

AN ATTEMPT TO CREATE AN ASSESSMENT TOOL FOR GLOBAL CITIZENSHIP

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Abstract

In response to the Japanese Ministry of Education's initiative to produce future "global human resources," Japanese universities have been creating new programs with a strong focus on English and critical thinking skills while many companies have started promoting an "English-only" policy in the workplace. However, these skills are only a part of what makes a person a global citizen who can function in the globalizing society by solving problems in various intercultural situations. First, in order to tease out most of the competencies and skills required for a global citizen, a list of as many as 100 important factors was compiled after a thorough study of various international sources. Then, through a questionnaire survey for over 400 workers who are considered internationally successful in different sectors, coupled with selective interviews, the original list was condensed or reduced to ascertain 40 descriptors which represent the competencies and skills deemed indispensable to global citizenship. They are divided into four parts; knowledge of language and culture, intercultural competence, critical thinking skills, and generic competencies. Secondly, an assessment rubric for these 40 descriptors was developed, which will serve as a metric for assessing young people's readiness for global citizenship. Finally, depending on the different nature of skills and competencies, a portfolio-type assessment tool consisting of an essay-type test battery and a Can-do checklist for self-evaluation was constructed, the validation results of which have been quite favorable. So far, considerably high inter-rater reliabilities for the essay-type tests as well as fairly good correlations between objective rater evaluation and self-assessment have been obtained. Our aim is to construct the diagnostic system utilizing AI, after accumulating sufficient data.

Keywords: global citizenship, descriptors of skills and competencies, essay-type test battery, Can-do checklist

1. INTRODUCTION

In response to the Japanese Ministry of Education's initiative to produce future "global human resources," which started in 2012 (MEXT, 2012), Japanese universities have been creating new programs with a strong focus on English and critical thinking skills. As the number of CLIL-type and EMI-type courses have increased, high school teachers have been pushed to teach English classes in English. This new initiative actually reflects industrial needs more than educational ones at the time many companies have started promoting an "English-only" policy in the workplace (Neely, 2011). However, many educators worry about our tertiary education coming to serve industrial needs and some of them feel the tendency for linguistic/cultural imperialism because only English is emphasized. In fact, English and critical thinking skills are only a part of what makes a person a global citizen who can function in the globalizing society by solving problems in various intercultural situations. Thus, in our preliminary study, we tried to create the usable but complete descriptors that capture most of the competencies and skills required for a global citizen. First, a list of as many as 100 important factors was compiled after a thorough study of various sources including European pluricultural frameworks (Council of Europe, 2006; ECML, 2010), Michael Byram's ICC Model (2021) and North American critical thinking theories (Facione, et.al, 1994) as well as OECD's core competencies (OECD, 2014) and 21st Century skills (Ananiadou and Claro, 2009). Then, through a questionnaire survey for 408 workers who are considered internationally successful in various sectors, coupled with selective interviews, the original list was condensed or reduced to ascertain 40 descriptors which represent the competencies and skills deemed indispensable to global citizenship (Matsumoto, 2017). They are divided into four parts: knowledge of language and culture, intercultural competence, critical thinking skills, and generic competencies. The strength of this list with 40 objectives (See Appendix A) is that it

combines generally-accepted principles and concepts with the perceptions of real Japanese international workers. Though all descriptors may not fit the needs for global citizenship requirements in other countries, we believe that most of them are universal and can be shared and utilized in similar attempts in other countries. The over 400 workers who responded to our survey included those who work for international organizations, government branches and various NGOs/NPOs, meaning their responses did not just represent industrial demands.

2. METHODOLOGY

A portfolio-type assessment tool for the 40 descriptors was developed, which will serve as a metric for assessing young people's readiness for global citizenship. After trying and comparing various types of assessment, we have settled to a portfolio-type assessment tool consisting of an essay-type test battery and a Can-do checklist for self-evaluation. It is because some descriptors, notably those in the categories of critical thinking and generic thinking skills, can be assessed by essay-test items, while the descriptors in the categories of knowledge and attitudes are hard to measure by any single test. Thus, a Can-do checklist for self-evaluation was created for such descriptors. In this way, the measurement or diagnosis of most of 40 descriptors can be achieved by using both an essay-type test battery and a Can-do checklist for self-evaluation depending on the different nature of skills and competencies. The two kinds of validation have been attempted; first, validation of essay-type tests by checking inter-rater reliabilities of 10 measurement aspects, and secondly, investigation into the correlation between self-assessment and objective evaluation by either the teacher (in students' cases) and the superior (in workers' cases). The following is an example of essay test item and the rubric with 10 evaluation points. One essay test includes 3 items like this to even out the differences caused of test-takers' familiarity with the intercultural communication situations included in one set of the test.

<A sample essay-test item>: The numbers in the parentheses are the descriptors that each question is intended to assess in the test specification.

One international student often comes late for club meetings. When the leader told him to be more responsible, he said, "I do all the work with responsibility just like all the other Japanese members. On top of that, why do we have to have so many meetings? Once we create a clear plan with assignment of roles, I don't see much meaning in these meetings. Your meetings are just for chatting and relationship-building. I propose to reduce them.

1. State with your own words where the sources of misunderstanding or conflict are. (#21, 22, 25)
2. What would you do if you were the leader? (#23, 24, 29)
3. Propose a solution, explaining why it is an appropriate way to handle this problem? (#20, 28, 30)

<Rubric>

1. Comprehension (2 evaluation points)
understanding of the situation, and knowledge of the culture(s) or socio-pragmatic factors involved
2. Attitude (4 evaluation points)
impartiality/objectivity, acceptance/tolerance of difference, willingness to communicate/cooperate, and patience and flexibility in finding a solution
3. Thinking Skill (4 evaluation points)
categorization/factoring, objective comparison, quality of analysis and integration and synthesis

Then, 4 sets of the essay-type test with 3 items, covering 20 descriptors (full score: 60) were developed and piloted with 6 English classes (183 subjects) and 3 raters. At the same time, students did self-evaluation about the 40 descriptors, the wording of which were changed to be Can-do items with 4-point Rickert Scale (for example, 1. cannot do at all, 2. cannot do so well, 3. can do fairly well, and 4. can do well) whereas their teachers were asked to evaluate the students' abilities using the same Can-do checklist. In addition, as an ad-hoc experiment, we have also recruited 32 company workers with their superiors to do the same checklist evaluation for comparison with the results of students.

3. RESULTS

The 4 parallel essay-type tests used in the experiment showed the inter-rater reliability ranging from 0.81 to 0.92, and good equivalency indices were found among the 4 tests. Three raters were given 2-hour norming training before actual scoring.

3.1. Validation of the evaluation points in the rubric

Though the overall inter-rater reliability was 0.85, when we looked into inter-rater reliabilities for 10 evaluation points, it varied from 0.68 (for patience and flexibility in finding a solution) to 0.95 (for objective comparison). This will require us to explicate each evaluation point more clearly as well as to provide more effective norming training in future.

3.2. Can-do checklist correlations

Students' evaluation and teacher evaluation showed sufficient correlations (close to 0.7), as shown in Table 1. On the other hand, those of 32 workers and their superiors were a lot lower (around 0.4). In general, students' evaluation was generally lower than that of teachers, while those of workers and superiors had more haphazard patterns. Quite often, Asian students report their abilities lower than the reality, and such tendencies were seen in the correlations between their self-assessment and that of their teachers. Also, different patterns were observed in the student-teacher evaluation comparison of Knowledge category, so correlations of Items 1-4 (related to English) and those of Items 5-15 (related to other foreign languages and cultures) are shown separately in the table.

Table 1. Correlations between students' self-evaluation and teacher evaluation

Category	Correlations
Intercultural Competence (Knowledge: Items 1-4)	0.74
IC (Knowledge: Items 5-15)	0.54
IC (Attitudes: Items 16-24)	0.65
Critical Thinking (Items: 25-32)	0.68
Generic Competencies (Items 33-40)	0.71

2.1. More detailed analysis

For future fine-tuning of the present assessment tool, we did an additional analysis on the correlations between the essay-test scores and students' self-assessment. As seen in Table 2, it is natural that the 3 categories at the bottom showed better correlations than the first 2, which include more of 20 descriptors used in making the essay test.

Table 2. Correlations between essay-test scores and students' self-evaluation

Category	Correlations
Knowledge of Language (Items 1-10)	0.43
Knowledge of Culture (Items 11-15)	0.38
Intercultural Attitudes (Items 16-24)	0.57
Critical Thinking (Items 25-32)	0.69
Generic Competencies (Items 33-40)	0.67

3. CONCLUSIONS

Though we have quite successfully proven the reliability of essay-test battery that have been constructed, the essay tests are covering only a half of descriptors which are amenable to one-time measurement. Thus, the Can-do checklist developed from all 40 descriptors can be a good complementary tool, if effectively combined with the essay test. The accumulation of more data will help us seek the best combination or consolidation of these 2 assessment tools for more accurate diagnosis of each person's readiness or potentials to become a global citizen. As data accumulates, our aim is to construct a diagnostic system for global citizenship utilizing AI.

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Appendix A - 40 Descriptors for Global Citizenship

<Knowledge on Language & Culture>		<Subcategory>
1	(A person) knows the basic rules of English being studied incl. prosodic, lexical, syntactic aspects.	English-related
2	Has high scores of proficiency tests (such as TOEFL® and TOEIC®)	
3	Has sufficient background knowledge (=historical, social and cultural background) of English.	
4	Has a high communicative competence of English and can use it flexibly based on various situations and contexts.	
5	Has the awareness of the fact that there are a variety of Englishes used in the world, and knows their characteristics.	
6	Has experience learning a foreign language from a native-speaker teacher.	Common to all languages
7	Has some knowledge of a foreign language other than English and can do basic communication by it.	Other foreign languages-related
8	Can carry out work by a foreign language other than English to some extent.	
9	Knows that each language has its own rules and systems with complex relationships among them, thus literal translation doesn't always yield the same meaning.	Language in general
10	Knows that language deeply relates to culture and one's identity, so being communicative doesn't only consist of linguistic skills.	
11	Knows that many cultures as well as languages co-exist in the world, which often causes tension and conflicts.	Culture-related
12	Knows that each culture has complex values and norms, which influence and reflect on people's world view and ways of thinking.	
13	Knows that misunderstandings may happen in intercultural communication because the interpretations of an action or phenomenon can vary between people with different cultural backgrounds.	
14	Knows that culture is not static and is constantly changing by frequent contacts, especially under the present globalization.	
15	Knows that there is no superiority or inferiority among cultures though some may have more power and expansion.	
<Attitudes toward Other Cultures>		<Subcategory>
16.	(A person) can try to understand different languages and cultures, accepting the differences naturally as they are.	A c c e p t a n c e - related
17.	Can accept different values and ways of thinking without resistance and prejudice, including ambiguities and intermediacies deriving from different languages and cultures.	
18.	Can willingly get involved in the situations with intercultural communication even outside one's work, having keen interests in other languages and cultures.	Motivation-related
19.	Can find value and significance in contacts with various languages and cultures, even outside one's work, giving equal respects to all of them.	
20.	Can build a close relationship with people having different cultures embracing their identities as equal to one's own.	

21.	Can make objective and fair judgments on the issues related to both one's own and other cultures, knowing the relativistic quality of cultural values.	Action-related
22.	Can view and discuss both one's own and other cultures critically, avoiding preconceptions and overgeneralizations.	
23.	Can try to solve problems encountered in intercultural communication with persistence and strong will in order to explain one's opinion while understanding different ways of thinking.	
24.	Can deal with new and unfamiliar intercultural situations with confidence and flexibility, having learned from the sufficient "trial and error" experience in the past.	
<Critical Thinking in Intercultural Communication>		<Subcategory>
25.	Can observe, understand and analyze the components of different languages and cultures objectively.	A c c e p t a n c e - r e l a t e d
26.	Can systematically classify the components of different languages and cultures based on categories and genres.	
27.	Can compare the similarities and differences of various languages and cultures by consistent, objective procedures.	
28.	Can explain one's own language and culture fully and objectively, and also express opinions and views on other cultures appropriately and objectively.	
29.	Can build constructive intercultural communication by constantly tuning into and considering the possible linguistic and cultural differences.	N e g o t i a t i o n - r e l a t e d
30.	Can choose the ways of communication most appropriate to the given situation, making use of one's accumulated knowledge and experience with learning a new language and culture.	
31.	Can learn effective ways of communication by creating hypotheses based on either the first language or other languages acquired, and comparing and verifying the rules and characteristics in light of them.	L e a r n i n g - r e l a t e d
32.	Can continue to improve one's ways of learning about different languages and cultures throughout lifetime by constantly reflecting upon the effectiveness in real-life practice.	
<Generic Competencies>		<Subcategory>
33.	Can understand complicated problems objectively by grasping the relationships between the overall picture and discrete points/elements.	V a r i o u s a s p e c t s o f p r o b l e m - s o l v i n g
34.	Can analyze complicated problems logically by identifying discrete points and elements involved in them.	
35.	Can make a proper judgement based on the objective understanding and analysis of the problem.	
36.	Can propose the best possible solution based on logical grounds, after evaluating different people's opinions critically.	
37.	Can derive a persuasive conclusion after drawing different opinions from one's peers democratically.	
38.	Can try out various ways based on one's past experience and resources without fear of failure, when facing complicated problem-solving situations.	F l e x i b l e l e a d e r s h i p
39.	Can achieve a common objective by involving and persuading people with opposite opinions in a situation where collective efforts towards a shared goal are required.	

40. Can lead discussion and take an action strategically in order to consider various ways to accomplish a goal.

Strategic thinking