

Linguistic Memes and Medical Spoken English Teaching

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ABSTRACT

Richard Dawkins defines memes as another type of replicator aside from genes, serving as units of cultural transmission, with imitation and replication as their main characteristics. This study aims to explore the effectiveness of the "integrated listening, imitation, speaking, and performance" teaching model for medical English communication instruction from the perspective of memetics. The study examines and evaluates traditional teaching methods such as memorization, imitation, and association, incorporating the "integrated listening, imitation, speaking, and performance" model throughout medical English audio-visual courses. The goal is to enhance medical students' spoken English proficiency level and improve the current state of college English teaching.

KEYWORDS

meme; linguistic meme; medical English communicative skill improvement; teaching reformation

1 Introduction

Medical spoken English skills for medical students is an essential component in cultivating the international communication abilities of future healthcare professionals. Proficiency in medical English not only facilitates access to the latest medical knowledge and research findings but also enhances cross-cultural communication skills.

1.1 Analysis of the Current State of Medical Spoken English Teaching

However, in many medical schools, the current state of medical English speaking education is not promising. The primary reason is that students generally place greater emphasis on achieving high scores in written examinations, thereby neglecting the development of their speaking abilities. Despite the importance of medical English speaking skills, the examination system predominantly focuses on written tests, leading students to devote more effort to preparing for these exams. As a result, while students may excel in writing and reading medical terminology, they often lack confidence and fluency in actual spoken communication. Furthermore, the inadequacy of large class settings exacerbates this issue, resulting in suboptimal outcomes in medical students' speaking instruction. Therefore, it is imperative for medical schools to adjust their teaching strategies, enhance speaking training, and encourage students to actively participate in speaking practice activities to comprehensively improve their overall proficiency in medical English.

1.2 The Introduction of "Meme"

In his 1976 book *The Selfish Gene*, The British evolutionary biologist Richard Dawkins introduced

the term "meme." According to Dawkins, A "meme" is akin to the smallest unit of sound, the "phoneme," or the smallest meaningful unit of language, the "morpheme." Dawkins states, "A meme is a piece of information capable of self-replication" (Dawkins 211).

Humans have a propensity to share and repeat certain things. When we retell jokes or commercial jingles, these are instances of memes replicating themselves. The history of humans using memes for communication is as long as the history of using any other symbolic system. *The Webster's New World College Dictionary* defines a "meme" as "an idea, belief, or practice regarded as a unit of cultural information, which can be transmitted from person to person and is subject to influences similar to natural selection" (Webster 875).

The characteristics of memes have provided inspiration and insights for college spoken English practice. Introducing memetics into medical spoken English teaching can offer new approaches and perspectives, potentially achieving more effective teaching outcomes with less effort.

2 Memetics and Linguistic Memes

In French, "meme" can be translated as "the same," while in Greek, "mimoumai" means "to imitate." In "The Selfish Gene," Dawkins wrote, "We need a name for the new replicator, a noun that conveys the idea of a 'unit of cultural transmission' or a 'unit of imitation'." He desired a monosyllabic word that sounded like "gene." Dawkins proposed, "It should be pronounced to rhyme with 'cream' and can evoke the idea of 'memory,' or be associated with the French word 'meme'." It is evident that memes are another type of replicator, aside from genes, serving as units of cultural transmission. Their primary characteristics are imitation and replication.

Richard Dawkins' student, Black More, pointed out that the key to meme transmission is imitation, which is selective. Memes that are widely spread, have a long lifespan, and possess strong replicative abilities are often the dominant memes (More 4).

In everyday life, particularly in the online world, memes are ubiquitous. They exist in all forms of communication, including visual forms (such as image templates like the "Confused Black Guy"), auditory forms (such as the children's song "Listen to Me, Thank You," which has been used millions of times on Douyin to express sarcasm or critique rather than genuine gratitude), and action forms (such as Douyin dances and other video challenges involving physical movements).

One of the carriers of meme transmission is linguistic memes. These reflect the patterns of language dissemination and discourse propagation, with linguistic memes in spoken language primarily used for imparting knowledge, exchanging information, and employing language. Based on differences in transmission and replication methods, linguistic memes can be categorized into genotype memes, which involve the transmission of identical information in different forms, and phenotype memes, which involve the expression of varying content through similar forms.

Mememes in natural language are manifested in three aspects: education and knowledge transmission, the use of language itself, and communication and exchange through information (He 2005). According to the theory of linguistic memetics, under the influence of memes, words are replicated, and the creation of words is also replicated. This interaction pattern between humans and language is thus formed, allowing language learners to observe the changes and development of language. Therefore, we can say that the process of acquiring a language is a process of meme replication and transmission. Learning language requires continuously replicating linguistic memes for communication, thereby achieving the purpose of language application. This has certain implications for our current stage of medical spoken English teaching.

In alignment with the insights of memetics, it is essential in spoken English instruction to focus on the fundamental and most effective language inputs, such as imitation and the memorization of

preset language chunks, which can be considered "genotype memes."

He Ziran (2005) categorizes the replication and transmission of linguistic memes into two major types: the "genotype," characterized by "identical content with varying forms," and the "phenotype," characterized by "identical forms with varying content." Based on the four stages of meme replication and transmission—assimilation, retention, expression, and transmission—in everyday spoken English teaching, it is essential to focus on the most fundamental and effective language inputs, such as imitation and memorization of preset language chunks, which are "genotype linguistic memes." This should be combined with various "phenotype linguistic memes" that fit the contextual topics to develop students' language output abilities, through continuous replication, transmission, and innovation of linguistic memes.

3 Construction of the Memetics-Based Spoken English Teaching Model for Medical English

3.1 Overview of the "Integrated Listening, Imitation, Speaking, and Performance" Teaching Model

Based on the theoretical framework of memetics, the "Integrated Listening, Imitation, Speaking, and Performance" Spoken English Teaching Model for Medical English is constructed. This model integrates the four language skills—listening, speaking, reading, and writing—through six stages: listening comprehension, imitation assisted by smart devices, material recitation, extemporaneous speech, situational enactment, and topic presentation.

The first three stages "Listening comprehension and audio-video appreciation + imitation in various forms assisted by smart terminals + material recitation" constitute the language input of "genotype transmission of linguistic memes," which all language learners must adhere to over the long term, with a particular emphasis on the accumulation of strong linguistic memes. Stable strong linguistic memes include basic vocabulary, idioms, proverbs, and classic literary works.

During the first three stages, Homophonic linguistic memes exploit the feature of phonetic puns, facilitating communication by using words with the same pronunciation, similar spelling, identical structure, and different meanings. Teachers encourage students to accumulate a rich repertoire of language materials and adhere to the rules of phenotype linguistic memes. When expression is needed, students can skillfully substitute homophones or directly apply proverbs, idioms, and sayings to achieve humorous, natural, and vivid communication while maintaining the original structure.

For instance, the quote, "Medicines cure diseases, but only doctors can cure patients," emphasizes the significance of the doctor-patient relationship. A student once read it as "Medicines cure diseases, but only doctors can kill patients". Using the phonetic similarity, deliberately or not, he playfully mimicked the original quote, expressing medical students' concern over medical errors and patient safety. The student's move lightened the mood of the whole class, and make everyone believe learning medical English shouldn't be all that stressful. Memes have an uncanny way of capturing a feeling, experience, or state of mind which resonates with people, and humor can sometimes work its magic. For the medical students, if they find a group of fellow students who share their ideas, or even concerns, they feel a sense of belonging, and that adds to their beliefs in studying harder to "cure more patients, and kill less", not the other way around. Linguistic mime is an effective learning strategy, embedding jokes, parodies, and satire to make medical english learning less serious, more interesting. Homophonic linguistic memes are easy to imitate and have strong vitality, allowing students to use language fluently while making innovative expressions more impactful.

The latter three stages of "extemporaneous speech + situational enactment + topic presentation" belong to the language output of "phenotype transmission of linguistic memes," and will propagate different linguistic memes depending on the language proficiency level. For top-tier English speakers, such as participants in English speech competitions, the focus should not remain on the simple imitation and replication of linguistic memes, but rather on enhancing the ability to transmit and innovate linguistic memes.

These stages form a mutually supportive and reinforcing teaching system. The model aims to enhance medical students' spoken English expression abilities and motivation through imitation, recitation, association, and innovation.

3.2 Specific Stages of the Teaching Model

3.2.1 Listening Comprehension Stage

Listening comprehension is the foundation of spoken English expression. In this stage, teachers provide a large amount of medical English listening materials, such as news items, medical education videos, movie clips, and everyday conversations concerning medical contents, for students to listen to and understand. Through listening training, students can accumulate a wealth of input, improve their listening comprehension skills, and lay a solid foundation for subsequent spoken English practices.

3.2.2 Imitation Assisted by Smart Devices Stage

In the attempt to implement the teaching model, we extensively encouraged students to utilize smart terminals such as mobile apps or online resources during the listening and imitation stages. Data surveys also show that 90.7% of medical students have used functional software like the Youdao Dictionary on their phones, 12.1% have used dubbing software such as English Fun Dubbing Show, and 11.4% have accessed informational websites like Hujiang English.

Additionally, students mentioned other English learning software such as Baicizhan, Youdao spoken English Master, BBC English Listening, VOA Listening, CGTN App, CCTV News, and Coco English. Through repeated imitation and practice, students can gradually master correct pronunciation techniques and intonation patterns, thereby improving the accuracy and fluency of their verbal expression.

3.2.3 Material Recitation Stage

Recitation is an important method for improving English expression skills. In this stage, teachers provide students with spoken English materials, such as famous quotations and movie lines, for recitation and memorization. Through recitation practice, students can accumulate a large amount of language material and enhance their language application skills for medical contents.

3.2.4 Extemporaneous Speech Stage

Extemporaneous speech is a critical stage for testing students' spoken English expression abilities. In this stage, students perform impromptu expressions based on medical themes or medical situations provided by the instructor. Through extemporaneous speech practice, students can train their thinking skills and expression abilities, increasing their confidence and fluency in speaking. The most typical simulate scenarios are as follows: initiating patient consultations, explaining diagnostic results, performing emergency procedures, delivering health education to the public, etc.

3.2.5 Situational Enactment Stage

Situational enactment is a vivid form of expression. In this stage, students engage in role-playing based on scenarios or roles set by the instructor. Through situational enactment practice, students can better understand and master the practical application contexts and modes of medical English expression. The most applied medical scenarios are as follows: health education, patient consultation, doctor-patient communication, emergency response, multidisciplinary team meeting.

3.2.6 Topic Presentation Stage

Topic presentation is an important stage for testing students' comprehensive verbal expression abilities. In this stage, students deliver speeches and expressions centered around specific topics. Through topic presentation practice, students can train their thinking skills and communicative skills, thus enhancing the depth and breadth of their verbal expression.

4 Design and Implementation of the Teaching Experiment

4.1 Subjects and Grouping

This study selected two parallel first-year classes of medical majors at a medical college as the subjects of the experiment, designated as the experimental class and the control class. The experimental class adopted the "Integrated Listening, Imitation, Speaking, and Performance" spoken English teaching model, while the control class used traditional teaching methods. The two classes were comparable in terms of the number of students, gender ratio, and English proficiency.

4.2 Teaching Experiment Process

4.2.1 Implementation in the Experimental Class

In the experimental class, teaching was conducted strictly according to the "Integrated Listening, Imitation, Speaking, and Performance" model. The specific steps are elaborated in 3.2 of this paper.

4.2.2 Implementation in the Control Class

In the control class, traditional teaching methods were used, including teacher explanation, student listening, and classroom exercises. The focus was on medical terms and grammar explanation and training, with a lack of emphasis on developing students' medical English communication skills.

4.3 Data Collection and Analysis Methods

Data collection methods included questionnaires, spoken English tests, and interviews. The specific steps were as follows:

Questionnaires: Distributed to students in both the experimental and control classes before and after the experiment to investigate their interest, attitude, and motivation toward English oral learning.

Spoken English Tests: Conducted before and after the experiment to assess students' medical English communication abilities.

Interviews: Conducted with some students after the experiment to gather their views and suggestions on the "Integrated Listening, Imitation, Speaking, and Performance" model.

Data analysis: By comparing students' Spoken English test scores and questionnaire results before and after the experiment, the effectiveness of the "Integrated Listening, Imitation, Speaking, and Performance" model was evaluated.

5 Results and Analysis

5.1 Comparison of Medical English Communicative Proficiency between Experimental and Control Classes

The study found that the medical English communicative abilities of students in the experimental class improved significantly, as evidenced by enhancements in pronunciation accuracy, intonation naturalness, vocabulary richness, grammatical correctness, and fluency. In contrast, the improvement in the control class was minimal, showing a significant difference compared to the experimental class.

5.2 Analysis of Changes in Students' Medical English Communication Motivation

Questionnaires and interviews revealed that students in the experimental class showed a significant increase in expression motivation. This was reflected in their heightened interest in learning spoken English, willingness to participate actively in practice and performance, and a deeper understanding of the importance of English learning. Meanwhile, the control class showed little change in motivation, maintaining a somewhat negative attitude.

5.3 Analysis of Teaching Model Effectiveness

Comparing the teaching effects of the experimental and control classes, the study concluded that the "Integrated Listening, Imitation, Speaking, and Performance" model has significant advantages in improving medical students' expression abilities and enhancing motivation. The model integrates listening, speaking, reading, and writing skills through imitation, recitation, association, and innovation, forming a mutually supportive and reinforcing teaching system. It emphasizes not only the transmission of language knowledge and skill training but also the cultivation of students' language application and innovative thinking abilities.

6 Conclusion

This study confirmed the effectiveness of the "Integrated Listening, Imitation, Speaking, and Performance" teaching model for medical English communication through teaching experiments. The model significantly enhances medical students' Spoken English proficiency level and motivation, contributing positively to the improvement of current spoken English for medical English. Future research could further explore the model's application effects among students with different English proficiency levels and how to optimize its implementation with modern information technology.

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References

- [1] Dawkins, Richard. The Selfish Gene [M]. New York: Oup, 1976: 211-217.
- [2] Mores, Black. The Meme Machine[M]. Oxford: Oxford University Press, 1999:4-55.
- [3] Webster's New World College Dictionary. (2016). Meme. In Webster's New World College Dictionary (5th ed., p. 875). Houghton Mifflin Harcourt.