapters: Chapter 1 (Language and Linguistics), Chapter 2 (Spiritual Meanings of Studying Languages and Linguistics), Chapter 3 (Phonetics and Phonology), Chapter 3 (Speech Sound Production), Chapter 4 (Places of Articulation) and Chapter 5 (Manners of Articulation). This try-out was required to identify the students' responses on the use of the developed product. The responses during the try-out were important information to reveal the appropriateness and the usability of the product. In the product try out, the researcher acted as the lecturer who implemented the developed instructional materials, and it was the only textbook that was used in the class. The implementation of the product in the class ran well, without any difficulty. The students were quite motivated to join the sessions. They were actively involved in the class discussion, group works as well as in class or individuals drills of pronunciation. They also did the exercises and assignments well, either in the classroom or at home. The class atmospehere was also conducive for the learning process

At the end of the fifth meeting, students were given a questionnaire to answer. The questionnaire consisted of 12 questions, asking about students' responses on their interest in the materials, the relevance of the materials with their real life, the clarity of the instruction, the illustration and the examples, the exercises, the appropriateness of the language, and the possibility of their independence in learning. There were 5 options provided. The scores were ranging from 5 to 1. Five represented "strongly agree", 4 represented "agree", 3 represented "moderate", 2 represented "disagree", and 1 represented "strongly disagree".

Employing the answer of 20 students, the highest score was 81 and the lowest score was 64. The highest score was for questions on the attractiveness of the materials. Almost all students agreed that the materials were attractive. Questions on the instructions, the illustration, the examples, and the exercises ranged from 76 to 79. Meanwhile, questions on the language and the possibility for them to work independently got the lowest scores, each was 65 and 64 respectively. This latest information shows that the language was quite difficult to understand and therefore the students were reluctant to study the materials independently, without teacher's guide.

However, as a whole, the final result of the calculation shows that the developed product can be categorized as good. The total score was 904 and the maximum score was 1200. Using percentage formula as in the following, the scores of the try-out was 75.33 %. Consulted to the validity level conversion, 75.33 % was categorized as good (75% - 89%).

Accounting for the students' score, some revisions were made before the final product was developed. Illustrations was presented with more pictures and examples, and pronunciation practice guided by the teacher was added. Anyhow, there was no significant revision in terms of the language used. It seemed that the students thought that language was difficult was simply because there were many technical terms related to English phonetics and phonology. There was no other way to help them understand the book apart from trying to make the terms familiar with them.

3. The Product

Considering the results of preliminary research, expert validation and students' responses during the try-out of the draft of the product, the final product was finally developed. Needs analysis, observation in classrooms, and interview with the students are the techniques to know the students more deeply. This is in line with Richard's proposal[25] that material development should consider the learners' needs. This section presents the summary of the product, which includes Course Description, Course Objectives, Topics and Sub-topics, Concept Map, and example of the lesson plan for the first two meetings.

Course Description

English Phonetics and Phonology is a compulsory course with 2 credit hours per week. The significance of this course arises from the fact that pronunciation is considered to be one of the most important aspects of language learning. This is because pronunciation errors may lead to confusion and total misunderstanding. These errors may be avoided when students learn the sounds of the language they are learning, which includes learning sounds in isolation as well as in connected speech.

This course introduces the students to the practical and theoretical study of speech sounds (phonetics) and to the systematic use of such sounds in language (phonology). Regarding with phonetics, the course covers the vocal tract and its function in producing speech sounds, besides the phonemic symbols for transcribing the spoken language. Consonants and vowels are described in articulatory terms (i.e. places and manners of articulation). Attention is especially drawn for English sounds that are not available in Bahasa Indonesia. With regard to phonology, students study

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[25] Jack C. Richards, "Materials Development and Research—Making the Connection," *RELC Journal* 37, no. 1 (April 1, 2006): 2, https://doi.org/10.1177/0033688206063470.

contrastive sounds of English –phonemes— as well as the phonological processes whereby the pronunciation of such sounds is affected when grouped with other sounds.

Furthermore, this course is also intended to build students' awareness of the spiritual meanings of learning linguistics, including English Phonetics and Phonology. At the very beginning of the course, they should realize that their efforts can be noted as worship to Allah when their main intent of learning English is to learn one of the signs of Allah's power, that is the diversity of language, as stated in The Qur'an surah Ar-Rum: 22.

Course Objectives

Integrating Islamic values and the Indonesian national qualification framework (KKNI) for level 6 (undergraduate or S1)[26], the course objectives are formulated as the following.

By the end of this course, the students are expected to:
1. Be aware of the spiritual meaning of learning English Phonetics and Phonology (CP1.01 and CP1.02)
2. Be aware of the importance of pronunciation in language teaching and learning (CP3.02)
3. Be able to demonstrate knowledge and understanding of (CP3.02):
   a. The principles underlying the classification and description of speech sounds and prosodic patterns;
   b. The articulation of English sounds;
   c. The distinction between phonemes and allophones;
   d. The different connected speech processes, such as assimilation, deletion, insertion, linking, etc.;
   e. The principles of transcribing spoken language using IPA (International Phonetics Association) symbols.
4. Be able to demonstrate that they can (CP2.10):
   a. Pronounce English sounds in isolation and in connected speech;
   b. Transcribe spoken language using IPA symbols;
   c. Read aloud phonemic transcriptions of spoken English;
   d. Do phonemic analysis at level of elementary to intermediate.

The Topics and Sub-Topics

To achieve the formulated course objectives, topics and sub-topics presented in the product comprises both theoretical and practical aspects of

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[26] "Peraturan Presiden Republik Indonesia Nomor 8 Tahun 2012 Tentang Kerangka Kualifikasi Nasional Indonesia" (2012).

English phonetics and phonology. English Phonetics and Phonology has 2 credit hour per week. In one semester, there are commonly 16 meetings, 14 meetings are devoted for discussing the materials and 2 other meetings are for midterm and final tests. Theoretical elaboration on the topic or sub-topic is presented first, followed with more actual examples. The practical aspects are introduced through teacher's demonstration and exercises at the end of each session. Table 1. presents the list of topics and sub-topics being discussed in the book.

Table 1. Topics and Sub-Topics

Meeting	Topics	Sub-topics	Section
1	Language and Linguistics	Properties of Language	
		Linguistics and Its sub-fields	
		Linguistic Competence	
2	Spiritual Meaning of Studying Languages and Linguistics		
3	Linguistics and Language Teachers		
4	Phonetics: The Sounds of Language	Why do we need a phonetic alphabet	
		Articulatory Phonetics: How the Sounds are Produced	
5		Consonants	Places of Articulation
6			Manners of Articulation
7		Vowels and Diphthongs	
8		Phonemic Transcription	
9		Suprasegmental	Length, stress and pitch
10	Phonology	Linguistics Knowledge	

11		Phoneme and Allophone	
12		Phonological Processes	
13		Syllables	
14	Concluding Remarks	How to Help Students Improve Their Pronunciation	

The Syllabus

The elaboration of course objectives into learning outcomes of each meeting, the corresponding materials, class activities as well as the indicators and the references is presented in the syllabus of this course. Table 2 illustrates example of the plan for 2 meetings.

Table 2. Example of the Syllabus

Me et ing	Learning Outcomes of Each Meeting	Topics/ Sub-Topics	Students' Learning Activities	Indicators of the achievement of Learning Outcome of Each Meeting	References
(1)	(2)	(3)	(4)	(7)	(8)
1	The students are able to show their understanding on (CP3.02): 1.1 the clear description of the course, including the objectives, the materials to learn, the learning strategies and the evaluation; 1.2 the definition of "language" 1.3 the basic properties of language	1.1 Introduction to the Syllabus 1.2 What is "language" 1.3 Basic Properties of Language	MEETING ACTIVITIES : ▪ Teacher and students begin the meeting by praying together. ▪ Teacher and students make agreement on the learning contract. ▪ Teacher brainstorms the students' ideas on the possible topics and sub-topics they want to learn in the course during the whole semester. ▪ Teacher connects each topics/ sub-topics with meaningful lines to make a concept map. ▪ Teacher brainstorms the students' ideas on what they know about "language" and the properties of language. ▪ Teacher writes the students' ideas on the board. ▪ Teacher presents the definition of "language" and the properties of language according to the experts. ▪ Teacher guide the students to organize the students' ideas by referring to the introduced references. ▪ Teacher guides the class to divide themselves into groups for the presentation begun next two weeks.	Students are able to : 1.1 acquaint themselves with the course description (the objective, the topics/ c sub topics, the teaching/learning strategies, and the concept map. 1.2 mention the definitions of "language" proposed by the experts 1.3 explain the properties of language and provide examples for each. 1.4 compare the characteristics of human and animal "language"	1. O'Grady, William, etc. 1997. *Contemporary Linguistics: an Introduction.* Boston: Bedford/St.Martin's. 2. Fromkin, Victoria.2020. *An Introduction to Language.* 7th edition. Massachusetts: Wadsworth. 3. Yule, George.1993. *The Study of Language.* George Yule. Cambridge: Cambridge University Press. 4. Chaer, Abdul. *Linguistik Umum.* Abdul Chaer. Jakarta: PT. RinekaCipta, 2012.

2	The students are able to show their awareness of the spiritual meaning of learning English Phonology	1.4 The spiritual meaning of learning English phonology	MEETING ACTIVITIES : ■ Teacher and students begin the meeting by praying together. ■ Teacher brainstorms the students' ideas about the basic objective of their lives ■ Teacher brainstorms the students' opinions about the objective of their learning linguistics ■ Teacher explore the students' ideas of how to make their learning linguistics meaningful spiritually ■ Teacher facilitates class discussion in order that they can draw conclusions that: 1. Language is one signs of God's power 2. Learning phonology, if started with an intention to learn signs of God's power, can strengthen their faith and belief. 3. Learning linguistics can be worth worship when started from such good intention	Students are able to: 1.1 explain that language is one of God's power 1.2 explain the importance of correct intention of learning English phonology 1.3 explain the connection of learning English Phonology and their religious belief. 1.4 demonstrate their positive performance toward English Phonology	Hadits Arba'in Nawawy Tafsir Jalalain

Conclusion

Materials for English Phonetics and Phonology is the final product of the present study. The integration of Islamic values with the materials started from designing the course objective which was then elaborated in the learning outcome and the topic. Such integration is the implementation of science integration as mandated behind the emergence of Islamic universities and institutes. The learning outcomes or the course objectives were also developed by referring to the points of Indonesian national qualification framework for the graduates of undergraduate education level. Moreover, the materials that integrated theory and pratice followed by some practical exercises or problems to discuss were the implementation of the main ideas of the qualification framework.

The developed product entitled ENGLISH PHONETICS AND PHONOLOGY FOR LANGUAGE TEACHERS includes three parts. The first part is cover, preface, introduction and table of content. The second is the materials that are designed to be discussed in 14 meetings. As this book is designed for students of teacher training study program, it does not include further discussion of phonological prosess and rules. Phonemic analysis was just introduced. The exercises were limited in phonemic analysis at the level of elementary or beginners. The book ends with some technical suggestions

on how to improve students' pronunciation, certainly by making use of teachers' knowledge about phonetics and phonology. The last part is bibliography. This book is especially appropriate for students of Islamic universties, since some aspects of the phonology of the Qur'an were employed to introduce some abstract concepts. This use of students' cultural background is the implementation of contextual teaching and learning. This product needs some revisions to make it better, more contextual and therefore easier to understand. Next products providing more contextual elaborations and illustrations, along with more comprehensbile language, are worth developing.

References

Brown, Adam. *Pronunciation and Phonetics: A Practical Guide for English Language Teachers*. New York: Routledge, 2014. https://doi.org/10.4324/9781315858098.

Davenport, Mike, and S. J. Hannahs. *Introducing Phonetics and Phonology*. 4th ed. London: Routledge, 2020. https://doi.org/10.4324/9781351042789.

Dick, Walter, Lou Carey, and James O Carey. *The Systematic Design of Instruction*. Boston: Pearson Education, Inc., 2005.

Direktorat Jenderal Pendidikan Tinggi Islam. *Panduan Pengembangan Kurikulum PTKI Mengacu Pada KKNI Dan SN-Dikti*. Jakarta: Kementerian Agama Republik Indonesia, 2018.

———. *Pedoman Implementasi Integrasi Ilmu Di Perguruan Tinggi Keagamaan Islam (PTKI)*. Jakarta: Kementerian Agama Republik Indonesia, 2019.

Ellis, Rod. "Second Language Acquisition, Teacher Education and Language Pedagogy." *Language Teaching* 43, no. 2 (April 2010): 182–201. https://doi.org/10.1017/S0261444809990139.

Gall, Meredith Damien, Walter R. Borg, and Joyce P. Gall. *Educational Research: An Introduction*. Educational Research: An Introduction, 6th Ed. Boston: Pearson Education, Inc., 2003.

Harmer, Jeremy. *The Practice of English Language Teaching*. Harlow: Pearson Education, Inc., 2007.

Hartina, Hartina. "Phonetic Analysis of English Segmental Sounds Produced by The Students of English Education Department at UIN Alauddin Makassar." Diploma, Universitas Islam Negeri Alauddin Makassar, 2018. http://repositori.uin-alauddin.ac.id/12841/.

Hassan, E. I. "Pronunciation Problems: A Case Study of English Language Students at Sudan University of Science and Technology." *English*

Language and Literature Studies 4, no. 4 (2014): 31–44.
https://doi.org/10.5539/ELLS.V4N4P31.

Hïşmanoğlu, Murat. "The [☐:] And [O☐] Contrast as a Fossilized
Pronunciation Error of Turkish Learners of English and Solutions to
the Problem." *Journal of Language and Linguistic Studies* 3, no. 1 (April 1,
2007): 98–115.

Kadarisman, A. Effendi. *From Description to Explanation: Essays in Linguistics
and Applied Linguistics*. Linguistic Society of Indonesia, 2015.
//perpustakaanbadanbahasa.kemdikbud.go.id/slims/index.php?p=sh
ow_detail&id=26457&keywords=.

Kráľová, Zdena. "Foreign Language Anxiety." *Undergraduate of Constantine the
Philosopher University, Nitra, Slovakia*, 2016.

Nunan, David, and Ronald Carter. *The Cambridge Guide to Teaching English to
Speakers of Other Languages*. Cambridge: Cambridge University Press,
2001.

O'Connor, J. D. *Better English Pronunciation*. Cambridge: Cambridge University
Press, 2003.

Park-Johnson, Sunny K., and Sarah J. Shin. *Linguistics for Language Teachers:
Lessons for Classroom Practice*. New York: Routledge, 2020.
https://doi.org/10.4324/9781315545462.

Pennington, Martha C., and Pamela Rogerson-Revell. *English Pronunciation
Teaching and Research, Contemporary Perspectives*. London: Palgrave
Macmillan, 2019.

Peraturan Presiden Republik Indonesia Nomor 8 Tahun 2012 tentang
Kerangka Kualifikasi Nasional Indonesia (2012).

Richards, Jack C. "Materials Development and Research—Making the
Connection." *RELC Journal* 37, no. 1 (April 1, 2006): 5–26.
https://doi.org/10.1177/0033688206063470.

Toyyibah, Toyyibah. "Fossilized Phonological Errors of English Department
Students of Stain Kediri." *Realita☐: Jurnal Penelitian Dan Kebudayaan
Islam* 10, no. 1 (2012): 25–36.

Wei, Xueping. "Implication of IL Fossilization in Second Language
Acquisition." *English Language Teaching* 1, no. 1 (June 2008): 127–31.

Yani, Ahmad. "Teachers' Incorrect Pronunciation and Its Impact on Young
Learners: (A Review on Linguistic Aspects of EFL Classroom
Practices)." In *Proceeding of TEYLIN 2: From Policy to Classroom*, 179–
89, 2017.

Yule, George. *The Study of Language*. Cambridge: Cambridge University Press,
2020.