

Action Research to Promote Medical Students' Motivation in an English for Specific Purposes Class

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Abstract- Action research is an attempt to seek immediate solutions to the problems experienced in educational settings. In this type of research, teachers are the researchers who intend to make instant reforms to develop, and improve their teaching styles and reflect on pedagogical practices. The purpose of this study was to conduct an action research to tackle the problem of students' low motivation in English classes at the medical school of Iran University of Medical Sciences in fall 2010. Participants of this study were 98 third-semester ESP students of medicine. To reform the situation and promote students' motivation to participate in classes more actively and eagerly, the researchers changed the syllabus by applying Kemmis and McTaggart's (1988) cyclical model of action research, and adopting task-based teaching. Data was collected by means of interviews with both teachers and students to determine the changes to be made in the syllabus, classroom observations to monitor students' behavioral changes, and a questionnaire to assess students' attitudes towards the changes. This research study had a number of valuable outcomes the most important of which was a change in classroom behavior of the students.

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Introduction

English for Specific Purposes (ESP) is a core course every student of medicine in Iran is required to take in order to obtain a degree in the field. ESP is a three-unit course offered in the first three semesters at the medical school with the aim of helping students develop effective reading skills to conveniently access the information contained in medical textbooks or journals. A predetermined syllabus of the course, containing list of materials, assigned by the Ministry of Health and Medical Education, is conventionally used for ESP courses at the medical schools.

Regarding the auxiliary role of English in ESP classes in an EFL (English as a Foreign Language) context, where students enter the university with a limited English background, the motivation of students for learning the language is not as high as foreign students studying in an English speaking country where English is the medium of instruction (1)

Similarly, Iranian medical students entering the university with a minimal ability of using and understanding English, acquired at high school where the language of instruction is based on grammar translation method and the assessment is based on summative assessment as the final examination, develop a low motivation in ESP classes and view the courses as a means of increasing GPA or completing the degree.

To promote students' motivation in terms of attending ESP classes regularly, participating in class activities more fully, and eventually changing their attitudes toward language learning, an immediate change was necessitated. An action research was adopted to make positive changes in syllabus, monitor students' learning, and improve teaching practice. It was also envisaged that task-based teaching, with its focus on tasks in which learners are engaged in real life language use, would be more beneficial and motivating.

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Action research

Action research has gained increasing attention in English language teaching as a means of improving classroom practice and achieving educational changes. Action research has been defined in a variety of ways; for example, in a definition proposed by Mills (2), action research is described as a systematic investigation conducted by teachers to collect data about their own teaching and their students' learning with the goals of developing reflective practice and making positive changes in the educational environment. Burns (3) refers to action research as an approach taken by teachers to explore their own teaching reflectively, critically, and systematically. She asserts that the researcher, in action research, actively participates in the process of investigation, while making purposeful intervention with a subjective approach to improve her teaching practice and knowledge (4). McNiff (5) calls action research a form of "practitioner based", "self-reflective", and "self evaluation" research through a developmental process of following through an idea and checking it continually whether it is on a desirable direction.

Although definitions of action research may vary, they share similar features which distinguish this type of research from other forms. These features as argued by Kemmis and McTaggart (cited by 6) are as follows:

-It is conducted by classroom teachers rather than outside researchers;

-It is accomplished by collaboration;

-It is targeted to make changes.

Action research process begins with a cycle of posing questions, gathering data, reflecting, and deciding on a course of action (7). These steps are considered by Elliot (8) in the following characteristic cycle: (a) the reconnaissance and general plan (an understanding of a problem and developing plans); (b) the action (implementing a new strategy), (c) observation (monitoring the implementation by observation), and (d) reflection and revision (carrying out new strategies and repeating the cyclic process until an adequate understanding of the problem is achieved). Kemmis & McTaggart's iterative or cyclical model, page 9 (3) is composed of similar steps of planning, action, observation and reflection, shown in Figure 1, as integral steps of action research before revising the plan.

Action research focuses on the ideas of "teacher as a researcher" and "reflective practice" (3). The role of a teacher as a researcher and a theorizer has also been stressed by Kumaravadivelu (9) proposing that a teacher should make and practice his own theories by conducting

an action research in a classroom situation. However, it seems that most teachers are still reluctant to do it because they may have false notions about the process or they may not be aware of the beneficial effects of this type of research. For example, Fang (10) has observed that many English teachers in China feel less confident with the concept of 'research' and think they lack adequate research skills required for conducting research in their classrooms. Many teachers fear, Haley (11) remarked, that carrying out action research would require too much extra time that they do not have. Burns has noted that teachers who are more used to classroom teaching are scared of action research as they think it is time consuming and it might result in changes that "take them out of their comfort zone"(3,p6).

Despite most teachers' reluctance, there are a growing number of teachers who have adopted action research and have reported significant changes to their teaching practice. These teachers, Burns (3) has remarked, are reflective and view action research as a fascinating way of investigating puzzling issues in their classrooms. Ruso (12), in an action research, found that using task-based learning encouraged students' involvement and led to significant improvements regarding their language performance. Moll (13), adopting an action research to motivate EFL university students to learn content and language, observed an increase in students' participation and their exam results. To explore the effect of cooperative learning in an EFL classroom, Falcuo (14), through an action research, found that having students perform social roles in group work would increase positive language learning achievement.

Although there has been an increasing interest in conducting action research in EFL contexts, there are a few studies focusing on ESP classes in general and medical schools in particular. This study was aimed at performing an action research to identify the factors responsible for low motivation of medical students and to seek immediate solutions by making changes in the syllabus and adopting task-based teaching in ESP classes at medical school of Iran University of Medical Sciences.

Task-based teaching

A task is a workplan with a focus on meaning that engages learners in performing real world processes of language use, through applying language skills and cognitive processes resulting in a communicative outcome (15). In fact, tasks are concerned with pragmatic meaning (the use of language in context) rather than semantic meaning which is independent of

context. Performing a task entails the learner to concentrate mainly on communicating a message with a marginal focus on form.

In a foreign language context which provides few opportunities for authentic and communicative practice, tasks could be suitable means for developing a communication-based course for the students to practice real-life language use (15). As each task should have a rubric to create a context, be authentic to correspond to those performed in target language use situation and engage the learners' language skills and cognitive processes, task-based teaching seems to be the best alternative to enhance students' motivation.

Task-based teaching is based entirely on tasks making use of different types of syllabi: procedural, process and the syllabus with a humanistic approach. The syllabus design used in this study was a modified form of the process syllabus supported by Breen and Candlin (16).

This type of syllabus draws on the negotiation between students and teachers whereby the students express their own needs and expectations.

Given the English background of Iranian medical students, it was presumed that task-based teaching would provide the opportunity to practice communicative and meaningful language, thereby increasing learners' motivation. To fulfill this objective, it was decided to adopt task-based teaching for developing a new syllabus in the process of the action research.

Materials and Methods

Situation

In winter 2010, there were mounting complaints among the faculty members of English language department at the school of medicine in Iran University of Medical Sciences (IUMS) about students' poor motivation in English classes. The faculty members who were frustrated by the situation commented, "...the students often skip classes, fall asleep in class, show little interest in class participation, are distracted and busy with text messaging in class time."

During informal talks with the students about this behavior, they responded, "...English classes are boring, stressful and very lengthy, there is little focus on oral skills, ... the materials are bulky and outdated and sometimes very difficult to comprehend, ... English has a marginal role in our academic studies as compared with core courses, the learners are of different level of proficiency, etc." These comments indicated that both teachers and learners were frustrated with the existing

situation which derived the researchers of the present study to seek an immediate solution through some changes in the syllabus by performing an action research.

Participants

The present study was conducted at the school of medicine of IUMS in fall 2010. The population of the study consisted of 98 Iranian students of medicine, both males and females, from 20 – 23 years of age, who were all included in the study. They were third-semester students, taking Technical English language II. In addition to the students, there were eight teachers, both males and females, teaching at the school of medicine of IUMS.

Instruments

3ents

The following instruments were used in this study:

a. Semi-structured interviews with students and teachers were carried out in the planning phase for the identification of the causes of poor motivation in summer 2010.

b. A placement test of reading was administered to arrange students into different groups for their group work in the summer of 2010 one week before the beginning of the classes.

c. A researcher-developed questionnaire consisting of six questions based on a four-point Likert Scale was given to the students to evaluate the effectiveness of changes made in the syllabus at the end of the semester along with the final examination. The items of the questionnaire were focused on the factors identified in the informal talks. The reliability of the questionnaire was determined to be quite acceptable (0.88) and its face and content validity were confirmed by two ESP teachers (Table 1).

Procedure

This action research was based on Kemmis & McTaggart's (3) cyclical model. This model represents a spiral of the phases of planning, action, observation, reflection and the re-planning, and so forth.

Planning

In summer 2010, before the beginning of the classes, we started designing the syllabus by first conducting semi-structured interviews for which eight teachers and twenty-one students were randomly selected. The interview questions focused on quality of topics and materials, role of teachers, role of students, method of

testing and lack of oral skills, all of which seemed to be responsible for students' low motivation. Based on the obtained information from interviews, the syllabus was designed by including relevant and task-based topics, cooperative learning in addition to individual work, integration of four skills through the use of both written and oral activities, and formative assessment instead of summative assessment. The new syllabus was a process syllabus which was customized, and was frequently modified throughout the semester on the basis of students' feedback.

Task-based teaching approach was incorporated into the syllabus to help students develop English language proficiency through communication (15). The task procedure consisted of three phases: "pre-task phase" (planning the task), "during-task phase" (performing the task), and "post- task phase" (following up on the task), (15).

The reason for applying cooperative learning was to encourage collaborative dialogue (15) among students, reduce the anxiety of less competent students, increase motivation, and enhance learning. To benefit from this approach, the students had to work in groups; thus, a placement test of reading was administered to all the students for group formation and group work. Each group consisted of mixed-ability students: one competent, at least two intermediate level and two less competent students.

Finally, formative assessment, a form of classroom-based assessment, was employed in the syllabus to increase students' motivation to attend classes actively and regularly as well as to inspire them to spend more time on their English course during the semester, instead of cramming the night before traditional mid/final exams. Unlike summative assessment which is grade-based and is administered at the end of a learning course, formative assessment is administered frequently to provide a continuous feedback to both teachers and learners for making decisions and making modifications in the instructional procedures and learning activities (17).

Action

For this phase of the study, a comprehensive introductory session was held, at the very first session of the semester, to explain the rules of group work, the role of the teacher and students and the assessment procedure. It was put in plain words that each individual was responsible for improvement and empowerment of the whole group. Therefore, if one of the group members performed poorly on a given task, it would be counted

for other individuals in the group as well.

Learning sessions, tasks and materials

Each session began with a pre-task stage, followed by a during-task and ended with a post-task (15). The students were introduced to a new task by the teacher who monitored them during the task and assessed their performance in the post-task stage. Each stage is described as follows:

- Pre-task stage: the students were introduced with the topic, and the vocabulary was explained during a short discussion on the topic.

- During-task stage: the students were required to read a passage either from the text book, assigned by the Ministry of Health and Medical Education, or a supplementary passage from other sources. They worked in group, discussed the topic and tried to answer the questions shown on the board. They were supposed to take their time and prepare themselves to answer the questions which would be asked at the end of this stage. Moreover, a grammatical pattern relevant to the topic, along with examples was explained in this phase too.

- Post- task stage: each session ended by doing a task, sometimes performed individually, such as writing a summary, or in group, like a presentation on a topic of interest.

The tasks performed individually were more focused on skills which helped reading ability, such as reverse outline writing, summary writing, and case study reading and writing. The tasks carried out in groups, like presentation, debate and role playing, were aimed at improving the students' oral skills as well as promoting their social and individual performance. Moreover, these skills were assumed to make the class more attractive, thereby enhancing the students' motivation and creativity.

As for the materials, students had to study the text book assigned by the Ministry of Health and Education because the comprehensive examination (an obligatory exam taken at the end of the 5th semester) questions were usually chosen from that book. However, as the book was not interesting to the students, we added some supplementary passages, the topics of which would bring a challenging discussion to the class.

The role of the teacher and students

The teacher's role, during these sessions, was to monitor the students, observe and get feedback, evaluate students' participation in group and individual works, answer their questions and coordinate classroom discussions. Every student was responsible to work for

the benefit of the group and the group worked for the benefit of individuals, i.e. if one failed in doing a task, everybody in the group would be responsible for this failure. To encourage them to work hard, a bonus score was considered for the groups showing cooperation, progress and creativity in performing the tasks.

Assessment

As there were many complaints about mid-term and final examinations, formative assessment was applied to evaluate students' learning instead of summative assessment. There was no mid-term exam but a very short final exam which had only 3 points. In other words, the students were mainly assessed on their class participation and the tasks they performed each session.

Reflection, observation and revised planning

During the first few sessions, some feedbacks,

leading to changes in the syllabus, were provided by classroom observations and feedback from the students. The students were regularly asked to give feedback for the revision of the syllabus, for example, when students complained about the length of reading passages and inadequate time assigned for reading in groups, revisions were made immediately. On the basis of the reflection, necessary changes were made and the first syllabus was revised repeatedly until the desirable syllabus was finalized and implemented.

At the end of the semester, the students were asked to fill out a questionnaire to evaluate the effectiveness of the changes made in the syllabus through the action research. In particular, the questionnaire was aimed at assessing the students' attitudes towards the course outcome, the tasks they performed, the changes in the course evaluation, and the group work.

Table 1. Course Evaluation Sheet

1. Integration of skills was favorable	SA	A	D	SD
2. The topics offered for reading were interesting	SA	A	D	SD
3. Group work increased my motivation for studying	SA	A	D	SD
4. The number of passages covered during the course was sufficient	SA	A	D	SD
5. Formative assessments were helpful	SA	A	D	SD
6. The following tasks improved my learning skills				
a. Presentation	SA	A	D	SD
b. Role playing	SA	A	D	SD
c. Debate	SA	A	D	SD
d. Case Study Writing	SA	A	D	SD
e. Summary Writing	SA	A	D	SD
f. Outline Writing	SA	A	D	SD

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Directions: Please give your honest opinion about the course, Technical English Two. Circle the letters that corresponds with your opinion for each statement

Results

Having realized that there was a problematic situation in our ESP classes, i.e. our students showed little interest in attending classes regularly and participating in class actively, we decided to carry out an action research to tackle the problem. As the first step, we tried to identify the causes of the problem. Seemingly, there were many factors responsible for the students' low motivation from which five factors common among both groups of interviewees, teachers and students were selected. These factors were as follows: (a) type of topics and materials; (b) lack of practice in oral skills; (c) the method of assessment; (d) the role of a teacher in terms of personality, diligence, and knowledge of the subject; and (e) the role of a student in terms of needs and interests, attitude, and English background.

Table 2 displays the results of the interviews with the eight teachers. They believed that the materials and the topics included in the old syllabus were bulky and difficult, and this could cause lack of motivation in students. The results also showed that teachers and students play equally important roles in the problem of poor motivation.

Furthermore, only two out of the eight teachers were interested in the traditional type of assessment, i.e. mid-term and final exams, and six teachers confirmed a change in student assessment. Finally, all teachers supported the idea of integrating four language skills into the syllabus.

The results of the interviews with students (Table 3) demonstrated that 19 out of 21 believed that unattractive, boring, lengthy, dated and difficult topics and materials offered in the course could be the main causes of students' apathy toward English classes. The

role of teacher was regarded as a very important factor in motivating students as 17 individuals expressed this possibility. As for the students' role, almost all students (N:20) admitted that they themselves were responsible, in part, for the problem of poor motivation, as they regarded English as a marginal course and did not take it so seriously. Half of them (N: 10) opposed the traditional method of testing, remarking that their performance should not be merely assessed by mid/final exams. Finally, 18 out of 21 complained that oral skills, i.e. listening and speaking, had been overlooked in the syllabus and commented that these skills should be acknowledged as well as written skills of reading and writing.

Table 2. Teachers' perception of factors responsible for low motivation (N: 8)

Causes	Frequency
Type of topics and materials	8
Role of teacher	8
Role of student	8
Method of testing	6
Lack of oral skills practice	8

Having identified the factors responsible for the students' low motivation, some changes were applied into the conventional syllabus, and the students' attitudes toward these changes were observed during class sessions. The feedbacks obtained from the students were reflected in the new syllabus which was continuously tailored during the semester. At the end of the semester, the students were given a questionnaire to remark on the changes made to the syllabus.

The results of the questionnaire (Table 4), demonstrated that 85% of the students found topics and materials offered during the course appealing, and 81% were more content with the integration of the four skills in the new syllabus versus the former, focusing exclusively on the reading skill. Formative assessment was preferred to traditional mid/final tests (87%). Working in groups was enjoyed by 85% of the students, suggesting that cooperative learning was a benefit to their learning. More than two third of students (77%) showed satisfaction of the amount of reading passages covered in the course.

Table 3. Students' perceptions of factors responsible for low motivation (N: 21)

Causes	Frequency
Types of topics and materials	19
Role of teacher	17
Role of student	20
Method of testing	10
Lack of oral skills practice	18

Table 4. Students' perceptions of the changes to the syllabus in percentage

Changes	Percentage
Formative assessment	87%
Cooperative learning	85%
Appealing topics (Readings quality)	85%
Number of readings (Readings quantity)	77%
Integration of the four skills	81%

In addition, the results of the questionnaire (Table 5) indicated that the students found activities such as presentation (85%), case study writing (80%), and summary writing (81%) more appealing than those like debate, role playing, and outline writing. The reasons that these activities were favored by the students might stem from the nature of these activities which only require extraction of information from available materials and then presentation of the collected information either in spoken or written form. In contrast, the lower percentage reported for role playing (74%) might be due to cultural factors because of which students did not feel convenient to act out their roles on the stage in front of the audience. In addition, outline writing, which attracted only 78% of the students, is an activity that necessitates an analytical ability to find the organization of the passage and to distinguish more general ideas from subordinate ideas. Finally, lack of ability for reasoning, which is an underdeveloped skill at this stage of education, seems to be responsible for the comparatively lower percentage of debate (73%).

Table 5. Tasks favored by students in percentage

Tasks	Percentage
Presentation	85%
Role playing	74%
Debate	73%
Case study writing	80%
Summary Writing	81%
Outline Writing	78%

Discussion

This research study provided a number of valuable outcomes. First, the students attended English classes regularly even though there was no roll calling. The reason was because every session ended with a task for which a score was added to the final grade. Also, as the topics were challenging and different from their routine work, the students were eager to attend and participate in class discussions. Cooperative learning helped less competent students develop social skills which in turn reduced their anxiety while working with more

competent students in group. This finding is in agreement with Falco's (14) findings emphasizing socialization and group work through action research. In fact, group activities had a synergic effect which increased their creativity and cooperation and removed feeling of rival between competent and less competent students. These results are consistent with those of other studies supporting the role of action research in improving students' performance and active engagement in language classes (3,12-14). Class observation showed that the students were friendly, joyful, attentive and aware of learning. As for the teacher, she had a feeling of fulfillment when leaving the class. In addition, evaluating students by tasks was beneficial for both the teacher and the students. The teacher developed a better understanding of the students' learning, and the students were able to perform better on tasks with less stress and anxiety.

This action research also had some drawbacks. Task-based teaching applied in this study was highly demanding for the teacher. Designing tasks, developing and revising the syllabus, changing materials according to the needs of students, arranging the groups, changing the group arrangement, convincing the students to accept the rules of group work and assessing students' tasks were the entire burden which made the teacher's responsibility as a researcher more difficult. This finding matches those observed Burns and Haley (3,11). Moreover, the course made a great demand for the students: although enjoying the course activities, they often complained about the heavy study load per week. Finally, the kind of assessment used in this study was comparatively subjective and required an experienced teacher who could employ care and precision in her or his assessment.

The action research presented in this paper can be considered as a way of responding to the problem of low motivation, found among many university students in ESP classes. This small-scale study suggests that it is possible to make changes in the behavior and attitude of the students and have them actively participate in the process of learning through an action research. Engagement in an action research allows the teachers/researchers, as stated by Riel (18), to develop "adaptive" skills by working through reflective phases. The researcher, over time, he adds, gains new insights about the problem and his problem-solving action. This action research also encouraged other teachers in our English department to reflect their own teaching, bring changes to their classrooms, and perceive their roles as researchers. Currently, our colleagues in English

department at IUMS feel that they are responsible for improving their own practice and professional development. The findings of this study may also prompt teachers in similar educational settings, in particular ESP classes, to benefit action research for promoting students' motivation.

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