Teachers' perspective of 21st century learning skills in Malaysian ESL classrooms

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A R T I C L E   I N F O

A B S T R A C T

The introduction of 21st century learning skills in the Malaysian education system requires the teachers to learn and adapt new knowledge. The success of the implementation of the new skills depends on the teachers' views and willingness to accommodate them into their practices. Thus, this research seeks to examine teachers' perspectives on 21st century learning skills in English as a second language classrooms. 291 English language teachers in Malaysia were surveyed using a questionnaire designed to elicit teachers' responses on various aspects related to 21st century learning skills. The results of the study highlighted important insights on aspects such as teachers' knowledge, perceived use, benefits and challenges of 21st century learning in Malaysian ESL classrooms. The findings indicate the need for further exposure to 21st century learning construct so the implementation would be more effective.

1. Introduction

In 2012, the new Malaysian Education Development Plan was introduced. Among others, the plan highlights the implementation of 21st century learning skills (henceforth 21st CLS) in all major subjects including the English language starting from the year 2013 (MOE, 2012). The new plan is an aspiration to provide students with adequate skills to create Malaysians who are balanced, resilient, inquisitive, principled, informed, caring, patriotic, as well as effective thinkers, communicators, and team players. Implementing 21st CLS in the English language classrooms requires the teachers and students to learn and adapt new knowledge and approach for the teaching and learning process. Six years have passed since the inception of 21st CLS in English language classrooms in Malaysia. However, it is yet known to many the issues regarding the actual implementation and views of this new education plan. Previous research on 21st CLS (Fandino, 2013; Yoke et al., 2015; Ganapathy et al., 2017) did not provide much information as they focused on one specific feature rather than studying the construct in its entirety. One major area of concern when a new idea is proposed is how the affected parties or stakeholders do perceived the idea and whether or not they are willing or able to accommodate such new ideas into their current practices. As such, this research intends to examine the teachers' perspectives of 21st CLS in the English language classroom.

2. Literature review

Kaufman (2013) explained that 21st CLS 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). She further adds that the skills to develop these competencies must be purposefully integrated within core content areas-such as the English language subject-in ways that motivate students to learn. In discussing the 21st CLS, the Malaysian Ministry of Education (henceforth MMOE) specifies three main skills to be mastered by the students, presented in Table 1. The skills of 21st CLS presented above can be linked to the theory of connectivism proposed by Siemens (2005). Connectivisim emphasizes learning through 1) establishing and maintaining connections with people and knowledge, 2) acquiring relevant skills to continuously pursue, alter and shift knowledge, and 3) engaging with non-human devices to gather new

knowledge. These principles support the three main skills stipulated by MMOE. For example, mastering the learning and innovative skills would enable students to communicate and collaborate, thus able to maintain connections. Similarly, the stress on information technology, communication and media skills gears students to utilize various devices in the quest for knowledge advancement.

Table 1: 21st century learning skills

Learning and Innovative Skills	Information Technology, Communication and Media Skills	Life and Career Skills
Creativity and innovation	Information literacy	Students should be adaptive and flexible
Critical thinking and problem solving	Media literacy	Students should make initiatives and be self-directive
Communication and collaboration	Information technology and communication literacy	Students must have social and inter-cultural skills
	Students should be able to use the technology to access, manage, integrate, evaluate, generate new information and communicate with others.	Students must be productive and accountable
		Students must be responsibility and have leadership qualities

The introduction of 21st CLS means the setting of the classrooms would be different from the traditional one as it is no longer about delivering knowledge and skills (Cummins, 2009). Table 2 provides a brief summary of the differences between the traditional classrooms and the 21st century classrooms.

Table 2: Traditional classroom vs 21st century classroom

Traditional Classroom	21st Century Classroom
Time-based	Outcome-based
Focus: memorization of discrete facts	Focus: what students Know, Can Do and Are Like after all the details are forgotten.
Lessons focus on the lower level of Bloom's Taxonomy – knowledge, comprehension and application.	Learning is designed on upper levels of Bloom's Taxonomy – synthesis, analysis and evaluation (and include lower levels as curriculum is designed down from the top.)
Textbook-driven	Research-driven
Passive learning	Active Learning
Learners work in isolation – classroom within 4 walls	Learners work collaboratively with classmates and others around the world – the Global Classroom
Teacher-centered: teacher is center of attention and provider of information	Student-centered: teacher is facilitator/coach

Table 2 clearly highlights the main differences between learning in a traditional classroom as compared to learning in a 21st century classroom. Essentially, teachers are expected to play totally different roles, facilitating students to create and build knowledge rather than delivering information presented in a textbook to be memorized by the students (Amin, 2016; Jan, 2017). With this kind of change, teachers need to equip themselves with enough skills and knowledge so that they can keep abreast with the development. When a new approach is introduced into an education system, it is important to study its effectiveness. However, it is also important to investigate the affected parties' perceptions of the new approach. It is believed that teachers' perceived views are congruent with their actual practices in the classrooms (Cope and Ward, 2002; Rahman, 2018). As such, if teachers perceive 21st CLS as irrelevant to their students' needs, their actual practices in the classrooms will be conformed to this belief. The study on teachers' perceptions may also reveal issues which need to be addressed so that they will be able to implement 21st CLS effectively in their classrooms.

3. Methodology

This study employed a quantitative research design in the form of a survey. A set of questionnaire was designed to explore teachers' perspective of 21st CLS in Malaysian ESL classrooms. The questionnaire consists of two sections. Section A contains items that elicit information on the demographics of the respondents and Section B contains 35 Likert scale items on the various aspects and themes of 21st CLS. The questions were developed based on interviews conducted with five English language subject specialists prior to the survey. The interviews focused on various issues related to 21st CLS.

The questionnaire was pilot tested on 43 English language teachers and the internal consistency of the items in Section B was determined through Cronbach Alpha. The value obtained was 0.77 which is at an acceptable level of reliability. Copies of the questionnaires were administered with the help of the five English language subject specialists to the English teachers that they have access to in five different states in Malaysia. 295 teachers filled in the questionnaires but 4 questionnaires had to be rejected as they were not filled in completely with many items unanswered. Data analysis were carried out using Statistical Package for Social Sciences (SPSS) 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 grouped and analyzed accordingly.

4. Results and discussion

The respondents of the survey are 291 English language teachers from five different states in Malaysia. In this section, the background of the respondents is provided before presenting the results of the data analyses carried out.

4.1. Background of respondents

The demographic details of the respondents are provided in Table 3. It can be seen from the table that the demographics is a fair reflection of the general observation of English language teachers in Malaysia particularly in the aspects of gender and ethnicity.

Table 3: Demographic details of respondents

		Frequency	Percentage (%)
Location of Schools	Rural	189	64.9
	Urban	102	35.1
	Total	291	100.0
Gender	Male	89	30.6
	Female	202	69.4
	Total	291	100.0
Ethnicity	Malay	204	70.1
	Chinese	40	13.7
	Indian	30	10.3
	Kadazan-Dusun	4	1.4
	Iban	2	0.7
	Others	11	3.8
	Total	291	100.0
Age	50 and above	10	3.4
	45 - 49	24	8.2
	40 – 44	35	12.0
	35 – 39	76	26.1
	30 – 34	53	18.2
	25 – 29	83	28.5
	24 and below	10	3.4
	Total	291	99.8*

Note*: Does not total 100.0% due to rounding

4.2. Knowledge and use of 21st CLS

In terms of knowledge on 21st CLS skills, a majority of the respondents have at least a moderate level of knowledge with 56.4% (Table 4) of them perceiving their level of knowledge as such. Furthermore, as can be seen in Table 4, 109 (37.5%) and 8 (2.7%) of the respondents rated their knowledge as 'Good' and 'excellent' respectively.

Such high percentages indicate a generally satisfactory level of knowledge of 21st CLS. Correspondingly, it is heartening also to note that only 10 (3.4%) of the respondents see themselves as being weak in the knowledge of 21st CLS. Nonetheless, it is not clear from the data if these teachers have yet to attend any courses related to 21st CLS or that they have attended and yet still perceive their knowledge as 'weak'.

The levels of knowledge corroborate with the English teacher's responses pertaining to the use of 21st CLS in the classroom. Table 5 shows the respondents' answers when asked how often 21st CLS should be used.

Table 4: Knowledge of 21st CLS

	Frequency	Percentage (%)
Weak	10	3.4
Moderate	164	56.4
Good	109	37.5
Excellent	8	2.7
Total	291	100.0

Table 5: How often 21st CLS should be used

	Frequency	Percentage (%)
Never	1	0.3
Rarely	7	2.4
Sometimes	91	31.3
Fairly frequently	149	51.2
Most of the time	43	14.8
Total	291	100.0

As can be seen in Table 5, 149 respondents or 51.2% indicated that 21st CLS should be used 'fairly frequently' while 43 (14.8%) of them responded emphatically with 'most of the time'. Taken together with the response of 'sometimes', it can be said that a total of 97.3% of the English language teachers surveyed are positive about how often 21st CLS should be used in the ESL classroom while only 2.7% responded in the negative.

Therefore, the frequencies as observed in both Table 4 and Table 5 point to English language teachers who generally perceive themselves as knowledgeable about 21st CLS and that these skills should be used in the ESL classrooms. With such background, it is pertinent to, thus, examine in detail their perceptions on these skills.

4.3. Benefits and implementation of 21st CLS

It is without doubt that 21st CLS is strongly advocated among the English language teachers due to the possible benefits of implementing them in the ESL classroom. Table 6 contains statements that reflect those benefits and the teachers' responses to those statements. The statements are sorted in descending order based on percentages obtained on just the 'Agree' option.

It is clear from the teachers' responses that they are generally agreeable to the notion that 21st CLS is beneficial in the classroom. This can be seen from the high percentages (above 70%) of agreement ('Agree' and 'Strongly Agree') for the first 6 statements which essentially state that 21st CLS makes teaching and learning more effective, more enjoyable and helps the students to be more competent and independent.

However, the percentages dropped when it comes to statements that point to the implementation of 21st CLS (Statements 26, 15, 8, 22 and 5). While still in the majority, the teachers are less agreeable to statements that require reflection on hands-on experience in the implementation of 21st CLS.

Table 6: Benefits and Implementation of 21st CLS

No.	Statements on 21st CLS	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree	
		N	%	N	%	N	%	N	%	N	%
21	21st CLS makes English teaching and learning more fun.	0	0	4	1.4	27	9.3	228	78.4	32	11.0
2	21st CLS makes teaching English more enjoyable.	0	0	3	1.0	29	10.0	221	75.9	38	13.1
20	21st CLS makes English teaching and learning more effective.	0	0	3	1.0	50	17.2	216	74.2	22	7.6
12	21st CLS makes teaching English more effective.	1	0.3	4	1.4	52	17.9	205	70.4	29	10.0
29	21st CLS is effective in producing competent English language users.	2	0.7	7	2.4	69	23.7	199	68.4	14	4.8
33	21st CLS enables my students to be more independent.	0	0	19	6.5	70	24.1	178	61.2	24	8.2
26	21st CLS is suitable for my English class.	1	0.3	13	4.5	99	34.0	174	59.8	4	1.4
15	21st CLS makes teaching English easier.	2	0.7	13	4.5	112	38.5	153	52.6	11	3.8
8	21st CLS can only be implemented with suitable number of students in the class.	4	1.4	57	19.6	67	23.0	131	45.0	32	11.0
22	It is easy to implement 21st CLS in my English class.	5	1.7	36	12.4	145	49.8	95	32.6	10	3.4
5	It is difficult to implement 21st CLS in my English class.	5	1.7	76	26.1	110	37.8	87	29.9	13	4.5

It should also be noted that high percentages were obtained for the option 'neither agree nor disagree' which reflect a certain level of neutrality or undecidedness to the statements. More importantly, statement 22– 'It is easy to implement 21st CLS in my English class'-received only 36% (32.6+3.4) agreement while 14.1% disagreed and a high percentage of 49.8% were undecided. This result corresponds with the percentages obtained for statement 5 which is a negative version of statement 22. Certainly, the teachers viewed 21st CLS positively but the implementation of it is another matter and may possibly reflect various challenges and issues in carrying out 21st CLS.

4.4. Challenges and issues

Although it is clear that the respondents view 21st CLS positively, there is no denying that challenges and issues exist as can be seen in Table 7. Again, as in Table 4, the statements are placed in descending order based on percentages obtained on just the 'Agree' option. Firstly, it should be noted that a general statement like no. 9 garnered more that 75% agreement from the respondents. Only a mere 10.7% do not think 21st CLS is a challenge to them. This result is in line with low percentage of agreement obtained for the statement 'It is easy to implement 21st CLS in my English class' (Table 4). Such

perceptions may most likely be due to the amount of preparation and workload related to the use of 21st CLS as can be seen by high percentages (83.8% and 62.2%) obtained for statements 3 (21st CLS involves a lot of preparation) and Statement 13 (21st CLS is an additional workload for English teachers).

The remaining statements (4, 32, 18, 17, and 25) essentially revolve around contextual situations such as classroom environment, interference with other programmers, high number of students et cetera is more mixed in the responses obtained. A likely possibility is that the situations on the ground differ from one school to another or rather from one teacher to another. It is noteworthy that the teachers recognize that 'correct environment' is an important consideration in the use of 21st CLS (Statement 4– 70.8%). Additionally, it should also be noted that these remaining statements (except statement 4) received rather high percentages for the option 'neither agree nor disagree' reflecting a certain level of neutrality to the possible problems.

The teachers' responses reflect the various challenges they faced in implementing 21st CLS in their classrooms. These challenges according to Malik (2018) are inevitable as 21st century learning requires radical changes in almost every aspect of teaching and learning.

Table 7: Challenges and Issues

No.	Statements on 21st CLS	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree	
		N	%	N	%	N	%	N	%	N	%
9	21st CLS is a challenge to me.	4	1.4	27	9.3	40	13.7	189	64.9	31	10.7
3	21st CLS involves a lot of preparation.	1	0.3	9	3.1	37	12.7	166	57.0	78	26.8
13	21st CLS is an additional workload for English teachers.	4	1.4	30	10.3	76	26.1	145	49.8	36	12.4
4	21st CLS can only be implemented in the correct environment.	0	0	28	9.6	63	21.6	153	52.6	47	18.2
32	21st CLS interferes with other programmes planned for my students.	1	0.3	74	25.4	97	33.3	115	39.5	4	1.4
18	There are too many students in my class for 21st CLS to take place.	13	4.5	68	23.4	70	24.1	114	39.2	26	8.9
17	The context of my English class is not suitable for 21st CLS to take place.	9	3.1	95	32.6	107	36.8	72	24.7	8	2.7
25	21st CLS makes English teaching and learning more difficult.	8	2.7	101	34.7	117	40.2	62	21.3	3	1.0

4.5. Use of information technology (IT)

The 21st CLS and the learning theory of connectivism highlight the use of information, communication and media technologies to garner knowledge and information. As such, computers and 'smart' devices are made available in most schools which to a certain extent, leads to the belief that 21st CLS classes require the use of IT. This notion is investigated in the survey and data was obtained through responses to 2 items in the questionnaires. The results can be seen Table 8.

Table 8: ICT use

No	Statements on 21st CLS	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree	
		N	%	N	%	N	%	N	%	N	%
11	Incorporating information technology (IT) in the class is a must for 21st CLS to take place.	4	1.4	50	17.2	76	26.1	141	48.5	20	6.9
34	21st CLS means the use of IT during teaching and learning.	5	1.7	79	27.1	92	31.6	106	36.4	9	3.1

Discounting the teachers who opted for 'Neither agree nor disagree', it can be seen in Table 6 that the majority of the teachers are agreeable to the statements (55.4% and 39.5%) as compared to those who do not agree (18.6% and 28.8%). Hence, it may be said that there is indeed a prevalence among the teachers that IT use is necessary in the 21st CLS classroom. Nonetheless, such perception (or misconception) should have been addressed during courses on 21st CLS attended by the teachers. Therefore, it would be beneficial to look at the aspect of courses on 21st CLS given by the Ministry of Education. The teachers' perception about the importance of IT in 21st CLS is in tandem with the claim made by Boholano (2017) that the constructs of 21st CLS could be promoted with a heavy emphasis on IT use.

4.6. 21st CLS courses by the Malaysian ministry of education (MMOE)

Table 9 displays the responses of the teachers towards the statements pertaining to the courses by MMOE on 21st CLS. It is encouraging to see that a majority (64.6%) of the teachers agreed that the MMOE courses have enabled them to understand 21st CLS better while only 9.6% disagreed. Nonetheless, most of them (82.9%) also expressed that more courses are needed as teachers ought to undergo adequate training to be able to implement 21st CLS in their practice (Kereluik et al., 2013). This need for more courses is also reflected through their negative response (40.9% disagreement) to the statement that the MMOE courses are sufficient in helping them implement 21st CLS in their classroom (Statement 16). Perhaps they are indicating that while the MMOE courses have helped them understand 21st CLS better in terms of what 21st CLS is about theoretically, they need more courses which are hands-on which will enable them to implement 21st CLS in their classrooms. Hence, courses by the MMOE should cover both the elements of theory as well as practice. This point corroborates with their response (60.2% agreement with Statement 27) that they need special skills to implement 21st CLS.

Table 9: MOE courses

No	Statements on 21st CLS	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree	
		N	%	N	%	N	%	N	%	N	%
6	The courses conducted by the Ministry of Education (MOE) have enabled me to understand 21st CLS better.	1	0.3	27	9.3	75	25.8	175	60.1	13	4.5
10	The MOE needs to provide more courses for teachers about 21st CLS so that I can understand better.	1	0.3	7	2.4	42	14.4	171	58.8	70	24.1
16	The courses about 21st CLS by the MOE are sufficient to help me implement 21st CLS in my English class.*	21	7.2	98	33.7	99	34.0	67	23.0	6	2.1
27	I need special skills to implement 21st CL in my English class.	0	0	32	11.0	74	25.4	171	58.8	4	1.4

Note* - Statement 16 was given as a negative statement in questionnaire and changed to a positive statement as shown in Table 6 with the responses recoded accordingly

5. Conclusion

The findings of this study show that, in general, teachers have a satisfactory level of knowledge of 21st CLS. Additionally, most of them understand the benefits of 21st CLS while also acknowledging that they do face some challenges implementing them. Thus, there is a need for more 21st CLS hands-on courses so that teachers would be able to integrate 21st CL more effectively. The results of this study may be used to formulate courses and workshops to ensure that teachers embrace the constructs of 21st CLS appropriately and who could in turn, produce students who possess all the skills and attributes sought by future employers.

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Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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