



Evaluation of Remedial English using Gray Relational Analysis (GRA) method

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Abstract. Remedial Teaching is the instruction given to students to help them overcome their general or specific weaknesses. A transfer student is a student who does not meet the criteria for admission to college-level classes. Learn more in: Evaluating the effectiveness of a basic writing course. Alternatives include: Listening Errors, Spelling Errors, Grammar Errors, and Reconstruction Vocabulary Errors. Evaluation preferences are as follows: Student 1, Student 2, Student 3, Student 4, Student 5. From the results, it is seen that Student 4 has achieved the first rank, whereas Student 3 has the lowest rank. The GRA (Gray-related analysis) dataset for Remedial English indicates that Student 4 is ranked the highest.

Key Words: Remedial English, Gray-related analysis (GRA Method)

1. Introduction

"Remedial method refers to a teaching method that helps students overcome difficulties and provides guidance to teachers by addressing problems identified during teaching. The purpose of remedial teaching is to prevent students from repeating mistakes in learning English, promoting improvement in the learning process and behavioral changes. This method is also known as developmental or basic skills education. Remedial courses, usually offered in high school and college, aim to prepare students who are considered not yet ready for college-level work. These courses are generally similar to other college courses in terms of educational costs and structure, but they do not count towards graduation credits. Remedial programs focus on disadvantaged students and provide them with opportunities to learn at a level appropriate to their current abilities. Ideally, such interventions would enhance their progress and reduce the variation in students' learning levels within a given grade. Substitute teachers play a role in instilling good learning habits in students and developing their attitudes, commitment to promises, responsibility, discipline, and desire for lifelong creativity. They lay the foundation for self-directed learning and help improve students' learning abilities. Gray corresponding analysis is used to calculate the correlation degree or the degree of influence between the main behaviors of a system or system factors. The degree of gray correlation measures the correlation between two factors or two systems. Some alternative factors to consider are debris removal capability, implementation costs, maintenance costs, and reconstruction capability. Evaluation preferences may include brick facade, application of modern logistics technology, stone facade, composite facade, and curtain wall."

2. Remedial English

The question at hand is whether the writing problems of these two types of students are similar and, therefore, whether traditional medical English courses can meet the needs of foreign students. [1] Uneven allocation of extra help in English for students who need it is not a practical activity, as remedial English programs are supported in correcting students using the process. Reform entails random allocation to assign students to the program, although it is not practical to use as a backstop. By utilizing the design, we can obtain an unbiased estimate of the causal effects of a rehabilitation program on students' GPAs in the first year. [2] The instructors of English composition believed that there were significant differences in the writing of Blacks, Hispanics, and Whites, despite their similar socio-economic backgrounds. [3] Sprinkling a bug or two over each of these 20 subcategories tends to produce errors, especially among advanced students to BC. [4] To examine the effects of motivation and simple affirmation on students' final grades, we randomly assign students to their respective classes and group control. Students in experimental groups are assured by a counselor of their performance. [5] Reports in multidisciplinary linguistics at the undergraduate level and English with groups of cultural backgrounds focus on the use of multimedia workstations for learning and testing. [6] Administrative indifference in an institution that primarily deals with students and solutions does little to encourage research and experimentation in the area of English. [7] The study focuses on data from an English medical program, develops a detailed application of multiple regression theory in the analysis, presents predictive models for changes in students' post-test scores, and identifies factors that influence student performance during their studies. [8] Many schools have English programs aimed at addressing problems such as incorrect spelling. We

compared the current special solution to the comparison of English classes, morph graphics, and the effects of spelling programs. [11] At the end of the remedial lessons, each student was allowed to see their original examination paper and their examination paper with errors. The same procedure was followed for individual and group instruction. [12] Difficulties in teaching English occur on every campus, and every English instructor has their own method of dealing with the problem. If a method succeeds, it should be shared. [13] Such discussions provide healthy opportunities for self-expression. However, remedial readers often find it easier to express themselves artistically than verbally. MAD gives them a chance to draw their own cartoons, which they often do well. [14] One hundred and five colleges stated that they do not currently offer English medium courses, citing various reasons such as lack of money, lack of space, and lack of staff. Other reasons given were a reluctance to undertake a job considered to belong to high schools and the belief that most of the regular freshman English was actually adjuncts. [15] There are no standardized achievement tests in Japan to assess the English proficiency levels of high school students. Although English is a compulsory subject in secondary education, all high school graduates have only studied English for six years at the time of graduation. [16] Remedial Grammatical Review includes feedback on Plato's use of sophisticated graphics. For example, in a lesson about question formation, subjects and objects become wh-words, moving across the screen and following foreground auxiliaries. [17] Students who were not exempt from freshman English were placed in regular or remedial classes based on written themes in a supervised group before the school opened in the fall and were graded by at least two professors. [18] Each school should have its own remedial plan based on student needs. A school, instead of a centralized LINUS program, should have a remedial program at the level of students' literacy, and different schools may have different formulas to strengthen the numbers. [19] Emphasizing the need for attention, the present study examines how the attitudes of remedial program learners toward English are related to certain demographic characteristics such as gender, age, and various aspects of locus of control. [20] The purpose of all restoration work in mechanics is to eliminate time wasted in previous years due to carelessness or failure to master simple requirements. Its purpose is to make time for more important things. [21] For English Language Learners in China, we provide CAPT assessment and revision training using technology such as Wiktionary, which offers free access to phonetics and pronunciation articles. [22] At the end of the program, we, as faculty members, clearly distinguished ourselves by cracking the ultimate challenge. As usual, the students handled this very well. Although we, as faculty members, suffered minor attacks of conscience, we were glad we didn't have to worry about being told to repeat English 0.4. [23] Students in Intermediate English enrolled in regular English classes in high school had fewer class topics to write about compared to students in the remedial unit. Furthermore, more English students came from high schools where teachers did not mark errors in topics. [24] They were assigned to a remedial unit, thus delaying their learning of important aspects of business communication. On the other hand, those who passed were completely excused from learning important things, falsely leading them to believe that those things never existed. [25] They were not trained in proofreading work. Although she doesn't have time to break away from the regular curriculum, she is convinced of the need for a good foundation in basic skills like reading. The first problem she faced was the time budget. [26] The data used in this study were collected from the restoration project of the Faculty of Computer Design at Japan's Nishinbon Institute of Technology. First-year students use a web-based learning tool called ASP to complete their tasks within the specified time. [27] At Pennsylvania State University, Composition Zero offers a non-credit course called the English Proficiency Test for students who scored below the critical score, aiming to prepare them for subsequent credit courses in English. [28] Community colleges in North Carolina and Virginia have seen increased earnings after students earn English credits, indicating an increased probability of employment. [29] The study examines the expectations of the Remedial English Course in Jordan, specifically the English Proficiency Test at Hashemite University, to determine if these expectations are met. [99]

3. GRA

Gray-associated analytical method: Nine check runs have been made based on the orthogonal series of the qualifying machine to determine the most suitable parameter composition of the turning system [16]. Surface properties, roundness, approximate average, and maximum hardness have been selected as the primary targets. Gray-related analysis, a method of measuring approximate quantities, determines the size effect of each controllable process factor on individual quality objectives by analyzing the Gray Relational Grade Matrix. Theories of gray relation analysis have attracted considerable interest among researchers [17]. Sixteen test runs were conducted based on the orthogonal series method to determine the optimal factor status. The response of each phase of the machine parameters was received from relevant statistics and presented in a gray table and response diagram. Parameters were optimized considering the multi-performance characteristics, such as the surface hardness of the workpiece, the width of the upper curve, and the width of the heat-affected area. Analysis of the gray-related quality reveals that laser power has a greater impact on responses than speed reduction. This approach has effectively improved the performance characteristics of the laser cutting system [18]. Gray-related analysis was employed to enhance turning functions with multiple performance traits. A gray relative quality derived from ash-related analysis was used to optimize cutting parameters, including cutting speed, feed rate, and depth of cut. The Taguchi approach was utilized to determine the optimal cut parameters due to its wide applicability in relation to gray analysis. Tool life, cutting pressure, and surface hardness are essential considerations in turning, and this method has improved the experimental results [19]. Ash-associated analytical work was applied to improve the surface hardness and burr height in the drilling process. Various drilling parameters, such as feed rate, cutting speed, drill bit, and point angles, were considered using an orthogonal array test design. Optimum machining parameters were determined through gray analysis of the obtained ash-related assessment results [21]. The proposed gray touch analysis is valuable for examining scientific data. The basic concept of Gray Relation Analysis (GRA) is to identify the gray relative sequence that describes the relationship between associated

elements based on data sequences. The GRA has two conventional criteria and three advanced criteria. The fundamental steps and formulas of GRA are introduced and applied to various scientific data, including experimental data, clinical trial records, medical study data, ambulatory records, and clinical records [22]. Ash and residual rates are associated with various energy and emission variables, enabling the definition of a single variable called ash-related quality. Consequently, the evaluation and optimization of two complex responses can be transformed into the optimization of a standardized single variable. Experimental analysis of different forest residues, including pine bark and wood particles, has demonstrated the possibility of reducing fuel costs in small particles boilers while maintaining performance and emissions within acceptable standards [23]. The gray-related analysis approach is a data analysis method based on a common distance characteristic for classifying normal and abnormal objects. The concept proposes and explains how normal objects can always be mapped around a reference point in multiple-dimensional intervals. Therefore, abnormal objects can be identified by estimating the distance between the observed and reference points. Two validation examples, one from a general iris dataset and the other from a practical slope figures dataset, are presented to illustrate the feasibility and compatibility of the proposed model in detecting abnormalities [23].

TABLE 1. Remedial English in Data Set

	Listening Errors	Spelling Errors	Grammar Errors	vocabulary Errors
Student 1	67.08	457.53	45.15	36.05
Student 2	87.12	543.97	35.69	39.30
Student 3	59.08	375.58	52.18	41.10
Student 4	74.17	752.28	34.60	32.59
Student 5	48.33	659.41	43.96	48.89

Table 1. Remedial English in Listening Errors it is seen that Student 2 is showing the highest value for Student 5 is showing the lowest value. Spelling Errors, it is seen that Student 4 is showing the highest value for Student 3 is showing the lowest value. Grammar Errors it is seen that Student 3 is showing the highest value for Student 4 is showing the lowest value. Vocabulary Errors it is seen that Student 5 is showing the highest value for Student 4 is showing the lowest value. Table 1 shows the Remedial English Alternative: Listening Errors, Spelling Errors, Grammar Errors, Reconstruction vocabulary Errors. Evaluation Preference: Student 1, Student 2, Student 3, Student 4, Student 5.

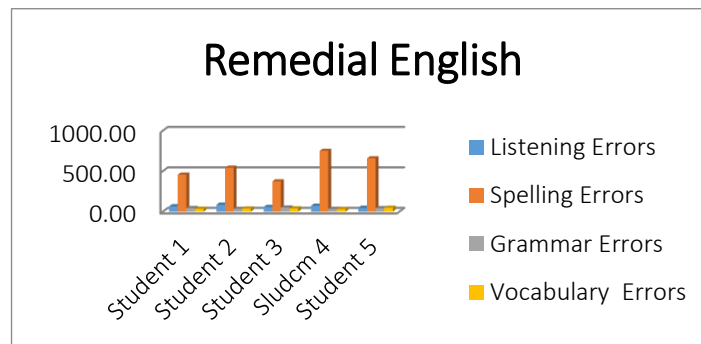


FIGURE 1. Remedial English in Data Set

Figure 1 shows the Remedial English Alternative: Listening Errors, Spelling Errors, Grammar Errors, Reconstruction vocabulary Errors. Evaluation Preference: Student 1, Student 2, Student 3, Student 4, Student 5.

TABLE 2. Remedial English in Normalized Data

Listening Errors	Spelling Errors	Grammar Errors	Vocabulary Errors
0.483	0.21755	0.3999	0.78773
1	0.44701	0.938	0.588344
0.277	0	0	0.477914
0.666	1	1	1
0	0.75346	0.4676	0

This table 2 shows that the values of Remedial English in Normalized Data from using gray relation analysis Find the Alternative: Listening Errors, Spelling Errors, Grammar Errors, Reconstruction vocabulary Errors. Evaluation Preference: Student 1, Student 2, Student 3, Student 4, Student 5.

TABLE 3. Remedial English in Deviation sequence

Listening Errors	Spelling Errors	Grammar Errors	Vocabulary Errors
0.517	0.78245	0.6001	0.21227
0	0.55299	0.062	0.411656
0.723	1	1	0.522086
0.334	0	0	0
1	0.24654	0.5324	1

This table 3 shows that the values of Remedial English in Deviation sequence from using gray relation analysis Find the Alternative: Listening Errors, Spelling Errors, Grammar Errors, Reconstruction vocabulary Errors. Evaluation Preference: Student 1, Student 2, Student 3, Student 4, Student 5.

TABLE 4. Remedial English in Grey relation coefficient

Listening Errors	Spelling Errors	Grammar Errors	Vocabulary Errors
0.491822	0.3899	0.454	0.70198
1	0.4748	0.89	0.54845
0.408875	0.3333	0.333	0.4892
0.599629	1	1	1
0.333333	0.6698	0.484	0.33333

This table 4 shows that the values of Remedial English in Grey relation coefficient from using gray relation analysis Find the Alternative: Listening Errors, Spelling Errors, Grammar Errors, Reconstruction vocabulary Errors. Evaluation Preference: Student 1, Student 2, Student 3, Student 4, Student 5.

TABLE 5. Remedial English in GRG

	GRG
Student 1	0.51
Student 2	0.728
Student 3	0.391
Student 4	0.9
Student 5	0.455

Table 5 Remedial English in GRG from the result it is seen that Student 4 and is got the first rank whereas is the Student 5 got is having the lowest rank.

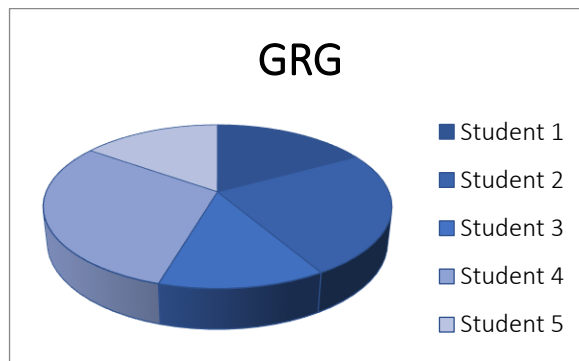


FIGURE 2. Remedial English in GRG

Figure 2 Remedial English in GRG from the result it is seen that Student 4 and is got the first rank whereas is the Student 5 got is having the lowest rank.

TABLE 6. Remedial English in Rank

	Rank
Student 1	3
Student 2	2
Student 3	5
Student 4	1
Student 5	4

Table 6 Remedial English in GRG from Student 4 1st rank, Student 2 2nd rank, Student 1 3rd rank, Student 5 4th rank. Student 3 5th Ranks.

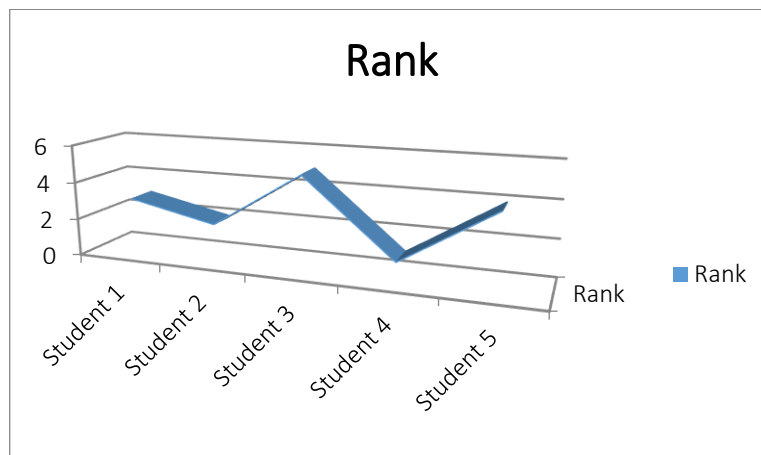


FIGURE 3. Remedial English in Rank

Figure 3 Remedial English in GRG from Student 4 1st rank, Student 2 2nd rank, Student 1 3rd rank, Student 5 4th rank. Student 3 5th Ranks.

4. Conclusion

From the results, it is seen that Student 4 got the first rank, whereas Student 3 has the lowest rank. Difficulties in teaching English occur on every campus, and every English instructor has his or her own method of dealing with the problem. If a method succeeds, it should be shared; such discussions provide healthy opportunities for self-expression. However, remedial readers often express themselves more easily artistically than verbally. MAD gives them a chance to draw their own cartoons, which they often do well. One hundred and five colleges said they do not currently offer English medium courses. They gave various reasons such as lack of money, lack of space, and lack of staff. Other reasons given were a reluctance to do a job that was considered to belong to high schools and the belief that most of the regular freshman English was actually adjuncts. The proposed gray touch evaluation might be very beneficial for analyzing clinical records. The critical concept of GRA is to locate the gray relative sequence that can be used to explain the connection between associated elements based on the information sequence. There are two standards for the conventional method of GRA, and three requirements for the advanced one. The fundamental steps and formulas of GRA are added and compiled into experimental clinical records, medical trial records, clinical study facts, and ambulatory and clinical records. The diverse strength and emission variables associated with ash and residual fee allow the definition of a single variable known as ash-related quality in Brand new.

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