

Integration of 21st Century Learning Skills and Teacher Characteristics in ESL Classrooms: The Case of Malaysia

Goh Hock Seng¹, Maizatulliza Muhamad¹, Richard Kiely²

¹English Language and Literature Department, Faculty of Languages and Communication, Sultan Idris Education University, Malaysia
²Faculty of Arts and Humanities, University of Southampton

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Abstract One of the main foci when discussing 21st century learning skills (CLS) in English as a Second Language (ESL) classrooms, is ensuring effective integration of its construct during the teaching and learning process. Certainly, ESL teachers play important roles in achieving the desired results. In a way, teachers are expected to possess several characteristics which are needed in ensuring successful integration of 21st CLS in the ESL classrooms. This research examined the extent to which the teachers in the Malaysian ESL context integrate 21st CLS in their classrooms and to investigate their perceptions of their characteristics with regards to 21st CLS. Data were collected from 291 ESL teachers using a questionnaire which focuses on the integration of 21st CLS as well as on the teachers' self-rating related to 21st CLS teacher characteristics. The results suggest a satisfactory level of integration of 21st CLS in the Malaysian ESL classrooms and the teachers generally viewed themselves as reflecting the needed characteristics of 21st century teachers. Even though the findings indicate positive results, efforts need to be increased to ensure more consistent integration of 21st CLS during English lessons.

Keywords 21st Century Learning Skills, ESL, Integration of 21st Century Learning Skills, Teacher Characteristics

1. Introduction

The 21st century is indeed a globalized and internet connected world. In this globalized world, the ever increasing power of online technology has changed the way people all around the world conduct their lives be it social interaction, work, business, religion, education and so on. The power of such technology is made explicit in the COVID 19 pandemic affecting almost every country in the world and has forced the world to carry on with life literally online while going through lockdowns imposed to break the chain of the virus infection. Although the data collection for this research was carried out before the pandemic started, this report reminds us of the need to examine crucial aspects related to the 21st century.

One particular aspect that highlights the need to understand 21st century skills is in the area of education. Education has been the focus of many researchers seeking to examine the changes, needs and roles of both students as well as teachers in the 21st century (e.g. Ansari & Malik, 2013; Benade, 2015; Che Teh, Isa & Omar, 2017; Jahan et al., 2008; Jensen, 2009; Rahmadani, Fitrawati, & Syarif, 2019). This present research focuses on the teaching and learning of English in schools which has become a subject of scrutiny as it is viewed by many, especially parents and future employers, as the means to employability in the 21st century workplace.

Foo and Richards (2004) claim that the English

language has been made very important in the Malaysian education system as evident by the constant focus on raising the proficiency level in the language which has seen drastic drop over the years. The Malaysian government has taken various actions to help improve the standard of English language among students. These include the policy of teaching of Science and Mathematics subjects through the medium of English (Foo & Richards, 2004) – However, the said policy was abolished in 2012 and was replaced with another policy called ‘Memartabatkan Bahasa Malaysia Memperkukuh Bahasa Inggeris (MBMMBI) which means ‘Upholding the Malay Language and Strengthening the Command of English’.

In that same year, 2012, the *'Pelan Pembangunan Pendidikan Negara Malaysia 2013-2025'* (the Malaysian Education Development Plan) was also introduced. Among others, the plan highlights the implementation of the 21st century skills (henceforth 21st CLS in core subjects such as Malay Language, English Language, Mathematics, and Science. It is hoped that the introduction of the new education plan will provide students with adequate skills to create Malaysian students who are balanced, resilient, inquisitive, principled, informed, caring, patriotic, as well as effective thinkers, communicators, and team players. Implementing the 21st CLS in the English language classrooms requires the teachers and students to learn and adapt new knowledge and approach in the teaching and learning process.

However, relatively little attention is given to the issues pertaining to the teachers’ perspectives since the Malaysian Education Ministry emphasized the implementation of the 21st CLS, particularly in the ESL classrooms. It is important to investigate such issues as the success or failure of the said education plan hinges greatly on what the teachers do in the classroom and also dependent on the characteristics or attributes of the teachers who implement the plan on the ground (Bhavnagri & Vaswani, 1999; Byrd et al., 2011; Cesarone, 2000). As such, this research investigates ESL teachers views with regards to their integration of 21st CLS in their classroom as well as how they perceived their characteristics as 21st century teachers.

2. Literature Review

Computer technology and the internet have become the hallmarks of the 21st century. Rapid development in these areas have influenced every aspects of human lives such as in business, health, education, recreation and social interaction. We are all somehow required to reconsider, the way we work or do business, the way we teach or learn, the way we interact we one another, in short, the way we live our lives. With such changes, researchers and decision makers are also examining and reconsidering the skills involved and characterize the way we live in the 21st century.

There are indeed many models of 21st century skills (Geisinger, 2016). According to Kaufman (2013), 21st century skills involve ‘competencies such as critical thinking and problem-solving skills, communicative skills, information and media literacy skills, contextual learning skills, and an ever important collaboration skill set (p. 79). Teachers need to integrate these competencies within their core content areas to encourage students to embrace learning.

Fandino (2013) claims that the 21st CLS requires an explicit integration of learning strategies, digital competencies and career abilities during the teaching of major subjects such as English, Science and Mathematics. ESL classrooms should expose students to various practices and processes emphasizing on creativity, critical thinking, collaboration, self-direction, and cross-cultural skills. As such, a non-profit organization, Partnership for 21st Century Skills (Guo, & Woulfin, 2016; Voogt & Roblin, 2010), stresses on explicit integration of learning and innovation skills, information, media and digital literacy skills, and life and career skills.

Based on the above descriptions, it may be assumed that students who undergo an education system infused with the 21st CLS will graduate as well-rounded individuals who not only are knowledgeable but also possess qualities which enable them to thrive in any situation. The document on the new education plan published by the Ministry lists six aspirations for students in the 21st century classrooms. As specified in the *Pelan Pembangunan Pendidikan Negara Malaysia 2013-2025* (MOE, 2012), it is aspired that students in Malaysia should acquire six ‘ciri utama’ (main characteristics) for them to complete at the global stage. These main characteristics are:

- a. knowledge,
- b. thinking skills,
- c. leadership skills,
- d. bilingual proficiency,
- e. ethics and spirituality, and
- f. national identity.

To instill these characteristics, MOE (2012) suggested 11 elements which should be present in a 21st century classroom. These 21st CLS elements are:

- a. Collaborative learning
- b. Collaborative (groupwork)
- c. Student-centred learning
- d. Skill based
- e. Formative assessment
- f. Process based
- g. Learning to live
- h. Skills for life
- i. Practical
- j. Higher order thinking skills
- k. Community based

To achieve the said aspirations and develop the characteristics in the students, teachers play a very pivotal role. They have to be the agents who impart knowledge and encourage students to embrace these aspirations. However, for the teachers to become such agents, they themselves need to fully understand the construct of the 21st CLS so that they are able to integrate and imbue these aspirations and related skills appropriately in their classrooms. Borg (1998) stipulates that teachers' decisions and actions in the classrooms are the results of "...their pedagogical systems – the beliefs, knowledge theories, assumptions, and attitudes that teachers hold about all aspects of their work ...” (p. 9). Thus, in the context of integrating 21st CLS, it is very important for the teachers to develop and uphold the right beliefs, knowledge, theories, assumptions and attitudes as these will influence the way they conduct their lessons pertaining to 21st CLS.

Additionally, to ensure the success of the 21st CLS, teachers themselves must also undergo some changes. Numerous researchers have sought to determine the characteristics of teachers which are deemed essential in ensuring successful teaching and learning in the 21st century classroom (e.g. Jahan et al., 2008; Simendinger et al., 2009). Churches (2008) asked a pertinent question – ‘What are the characteristics we would expect to see in a successful 21st century educator?’ and goes on to propose eight characteristics which successful and effective teachers in the 21st century should have. This study focuses on and hence, follows these characteristics whereby successful 21st century teachers should:

- be adaptive,
- focus on life-long learning skills,
- be communicative,
- be a visionary,
- show leadership qualities,
- be role-models,
- be collaborative, and
- be risk takers.

Based on the 11 elements of 21st century classroom (MOE, 2012) and the characteristics of effective 21st century teachers (Churches, 2008), a questionnaire was designed to determine Malaysian ESL teachers' integration of 21st CLS in the classroom and their perception of their characteristics as 21st century teachers.

3. Methodology

The survey was the research design used as the study sought to examine the perceived characteristics and integration of 21st CLS among ESL teachers in Malaysia. Respondents in the survey were ESL teachers in various strategic geographical parts of Malaysia. There are 15 states in Malaysia where 13 states are located in Peninsula Malaysia (West Malaysia) and another 2 states (Sabah and Sarawak) are located in the huge island of Borneo and are known as East Malaysia. The states included in the survey

are Perak and Kedah (North of Peninsula Malaysia), Melaka and Johor (South of Peninsula Malaysia), Pahang (East Coast of Peninsula Malaysia) and finally, Sabah (East Malaysia).

A questionnaire was designed to explore the extent to which teachers engage the elements of 21st CLS in ESL classrooms. Respondents were asked how frequently (from rarely to always) they see themselves integrating eleven elements of 21st CLS while teaching English as a second language. Another part of the questionnaire elicits respondents self-rating of their characteristics as 21st century teachers in terms of competence. The questionnaire was pilot tested on 43 English language teachers in the state of Kedah and the internal consistency of the Likert items in Section B was determined through Cronbach Alpha. The value obtained was 0.77 which is at an acceptable level of reliability.

The questionnaires were administered with the help of School Improvement Specialist Coach (SISCs) in the states of Pahang, Perak, Melaka, Johor, and Sabah to the English teachers that they have access to in the respective states. These SISCs are specially selected experienced teachers who are appointed by the Ministry of Education and tasked to guide teachers in the schools in the effort to improve the quality of teaching and learning in Malaysian schools. 295 teachers filled in the questionnaires but 4 questionnaires had to be rejected as they were not filled in completely with many items unanswered. Hence, data analysis were carried out based on 291 respondents. Additionally, the raw data were further processed whereby various items which were stated in the negative were recoded and the items that are part of a construct were computed accordingly prior to the data analyses.

4. Results and Discussion

Integration of 21st CLS elements in the ESL classroom

The success of a programme or innovation depends on many factors and that includes the ‘stakeholders’ such as the ministry, curriculum designers, teachers, and students. This research focuses on the English teachers entrusted in using and intergrating 21st CLS in the ESL classrooms so that their students are adequately equipped with the skills and competence necessary in facing the challenges of the 21st century. In a way, it would be useful to examine if the teachers are integrating such skills in their respective classrooms. The teachers were asked to indicate how often, in terms of frequency, they think they integrate the eleven elements of 21st CLS in their ESL classrooms. The results of their responses are displayed below in Table 1. In analysing their responses, a percentage is calculated for each skill based on the following procedure. The Likert scale is given a value of 1 for ‘Rarely’, 2 for ‘Sometimes’, 3 for ‘Fairly frequently’ and 4 for ‘Always’. The option ‘Not applicable’ was given the value of zero and in

essence, not included in the calculations. A maximum possible score is calculated based on the number of responses multiplied by the maximum value of 4 and the total score is obtained through the summation of total value for each option. The percentage is then calculated based on the total score obtained and the maximum score. Lastly, as shown in the table, the skills are sorted in a descending order based on the percentages.

The percentages in Table 1 may be considered as reflecting the frequency in which the particular skill is integrated. The percentages ranged from 63.93% to 77.58% which on the whole indicate a satisfactory level of integration of 21st CLS in the ESL classrooms among the respondents. The results show ‘Collaborative learning’ (77.58%) as the most frequently integrated skill with ‘Student-centred learning’ a close second with 76.38%. It would seem that getting students to work collaboratively is viewed as an effective way to inculcate 21st CLS among the students. This is not surprising as communication in group work is highly valued in the language classroom and seen as facilitating the learning of a target language (Soo & Goh, 2020). Surprisingly, ‘Higher order thinking skills’ (HOTS) was almost at the bottom of the table although 68.18% is not a very low percentage. On the other hand, it may be viewed that HOTS were relatively not as frequently integrated when compared to the other

skills despite the emphasis given on HOTS in the curriculum. What are the possible reasons or factors that lead to this observation? Is this an issue related to understanding or implementation? This is certainly an issue which requires further investigation.

Teacher Characteristics

It is without a doubt that teachers play a key role in the implementation of 21st CLS in the classroom and they are a determining factor for the success of producing students who can meet the challenges of the 21st century. Therefore, it is crucial to look at how the teachers perceive themselves in terms of the characteristics of effective 21st century teachers. These characteristics (following Churches, 2008) were listed in the questionnaire and respondents were asked to rate themselves on these characteristics in terms of competency levels. The results of their responses are displayed in Table 2 below. A score in terms of percentage is calculated the same way as the percentages for the frequency of integration (Table 1) was calculated, and as with Table 1, the percentages are sorted in descending order. In a way, the percentages can be interpreted as their perceived level of competency for each characteristic.

Table 1. Frequency of Integration of 21st CLS Skills by ESL Teachers

21 st Century Learning Skills	Rarely	Sometimes	Fairly Frequently	Always	Not Applicable	Maximum Score	Total Score	Percent
	1	2	3	4	0			
1. Collaborative learning	5	57	131	97	1	1160	900	77.58%
2. Collaborative (groupwork)	4	56	136	92	3	1152	892	77.43%
3. Student-centred learning	8	64	120	96	3	1152	880	76.38%
4. Skill based	12	76	126	76	1	1160	846	72.93%
5. Formative assessment	7	84	142	55	3	1152	821	71.27%
6. Process based	7	92	125	61	5	1144	810	70.80%
7. Learning to live	11	98	118	61	3	1152	805	69.87%
8. Skills for life	14	94	119	62	2	1156	807	69.81%
9. Practical	12	103	119	51	6	1140	779	68.33%
10. Higher order thinking skills	15	93	125	53	5	1144	780	68.18%
11. Community based	29	107	113	38	4	1148	734	63.93%

Table 2. Self-rating of 21st CLS Teacher Characteristics

21 st Century Learning: Teacher Characteristics	Not Competent	Weak	Moderate	Competent	Highly Competent	Maximum Score	Total Score	Percent
	1	2	3	4	5			
1 I am collaborative	1	3	111	151	25	1455	1069	73.47%
2 I am communicative	1	3	114	149	23	1455	1063	73.05%
3 I focus on life-long learning skills	1	11	126	138	15	1455	1061	72.92%
4 I am adaptive	1	5	127	142	16	1455	1040	71.47%
5 I am visionary	1	7	157	109	17	1455	1007	69.21%
6 I have leadership qualities	2	8	167	94	20	1455	995	68.38%
7 I am a role model	1	10	166	97	17	1455	992	68.18%
8 I am a risk taker	4	10	164	99	14	1455	982	67.49%

In gauging their perceived level of competence, it can be interpreted as follows:

- Not competent: below 20%
- Weak: 21-40%
- Moderate: 41-60%
- Competent: 61-80%
- Highly competent: 81-100%

Hence, based on the percentages obtained (67.49% to 73.47%), it may be said that the teachers generally view themselves as competent with regards to the characteristics. It is also good to note that only small numbers of teachers in this study view themselves as ‘not competent’ and ‘weak’ in all the characteristics. On one hand, such a result is encouraging but on the other hand, it also indicates that there is still a lot of room for improvement as none of the percentages reached 80% and above.

It is interesting to note that ‘collaborative’ and ‘communicative’ characteristics scored the highest percentages and are in line with the results obtained for the integration of 21st CLS skills in the classroom. It is clear that teachers generally are most confident in terms of those characteristics and they integrate such related skills in their classrooms. Nonetheless, attention should also be given to the characteristics which obtained relatively low (below 70%) in the list such as ‘visionary’, ‘leadership skills’, ‘role model’, and ‘risk taker’ as these characteristics are also essential for one to be effective teachers in the 21st century. The question arises as to whether such characteristics can be taught in teacher preparation or teacher development for the 21st century?

The data show that while 'collaborative learning' and 'student-centred learning' are the two skills most frequently integrated, 'higher order thinking skills' is the least frequently found in teachers' English classes. This finding could be corroborated with the fact that some of the teachers believed that 21st CLS are only suitable for students who are highly proficient (Muhamad & Seng, 2019).

As for the perceived level of competence in 21st CLS

teacher characteristics, there are some notable findings. It should be noted that being 'collaborative' and 'communicative' are characteristics that scored the highest and this finding is in line with the earlier finding that 'collaborative learning' and 'student-centred learning' are the two skills most frequently integrated.

The results suggest a satisfactory level of integration of 21st CLS in the Malaysian ESL classrooms and the teachers generally viewed themselves as competent with regards to the characteristics. Even though the findings indicate generally positive results in both aspects of integration and also teacher characteristics, the results are not at levels which are excellent or commendable. Hence, efforts need to be increased to ensure higher levels of integration of 21st CLS during English lessons and higher levels of competence in terms of teacher characteristics.

Future studies should investigate why HOTs are not integrated as highly as it should, given the emphasis on such skills being important in the 21st century. Investigations should also be directed to determine how characteristics of effective 21st century teachers can be enhanced in or perhaps taught to teachers both at pre-service as well as in-service platforms so that they can indeed be more effective in the 21st century classroom.

5. Conclusion

The results suggest a satisfactory level of integration of 21st CLS in the Malaysian ESL classrooms and the teachers generally viewed themselves as reflecting the needed characteristics of 21st century teachers. Even though the findings indicate positive results, efforts need to be increased to ensure more consistent integration of 21st CLS during English lessons.

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