

Increasing Communicative Competence for New Challenges and Opportunities of Industry 4.0

Perwi Darmajanti*

Shipbuilding State Polytechnic of Surabaya

Surabaya, Indonesia

*perwi@ppns.ac.id

Abstract—The implementation of Industry 4.0 potentially generates social changes especially on the challenges and opportunity for the human resources with regard to competitiveness, flexibility and adaptability. The growing industrial context still requires soft skills such as self-organization, teamwork, and communication skills to increase. Furthermore, ability to communicate in foreign language is urgent as media of technology development and transfer. On the other hand, lack of foreign language proficiency may become the major problem in developing communicative competence, especially for Indonesian students who have large cultural gap between native language and the target-language which may cause bigger challenge to speak English as a foreign language. But in this study the influence of cultural aspects, intercultural communicative competence, was employed to increase learners' communication skills. The research finding showed that most learners indicated their effort to transfer the message in their limitation of communicative competence by negotiating the meaning of words and neglecting the accuracy of the produced sentences although there is possibly lack of language proficiency. The chosen communication strategy was correlated with message reduction, fluency oriented and non-verbal communications strategies. These become influential input to improve teaching and learning foreign language, focusing on developing communicative competence.

Keywords—communication strategies, ICC, teaching method

I. INTRODUCTION

In the era of Industry 4.0, there is not only massive technology progress and industrial revolution, but also challenges to the social life and economics. Regardless the currently available jobs, new jobs may emerge which will require competencies and skillsets in accordance with characteristic of the jobs in the contexts of evolving technology-enhanced work environment. Soft skills such as self-organization, management, teamwork, and communication skills are also likely to grow in importance in the emerging world [1]. This is leading to developing and increasing of communicative skills in foreign language. Considering the language for global communication, English is still regarded prominent which has been taught in many countries for decades. Generally, the objective to achieve in teaching and learning of English is communicative competence which enables them to communicate and interact with other people in the global society [2]. Nevertheless, speaking skills are less

developed among Asian learners of English as a foreign language [3,4]. Furthermore, complaints about lack of speaking skill of students and graduates also happen in many parts of the world where English is a foreign language [3,5].

It is common that foreign language learners encounter various communication problems due to lack of communicative competence and language proficiency. In a situation where communication in foreign language cannot be avoided, a learner will employ such strategic language behaviors to overcome the lacks and communication breakdowns, solving the problem of fluency in speaking foreign language [6,7]. Parentheses, following the example. Some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

This study started the analysis from communicative competence concept. The communicative competence is basically defined as the capability to use a language properly which meets the language usage requirements in accordance with social and cultural convention and practices of the language and its society [8]. Later it is divided communicative competence into linguistic competence (knowledge of linguistic forms), sociolinguistic competence (the ability to use language appropriately in contexts), discourse competence (coherence and cohesion), and strategic competence (knowledge of verbal and non-verbal communication strategies) [9]. Communication strategies are included in strategic competence which is regarded a promising breakthrough to compensate for breakdowns in communication due to performance variables or to insufficient competence' [8]. This competence is highly valuable in the field of second language acquisition where it may let learners productively express meaning or deliver messages to others [10].

There are several CS research related to EFL learning. A study among Omani student showed that there are considerable variations across the range of CSs use where proficiency influences the choice of CS types [11], in which higher proficiency learners making more use of approximation and circumlocution, while lower proficiency learners used more avoidance strategies and L1-based strategies. Thu and Thu reported their research in Vietnam context where the use of CS was influenced by the availability of the same CSs in learners'

mother tongue [12]. It was also found that compensatory strategies were favorable compare to avoidance strategies.

This research included cultural variables since they cannot be separated from second language acquisition and communication due to strong relationship between language and thought which culture, as a mental program governing patterns of thinking, feeling and potential acting that were learned throughout the person's lifetime [13], is an integral part of the interaction between language and thought [10]. In short, the culture sets a context of cognitive and affective behavior, therefore the meaningful universe of human existence is not a universal reality. Cultural aspect in communication is inseparable when language and social interaction are involving together [14], which this becomes another rational to include the aspect in the research.

Learners may have lack of knowledge of the target language which, in turn, will be potentially a problem in foreign language communication. However, foreign language learners cannot avoid the issues of intercultural understanding which are embedded in communication with cultural diversity. Intercultural communication, the communication between people of different culture [15], is crucial in foreign language oral communication skill development, so educational policy and researchers emphasize that this competence is also a very important aim of ELT [16], although the conceptualizations of intercultural communication competence may vary highly in their disciplines, terminologies, and scholarly and practical objective [17].

By combining between the study of communication strategy and the study of intercultural communication in EFL context, this research is aimed to explore kinds of communication strategies used by Indonesian learners, influence of intercultural communication competence to communication strategies use, and the impact to teaching methodology.

II. METHODS

The participants of this research were 58 students of non-English Department of tertiary level education institution in Surabaya during the 2017-2018 academic year who are randomly selected without considering the age, gender and proficiency at preliminary stage. Their ages ranged from 18 to 27 to represent adult learners of English. Different majors of participants are covered to minimized bias of language knowledge due to academic background. None of the participants has any experience studying abroad except short visits which will give advantage to limit influence of other cultures.

The instruments used to collect data of independent and dependent variables are questionnaires of communication strategy use and intercultural communicative competence (ICC). Nakatani's questionnaires which was used to collect communication strategy use data was adopted from Nakatani's Oral Communication Strategy Inventory (OCSI) [18]. The questionnaires which are conducted in Indonesian consists of twenty-four statements to score based on the 5-point Likert scale ranging from 1 (*never true of me*) to 5 (*always true of me*). The participants are required to fulfill the questionnaires

by choosing the appropriate score. Eight strategies for coping with speaking problems are questioned as follows: attempt to think in English, message reduction and alteration, accuracy oriented, fluency oriented, social oriented, non-verbal, negotiation for meaning, and message abandonment.

The ICC is measured using an adopted questionnaire of Mirzaei & Forounzandeh [19]. The questionnaire included 24 items for assessing knowledge, skills, and attitude through a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

The gathered data was analyzed via SPSS 20.0 package program for social sciences. The data is used to describe the usage of each strategy which then resulted to ranking ordinal data. After the descriptive statistics were computed for the use of each communication strategy, the association between the ICC score and the use of communication strategies is tested on correlation which then followed by testing the correlation of each strategy to each other. Kendall's tau rank correlation was employed to measure the strength of the relationship between two variables which both variables are taken from the same subject or participant. Kendall's tau rank correlation coefficient assesses statistical associations based on the ranks of the data. Ranking data is carried out on the variables that are separately put in order and are numbered. Correlation coefficients take the values between minus one and plus one. The positive correlation signifies that the ranks of both the variables are increasing. On the other hand, the negative correlation signifies that as the rank of one variable is increased, the rank of the other variable is decreased.

III. RESULTS AND DISCUSSION

Descriptive statistics were applied to determine the rank order of any statement in the Communication Strategy Inventory from the most preferred to the least preferred.

TABLE I. DESCRIPTION OF PREFERABLE COMMUNICATION STRATEGY

Communication Strategy	Code	Frequency		Percent	
		Preferable	Not Preferable	Preferable	Not Preferable
Attempt to think in English	A	34	24	58.6	41.4
Message reduction and alteration	B	39	19	67.2	32.8
Accuracy oriented	C	18	40	31	69
Fluency oriented	D	35	23	60.3	39.7
Social affective	E	31	27	53.4	46.6
Non-Verbal	F	38	20	65.5	34.5
Negotiation for meaning	G	41	17	70.7	29.3
Message abandonment	H	24	34	41.4	58.6

Table 1 shows that negotiation for meaning strategy is the most preferred one among the study participants and the "accuracy oriented" is the least preferred one. Regardless the proficiency level of the participants, most of them showed their effort to transfer the message in their limitation of

communicative competence by negotiating the meaning of words in their register to transmit the message in a communication event. This is done by neglecting the accuracy of the sentences. The tendency also indicates that there is a lack of linguistic competence among the participants. In other word,

their strategic competence is used to overcome the lack of linguistic competence in communication events.

Based on the table above, here is the rank of eight communication strategies used by the participants, starting from the most preferred to the least preferred strategies.

TABLE II. CORRELATIONS OF ICC AND COMMUNICATION STRATEGIES

			ICC	CSA	CSB	CSC	CSD	CSE	CSF	CSG	CSH
Kendall's tau_b	ICC	Correlation Coefficient	1.000	.031	.198*	.063	.178	.128	.038	.343**	-.064
		Sig. (2-tailed)	.	.753	.044	.518	.066	.192	.693	.000	.505
		N	58	58	58	58	58	58	58	58	58
	CSa	Correlation Coefficient	.031	1.000	.274**	.143	.007	.124	.114	.044	.113
		Sig. (2-tailed)	.753	.	.008	.159	.945	.228	.263	.666	.261
		N	58	58	58	58	58	58	58	58	58
	CSB	Correlation Coefficient	.198*	.274**	1.000	.160	.144	.239*	.215*	.234*	.100
		Sig. (2-tailed)	.044	.008	.	.115	.154	.020	.034	.023	.320
		N	58	58	58	58	58	58	58	58	58
	CSC	Correlation Coefficient	.063	.143	.160	1.000	.393**	.301**	.114	.105	-.184
		Sig. (2-tailed)	.518	.159	.115	.	.000	.003	.256	.299	.065
		N	58	58	58	58	58	58	58	58	58
	CSD	Correlation Coefficient	.178	.007	.144	.393**	1.000	.506**	.248*	.319**	-.208*
		Sig. (2-tailed)	.066	.945	.154	.000	.	.000	.013	.002	.037
		N	58	58	58	58	58	58	58	58	58
	CSE	Correlation Coefficient	.128	.124	.239*	.301**	.506**	1.000	.282**	.172	-.038
		Sig. (2-tailed)	.192	.228	.020	.003	.000	.	.006	.095	.705
		N	58	58	58	58	58	58	58	58	58
	CSF	Correlation Coefficient	.038	.114	.215*	.114	.248*	.282**	1.000	.267**	.089
		Sig. (2-tailed)	.693	.263	.034	.256	.013	.006	.	.009	.372
		N	58	58	58	58	58	58	58	58	58
	CSG	Correlation Coefficient	.343**	.044	.234*	.105	.319**	.172	.267**	1.000	-.098
		Sig. (2-tailed)	.000	.666	.023	.299	.002	.095	.009	.	.333
		N	58	58	58	58	58	58	58	58	58
	CSH	Correlation Coefficient	-.064	.113	.100	-.184	-.208*	-.038	.089	-.098	1.000
		Sig. (2-tailed)	.505	.261	.320	.065	.037	.705	.372	.333	.
		N	58	58	58	58	58	58	58	58	58

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Considering the characteristics of the data, the non-parametric statistics Kendall tau correlation test is chosen to analyze. As it is shown in the table above, ICC correlates with message reduction and alteration communication strategy and negotiation for meaning which each significance is below 0.05 level (2-tailed), so the H0 is refused. Negotiation for meaning communication strategy correlates with communication strategies message reduction and alteration, non-verbal, and fluency oriented.

IV. IMPACT TO TEACHING METHODOLOGY

The result of the research showed that learners focused more on increasing fluency in the conversation than considering correctness of the uttered sentences. This indicated that speaking skill could get high priority during the learning foreign language. Fluency oriented strategy which is preferable

may also reveal the high motivation to speak, but at the same time it reflects less attention to accuracy. This seems contradictive with the stereotype of Asian people who put harmony, correctness, hierarchy, etc on the top priority in their daily life [20,21], who traditionally should choose accuracy oriented strategy. Regardless the traditional point of view, this fact supports the implementation of communicative language teaching which requires active participation of learners.

The correlation between negotiation for meaning strategy and message abandonment and alteration strategy may inform us that learners are lack of vocabulary to represent the message to transfer. This should inspire the teacher to develop learners' linguistic competence, especially the vocabulary. The higher number of vocabulary is expected to increase communicative competence. Not only developing learners' vocabulary, but also the teacher may teach strategic competence, especially the

strategic competence and intercultural content. The competences, of course, are expected to increase communicative competence.

Oral communication strategies have a direct influence on fluency and play a constructive role in foreign language learning. EFL learners are expected to use communication strategies in a meaningful way, to motivate learners for initiating oral communication, to increase participation during interactions as well as to solve learners' communication problem.

This study shows that the use of message reduction and alteration strategy and negotiation for meaning strategy is influenced by the ICC. This finding encourages learners to increase their ICC for better fluency using communication strategy. Developing ICC is expected to increase flexibility and adaptability which are also important in Industry 4.0 generation.

V. CONCLUSION

The research finding showed that most learners indicated their effort to transfer the message in their limitation of communicative competence by negotiating the meaning of words and neglecting the accuracy of the produced sentences although there is possibly lack of language proficiency. The chosen communication strategy was correlated with message reduction, fluency oriented and non-verbal communications strategies. These become influential input to improve teaching and learning foreign language, focusing on developing communicative competence.

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