ORIGINAL ARTICLE

The Relationship between Interpersonal and Intrapersonal Intelligences and Classroom Management Strategies among Instructors of English for Medical Sciences

Mavadat Saidi[1,*], Zohreh Bayatshahbazi[2]

[1]English Department, Faculty of Humanities, Shahid Rajaee Teacher Training University, Tehran, Iran

[2]MA Student, Faculty of Humanities, Shahid Rajaee Teacher Training University, Tehran, Iran

*Shahid Rajaee Teacher Training University Shabanloo St. Tehran, 1678815811 Iran

Tel: +98 21 22970060
Fax: +98 2122970033
Email: m.saidi@sru.ac.ir

Background: The current study strove to unfold the relationship between interpersonal and intrapersonal intelligence types and classroom management strategies among the instructors of teaching English to the students of medical sciences. The study further tried to see if there was any significant difference between language and content instructors in terms of their classroom management strategies in their classes.

Methods: A convenient sample of 80 EAP instructors from state universities of Tehran, Tabriz, Isfahan, and Mashhad provided responses to the excerpted items related to personal intelligences from McKenzie's Multiple Intelligences Questionnaire and Behavior and Instructional Management Scale (BIMS). A Pearson product-moment correlation test was run to determine the possible link between the participants' personal intelligences and their classroom management strategies. Moreover, an independent sample t-test was used to find out the possible difference between language and content instructors in terms of their classroom management strategies.

Results: The results revealed a significant relationship between the instructors' interpersonal and intrapersonal intelligences and their classroom management strategies. Furthermore, a significant difference was found between language and content instructors in terms of their classroom management approaches in English for the students of medical science courses.

Conclusion: The findings can raise the EAP instructors' consciousness to enhance their interpersonal and intrapersonal intelligence types in order to improve and promote their classroom management strategies. In addition, the results may enhance the policymakers' perception of the required considerations for in-service teacher training courses of English for medical science instructors.

Keywords: Classroom management strategies, English for the students of medical sciences, Language instructors, Content instructors, Interpersonal intelligence, Intrapersonal intelligence

العلاقة بين الذكاءات الشخصية و بينه الاشخاص و استراتيجيات إدارة الفصول الدراسية بين معلمي اللغة الإنجليزية للعلوم الطبية

الخلفية: سعت الدراسة الحالية إلى الكشف عن العلاقة بين أنواع الذكاء الشخصي و الذكاء بين الاشخاص واستراتيجيات إدارة الفصل بين المدربين الذين يقومون بتدريس اللغة الإنجليزية لطلاب العلوم الطبية. حاولت الدراسة أيضًا معرفة ما إذا كان هناك أي اختلاف كبير بين معلمي اللغة والمحتوى من حيث استراتيجيات إدارة الفصل الدراسي في فصولهم الدراسية.

الطريقة: عينة من ٨٠ أستاذًا من الجامعات الحكومية للعلوم الطبية في طهران وتبريز وأصفهان ومشهد، أجابوا على البنود المتعلقة بالذكاء في استبيان ماكنزي وأيضًا أسئلة أداة تقييم الإدارة التربوية والسلوكية. تم استخدام اختبار بيرسون لتحديد العلاقة المحتملة بين الذكاءين واستراتيجيات إدارة الفصل الدراسي. تم استخدام اختبار T المستقل لإيجاد فروق ذات دلالة إحصائية بين مجموعتي الأساتذة المتخصصين.

النتائج: أظهرت النتائج أن هناك علاقة ذات دلالة إحصائية بين الذكاء الشخصي والذكاء بين الاشخاص و بين استراتيجيات إدارة الفصل بين معلمي اللغة الطبية. كما كان هناك فرق كبير بين معلمي اللغة ومعلمي العلوم الطبية من حيث استراتيجيات إدارة الفصل في فصول اللغة المتخصصة.

خاتمة: يمكن أن تزيد من وعي معلمي اللغة المتخصصين لتعزيز الذكاء بين الأشخاص والذكاء الشخصية واستراتيجيات إدارة الفصل الدراسي. أيضًا ، يمكن أن تشجع النتائج صانعي السياسات على تضمين دورات تدريبية أثناء الخدمة لمعلمي اللغة المتخصصين في العلوم الطبية.

الكلمات المفتاحية: استراتيجيات إدارة الفصول الدراسية، اللغة الإنجليزية لطلاب الطب ، مدرسو اللغة الإنجليزية ، أساتذة الطب ، الذكاء بين الأشخاص ، الذكاء الداخلي

رابطه میان هوش های بین فردی و درون فردی و راهبردهای مدیریت کلاس در میان اساتید زبان تخصصی علوم پزشکی

زمینه و هدف: مطالعه ی حاضر به بررسی رابطه ی میان هوشهای بین فردی و درون فردی و راهبردهای مدیریت کلاس در میان اساتید زبان تخصصی علوم پزشکی پرداخت. همچنین در این مطالعه تلاش شده است تا بررسی شود آیا اساتید فارغ التحصیل رشته های زبان انگلیسی و رشته های علوم پزشکی از نظر راهبردهای مدیریت کلاس در تدریس زبان تخصصی به دانشجویان علوم پزشکی تفاوت معناداری دارند یا خیر.

روش: نمونه ای شامل ۸۰ استاد از دانشگاههای دولتی علوم پزشکی در تهران، تبریز، اصفهان، و مشهد، به گویه های مربوط به هوش مورد نظر در پرسشنامه ی مکنزی و نیز سوالات ابزار سنجش مدیریت آموزشی و رفتاری کلاس پاسخ دادند. آزمون پیرسون برای تعیین رابطه ی احتمالی بین دو هوش مورد نظر و راهبردهای مدیریت کلاس مورد استفاده قرار گرفت. برای یافتن تفاوت معنادار بین دو گروه اساتید تخصصی نیز از آزمون تی مستقل استفاده شد.

یافته ها: نتایج نشان داد که رابطه ی معناداری میان هوش های بین فردی و درون فردی و راهبردهای مدیریت کلاس در میان اساتید زبان تخصصی علوم پزشکی وجود دارد. همچنین بین اساتید زبان و اساتید علوم پزشکی از نظر راهبردهای مدیریت کلاس در کلاسهای زبان تخصصی علوم پزشکی تفاوت معناداری مشاهده شد.

نتیجه گیری: یافته ها می تواند آگاهی اساتید زبان تخصصی را بالا ببرد تا هوش بین فردی و درون فردی و راهبردهای مدیریت کلاس را تقویت نمایند. همچنین، نتایج می تواند سیاستگذاران را در جهت لحاظ کردن دوره های ضمن خدمت اساتید زبان تخصصی علوم پزشکی ترغیب نماید.

واژه های کلیدی: راهبردهای مدیریت کلاس، انگلیسی برای دانشجویان علوم پزشکی، اساتید زبان انگلیسی، اساتید علوم پزشکی، هوش بین فردی، هوش درون فردی

انٹر پرسنل اور انٹراپرسنل انٹیلی جنس کے درمیان تعلق اور میڈیکل سائنس انسٹرکٹرز کے لیے انگریزی میں کلاس روم مینجمنٹ کی حکمت عملی

بیگ گراونڈ: موجودہ مطالعے نے میڈیکل سائنس کے طلباء کو انگریزی پڑھانے والے اساتذہ کے مابین بابمی اور انٹراپرسنل انٹیلی جنس اقسام اور کلاس روم مینجمنٹ حکمت عملی کے مابین تعلقات کو اجاگر کرنے کی کوشش کی۔ اس مطالعے نے مزید یہ دیکھنے کی کوشش کی کہ کیا ان کی کلاسوں میں ان کی کلاس روم مینجمنٹ کی حکمت عملی کے لحاظ سے زبان اور مواد کے اساتذہ کے درمیان کوئی خاص فرق ہے یا نہیں۔

طریقے: تہران ، تبریز ، اصفہان اور مشھد کی ریاستی یونیورسٹیوں کے ۸۰ ای اے پی انسٹرکٹرز کے ایک آسان نمونے نے میکنزی کے ایک سے زیادہ انٹیلی جنس سوالنامے اور رویے اور انسٹرکشنل مینجمنٹ اسکیل (BIMS) سے ذاتی ذہانت سے متعلقہ اشیاء کے جوابات فراہم کیے۔ ایک پیئرسن پروڈکٹ لمحہ ارتباط ٹیسٹ چلایا گیا تاکہ شرکاء کی دو ذاتی ذہانتوں اور کلاس روم مینجمنٹ کی حکمت عملی کے درمیان ممکنہ ربط کا تعین کیا جا سکے۔ مزید یہ کہ ، ایک آزاد نمونہ ٹی ٹیسٹ کا استعمال زبان اور مواد کے استادوں کے درمیان ان کی کلاس روم مینجمنٹ کی حکمت عملی کے لحاظ سے ممکنہ فرق معلوم کرنے کے لیے کیا گیا۔

نتیجہ: نتائج نے اساتذہ کی بابمی اور انٹراپرسنل ذہانت اور ان کے کلاس روم مینجمنٹ کی حکمت عملی کے درمیان ایک اہم تعلق ظاہر کیا۔ مزید برآں ، میڈیکل سائنسز کورسز کے طلباء کے لیے انگریزی میں ان کی کلاس روم مینجمنٹ اپروچ کے لحاظ سے زبان اور مواد کے اساتذہ کے درمیان ایک اہم فرق پایا گیا۔

سفارش: نتائج EAP انسٹرکٹرز کے شعور کو بڑھا سکتے ہیں تاکہ ان کی انٹرپرسنل اور انٹراپرسنل انٹیلی جنس اقسام کو بہتر بنایا جا سکے تاکہ ان کی کلاس روم مینجمنٹ کی حکمت عملی کو بہتر بنایا جا سکے۔ اس کے علاوہ ، نتائج میڈیکل سائنس انسٹرکٹرز کے لیے انگریزی کے لیے سروس ٹیچر ٹریننگ کورسز کے لیے پالیسی سازوں کے مطلوبہ خیالات کو بڑھا سکتے ہیں۔

کلیدی الفاظ: کلاس روم مینجمنٹ کی حکمت عملی، میڈیکل سائنسز کے طلباء کے لیے انگریزی، لینگویج انسٹرکٹر، کنٹینٹ انسٹرکٹر، انٹرپرسنل انٹیلی جنس، انٹراپرسنل انٹیلی جنس

INTRODUCTION

Intelligence has long been assessed based on individuals' performance on Intelligence Quotient (IQ) tests (1). This view has persisted till Gardner (2) presented an innovative view towards intelligence and redefined it as one's capability for adapting themselves to upcoming situations. He considered all human beings as owning nine intelligence types, namely verbal/linguistic, logical/musical, spatial/visual, bodily/kinesthetic, interpersonal, intrapersonal, natural, and existential while he believed that no two people share the same intelligence profile (3). Gardner believed that intelligence is dynamic and fluctuates by the changes in the surrounding conditions.

Multiple intelligences theory has proved to contribute to the efficiency of various learning experiences (4). Notwithstanding the existing extensive literature on language learners' multiple intelligences, English teachers' intelligence profiles have received scant attention (5) despite their prominence in enhancing their self-efficacy and teaching effectiveness (6). In one study, Khosravi and Saidi (6) referred to the relationship between interpersonal and intrapersonal intelligence types and self-efficacy beliefs among the instructors of English for academic purposes (EAP). Similarly, these variables were demonstrated to be linked in English for general purpose courses (4).

In the same line, numerous scholars have pointed out the vital role of the teachers' classroom management beliefs in promoting the instructional perceptions and procedures (7). Indeed, effective classroom management leads to efficient education. Classroom management strategies refer to a set of skills possessed by the teachers to plan and practice teaching (8-9). Classroom management entails non-interventionist, interactionist, and interventionist approaches (10). Non-interventionist teachers adhere to student-centered principles and practices while interventionist teachers take a more authoritative stance in their classes and adopt a controlling style for handling the class incidents. Located between these two extremes are interactionist teachers who believe that the learners can manipulate the external motives and the environment would shape the learners' learning practices as well (11). While interventionist approaches allow for higher degrees of control over the class procedures by the teacher, non-interventionist ones provide a relaxing environment in which the affective barriers are totally removed (7). A teacher who attempts to expedite the learning processes through establishing a flexible teaching setting takes the midway and makes use of both the cognitive and affective potentials of the students in the class (12). Such an approach seems to be in line with the underlying principles of EAP courses (13). Accordingly, classroom management seems to be of higher prominence in English for academic purposes courses which entail a student-centered, need-based approach (6). In Iran, the content (subject specialists) or language (English language teaching specialists) instructors are responsible for offering EAP courses. Numerous studies have been conducted on English teachers' classroom management perceptions (12). Previous

studies have revealed the role of urban or rural setting in the approach the teachers adopt to lead their English classes (14). Furthermore, the female teachers were shown to be more lenient in their management strategies. Contrarily, Rahimi and Asadollahi (15) proved that teachers' gender, age, and experience were not considerably related to the teachers' classroom management orientations. The previously conducted studies have demonstrated that the teachers' beliefs about the classroom management directly influence their real-life teaching practices (14). As the literature indicates, both the teachers' multiple intelligences and classroom management strategies are influenced by the contextual attributes (3, 14,15). To the best of the researchers' knowledge, no study has yet touched upon the Iranian instructors' classroom management strategies and multiple intelligences in English for the students' of medical science courses. Given the significance of the contextual factors in determining the teachers' beliefs about the classroom management and their perceptions of their own intelligence types and considering the link between the English practitioners' personal intelligence and their efficacy beliefs, the current study attempted to bridge this gap through investigating the possible relationship between their interpersonal and intrapersonal intelligence types and classroom management strategies. English for medical purposes courses are offered either by the language or content "physician" instructors. These courses aim to provide subject-specific instruction gearing to the particular academic or professional needs of the medical students (6), and hence put a heavy burden on the instructors' shoulders. The instructors in EAP courses might face numerous questions which require the specialist and technical knowledge of the medical issues (16). The unanticipated nature of the challenges in subject-specific courses may put the instructors in a predicament position (17). Due to the perceived differences between language and content instructors regarding their teaching practices in English courses offered to the medical students (13), the study further strived to see if language and content instructors were different in terms of their classroom management strategies.

It is worth noting that interpersonal intelligence refers to the ability to perceive and make distinctions in the moods, intentions, and feelings of other people. On the other hand, intrapersonal intelligence implies having an accurate picture of oneself (one's strengths and limitations) (18). These two intelligence types were considered as they have been previously linked to the EAP instructors' self-efficacy beliefs (6) as a concept akin to the classroom management strategies. Hence, the following research questions were posed:

1) Is there any significant relationship between Iranian English for medical science instructors' interpersonal and intrapersonal intelligence types and their classroom management beliefs?
2) Is there any significant difference between language and content English for medical science instructors in terms of their classroom management beliefs?

METHODS

Participants

The participants of the study consisted of 80 (40 males and 40 females) instructors of English for medical sciences from state universities of Tehran, Tabriz, Isfahan, and Mashhad, aged between 38 and 63 years old. Their EAP teaching experience ranged from three to fifteen years. The participants included 40 language instructors who held a PhD degree in Teaching English as a Foreign Language (32), English Literature (6), and Translation Studies (2) and 40 content instructors (physicians).

Instruments

In order to determine the instructors' interpersonal and intrapersonal intelligence scores, the relevant items were excerpted from McKenzie's Multiple Intelligences Questionnaire (1999), including ten five-point Likert-scale items for each intelligence ranging from 1 (completely disagree) to 5 (completely agree). The calculated reliability coefficients were 0.86 and 0.79 for interpersonal and intrapersonal intelligence types, respectively.

In order to obtain the scores on classroom management strategies, the Behavior and Instructional Management Scale (BIMS) was utilized (19). The scale included 24 six-point Likert-scale items eliciting the teachers' instructional management (12 items) and behavior management (12 items) strategies. The responses for each item ranged from 1 (strongly disagree) to 6 (strongly agree). Higher scores on each subscale mean a more controlling, interventionist approach. The overall reliability coefficient was 0.88 and Cronbach's alpha coefficients for the instructional and behavioral management subscales were 0.82 and 0.92, respectively.

Procedures

The questionnaires were emailed to the EAP instructors and they voluntarily participated in the study. They were also asked to provide their demographic information. They were all assured to the anonymity of the data. Out of the 115 questionnaires, 80 completed ones were received. Hence, the return rate was %70 in the current study. In order to answer the first research question, a Pearson product-moment correlation test was used. Furthermore, to answer the second research question, an independent sample t-test was run.

RESULTS

Table 1 presents the descriptive statistics of the participants' interpersonal intelligence, intrapersonal intelligence, and classroom management beliefs.

The score for each intelligence type ranges from 10 to 50. The mean scores above the average are considered high. As a result, the means scores indicate high levels of personal intelligence. Furthermore, the scores may range from 12 to 72 for instructional and behavioral management beliefs. Being close to the highest extreme score, the mean values reveal a more controlling, interventionist classroom management strategies among the instructors who teach English to the students of medical sciences.

To determine the relationship between interpersonal and intrapersonal intelligence types and their classroom management strategies of the instructors in English for medical science courses, a Pearson product-moment correlation test was used.

As Table 2 shows, there is a significant negative relationship between English for medical science instructors' two personal intelligences and their instructional and behavioral management strategies. The results show that increasing the participants' interpersonal and intrapersonal intelligence scores lowers their scores on instructional and behavioral management subscales, that is it leads to adopting a more lenient and less controlling classroom management approach.

In order to find if language and content English for medical sciences instructors differ with regard to their classroom management strategies, an independent sample t-test was run.

Table 1. Descriptive statistics of interpersonal and intrapersonal intelligence types, and classroom management beliefs				
Variable	**N**	**Maximum**	**Minimum**	**Mean (SD)**
Interpersonal intelligence	80	47	33	39.15 (6.24)
Intrapersonal intelligence	80	48	26	35.42 (4.97)
Instructional management	80	67	42	61.23 (5.87)
Behavioral management	80	70	45	62.48 (6.07)

Table 2. The results of correlation between interpersonal and intrapersonal intelligence types and classroom management beliefs		
Variable	**Instructional management**	**Behavioral management**
Interpersonal intelligence	-0.67*	-0.68*
Intrapersonal intelligence	-0.34*	-0.43*

Table 3. The results of independent sample t-test for language and content English for medical science instructors

Variable	Group	N	Mean (SD)	T	df	Sig.
Instructional management	Language	40	63.38 (3.21)	-6.875	78	0.01
	Content	40	52.25 (3.69)			
Behavioral management	Language	40	68.28 (63.32)		78	0.02
	Content	40	53.68 (51.23)			

As Table 3 shows, there is a significant difference between language and content English for medical science instructors in terms of their instructional (Sig. = 0.01, p≤0.05), and behavioral (Sig. = 0.02, p≤0.05) management strategies. The findings demonstrate that language instructors take a more interventionist, controlling approach in instructional and behavioral management in teaching English to the students of medical sciences.

DISCUSSION

The current study investigated the relationship between the English instructors' interpersonal and intrapersonal intelligences and their classroom management beliefs in universities of medical sciences. Moreover, it tried to explore the possible difference between the language instructors and the physician instructors in terms of their approaches to classroom management in English for medical purposes courses. The results of the study showed that both language and content instructors take up an interventionist approach towards the instructional and behavioral management of teaching English to the students of medical sciences and seek for higher levels of control over the classroom procedures. Meanwhile, the language instructors were shown to be more interventionist. The results were in opposition to those of previously conducted studies (12, 15, 20).

Besides, since the instructors are not provided with adequate training on the peculiarities of the subject-related courses and discipline-specific linguistic features, they may think that granting students higher degrees of control in the class mounts a challenge and impedes their ability to handle subject-related problems (12, 20) In this sense, English language for medical science instructors' lack of subject-related knowledge may underlie their more controlling approach. Verily, it might be an avoidance strategy to go through the upcoming critical incidents (16). As Wu and Badger (17) asserted, EAP courses create In-Class Subject Knowledge Dilemma for the language instructors and expose them to a wide range of unpredictable situations. In this regard, language instructors might encounter unexpected incidents upon discipline-related content which not fall within their realm of expertise (16).

Furthermore, the results demonstrated a negative correlation between interpersonal and intrapersonal intelligence types and instructional and behavioral management strategies. It seems that these two intelligence types and classroom management beliefs are facets of a general ability that is benefiting from one's potentials to work towards their goals (6). Being able to perceive the students' various feelings, moods, and needs would empower the instructors to pursue a less controlling approach to the management of the instructional and behavioral procedures in EAP classes (6, 18). The results indicated the interventionist approach of English for medical science instructors in EAP classes. Moreover, it was found that an increase in their personal intelligences would lead to a less controlling approach towards classroom management. Hence, this conclusion might be drawn that developing the instructors' interpersonal and intrapersonal intelligences would cause them to adopt a more interactionist approach which seems to be in line with the learner-centeredness principle of EAP courses. The findings of the study enrich the available literature on EAP teachers' individual differences and classroom management strategies. The results also carry some pedagogical implications for EAP teacher training courses. In this regard, numerous workshops can be held to enhance the teachers' interpersonal skills and instructional and behavioral management strategies before assigning them the task of teaching English to the students of medical sciences. In this way, the instructors' confidence is built up in holding EAP courses and tailoring them to the students' academic and occupational needs relevant to the field of medical sciences. As a result, they would be more inclined to take a more learner-centered interactionist or non-interventionist approach towards classroom management which is in line with the underlying principles of EAP courses. To continue the line of research evoked by the current study, further studies might be conducted through utilizing some qualitative instruments (e.g. interviews, observations). More research may be carried out to investigate the possible differences among the instructors' classroom management beliefs and practices in terms of the contextual factors.

Ethical considerations
Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have been completely observed by the authors.

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