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# SPEECH ACTS AND PHRASES OF KNOWLEDGE CONSTRUCTION IN ASYNCHORONOUS DISCOURSE

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## Abstract

*This paper presents the findings of a study conducted in Malaysia pertaining to the speech acts commonly used for information sharing in web-forums. Data was purposively selected from online forums to answer the research questions. The messages in the data were categorised based on Searle's (1976) Speech Acts taxonomy to explore the interactive language function of the messages. The study found that online forum members used more speech acts that were categorised as assertive in their web-forum interaction. The study also revealed different phases of knowledge construction were also present in the messages posted in web-forums. The findings of this study hopes to aid educators and academicians in the pedagogical aspect in using online discussion forums in the teaching and learning process.*

Keywords*: Asynchronous Online Communication, Online Information Sharing. Phases of Information Sharing*

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## 1. Introduction

Computer-mediated discourse (CMD) can either be synchronous or asynchronous. In synchronous CMD, such as chat or Instant Messaging, people exchange messages immediately where all participants are online at the same time and respond to messages straight away with a minimum delay to messages from other participants. Whereas, asynchronous CMD does not require people to reply to messages instantly and it allows users to make a more thought out reply or answer (Shanthi, 2017:4). As such asynchronous communication helps people to engage in fruitful discussions such as overcoming problems through the information acquired from online discussion forums. Discussion forum as a form of asynchronous communication allows users to actively engage in a two-way communication, it is also regarded as a good tool for generating dialogue among its members to solicit feedback (Shanthi, Lee, Lajium, & Thayalan, 2016:117). This two-way communication also known as computer discourse can be studied in order to make sense "on what the members make relevant in their talk" (Ziegler, Paulus, & Woodside, 2014:65). Therefore, discourse analysis is a method of language analysis that "gives meaning to text and talk" (Potter and Wetherell, 1987:5).

CMD linguistic properties vary and is dependent on the kind of messaging system that is used and the social and cultural context in which language is produced (Herring, 1999:1; Ewald, 2012:80). This study was conducted to find out the speech acts or language features that were commonly found when people share information in asynchronous CMD in the Malaysian

context. The present study aims to analyse text from discussion forum to (1) find out the language functions that are mainly used in computer discourse that entails to a two-way communication, and (2) to find out if the information shared in the computer discourse contains the different phrases of knowledge construction as pointed out by Gunawardena, Lowe and Anderson's (1997) Interaction Analysis Model (IAM).

## 2. Literature Review

It is said that people are attracted to online asynchronous discourse because it reduces the constraints of time and distance (Thayalan & Shanthi, 2011) when people share information from any part of the world at any convenient time. Discussion forums is one of the most common types of asynchronous Computer Mediated Communication (CMC) which enables multiple users to engage in discussion with each other; read and exchange comments beyond real time. In discussion forums people share information and experiences thus creating a space where knowledge can be constructed, and shared (Thanasingam, Kit, & Soong, 2007). As such, discussion forums have empowered people from diverse background to meet and engage in online discussion (Herring, 2004; Paolillo, 2011).

Discourse analysts argue that language and words, as a system of signs, are in themselves essentially meaningless; it is through the shared, mutually agreed-on use of language that meaning is created (Wodak, 2008). Therefore language used in any communication carries with it a social action since people use language to achieve certain interpersonal goals in communication (e.g. seek information, to give suggestion, to invite, refute blame etc.). Hence, by using discourse analysis the constructing of meaning in context of any on-going interaction can be studied (Wertz et al., 2011).

Zhao and Jiang (2010), postulate that discussion forums are widely used by people from different fields and interest because they can collaborate on their work, share their understandings and experiences, propose suggestions, and express their emotions. Thus, discussion forums make a good research field to study interaction and learning because they have an important aspect: they allow the automatic registration of discussions or messages, which can later be accessed (Lucas, Gunawardena, and Moreira, 2013). This is partly because forum members can have access to the information shared online at any time or place as they do not get deleted after a period of interaction. This enables text-based discourse analysis to study the language function used by online participants to share information and to grasp the different levels of the participants' cognitive processes and information shared and constructed online possible ((Lucas, Gunawardena, & Moreira, 2013, Wang, 2005; Akayoglu & Altun, 2009).

Nevertheless, it must be mentioned that there are also some drawbacks in using asynchronous communication as source of data. In a study, Thayalan and Shanthi (2011) investigated the social presence experienced by online distance learning undergraduates and found that students actively read messages posted by others, but they posted limited number of messages, thus limiting the amount of information shared online. This findings is in line with a study by Paulus and Phipps, (2008), who found that students who engaged in asynchronous discussion as part of their course fulfilment only shared information at a surface-level and thus the researchers appear sceptical on whether deep and meaningful discussions were possible in asynchronous learning environments. Problems with getting good participation for online discussion online forums from members were also encountered by the researchers. They found that attempts to use a voluntary asynchronous discussion forum among student members resulted in little to no participation. Other studies on CMC conducted overseas suggest that the content of the discussion, the language functions used to share information play an important role in determining active participations in online interactions (Means,

Toyama, Murphy, Bakia, & Jones, 2009). In another study, Fitzpatrick (2010), found evidence of higher order thinking skills and knowledge building through collaborative learning in online discussion forums.

In short, the state of the art shows that the role of language to perform actions (speech acts) plays an important role in getting participants to share, elicit and exchanging information, which in return leads the online discussion to higher level of knowledge construction.

## 3. Method

Data for the study are the instances of written messages collected from a public online discussion online forum set in Malaysia. This particular forum website discusses issues pertaining to everyday Malaysian life. Data was purposively selected from the discussion forums to answer the research questions. The starting point for the analysis of data is by categorising the text-based utterances according to Searle's (1976) Speech Acts taxonomy to explore the interactive language functions of the messages. Based on these categories, the data was coded and tagged to study the gradual process of co-construction of information according to descriptors indicated by Gunawardena, Lowe and Anderson's (1997) Interaction Analysis Model (IAM).

Table 1 shows the data sets from three online discussion forums of different interest groups (IG) used in the analysis.

Table 1: Data Sets Selected for the Study

| Interest group | Topic | Messages | No. of words |
|---|---|---|---|
| **Fast and Furious** | Proton Saga FLX Very High fuel Consumption | 92 | 4145 |
| **Finance, Business and Investment House** | Geneva Malaysia V2 | 130 | 4786 |
| **Computer Technical Support** | Folding@Malaysia needs your help! | 62 | 3099 |
| **Total** | | **284** | **11530** |

1. Findings and Discussion

*Research Question 1: What are the most commonly used language functions in the discussion forums?*

Messages from the three different interest groups were coded and analysed the language functions used online, following Searle's (1976) category of speech act analysis: assertive, directive, commissive, expressive and declaratives. This yielded a total of 492 speech acts (refer to Table 2). The study found that almost half of the language function used by members from the different interest groups was assertive (47.6%) in nature, roughly 32% was directive, and expressive stood at 17 %, and finally, almost five per cent of participants' speech acts consisted of commissive acts. No declarative acts were found in this sample.

Table 2: Functions of Utterance According Speech Acts

| Types of Speech Acts | IG1 – Fast and Furious | IG2 - Finance, Business and Investment House | IG3- Computer Technical Support | TOTAL | % |
|---|---|---|---|---|---|
| **Assertive** | 83 | 103 | 48 | 234 | 47.6 |
| **Directive** | 61 | 69 | 26 | 156 | 31.7 |
| **Commissive** | 7 | 9 | 5 | 21 | 4.3 |
| **Expressive** | 28 | 41 | 12 | 81 | 16.5 |
| **Declaration** | 0 | 0 | 0 | 0 | 0 |
| **Total** | 179 | 222 | 91 | 492 | 95.8 |

IG – interest group

The study found that while interacting online, the function of language used was more assertive in nature. Assertives are primarily used to share information with other members of the group by explaining, advising, describing, stating opinion, reflecting, disputing, making predictions and so on. As seen in the following example:

> Example:
> u should complain to proton and ask them to check...i see something wrong **<to advise>**. I personally has done a few of max throttle drivings (sic) so I can assure that the CVT isn't that fragile **<to state opinion>.**

They are mainly statements that are neither *true or false, accurate or inaccurate* (Searle, 1976), but rather these are the speaker's utterances that are merely stating his/her mind. An assertive act is often described as an act to express the speaker's belief and intention.

The study also found that directive speech acts also play an important role in virtual community members' discourse. Directive speech act that was commonly used in the forum was *questioning* as seen in following examples (the language function stated in parenthesis).

> Example:
> 1. Can you guys give me any opinion or solutions to rectify my problem? **<to request>**
> 2. how much u pay for one full tank? **<to question>**

The language function was used in order to elicit direct responses from those seeking information or help. The directive speech acts focus on getting the receiver to do something (Searle, 1976), besides the action of questioning, this study found that directives such as suggesting, requesting or asking, inviting, insisting and so on, were used by members. These actions were used especially by those who have better knowledge of the subject matter to provide members who needed information with helpful instructions either to overcome their problem or new knowledge for better understanding of the subject-matter at hand.

Expressive speech acts were also relatively frequent in the discussion online messages, comprising 16.5% of the speech act. Through the display of emotions and feelings (e.g., "haha i can't feed my car 97 fuel, i even have problem feeding myself every month",

"aiyoyo.... this poor guy!", "STOP MILKING SYMPATHY AND ACCEPT YOU LOSS QUIETLY!!!!!!!!), participants not only inform other members of their personal opinions, but they also give a glimpse of their emotional state (e.g., inspired, happy, sad, angry, stressed).

Next, by posting commissive based messages, members performed acts such as promising, refusing, offering and/or volunteering to help other members in the discussion forums. Members of the forum revealed their future plans, mostly based on the new information/knowledge gathered from the discussion (e.g., "*ok i will change to lighter oil for my next service*").

In conclusion, by using Searle's speech acts, the taxonomy has provided this study important insight into how messages from discussion forums were built linguistically. This study found that in the process of discussion the members used mainly used assertive speech acts to share information. They also asked questions in order to get information and at the same time get other members to respond to them with their personal experiences and knowledge so that the other members in the virtual community can share their knowledge and experience. Finally, though his study was conducted in CMC, members displayed emotions just like in face-to-face interaction.

*Research Question 2: What are the phases of knowledge construction that are evident in discussion forums?*

The data selected to answer research question two is the same as that which was selected to answer research question one (refer to Table 1).

Table 3: Phases of Information Sharing in Discussion Forums

| **Phases of information sharing** | **IG1** | **IG2** | **IG3** | **TOTAL** | **%** |
|---|---|---|---|---|---|
| **Ph I- Sharing and comparing of opinion** | 29 | 59 | 21 | 109 | 44.0 |
| **Ph II - The discovery and exploration of dissonance or inconsistency among ideas, concepts or statements** | 34 | 36 | 14 | 84 | 33.9 |
| **Ph III - Negotiation of meaning co-construction of information** | 13 | 17 | 6 | 36 | 14.5 |
| **Ph IV - Testing and modification of proposed synthesis or co-construction** | 6 | 2 | 0 | 11 | 4.4 |
| **Ph V - Agreement statement (application of newly shared information.** | 6 | 4 | 1 | 8 | 3.2 |
| **Total** | 88 | 118 | 37 | 248 | |

IG1 – Fast and Furious
IG2 - Finance, Business and Investment House
IG3- Computer Technical Support

As shown in Table 3, 109 (44 %) comments were categorized as sharing and comparing of opinions (Phase I level). 84 (33.9 %) stating disagreements, asking and answering questions (Phase II level), 36 (14.5 %) displaying negotiation of meaning and co-constructing knowledge (Phase III level), 11 (4.4%) messages showed evidence that participants' perception have changed as a result of the interaction in the discussion online (Phase IV

level), and finally 8 (3.2%) refers to messages that show evidence of accommodation of new knowledge (or its synthesis) on the part of the participants of the discussion forums.

The findings signify that the most common activity for constructing and sharing information was exchanging ideas, opinions and experiences (44%). As most members shared a common background/interest it seems natural that they shared and exchanged their experiences, resources and/or information which helped and guided the forum members to have a better understanding of the subject-matter they were discussing, and in the process they shared new information.

Next, 33.9% of the comments posted in the discussion forums were clarification comments (level II). When members experienced conflict and inconsistency in ideas, they had to negotiate meaning, making it possible for higher levels of information sharing to happen. In fact in IG1 there were more Phase II level of information sharing compared to Phase I level, suggesting this group of people were sharing new information by asking and answering questions to clarify the source and extent of disagreement. As such, suggesting that the online forum has been effective in engaging members of the interest group to critically review their peers' feedback on the subject-matter being discussed. Members also at times counter-argued and sometimes criticised or provoked reactions, these actions raised the opportunities for further discussions and exchange of ideas.

Phase 3 level comments, though small in number (14.5%) suggests that the forum activity has enabled some members to achieve greater understanding of the information shared. Through exercising higher mental functions such as negotiating or clarifying (level II), they have tried to process and share more accurate feedback on the subject-matter (level III). The findings on levels of information shared also suggest that discussion forums promote the construction of critical feedback. These findings support Thanasingam, Kit, and Soong's (2007), claim that tools such as discussion forums facilitate information sharing through collaboration.

An almost similar lower percentage of Phases IV and V level of knowledge construction were also detected in the messages taken from the discussion online forums. There were 11 (4.4%) comments of Phase IV, and 8 (3.2%) comments that observed information shared at Phase V. These messages show evidence of accommodation of new knowledge (or its synthesis) on the part of the participants.

## 4. Conclusion

In regards to the language functions found in computer discourse in discussion forums, it was observed that assertive speech acts were most frequently present in the online interaction followed by directives. From this it can be concluded, with respect to the first research question, that speech acts in which the members of the virtual community constructed and shared information, used more assertive acts such as explaining, giving suggestions or opinion, agreeing, reporting or stating, supporting, conclusions, complaining (indirectly-expression of dissatisfaction) and answering to queries. Second, they also used directive speech acts such as to question, to ask, to advice, and/or to instruct other members of the virtual community in order to construct and share new information. This study also showed that the forums used as data for this study have evidence of the different phases of information sharing, therefore proving that information is indeed constructed and shared in the discussion forums.

It is hoped that the findings of this study can be extended to the learning environment because over the years the use of internet technology in classroom has gained popularity, and this can be seen in the rapid growth in research into computer mediated discourse. The findings of this study will aid educators and academicians in the pedagogical aspect in using discussion forums in the teaching and learning process

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