



## Perception of Undergraduate Agriculture Students towards English Language

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### Abstract

**Background:** The University of Agriculture, similar to other professional institutions like medical, law, and engineering schools, instructs all core subjects in English, and examinations, both oral and written, are conducted in English as well. Given the significance of English proficiency in these academic endeavours, the study aims to investigate the attitudes of agriculture students towards the English language and its four essential skills: listening, speaking, reading, and writing. The impetus for this research arises from the observed challenge where a majority of agriculture students struggle in their core subjects due to weaknesses in English proficiency.

**Purpose:** The primary objective of this study is to assess the attitudes of Agriculture students toward the English language and its fundamental skills. Additionally, the research seeks to identify potential differences in the attitudes between male and female students regarding English.

**Method:** This study adopted a mixed-methods approach to address its research questions. To ensure validity and reliability, the researcher utilized both quantitative and qualitative approaches for data collection and analysis. The quantitative data were gathered through a questionnaire employing a five-point Likert scale with 30 closed items. The analysis of the quantitative data was conducted using SPSS version 20.0. On the other hand, qualitative data were obtained through semi-structured interviews involving 30 purposefully selected students. Thematic analysis was employed to analyze the qualitative data, providing a comprehensive understanding of the participants' perspectives.

**Keywords:** Agriculture students' attitudes, English language skills, students' attitudes, mixed methods, questionnaire, interviews, ESP, needs, Agriculture English, Curriculum.

### Introduction

An extensive investigation was carried out in various districts of the Vidarbha region, aiming to explore the communicative role language plays in the agricultural development of Vidarbha. The study operates under the premise that language significantly influences agricultural progress, asserting that the choice and utilization of language determine the success of the agricultural sector and its overall impact on the national economy. While existing research has extensively covered areas such as agricultural products, practices, natural and organic food production, food-related risks, safety, storage, and health issues, notable contributions have been made in India by the Indian Council for Agricultural Research (ICAR). As a national institution focused on agriculture, ICAR has conducted substantial research on food crops, livestock and range management, land and water management, and socio-economics. Additionally, ICAR has dedicated efforts to technology generation, ensuring food security, enhanced productivity, and environmental conservation.

Given the significance of the agricultural sector, which employs the highest percentage of Indians, it is crucial for all citizens to possess relevant knowledge that encourages widespread participation for maximum production. This becomes particularly critical in rural areas, where the majority of farmers reside, necessitating access to pertinent knowledge and skills. While India boasts highly qualified professionals in agriculture engaged in research and capable of training graduates, the effectiveness of these graduates hinges on their ability to effectively communicate acquired knowledge and skills.

Presently, a considerable gap exists between the knowledge acquired and its practical implementation, negatively impacting the nation's development. The inaccessibility of knowledge renders it useless, and professionals in agriculture must not only possess specialized knowledge but also effective communication skills. Despite advancements in technology, the human factor remains crucial, and training emphasis has traditionally focused on content rather than the dissemination of that content. The lack of preparedness in

communication has hindered many professionals in carrying out their duties competently.

Rural clients, often illiterate or semi-literate, face a significant disadvantage as they lack direct access to knowledge and information. The failure to effectively communicate information on new agricultural technologies, droughts, pests and diseases, improved seedlings, fertilizers, credit, and market prices has led to the persistence of traditional farming methods in rural areas. This not only negatively affects production but also contributes to ecological damage and health hazards.

In light of advanced science and technology, there is a pressing need to communicate information about the positive and negative effects of post-industrial agriculture in a language understandable to all. Awareness about the consequences of modern fertilizers, such as land degradation, reduced water resources, health hazards to water animals, global warming, and climate change, is essential. The challenge lies in informing and engaging individuals on these matters to foster a more informed and sustainable approach to agriculture.

The potential of sustainable agriculture to positively contribute to economic development remains underutilized due to a lack of information. The crux of the matter lies in the limited linguistic competency of many professionals, hindering their ability to effectively communicate such information to the general public. The absence of this crucial information makes it challenging for stakeholders to devise strategies for either embracing new technologies or addressing emerging challenges. As a result, the full integration of sustainable agricultural practices into mainstream awareness and action is impeded by the communication gap between experts and the wider public.

The English materials currently utilized in the Faculty of Agriculture for the B.Sc. (Hons) Agriculture degree course primarily focus on teaching communication skills. This course, prescribed for various degree programs in State Agricultural Universities (SAUs), has a limited scope as it predominantly emphasizes communication skills, particularly in writing related to business and official communication. It offers minimal coverage on reading skills and lacks practical content for listening comprehension. Regarding spoken skills, the course lacks both practical and theoretical components relevant to agriculture and social contexts. Instead, it includes group discussions and interviews, which may facilitate interaction among learners but fall short of addressing the immediate subject specialization of agriculture.

While communication skills within a classroom setting are covered, the course neglects the broader societal interactions essential for agriculture students. These students need to engage not only with peers and instructors but also with farmers and scientists from other institutes as part of their studies. The course fails to address various communication needs in such situations. Additionally, it lacks elements that facilitate learning specialized agriculture courses, which can demotivate learners due to the perceived lack of immediate relevance.

Despite the materials being relevant to some professional needs, they lack emphasis on incorporating research materials tailored to specific disciplines, such as agricultural content for agriculture students. Subject-specific language is crucial for students to express linguistic elements and activities relevant to their specialization. ESP (English for Specific Purposes) materials should inspire and enthuse students by highlighting their obvious relevance, considering students as human beings

with individual needs rather than mere machines.

### Methodology

There are four agricultural universities in Maharashtra: Mahatma Phule Krishi Vidyapeeth in Rahuri, Dist Ahmednagar; Dr. Panjabrao Deshmukh Krishi Vidyapeeth in Akola; VN Marathwada Krishi Vidyapeeth in Parbhani; and Dr. Balasaheb Sawant Krishi Vidyapeeth in Dapoli, Dist Ratnagiri. English courses are a mandatory part of the first-year curriculum for students at these universities, as required by their degree programs. The syllabi for these courses are standardized across all four agricultural universities.

A perceived need has arisen to introduce materials that would inspire agricultural science learners to approach their specialized studies with greater dedication and enthusiasm. Currently, students face challenges as they have been exposed to a limited language scope that revolves around narrow domains, rendering agricultural English incomplete and lacking essential components. Consequently, there is a recognized need for the incorporation of English for Specific Purposes (ESP) to address these limitations.

To gauge student opinions on the introduction of ESP materials in the curriculum, a questionnaire was prepared and administered to randomly selected students from all four State Agricultural Universities (SAUs) in Maharashtra. Since English is a compulsory course in all agricultural universities in India, the respondents represented a diverse range of states, enhancing the generalizability of the findings. The questionnaire was distributed to 400 students, with 100 students from each of the four SAUs.

The specific objective of this study was to determine whether introducing ESP materials in the agricultural curriculum would be beneficial.

This study adopted a mixed-methods approach, utilizing both quantitative and qualitative methods to ensure the validity and reliability of the results. The integration of these two approaches was deemed appropriate for collecting and analyzing data in the present study. Marshall and Rossman (2006) <sup>[1]</sup> suggested that combining a qualitative approach enhances the acceptability and reliability of quantitative data. Wallace (2002:30) also advocated for the synergistic use of both questionnaire and interviewing techniques to exploit the strengths of each method. Best and Kahn (1989:89-90) affirmed the validity and utility of both types of research and emphasized their potential complementary role in a single investigation.

### Study Population and Sample

The population of this study comprised all B.Sc (Honors) 1<sup>st</sup> semester students at the University of Agriculture, who were enrolled in the 1stSemester. The total number of students enrolled in this semester was 400, according to the Director of the Teaching Office. From this population, a sample of equal number of Male and Female students were selected using the simple random sampling technique. The participants were predominantly majoring in various agricultural fields such as Agronomy, Agricultural Chemistry, Animal Health, Human Nutrition, Horticulture, Plant Breeding and Genetics, Plants Pathology, and Weed Science. As all these subjects are taught in English, therefore, the students are required to have full command over English.

### Data Gathering Instruments

To collect quantitative data for this study, a close-ended questionnaire, employing a 5-point Likert scale, was utilized.

The questionnaire consisted of 30 items and aimed to gather information about agricultural students' attitudes toward the English language at the University of Agriculture. The development of the questionnaire involved a comprehensive review of studies conducted by various authors to gauge respondents' attitudes toward the English language, with some items adapted from previous work (Karahan, 2007) [4].

The questionnaire comprised two parts. Part one focused on gathering respondents' demographic information, while part two sought information about the students' perceptions of the English language and its various skills. The questionnaire followed a format where respondents used a 5-point Likert scale to indicate their agreement or disagreement with statements: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA). Respondents were required to select the option they considered most appropriate for each item.

### Interviews with the Participants

Recognizing that respondents may not fully express their innermost feelings and attitudes through a written questionnaire, the principal researcher conducted semi-structured interviews with 30 students. These interviews were organized into five groups, each comprising 3 males and 3 females. The aim was to gain insights into the participants' perspectives on the English language. Following Creswell's guidance (2014:163) on conducting interviews for qualitative data collection, questions were framed to be open-ended, general, and focused on understanding the dominant phenomenon.

In accordance with good practice, all interviewees were informed about the nature of the questions, the date, time, and location of the interviews two days in advance. This approach ensured that participants had sufficient time to prepare and were aware of the context in which the interview would take place. The semi-structured nature of the interviews allowed for flexibility, enabling participants to express their views in-depth, providing a richer understanding of their attitudes towards the English language.

### Validity and Reliability

To ensure maximum validity and clarity of the instruments, both questionnaires underwent a thorough review by a group of eight faculty members from University of Agriculture. These reviewers were experienced professors with expertise in the relevant field, tasked with studying the questionnaires to assess their simplicity and ease to comprehend. The reviewers had the autonomy to revise and improve statements where necessary. In response to their comments and suggestions, certain statements in the questionnaires were revised, rephrased, or eliminated to enhance clarity and comprehensibility. Approximately 7% of the questions were deleted, and 12% were modified based on their feedback.

Reliability of the collected data was assessed using Cronbach's Alpha coefficient, a measure of internal consistency. The questionnaire demonstrated a high level of internal consistency, with a Cronbach's Alpha coefficient of .861. This indicates a strong reliability of the instruments, suggesting that the questions in the questionnaire consistently measured the intended constructs. The rigorous validation process and the high reliability coefficient contribute to the robustness and credibility of the data collected in this study.

### Data Analysis

For the quantitative data analysis, the descriptive statistical

procedure was employed to determine frequencies, percentages, and the mean of the data. An independent sample t-test was conducted to identify differences in attitudes between male and female students. The significance level was set at 0.05, indicating the threshold for statistical significance. This approach allowed for a quantitative exploration of the participants' attitudes toward the English language.

On the other hand, qualitative data gathered through interviews underwent analysis using a thematic data analysis approach. Thematic analysis is deemed suitable for qualitative data as it provides intricate, rich, and comprehensive insights (Braun & Clarke, 2006). This method focuses on what respondents say rather than how they say it, allowing the researcher to extract shared meanings and experiences. Bryman (2012) advocates for thematic analysis, emphasizing its ability to uncover collective or shared meanings and identify commonalities in responses to specific research questions. The iterative nature of thematic analysis enables researchers to revisit the data repeatedly, facilitating the sense-making process and the identification of recurring themes.

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