Information System Design in Majoring the Interest and Talent of Productive Prospective Teacher of Informatics Education Students Using the AHP Method

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Abstract. Determining the location of Teacher Training and Education Faculty student placement in the teaching practice (PPL) based on the competencies of students is very important for the process of developing the skills of the students majoring in Informatics Education at the Faculty of Teacher Training and Education (FKIP)as productive teacher candidates. This is important for the suitability of the competencies of students with the competencies possessed by the school where the students doteaching practice. To facilitate the lecturers who are the committee for the implementation of teaching practice activities in determining the location of the students teaching practice, a decision support system is needed combined with the Analytical Hierarchy Process (AHP) method. This system will process students' value data from the beginning of the semester in each subject to get the competency of the students. The system also processes school data along with the competencies the school has to get the percentage of priority that is used as the basis for the placement of Faculty of Teacher Training and Education students. By placing the students in a school whose competencies are in accordance with the students' competencies, the students are expected to be able to develop skills as an educator and can use the technological skills they have more maximally.

1. Introduction

Language is an important means for communication in our daily activities. Through language, we can express our opinion, thoughts, ideas, and feelings. Nowadays, the acquisition of English Language is a must as English is globally used. Considering this need, English as a Second Language (ESL) is taught since kindergarten years in Malaysia. With the increasing need and ceaseless interest in learning English as a second language in Malaysia, it is important to study and understand the factors that can affect the learning process. Among some of the most prominent factors are the students' perceptions and attitudes towards the learning process of English language at school.

Perception is defined as something that is being observed and what is said about it [1, 2]. It varies from person to person, in which every individuals assign different meanings to what they perceive. And the meanings might change for a certain person. One might change one's perspective or simply make things mean something else. Attitude, on the other hand, according to The Concise Oxford Dictionary, refers to a "settled behaviour, as indicating opinion", or a "settled mode of thinking". It is defined as "a hypothetical construct used to explain the direction and persistence of human behaviour." or refers to "our feelings and shapes our behaviours towards learning", or a psychological tendency that may reflect both beliefs and feelings [3, 4]. Thus, behaviour is tied to attitude, as the latter highly affects and manifests itself in the former.

Research works in language learning indicated that learners with positive attitudes were always having more advantage compared to those with negative attitudes [5, 6]. Students' attitude is an integral part of learning; thus, it should become an essential component of second language learning pedagogy. It is important to gain more information regarding students' attitude in order to understand their thoughts and feelings toward learning English in the classroom. It is also paramount to create and raise students'

awareness of practices and use the language in their daily life. A knowledgeable and proficient student will be able to gather, process, publish and communicate information receives in the classroom within a range of contexts across all learning areas. It could prepare the student to use the language and apply the skills in the forms of reading, listening, writing, and speaking. Indeed, knowing one's attitudes and motivation are the best ways to identify the preferences in learning second language.

Therefore, attitude plays an important role in second language learning as it determines to a large extent the learners' behaviours, for example action taken to learn, or efforts exerted, during the learning process. Nevertheless, positive or negative attitude is rooted from an individual perception towards certain matters or objects. This means that the input gains from an individual's perception will influence the attitude of that particular individual toward certain matters or objects, as he or she has made his or her own judgement through the observation. In other words, one's attitude is the result of one's individual perception. Therefore, in learning English as second language, if a student perceived that learning the language is important, he or she will passionately enjoy the learning process. If his or her perception is otherwise, the student may portray a negative attitude in the classroom.

2. Research Background

The individual perception and attitude of ESL learners may be influenced by various environmental factors such as the socioeconomic status of family, geographical location of school, and community/societal norms where they lived in. In other words, underprivileged students can be defined as students' population who are being deprived through social or economic conditions of a civilized society. Individuals who are underprivileged are at disadvantage in many aspects, especially in term of education. As a matter of fact, an underprivileged individual might not even afford to go to school. It means that this individual does not have access to services and opportunities which the general population enjoys. In a formal learning process, underprivileged students' perception and attitude can be greatly influenced, and may hindrance their learning. To illustrate, when a student comes from low-income family, he or she will not has the advantage to learn in a comfortable and supportive environment; thus, their motivation may drop and end up quitting school. Students who were considered underprivileged (coming from family with low SES, schooling in remote areas, or living in an unsupportive community) may have different perception and attitude in learning English in comparison to their peers with opposite backgrounds [7].

However, there are limited numbers of study on underprivileged students' perception and attitude in learning English. There are many studies on students' perception and attitude but most scholars usually focusing on secondary students with lower grade, or among university students [8]. Studies regarding university students usually found that most students have positive attitude towards English while for secondary students they mostly have moderate level of motivation and attitude towards English. A particular study investigated motivations and attitude for learning English among year six students in Malaysian primary rural school had found out that the students appeared to have a positive attitude towards learning English language, whereby the results demonstrated that the participants had the interest and desire to excel in their English classes [9]. Another study indicated that students with negative attitudes towards learning English literature are Malays, males, does not speak another language at home, does not have siblings or parents who speak English, comes from a lower income family of less than RM500 per month, low marks for final English Form Four examination, and comes from an arts class in a rural school [10]. In short, students that come from a lower income family and rural schools have negative attitudes towards studying literature in English.

As research works on perception and attitude of local underprivileged students toward learning English as a Second Language (ESL) are far and rare in between, this research is designed as a preliminary case study in order to understand the students' views to make the process of learning English is more effective despite of their deprived conditions. It is conducted with main objective to identify local underprivileged students' perception toward English which affected their attitude in learning the language. In other words, the researchers want to find out the students' struggles, interests, and desires in learning English as a Second Language (ESL). Specifically, the objectives of this study were to:

   a. determine underprivileged students' perception towards learning ESL
   b. determine underprivileged students' attitude towards learning ESL
   c. examine underprivileged students' views to improve teaching-learning methods to match with the students' needs

3. Methodology

This is a quantitative study using the cross-sectional survey questionnaire design. As an initial case study, a minimum total of 30 [11] Form Three students were recruited from a school in the area of Selangor, Malaysia as respondents. They have been identified as underprivileged students due to socioeconomic status of the families.

The questionnaire was adapted from the original survey developed by a Saudi Arabian researcher [12]. It consisted of 22 items, answered using a 5-point Likert Scale. The collected data was descriptively analysed to answer the research questions as follows:

   a. What are the students' overall views in learning ESL?
   b. What is the level of difficulty in learning ESL? If it is, which part of learning the language is difficult?
   c. What do the students do to improve their learning of ESL?

4. Results

As shown in Table 1, most of the participants agreed that learning English is fun (66.66%); only a small percentage of the participants disagreed (20%), while the percentage of those who strongly disagreed, or said that they did not know was 13.33%. Similarly, the percentage of the participants who agreed that they like to listen to people speaking English (73.33%) was much larger than the percentage of those who disagreed or said they did not know which both have the same percentage of 13.33%. Moreover, no participants strongly disagreed. Likewise, a large percentage (70%) of the participants agreed that they really wanted to learn English, and percentage of 16.66% said that they did not know while 13.33% of the students disagreed. Furthermore, as in the responses to the previous statements, strong disagreement remained 0%. The statement "I dislike English" elicited 20% of agreement compared to 56.66% of disagreement, while 23.33% of the participants said that they did not know. The statement "I only learn English because it is compulsory in school" elicited more disagreement (66.66%) than agreement (16.66%). Interestingly, the total number of those who agreed and those who strongly agreed matched the figure of those who said they that did not know (16.66%). As for the image of those who spoke English, a large percentage of 73.33% agreed that when someone spoke English, it showed that he/she is educated, with 6.66% strongly agreed while 6.66% disagreed. The 13.33% difference was equal to the percentage of those who stated that they did not know. However, most of the participants strongly agreed, or agreed, that speaking English well could create a good impression with the total high percentage of 93.33%. The percentage of those who did not know was only 13.33%. Surprisingly none of them disagree about the statement (0%).Same goes for strong disagreement. Moreover, all participants either strongly agreed, or agreed, that learning English was important for their future, with a higher percentage of those who agreed (73.33%) and strongly agreed with 13.33%. Similar to the responses of the previous statement, virtually all the participants agreed that learning English could help them find better job opportunities, with a higher percentage of those who agreed (73.33%) and a total percentage of 80% representing general agreement. Only 13.33% said that they did not know, and a small number of percentage 6.66% said they disagree. Also, a total high percentage of 80% agreed that learning English was essential to further the study in a higher level, with 13.33% of them strongly agreed. On the other hand, only 6.66% disagreed, and 13.33% stated they did not know. There was no strong disagreement (0%). Furthermore, there was an overall agreement among participants that they needed English when they travelled abroad, and the percentage of those who strongly agreed (76.66%) exceeded that of those who agreed (23.33%). However, it seems that students have different opinion on statement "I need English when I search the internet" with more of them were on disagreement side (43.33%) although the difference was not big with the percentage of those who agreed was 36.66%. The rest said that they did not know (20%

Table 1: Students' overall views on learning ESL

No.	Statement	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
1.	Learning and speaking English is fun.	5	15	4	6	0
		16.66	50	13.33	20	0
2.	I like to listen to people speaking English.	2	20	4	4	0
		6.66	66.66	14.33	13.33	0
3.	I really want to learn English.	1	20	4	4	0
		3.33	66.66	13.33	13.33	0
4.	I dislike English.	0	6	4	20	0
		0	20	13.33	66.66	0
5.	I only learn English because it is compulsory in school	0	5	5	20	0
		0	16.66	16.66	66.66	0
6.	When someone speaks English, it shows that he/she is educated.	2	22	4	2	0
		6.66	73.33	13.33	6.66	0
7.	Speaking English well can create a good impression.	3	25	2	0	0
		10	83.33	6.66	0	0
8.	Learning English is important for my future.	4	22	4	2	0
		13.33	73.33	13.33	6.66	0
9.	Learning English can help me find better job opportunities.	4	22	4	2	0
		13.33	73.33	13.33	6.66	0
10.	Learning English is essential to further my study	4	22	4	2	0
		13.33	73.33	13.33	6.66	0
11.	I need English when I travel abroad.	23	7	0	0	0
		76.66	23.33	0	0	0
12.	I need English when I search in the internet.	1	10	6	10	0
		3.33	33.33	20	33.33	0

Table 2 shows that 66.66% of the participants agreed that learning English was difficult. A slightly lower percentage disagreed (20%), while 16.66% said that they did not know. Similarly, with regards to grammar and structure, 80% of the participants strongly agreed or agreed that both aspects were difficult for them. The total percentage which represented disagreement in general was 16.66 and only a small number of 3.33% said they did not know. A large proportion (83.33%) of the participants strongly agreed or agreed that lack of vocabulary made understanding and communicating in English difficult. Noticeably, none of the participants have disagreement towards this statement although there were those who did not know (16.66%).

Table 2: Level of difficulty in learning ESL and which part of it is difficult?

No.	Statement	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
14.	Learning English is difficult.	5	15	4	6	0
		16.66	50	13.33	20	0
16.	I find English grammar and structure difficult	4	20	1	5	0
		13.33	66.66	3.33	16.66	0

17.	Lack of vocabulary makes understanding and communicating in English difficult.	5	20	5	0	0
		16.66	66.66	16.66	0	0

As for skills, it can be seen in Table 3 that all participants thought that speaking was difficult (100%); writing came second (86.66%); listening came third (36.66%); while reading came last (10%).

Table 3: What do you consider as a difficult skill in English?

Writing	Reading	Listening	Speaking
26	3	11	30
86.66%	10%	36.66%	100%

As can be seen in Table 4, 50% of the participants agreed that they could improve their English. Interestingly enough, a slightly smaller proportion said that they did not know (43.33%). Only 6.66% disagreed with the statement. It was noticeable that the students had the same percentage of 33.33% for overall agreement, disagreement, and didn't know for statement "I don't have time to improve my English".

Table 4: Do you believe you can improve their English?

No.	Statement	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
13.	I think I can improve my English	0	15	13	2	0
		0	50	43.33	6.66	0
15.	I don't have time to improve my English.	2	8	10	10	0
		6.66	26.66	33.33	33.33	0

As shown in Tables 5, when the participants were asked to state their own strategies to improve their English proficiency, surprisingly most of them chose none with the percentage of 66.66%. The second popular choice tied between reading simplified English books and look up new vocabulary and check pronunciation (26.66%) while the third was review new grammar points after class (20%). The next popular choice was practicing the correct pronunciation and new structures with friends and/or family (13.33%). While there were 11 options provided only 5 were chosen by participants and the rest got 0%. Some of the higher numbers were not expected such as 20% of students do nothing to improve their English although most of them claimed to like English. Moreover, it seems that students really have different opinion although their situation is the same.

Table 5: What do you do to improve their English?

1. I read simplified English books.	8	26.66%
2. I watch English programs.	0	0%
3. I keep a notebook with all new vocabulary and practice writing them in sentences.	0	0%
4. I review the new grammar points after class	6	20%
5. I practice the correct pronunciation and new structures with my friends and/or family.	4	13.33%
6. I read articles on the internet.	0	0%
7. I listen to native speakers reading and/or speaking on the internet.	0	0%
8. I look up new vocabulary and check pronunciation.	8	26.66%
9. I take extra English courses.	0	0%
10. None of the above.	20	66.66%
11. Other, specify.	0	0%

Discussions and Conclusion

The overall responses indicate that majority of underprivileged students in this study had positive attitude towards learning English. This reflected in the students' perception that English is important for their future, in which it is a necessity for furthering studies and get better job opportunities. In other words, the students had good impression about learning English and they were aware of the benefits to learn English. Hence, the impression was parallel with the students' attitude towards learning English, which means that the positive attitude was influenced by the positive perception that they possessed.

Furthermore, majority of the students believed that they could improve their English despite of various limitations that they faced as underprivileged students. This reflects the students' confidence in their ability to improve their English language proficiency. The remaining minority, who were in doubt about their ability to get better in learning English as a Second Language (ESL), might be influenced by the factors such as limited resources, opportunities, so on and so forth [13]. Even though most of the students have positive feelings towards English, surprisingly they didn't put much effort to improve their English proficiency. Therefore, teachers need to assist the students to improve in the related areas of the language by using creative teaching methods that encourages and allows the practices of the language in the classroom [14]. Sooner or later, it will leave a good impact to the students and motivate them to be a better learner of the language.

As for the way to improve the ESL learning process, most of the respondents believed that the need of getting sufficient practice of the language is the essential strategy. They were convinced that their English would improve if they could practice English in their everyday life with others, especially those who spoke English well, and if they were trained in understanding people who spoke English. This need could be fulfilled with the setting up of an English speaking environment/community [15]. By having this set-up, considerable numbers of activities such as English Speaking Day and competitions could be held to help the students practise English in their daily lives, which in turn would improve their mastery of English as a Second Language (ESL). This can further be enhanced if the set-up is equipped with latest communication technology like multimedia and internet, so that the students could practice communicating online with English native speakers around the world [16].

In a nutshell, findings of this initial case study provide some basic information about Malaysian underprivileged students' perception and attitude towards learning English as a Second Language (ESL). This preliminary data could help stakeholders of local education system like policy makers, teachers, and parents to think of necessary actions to take in order to help these students learn the language effectively. However, this baseline data need to be enhanced with further research works, so that the phenomenon could be understood in depth and more thorough.

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